UPPER PENINSULA POWER COMPANY
U-21286 Exhibit Index

UPPCO Exhibit No.	Schedule	Title	Witness	Exhibit No.
A-1	A1	Historical Revenue Deficiency (Sufficiency)	Natasha L. Wonch	Schedule A1 of Exhibit A-1 (NLW-1)
A-1	A2	Historical Financial Metrics	Natasha L. Wonch	Schedule A2 of Exhibit A-1 (NLW-2)
A-2	B1	Historical Rate Base	Natasha L. Wonch	Schedule B1 of Exhibit A-2 (NLW-3)
A-2	B2	Historical Utility Plant	Natasha L. Wonch	Schedule B2 of Exhibit A-2 (NLW-4)
A-2	B3	Historical Depreciation Reserve and Other Deductions	Natasha L. Wonch	Schedule B3 of Exhibit A-2 (NLW-5)
A-2	B4	Historical Working Capital	Natasha L. Wonch	Schedule B4 of Exhibit A-2 (NLW-6)
A-3	C1	Historical Adjusted Net Operating Income	Natasha L. Wonch	Schedule C1 of Exhibit A-3 (NLW-7)
A-3	C2	Historical Revenue Conversion Factor	Natasha L. Wonch	Schedule C2 of Exhibit A-3 (NLW-8)
A-3	C3	Historical Operating Revenue	Natasha L. Wonch	Schedule C3 of Exhibit A-3 (NLW-9)
A-3	C4	Historical Fuel and Purchased Power/Cost of Gas Sold	Natasha L. Wonch	Schedule C4 of Exhibit A-3 (NLW-10)
A-3	C5	Historical Operation and Maintenance Expenses	Natasha L. Wonch	Schedule C5 of Exhibit A-3 (NLW-11)
A-3	C6	Historical Depreciation and Amortization Expenses	Natasha L. Wonch	Schedule C6 of Exhibit A-3 (NLW-12)
A-3	C7	Historical General Taxes	Natasha L. Wonch	Schedule C7 of Exhibit A-3 (NLW-13)
A-3	C8	Historical Federal Income Taxes	Natasha L. Wonch	Schedule C8 of Exhibit A-3 (NLW-14)
A-3	C9	Historical State Income Taxes	Natasha L. Wonch	Schedule C9 of Exhibit A-3 (NLW-15)
A-3	C10	Historical Other (or Local) Taxes	Natasha L. Wonch	Schedule C10 of Exhibit A-3 (NLW-16)
A-3	C11	Historical Allowance for Funds Used During Construction	Natasha L. Wonch	Schedule C11 of Exhibit A-3 (NLW-17)
A-4	D1	Historical Rate of Return Summary	Gradon R. Haehnel	Schedule D1 of Exhibit A-4 (GRH-1)
A-4	D2	Historical Cost of Long-Term Debt	Gradon R. Haehnel	Schedule D2 of Exhibit A-4 (GRH-2)
A-4	D3	Historical Cost of Short-Term Debt	Gradon R. Haehnel	Schedule D3 of Exhibit A-4 (GRH-3)
A-4	D4	Historical Cost of Preferred Stock	Gradon R. Haehnel	Schedule D4 of Exhibit A-4 (GRH-4)
A-4	D5	Historical Cost of Common Shareholders' Equity	Gradon R. Haehnel	Schedule D5 of Exhibit A-4 (GRH-5)
A-5	E1.1	Historical Sales, Load and Customer Data	Nicole E. Bell	Schedule E1.1 of Exhibit A-5 (NEB-1)
A-5	E1.2	Historical Sales, Load and Customer Data	Nicole E. Bell	Schedule E1.2 of Exhibit A-5 (NEB-2)
A-5	E1.3	Historical Sales, Load and Customer Data	Nicole E. Bell	Schedule E1.3 of Exhibit A-5 (NEB-3)
A-6	A1	Projected Revenue Deficiency (Sufficiency) / Base Case	Gradon R. Haehnel	Schedule A1 of Exhibit A-6 (GRH-6)
A-6	A1.1	Projected Revenue Deficiency (Sufficiency) / Rate Implementation Year 1	Gradon R. Haehnel	Schedule A1.1 of Exhibit A-6 (GRH-7)
A-6	A1.2	Projected Revenue Deficiency (Sufficiency) / Rate Implementation Year 2	Gradon R. Haehnel	Schedule A1.2 of Exhibit A-6 (GRH-8)
A-6	A2	Projected Financial Metrics	Natasha L. Wonch	Schedule A2 of Exhibit A-6 (NLW-18)
A-7	B1	Projected Rate Base	Natasha L. Wonch	Schedule B1 of Exhibit A-7 (NLW-19)
A-7	B2	Projected Utility Plant	Natasha L. Wonch	Schedule B2 of Exhibit A-7 (NLW-20)
A-7	B3	Projected Accumulated Provision for Depreciation	Natasha L. Wonch	Schedule B3 of Exhibit A-7 (NLW-21)
A-7	B4	Projected Working Capital	Natasha L. Wonch	Schedule B4 of Exhibit A-7 (NLW-22)
A-7	B5	Projected Capital Expenditure Summary and Supporting Exhibits	Stephen S. Lillie	Schedule B5 of Exhibit A-7 (SSL-1)
A-7	B5.1	Projected Power Generation CAPEX Summary	Stephen S. Lillie	Schedule B5.1 of Exhibit A-7 (SSL-2)
A-7	B5.4	Projected Distribution & Substation CAPEX by Business Driver	Stephen S. Lillie	Schedule B5.4 of Exhibit A-7 (SSL-3)
A-7	B5.5	Projected Advanced Metering Infrastructure (AMI) CAPEX	Stephen S. Lillie	Schedule B5.5 of Exhibit A-7 (SSL-4)
A-7	B5.6	Projected Total Corporate | General Plant CAPEX	Stephen S. Lillie	Schedule B5.6 of Exhibit A-7 (SSL-5)
A-8	C1	Projected Net Operating Income	Natasha L. Wonch	Schedule C1 of Exhibit A-8 (NLW-23)
A-8	C2	Projected Revenue Conversion Factor	Natasha L. Wonch	Schedule C2 of Exhibit A-8 (NLW-24)
A-8	C3	Projected Sales Revenue	Natasha L. Wonch	Schedule C3 of Exhibit A-8 (NLW-25)
A-8	C4	Projected Fuel and Purchased Power/Cost of Gas Sold	Natasha L. Wonch	Schedule C4 of Exhibit A-8 (NLW-26)
A-8	C5	Projected Operation and Maintenance Expenses	Natasha L. Wonch	Schedule C5 of Exhibit A-8 (NLW-27)
A-8	C6	Projected Depreciation and Amortization Expenses	Natasha L. Wonch	Schedule C6 of Exhibit A-8 (NLW-28)
A-8	C7	Projected General Taxes	Natasha L. Wonch	Schedule C7 of Exhibit A-8 (NLW-29)
A-8	C8	Projected Federal Income Taxes	Natasha L. Wonch	Schedule C8 of Exhibit A-8 (NLW-30)
A-8	C9	Projected State Income Taxes	Natasha L. Wonch	Schedule C9 of Exhibit A-8 (NLW-31)
A-8	C10	Projected Other (or Local) Taxes	Natasha L. Wonch	Schedule C10 of Exhibit A-8 (NLW-32)
A-8	C11	Projected Allowance for Funds Used During Construction	Natasha L. Wonch	Schedule C11 of Exhibit A-8 (NLW-33)
A-9	D1	Projected Rate of Return Summary	Gradon R. Haehnel	Schedule D1 of Exhibit A-9 (GRH-9)
A-9	D2	Projected Cost of Long-Term Debt	Gradon R. Haehnel	Schedule D2 of Exhibit A-9 (GRH-10)
A-9	D3	Projected Cost of Short-Term Debt	Gradon R. Haehnel	Schedule D3 of Exhibit A-9 (GRH-11)
A-9	D4	Projected Cost of Preferred Stock	Gradon R. Haehnel	Schedule D4 of Exhibit A-9 (GRH-12)
A-9	D5	Projected Cost of Common Shareholders' Equity	Gradon R. Haehnel	Schedule D5 of Exhibit A-9 (GRH-13)
A-10	E1.1	Projected Sales, Load and Customer Data	Nicole E. Bell	Schedule E1.1 of Exhibit A-10 (NEB-4)
A-10	E1.2	Projected Sales, Load and Customer Data	Nicole E. Bell	Schedule E1.2 of Exhibit A-10 (NEB-5)
A-10	E1.3	Projected Sales, Load and Customer Data	Nicole E. Bell	Schedule E1.3 of Exhibit A-10 (NEB-6)
A-10	E2.1	Projected Sales, Load and Customer Data	Nicole E. Bell	Schedule E2.1 of Exhibit A-10 (NEB-7)
A-10	E2.2	Projected Sales, Load and Customer Data	Nicole E. Bell	Schedule E2.2 of Exhibit A-10 (NEB-8)
A-11	F1	Projected Cost of Service Allocation Study	Eric W. Stocking	Schedule F1 of Exhibit A-11 (EWS-1)
A-11	F2.1	Summary of Present and Proposed Revenues	Nicole E. Bell	Schedule F2.1 of Exhibit A-11 (NEB-9)
A-11	F2.2	Summary of Present and Proposed Revenues	Nicole E. Bell	Schedule F2.2 of Exhibit A-11 (NEB-10)
A-11	F3.1	Detail of Present and Proposed Revenues	Nicole E. Bell	Schedule F3.1 of Exhibit A-11 (NEB-11)
A-11	F3.2	Detail of Present and Proposed Revenues	Nicole E. Bell	Schedule F3.2 of Exhibit A-11 (NEB-12)
A-11	F4.1	Comparison of Present and Proposed Monthly Bills	Nicole E. Bell	Schedule F4.1 of Exhibit A-11 (NEB-13)
A-11	F4.2	Comparison of Present and Proposed Monthly Bills	Nicole E. Bell	Schedule F4.2 of Exhibit A-11 (NEB-14)
A-11	F5.1	Proposed Tariff Sheets: Year ending June 30, 2024	Nicole E. Bell	Schedule F5.1 of Exhibit A-11 (NEB-15)
A-11	F5.2	Proposed Tariff Sheets: Year ending June 30, 2025	Nicole E. Bell	Schedule F5.2 of Exhibit A-11 (NEB-16)

UPPER PENINSULA POWER COMPANY
U-21286 Exhibit Index

UPPCO Exhibit No.	Schedule	Title	Witness	Exhibit No.
A-12		[CONFIDENTIAL] Forecast Adjustments/Inputs Summary	Gradon R. Haehnel	Exhibit A-12 (GRH-14)
A-13		Inflation Factor	Gradon R. Haehnel	Exhibit A-13 (GRH-15)
A-14		[CONFIDENTIAL] Percent Salary & Wage (S&W) Adjustment - Union	Gradon R. Haehnel	Exhibit A-14 (GRH-16)
A-15		[CONFIDENTIAL] Percent Salary & Wage (S&W) Adjustment - Non Union	Gradon R. Haehnel	Exhibit A-15 (GRH-17)
A-16		[CONFIDENTIAL] Union S&W Adjustment - Production	Gradon R. Haehnel	Exhibit A-16 (GRH-18)
A-17		[CONFIDENTIAL] Union S&W Adjustment - Distribution	Gradon R. Haehnel	Exhibit A-17 (GRH-19)
A-18		[CONFIDENTIAL] Union S&W Adjustment - Customer Accounts	Gradon R. Haehnel	Exhibit A-18 (GRH-20)
A-19		[CONFIDENTIAL] Non Union S&W Adjustment - Administrative	Gradon R. Haehnel	Exhibit A-19 (GRH-21)
A-20		Vegetation Management	Gradon R. Haehnel	Exhibit A-20 (GRH-22)
A-21		Energy Waste Reduction (EWR)	Gradon R. Haehnel	Exhibit A-21 (GRH-23)
A-22		Bad Debt Expense	Gradon R. Haehnel	Exhibit A-22 (GRH-24)
A-23		Depreciation & Amortization Expense	Gradon R. Haehnel	Exhibit A-23 (GRH-25)
A-24		[CONFIDENTIAL] Executive Deferred Compensation Expense	Gradon R. Haehnel	Exhibit A-24 (GRH-26)
A-25		Pension & OPEB Expense	Gradon R. Haehnel	Exhibit A-25 (GRH-27)
A-26		UPPCO Capital Expenditures (CAPEX) by Business Line	Stephen S. Lillie	Exhibit A-26 (SSL-6)
A-27		UPPCO Facility CAPEX	Stephen S. Lillie	Exhibit A-27 (SSL-7)
A-28		UPPCO Substation CAPEX	Stephen S. Lillie	Exhibit A-28 (SSL-8)
A-29		UPPCO Generation CAPEX	Stephen S. Lillie	Exhibit A-29 (SSL-9)
A-30		UPPCO Distribution CAPEX	Stephen S. Lillie	Exhibit A-30 (SSL-10)
A-31		2017-2021 Reliability Indices	Jay R. Ringler	Exhibit A-31 (JRR-1)
A-32		2017-2021 Major Event Days	Jay R. Ringler	Exhibit A-32 (JRR-2)
A-33		2017-2021 Outages by Cause	Jay R. Ringler	Exhibit A-33 (JRR-3)
A-34		2017-2021 Pole Inspection History	Jay R. Ringler	Exhibit A-34 (JRR-4)
A-35		2019-2021 Undergound Inspection History	Jay R. Ringler	Exhibit A-35 (JRR-5)
A-36		2019-2021 Underground Outage History	Jay R. Ringler	Exhibit A-36 (JRR-6)
A-37		2023-2024 System Hardening and Reliability Projects	Jay R. Ringler	Exhibit A-37 (JRR-7)
A-38		6 Year Distribution Line Clearance Program	Stephen S. Lillie	Exhibit A-38 (SSL-11)
A-39		State Reliability Mechanism: Capacity Charge	Eric W. Stocking	Exhibit A-39 (EWS-2)
A-40		Present & Equalized Revenue / Unit Cost Summary	Eric W. Stocking	Exhibit A-40 (EWS-3)
A-41		Production Demand Component	Eric W. Stocking	Exhibit A-41 (EWS-4)
A-42		State Reliability Mechanism: 3(b) Offset Calculation	Eric W. Stocking	Exhibit A-42 (EWS-5)
A-43		Residential Low Income Self-Attestation Form	Eric W. Stocking	Exhibit A-43 (EWS-6)
A-44		Mitsubishi Electric - Ontonagon Village Housing Case Study	Eric W. Stocking	Exhibit A-44 (EWS-7)
A-45		AFUDC Calculation	Gradon R. Haehnel	Exhibit A-45 (GRH-28)
A-46		Willis Towers Watson (WTW) Report	Gradon R. Haehnel	Exhibit A-46 (GRH-29)
A-47		U-20757 Deferred Uncollectible	Gradon R. Haehnel	Exhibit A-47 (GRH-30)
A-48		Revolver Calculation	Gradon R. Haehnel	Exhibit A-48 (GRH-31)
A-49		Free Cash Flow	Gradon R. Haehnel	Exhibit A-49 (GRH-32)
A-50		WTW Welfare Expense Report	Gradon R. Haehnel	Exhibit A-50 (GRH-33)
A-51		WTW Pension Expense Report	Gradon R. Haehnel	Exhibit A-51 (GRH-34)
A-52		Information Technology Projects for 2023-2024	Gradon R. Haehnel	Exhibit A-52 (GRH-35)
A-53		Qualifications of Adrien M. McKenzie	Adrien M. McKenzie	Exhibit A-53 (AMM-1)
A-54		Summary of Results	Adrien M. McKenzie	Exhibit A-54 (AMM-2)
A-55		Regulatory Mechanisms - Electric Group	Adrien M. McKenzie	Exhibit A-55 (AMM-3)
A-56		Capital Structure	Adrien M. McKenzie	Exhibit A-56 (AMM-4)
A-57		DCF Model - Electric Group	Adrien M. McKenzie	Exhibit A-57 (AMM-5)
A-58		BR + SV Growth Rate - Electric Group	Adrien M. McKenzie	Exhibit A-58 (AMM-6)
A-59		CAPM - Electric Group	Adrien M. McKenzie	Exhibit A-59 (AMM-7)
A-60		Empirical CAPM - Electric Group	Adrien M. McKenzie	Exhibit A-60 (AMM-8)
A-61		Risk Premium - Electric Group	Adrien M. McKenzie	Exhibit A-61 (AMM-9)
A-62		Expected Earnings - Electric Group	Adrien M. McKenzie	Exhibit A-62 (AMM-10)
A-63		DCF Model - Non- Utility Group	Adrien M. McKenzie	Exhibit A-63 (AMM-11)
A-64		[CONFIDENTIAL] UPPCO Compensation Plan (Administration Only)	Kay L. Ryan	Exhibit A-64 (KLR-1)
A-65		[CONFIDENTIAL] UPPCO Deferred Variable Pay Plan	Kay L. Ryan	Exhibit A-65 (KLR-2)

Schedule A1

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Deficiency (Sufficiency)
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-1 (NLW-1)
Schedule: A1
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Rate Base	Exh. A-2 (NLW-3), Sch. B1	$ 298,915,316	$ 295,726,464	$ 3,188,852
3					
4	Adjusted Net Operating Income	Exh. A-3 (NLW-7), Sch. C1	$ 18,236,953	$ 18,354,991	$ 200,459
5					
6	Overall Rate of Return	Line 4 ÷ Line 2	6.10%	6.21%	6.29%
7					
8	Required Rate of Return	Exh. A-4 (GRH-1), Sch. D1	6.91%	6.91%	6.91%
9					
10	Income Requirements	Line 2 x Line 8	$ 20,655,048	$ 20,434,699	$ 220,350
11					
12	Income Deficiency (Sufficiency)	Line 10 - Line 4	$ 2,418,096	$ 2,079,708	$ 19,890
13					
14	Revenue Conversion Factor	Exh. A-3 (NLW-8), Sch. C2	1.3466	1.3466	1.3466
15					
16	Revenue Deficiency (Sufficiency)	Line 12 x Line 14	$ 3,256,208	$ 2,800,534	$ 26,784
17					
18	Revenue Offset U-17564		$ (4,333,333)	$ (4,333,333)	$ -
19					
20	Revenue Offset U-17895		$ (390,000)	$ (390,000)	
21					
22	Revenue Adjustment U-20276 (pension liability)		$ (694,563)	($694,563)	
23					
24	Revenue Deficiency (Sufficiency)		$ (2,161,688)	$ (2,617,362)	$ 26,784
25					
26	Percentage Increase (Decrease)		-1.90%	-2.32%	N/A
27					
28	Actual ROE		8.29%	8.50%	
29					
30	Revenue Deficiency (Sufficiency)		$ (2,161,688)	$ (2,617,362)	
31					
32	Present Revenues		$ 113,755,762	$ 112,814,646	
33					
34	Percentage Increase (Decrease)		-1.90%	-2.32%	

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Financial Basis

Case No.: U-21286
Exhibit No.: A-1 (NLW-2)
Schedule: A-2
Page: 1 of 6
Witness: Natasha L Wonch

Line No.	(a) Description	(b) 2021	(c) 2020	(d) 2019	(e) 2018	(f) 2017
				Calendar Year		
1	Operating Revenue	$ 115,279,207	$ 106,950,443	$ 105,056,471	$ 98,805,927	$ 106,610,339
2	Operating Expenses	$ 92,906,554	$ 85,484,339	$ 85,591,872	$ 83,069,018	$ 89,080,053
3	Pre-Tax Operating Income	$ 22,372,653	$ 21,466,104	$ 19,464,599	$ 15,736,908	$ 17,530,286
4	Income Taxes	$ 3,321,796	$ 3,237,550	$ 2,885,346	$ 2,532,240	$ 17,499,920
5	Net Operating Income	$ 19,050,857	$ 18,228,555	$ 16,579,254	$ 13,204,669	$ 30,366
6	Other Income and Deductions	$ (4,204,470)	$ (952,093)	$ 29,801	$ (18,310)	$ (48,634)
7	AFUDC	$ -	$ (311,298)	$ (333,134)	$ (9,148)	$ -
8	Interest Charges	$ 5,961,932	$ 6,370,830	$ 6,556,908	$ 6,030,491	$ 5,532,838
9	Preferred Stock Dividends	$ -	$ -	$ -	$ -	$ -
10	Net Income Available for Common	$ 17,293,395	$ 13,121,116	$ 10,325,679	$ 7,201,635	$ (5,453,838)
11	Average Common Equity	$ 184,774,741	$ 173,001,785	$ 166,708,810	$ 164,129,517	$ 174,143,135
12	Earned Rate of Return on Common Equity	9.36%	7.58%	6.19%	4.39%	-3.13%
13	Authorized Rate of Return on Common Equity	9.90%	9.90%	9.90%	10.00%	10.00%

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Financial Basis

Case No.: U-21286
Exhibit No.: A-1 (NLW-2)
Schedule: A-2
Page: 2 of 6
Witness: Natasha L Wonch

Line No.	(a) Description	(b) 2021	(c) 2020	(d) 2019	(e) 2018	(f) 2017
				Calendar Year		
	EBIT Interest Coverage Ratio					
14	Pre-Tax Operating Income	$ 22,372,653	$ 21,466,104	$ 19,464,599	$ 15,736,908	$ 17,530,286
15	Other Income and Deductions	$ (4,204,470)	$ (952,093)	$ 29,801	$ (18,310)	$ (48,634)
16	AFUDC	$ -	$ (311,298)	$ (333,134)	$ (9,148)	$ -
17	Total EBIT	$ 18,168,183	$ 20,202,713	$ 19,161,266	$ 15,709,451	$ 17,481,652
18	Interest Charges	$ 5,961,932	$ 6,370,830	$ 6,556,908	$ 6,030,491	$ 5,532,838
19	EBIT Interest Coveage Ratio	3.05	3.17	2.92	2.61	3.16
	EBITDA Interest Coverage Ratio					
20	Total EBIT	$ 18,168,183	$ 20,202,713	$ 19,161,266	$ 15,709,451	$ 17,481,652
21	Depreciation and Amortization	$ 12,232,630	$ 11,954,868	$ 10,845,001	$ 12,827,454	$ 11,984,396
22	Total EBIDTA	$ 30,400,813	$ 32,157,581	$ 30,006,267	$ 28,536,904	$ 29,466,048
23	Interest Charges	$ 5,961,932	$ 6,370,830	$ 6,556,908	$ 6,030,491	$ 5,532,838
24	EBIDTA Interest Coverage Ration	5.10	5.05	4.58	4.73	5.33
	Funds Flow from Operations (FFO) Interest Coverage Ratio					
25	Net Operating Income	$ 19,050,857	$ 18,228,555	$ 16,579,254	$ 13,204,669	$ 30,366
26	Depreciation and Amortization	$ 12,232,630	$ 11,954,868	$ 10,845,001	$ 12,827,454	$ 11,984,396
27	Deferred Income Tax	$ 3,321,796	$ 3,237,550	$ 2,885,346	$ 2,532,240	$ 17,499,920
28	AFUDC	$ -	$ (311,298)	$ (333,134)	$ (9,148)	$ -
29	Other Major Recurring Non-Cash Items	$ -	$ -	$ -	$ -	$ -
30	Interest Paid	$ 5,961,932	$ 6,370,830	$ 6,556,908	$ 6,030,491	$ 5,532,838
31	Less:					
32	Operating Lease Adjustment to Depreciation	$ -	$ -	$ -	$ -	$ -
33	Subtotal	$ 40,567,215	$ 39,480,504	$ 36,533,374	$ 34,585,706	$ 35,047,520
34	Interest Charges	$ 5,961,932	$ 6,370,830	$ 6,556,908	$ 6,030,491	$ 5,532,838
35	FFO Interest Coverage Ratio	6.80	6.20	5.57	5.74	6.33

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Financial Basis

Case No.: U-21286
Exhibit No.: A-1 (NLW-2)
Schedule: A-2
Page: 3 of 6
Witness: Natasha L Wonch

Line No.	(a) Description	(b) 2021	(c) 2020	(d) 2019	(e) 2018	(f) 2017
				Calendar Year		
	Overall Fixed Charge Coverage Ratio					
36	Net Income Available for Common	$ 17,293,395	$ 13,121,116	$ 10,325,679	$ 7,201,635	$ (5,453,838)
37	Interest Charges	$ 5,961,932	$ 6,370,830	$ 6,556,908	$ 6,030,491	$ 5,532,838
38	Subtotal Numerator	$ 23,255,327	$ 19,491,946	$ 16,882,587	$ 13,232,126	$ 79,000
39	Interest Charges	$ 5,961,932	$ 6,370,830	$ 6,556,908	$ 6,030,491	$ 5,532,838
40	Preferred Stock Dividends	$ -	$ -	$ -	$ -	$ -
41	Subtotal Denominator	$ 5,961,932	$ 6,370,830	$ 6,556,908	$ 6,030,491	$ 5,532,838
42	Overall Fixed Charge and Coverage Ratio	3.90	3.06	2.57	2.19	0.01
	Cash Flow Coverage of Dividends Ratio					
43	Net Income Available for Common	$ 17,293,395	$ 13,121,116	$ 10,325,679	$ 7,201,635	$ (5,453,838)
44	Depreciation and Amortization	$ 12,232,630	$ 11,954,868	$ 10,845,001	$ 12,827,454	$ 11,984,396
45	Deferred Taxes	$ 3,321,796	$ 3,237,550	$ 2,885,346	$ 2,532,240	$ 17,499,920
46	Subtotal	$ 32,847,821	$ 28,313,534	$ 24,056,026	$ 22,561,328	$ 24,030,478
47	Common Dividends	$ 3,800,000	$ -	$ -	$ -	$ -
48	Cash Flow Coverage of Dividends Ratio	8.64	-	-	-	-
	Common Dividend Payout Ratio					
49	Common Dividends	$ 3,800,000	$ -	$ -	$ -	$ -
50	Net Income Available for Common	$ 17,293,395	$ 13,121,116	$ 10,325,679	$ 7,201,635	$ (5,453,838)
51	Common Dividend Payout Ratio	4.55	-	-	-	-
	Permanent Capitalization					
52	Long Term Debt	$ 127,100,000	$ 112,347,800	$ 108,200,000	$ 108,200,000	$ 108,200,000
53	Preferred Stock	$ -	$ -	$ -	$ -	$ -
54	Common Equity	$ 184,774,741	$ 173,001,785	$ 166,708,810	$ 164,129,517	$ 174,143,135
55	Total Permanent Capital	$ 311,874,741	$ 285,349,585	$ 274,908,810	$ 272,329,517	$ 282,343,135
56	Long Term Debt	40.8%	39.4%	39.4%	39.7%	38.3%
57	Preferred Stock	0.0%	0.0%	0.0%	0.0%	0.0%
58	Common Equity	59.2%	60.6%	60.6%	60.3%	61.7%
59	Total Permanent Capital	100.0%	100.0%	100.0%	100.0%	100.0%

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-21286
Exhibit No.: A-1 (NLW-2)
Schedule: A-2
Page: 4 of 6
Witness: Natasha L Wonch

Line No.	(a) Description	(b) 2021	(c) 2020	(d) 2019	(e) 2018	(f) 2017
				Calendar Year		
60	Operating Revenue	$ 113,755,761	$ 105,522,024	$ 103,593,403	$ 97,409,871	$ 105,302,888
61	Operating Expense	$ 91,775,318	$ 84,314,782	$ 84,556,033	$ 81,952,330	$ 88,083,295
62	Pre-Tax Operating Income	$ 21,980,444	$ 21,207,242	$ 19,037,370	$ 15,457,541	$ 17,219,593
63	Income Taxes	$ 3,218,750	$ 2,866,759	$ 2,297,132	$ 2,088,145	$ 4,229,957
64	Net Operating Income	$ 18,761,694	$ 18,340,483	$ 16,740,238	$ 13,369,396	$ 12,989,636
65	Tax Impact of Pro-Forma Interest on NOI	$ -	$ -	$ -	$ -	$ -
66	AFUDC	$ -	$ 226,063	$ 253,399	$ 7,990	$ -
67	Interest Charges	$ 5,961,932	$ 6,285,595	$ 6,477,172	$ 6,029,333	$ 5,532,838
68	Preferred Stock Dividends	$ -	$ -	$ -	$ -	$ -
69	Net Income Available for Common and JDITC	$ 12,799,762	$ 12,280,951	$ 10,516,465	$ 7,348,053	$ 7,456,798
70	Return Assignable to JDITC	$ -	$ -	$ -	$ -	$ -
71	Net Income Available for Common	$ 12,799,762	$ 12,280,951	$ 10,516,465	$ 7,348,053	$ 7,456,798
72	Average Common Equity	$ 149,985,631	$ 135,767,977	$ 128,540,287	$ 125,713,876	$ 122,931,164
73	Earned Rate of Return on Common Equity	8.53%	9.05%	8.18%	5.85%	6.07%
74	Authorized Return on Equity	9.90%	9.90%	9.90%	10.00%	10.00%

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-21286
Exhibit No.: A-1 (NLW-2)
Schedule: A-2
Page: 5 of 6
Witness: Natasha L Wonch

Line No.	(a) Description	(b) 2021	(c) 2020	(d) 2019	(e) 2018	(f) 2017
				Calendar Year		
	EBIT Interest Coverage Ratio					
75	Pre-Tax Operating Income	$ 21,980,444	$ 21,207,242	$ 19,037,370	$ 15,457,541	$ 17,219,593
76	AFUDC	$ -	$ 226,063	$ 253,399	$ 7,990	$ -
77	Total EBIT	$ 21,980,444	$ 21,433,305	$ 19,290,769	$ 15,465,531	$ 17,219,593
78	Interest Charges	$ 5,961,932	$ 6,285,595	$ 6,477,172	$ 6,029,333	$ 5,532,838
79	EBIT Interest Coverage Ratio	3.69	3.41	2.98	2.57	3.11
	EBITDA Interest Coverage Ratio					
80	Total EBIT	$ 21,980,444	$ 21,433,305	$ 19,290,769	$ 15,465,531	$ 17,219,593
81	Depreciation and Amortization	$ 12,011,547	$ 11,733,821	$ 10,626,832	$ 12,613,919	$ 11,788,518
82	Total EBIDTA	$ 33,991,991	$ 33,167,126	$ 29,917,601	$ 28,079,450	$ 29,008,111
83	Interest Charges	$ 5,961,932	$ 6,285,595	$ 6,477,172	$ 6,029,333	$ 5,532,838
84	EBITDA Interest Coverage Ratio	5.70	5.28	4.62	4.66	5.24
	Funds Flow from Operations (FFO) Interest Coverage Ratio					
85	Net Operating Income	$ 18,761,694	$ 18,340,483	$ 16,740,238	$ 13,369,396	$ 12,989,636
86	Depreciation and Amortization	$ 12,011,547	$ 11,733,821	$ 10,626,832	$ 12,613,919	$ 11,788,518
87	Deferred Income Tax	$ 3,218,750	$ 2,866,759	$ 2,297,132	$ 2,088,145	$ 4,229,957
88	AFUDC	$ -	$ 226,063	$ 253,399	$ 7,990	$ -
89	Other Major Recurring Non-Cash Items	$ -	$ -	$ -	$ -	$ -
90	Interest Paid	$ 5,961,932	$ 6,285,595	$ 6,477,172	$ 6,029,333	$ 5,532,838
91	Less:					
92	Operating Lease Adjustment	$ -	$ -	$ -	$ -	$ -
93	Subtotal	$ 39,953,923	$ 39,452,721	$ 36,394,773	$ 34,108,783	$ 34,540,949
94	Interest Charges	$ 5,961,932	$ 6,285,595	$ 6,477,172	$ 6,029,333	$ 5,532,838
95	FFO Interest Coverage Ratio	6.70	6.28	5.62	5.66	6.24
	Overall Fixed Charge Coverage Ratio					
96	Net Income Available for Common	$ 12,799,762	$ 12,280,951	$ 10,516,465	$ 7,348,053	$ 7,456,798
97	Interest Charges	$ 5,961,932	$ 6,285,595	$ 6,477,172	$ 6,029,333	$ 5,532,838
98	Subtotal Numerator	$ 18,761,694	$ 18,566,546	$ 16,993,637	$ 13,377,386	$ 12,989,636
99	Interest Charges	$ 5,961,932	$ 6,285,595	$ 6,477,172	$ 6,029,333	$ 5,532,838
100	Preferred Stock Dividends	$ -	$ -	$ -	$ -	$ -
101	Subtotal Denominator	$ 5,961,932	$ 6,285,595	$ 6,477,172	$ 6,029,333	$ 5,532,838
102	Overall Fixed Charge Coverage Ratio	3.15	2.95	2.62	2.22	2.35

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-21286
Exhibit No.: A-1 (NLW-2)
Schedule: A-2
Page: 6 of 6
Witness: Natasha L Wonch

Line No.	(a) Description	(b) 2021	(c) 2020	(d) 2019	(e) 2018	(f) 2017
				Calendar Year		
	Cash Flow Coverage of Dividends Ratio					
103	Net Income Available for Common	$ 12,799,762	$ 12,280,951	$ 10,516,465	$ 7,348,053	$ 7,456,798
104	Depreciation and Amortization	$ 12,011,547	$ 11,733,821	$ 10,626,832	$ 12,613,919	$ 11,788,518
105	Deferred Taxes	$ 3,218,750	$ 2,866,759	$ 2,297,132	$ 2,088,145	$ 4,229,957
106	Subtotal	$ 28,030,059	$ 26,881,531	$ 23,440,429	$ 22,050,117	$ 23,475,273
107	Common Dividends	$ 3,800,000	$ -	$ -	$ -	$ -
108	Cash Flow Coverage of Dividends Ratio	7.38	-	-	-	-
	Common Dividend Payout Ratio					
109	Common Dividends	$ 3,800,000	$ -	$ -	$ -	$ -
110	Net Income Available for Common	$ 12,799,762	$ 12,280,951	$ 10,516,465	$ 7,348,053	$ 7,456,798
111	Common Dividend Payout Ratio	3.37	-	-	-	-
	Permanent Captialization					
112	Long Term Debt (excluding Securitization)	$ 127,100,000	$ 112,347,800	$ 108,200,000	$ 108,200,000	$ 108,200,000
113	Preferred Stock	$ -	$ -	$ -	$ -	$ -
114	Common Equity	$ 149,985,631	$ 135,767,977	$ 128,540,287	$ 125,713,876	$ 122,931,164
115	Total Permanent Capital	$ 277,085,631	$ 248,115,777	$ 236,740,287	$ 233,913,876	$ 231,131,164
116	Long Term Debt (Excluding Securitization)	45.9%	45.3%	45.7%	46.3%	46.8%
117	Preferred Stock	0.0%	0.0%	0.0%	0.0%	0.0%
118	Common Equity	54.1%	54.7%	54.3%	53.7%	53.2%
119	Total Permanent Capital	100.0%	100.0%	100.0%	100.0%	100.0%

Schedule B1

Michigan Public Service Commission
Upper Peninsula Power Company
Historical Rate Base
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-2 (NLW-3)
Schedule: B1
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Integrated Retail	(e) Wholesale
1					
2	Plant in Service	Exh A-2 (NLW-4), Sch B2	376,330,262	371,693,596	4,636,667
3	Plant Held for Future Use	Exh A-2 (NLW-4), Sch B2	-	-	-
4	Construction Work in Progress	Exh A-2 (NLW-4), Sch B2	13,165,918	12,941,914	224,004
5	Total Utility Plant		389,496,181	384,635,510	4,860,671
6					
7	Less: Depreciation Reserve	Exh A-2 (NLW-5), Sch B3	163,495,936	161,319,253	2,176,683
8					
9	Net Utility Plant	Line 5 - Line 7	226,000,244	223,316,257	2,683,988
10					
11	Net Capital Lease Property		-	-	-
12					
13	Total Utility Property and Plant	Line 9 + Line 11	226,000,244	223,316,257	2,683,988
14					
15	Less: Capital Lease Obligations		-	-	-
16					
17	Net Plant	Line 13 + Line 15	226,000,244	223,316,257	2,683,988
18					
19	Allowance for Working Capital	Exh A-2 (NLW-6), Sch B4	72,915,071	72,410,207	504,864
20					
21	Total Rate Base	Line 17 + Line 19	298,915,316	295,726,464	3,188,852

Schedule B2

Michigan Public Service Commission
Upper Peninsula Power Company
Total Utility Plant
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-2 (NLW-4)
Schedule: B2
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) MPSC Account No.	(c) Total	(d) Retail	(e) Wholesale
1					
2	Plant in service	101	359,498,967	355,069,675	4,429,293
3	Plant purchased or sold	102	-	-	-
4	Experimental plant unclassified	103	-	-	-
5	Plant leased to others	104	-	-	-
6	Completed construction not classified	106	16,831,295	16,623,921	207,374
7	Plant in Service		376,330,262	371,693,596	4,636,667
8					
9	Plant held for future use	105			
10					
11	Construction work in progress	107	13,165,918	12,941,914	224,004
12					
13	Total Projected Test Period Utility Plant	Line 7 + Line 11	389,496,181	384,635,510	4,860,671

Schedule B3

Michigan Public Service Commission
Upper Peninsula Power Company
Depreciation Reserve and Other Deductions
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-2 (NLW-5)
Schedule: B3
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Total Historical Period Accumulated Provision for Depreciation	2021 Balance Sheet	163,495,936	161,319,253	2,176,683

Schedule B4

Michigan Public Service Commission
Upper Peninsula Power Company
Working Capital
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-2 (NLW-6)
Schedule: B4
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Assets				
3					
4	Fuel Stock	2021 Balance Sheet	72,798	72,798	-
5	Materials & Supplies	2021 Balance Sheet	3,215,134	3,138,521	76,613
6	Customer Advances	2021 Balance Sheet	(2,740,929)	(2,740,929)	-
7	Special Deposits (Pension and Benefits)	2021 Balance Sheet	24,304,095	24,135,154	168,941
8	Customer Accounts Recievable	2021 Balance Sheet	6,937,191	6,888,970	48,221
9	Other Accounts Recievable	2021 Balance Sheet	734,232	729,129	5,104
10	Accum Provision Uncollectible Accounts	2021 Balance Sheet	(425,159)	(422,204)	(2,955)
11	Accounts Recievable from Assoc Co.	2021 Balance Sheet	-	-	-
12	Taxes Recievable Other Co.		-		
13	Misc and Accrued Assets	2021 Balance Sheet	272,225	270,333	1,892
14	Derivative Assets	2021 Balance Sheet	9,927	9,858	69
15	Other Deferred Debits	2021 Balance Sheet	33,925,401	33,689,581	235,820
16	Unamort Debt Exp.	2021 Balance Sheet	14,237,566	14,138,599	98,967
17	Prepayments	2021 Balance Sheet	1,653,730	1,632,075	21,655
18	Cash and BaNEK Balances	2021 Balance Sheet	6,649,165	6,607,979	41,185
19	Other	2021 Balance Sheet	9,764,129	9,764,129	0
20					
21	Total Assets	Sum of Lines 3 - 21	98,609,505	97,913,993	695,512
22					
23	Liabilities				
24	Def Cr SERP	2021 Balance Sheet	(2,427,467)	(2,410,593)	(16,874)
25	Accounts Payable	2021 Balance Sheet	(7,597,760)	(7,544,946)	(52,813)
26	Accounts Payable Other	2021 Balance Sheet	-	-	-
27	Accrued Interest	2021 Balance Sheet	(554,609)	(550,753)	(3,855)
28					
29	Tax Collections Payable	2021 Balance Sheet	(51,507)	(51,149)	(358)
30	Misc Current and Accrued Liabitlities	2021 Balance Sheet	(4,545,672)	(4,514,074)	(31,598)
31	Derivative Liabilities	2021 Balance Sheet	-	-	-
32	Other Deferred Credits	2021 Balance Sheet	(4,221,054)	(4,191,713)	(29,341)
33	Regulatory Liabilties	2021 Balance Sheet	(4,496,925)	(4,465,666)	(31,259)
34	Taxes	2021 Balance Sheet	(1,799,442)	(1,774,891)	(24,551)
35					
36	Total Liabilities	Sum of Lines 27 - 40	(25,694,434)	(25,503,786)	(190,648)
37					
38	Total Historical Test Period Working Capital	Line 22 - Line 41	72,915,071	72,410,207	504,864

Schedule C1

Michigan Public Service Commission
Upper Peninsula Power Company
Adjusted Net Operating Income
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-7)
Schedule: C1
Page: 1 of 2
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	**Operating Revenues**	Exh A-3 (NLW-9), Sch. C3	113,755,762	112,814,646	941,116
3					
4	**Operating Expenses**				
5	Fuel and Purchased Power (Electric Only)	Exh A-3 (NLW-10), Sch. C4	35,853,764	35,853,764	-
6	Operations and Maintenance Expenses	Exh A-3 (NLW-11), Sch. C5	36,385,453	35,950,196	435,257
7	Depreciation and Amortization	Exh A-3 (NLW-12), Sch. C6	12,011,547	11,851,600	159,947
8	General Taxes	Exh A-3 (NLW-13), Sch. C7	7,904,065	7,805,464	98,601
9	Income Taxes	Exh A-3 (NLW-14 & 15), Sch. C8 & C9	3,045,707	2,998,853	46,854
10	Total Operating Expenses	Sum of Lines 5 - 9	95,200,536	94,459,877	740,660
11					
12	**Operating Income**	Line 2 - Line 10	18,555,225	18,354,769	200,457
13					
14	**Operating Income Adjustments**				
15	Allowance For Funds Used During Construction				
16	Loss on Reacquired Securities				
17	Interest	2021 Income Statement	(318,498)	-	-
18	Income Tax Effect of Interest	2021 Income Statement	192	190	2
19	Interest Synchronization Adjustment	Exh A-3 (NLW-7), Sch. C1 page 2	33	32	0
20	Total Operating Income Adjustments	Sum of Lines 15 - 19	(318,273)	222	3
21					
22	**Adjusted Net Operating Income**	Line 12 - Line 20	18,236,953	18,354,991	200,459

Schedule C1

Michigan Public Service Commission
Upper Peninsula Power Company
Actual Net Operating Income
for the Historical Year Ended, December 31, 2021
Net Operating Income

Case No.: U-21286
Exhibit No.: A-3 (NLW-7)
Schedule No.: C1
Page: 2 of 2
Witness: Natasha L Wonch

Interest Synchronization Calculation

Line	Description	Source	Total	Retail	Wholesale
1	Rate Base	Exh. A-2 (NLW-3), Sch. B1	298,915,316	295,726,464	3,188,852
2	% of Capital Represented by Debt	Exh. A-4 (GRH-1), Sch. D1	43.7709%	43.7709%	43.7709%
3	Portion of Rate Base Funded by Debt	Line 1 x Line 2	130,837,902	129,442,113	1,395,789
4					
5	Cost of Debt	Exh. A-4 (GRH-1), Sch. D1	4.6771%	4.6771%	4.6771%
6	Interest Allowed	Line 3 x Line 5	6,119,372	6,054,090	65,282
7					
8	Interest Deduction on Taxes	Exh A-3 (NLW-14), Sch. C8	6,119,328	6,054,046	65,281
9					
10	Add Interest Deduct	Line 6 - Line 8	44	44	0
11					
12	Affect of Interest Allowed		32.76	32	0

Schedule C2

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Conversion Factor
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-8)
Schedule No.: C2
Page: 1 of 1
Witness: Natasha L Wonch

Line	Description	Calculations	Amount
1			
2	Income Before Income Taxes		100.000%
3			
4	Michigan Corporate Income Tax	Exh A-3 (NLW-15), Sch. C9	6.000%
5			
6	Wisconsin Corporate Income Tax	Exh A-3 (NLW-15), Sch. C9	0.000%
7			
8	Subtotal of State Income Tax	Line 4 + Line 6	6.000%
9			
10	Federal Income Tax Base	Line 2 - Line 8	94.000%
11			
12	Federal Income Tax Rate	Exh A-3 (NLW-14), Sch. C8	21.000%
13			
14	Effective Federal Income Tax	Line 10 * Line 12	19.740%
15			
16	Income After Taxes	Line 10 - Line 14	74.260%
17			
18	Gross Revenue Conversion Factor	Line 2 / Line 16	1.3466

Schedule C3

Michigan Public Service Commission
Upper Peninsula Power Company
Historical Operating Revenue
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-9)
Schedule No.: C3
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Present Revenues	2021 Income Statement	100,335,556	100,335,556	-
3					
4	Other Adjustments	2021 Income Statement	13,420,206	12,479,090	941,116
5					
6	Total Revenue	Line 2 + Line 4	113,755,762	112,814,646	941,116

Schedule C4

Michigan Public Service Commission
Upper Peninsula Power Company
Historical Fuel and Purchased Power
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-10)
Schedule No.: C4
Page: 1 of 1
Witness: Natasha L Wonch

	(a)	(b)	(c)	(d)	(e)
Line No.	**Description**	**Source**	**Total**	**Retail**	**Wholesale**
1					
2	Fuel	2021 Income Statement	8,274	8,274	-
3	Purchased Power	2021 Income Statement	26,304,428	26,304,428	-
4	Transmission (PSCR Related)	2021 Income Statement	9,541,062	9,541,062	-
5					
6	Total Production		35,853,764	35,853,764	-

Schedule C5

Michigan Public Service Commission
Upper Peninsula Power Company
Historical Operation and Maintenance Expenses
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-11)
Schedule No.: C5
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	**Operation and Maintenance Expenses:**				
3	Production	2021 Income Statement	5,174,834	5,174,834	-
4	Distribution	2021 Income Statement	14,038,991	13,742,896	296,095
5	Transmission (Non PSCR Related)	2021 Income Statement	-	-	-
6	Customer Accounts	2021 Income Statement	2,780,246	2,780,246	-
7	Customer Service	2021 Income Statement	3,496,814	3,496,814	-
8	Sales	2021 Income Statement	-	-	-
9	Administrative and General	2021 Income Statement	10,894,568	10,755,406	139,162
10					
11	Total Operation and Maintenance Expenses		36,385,453	35,950,196	435,257

Schedule C6

Michigan Public Service Commission
Upper Peninsula Power Company
Depreciation and Amortization Expense
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-12)
Schedule No.: C6
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	**Depreciation and Amortization Expense**				
3	Depreciation & Amortization Expense	2021 Income Statement	12,011,547	11,851,600	159,947
4	Other Amortization Expense	2021 Income Statement	-	-	-
5					
6	Total Depreciation and Amortization Expense	Line 3 + Line 4	12,011,547	11,851,600	159,947

Schedule C7

Michigan Public Service Commission
Upper Peninsula Power Company
General Taxes
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-13)
Schedule No.: C7
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	**Taxes Other Than Income Taxes**				
3					
4	FEDERAL				
5	Retirement Benefits	2021 Income Statement	745,545	735,327	10,217
6	Unemployment Comp	2021 Income Statement	4,211	4,154	58
7	Super Fund Tax	2021 Income Statement	-	-	-
8	Highway Use Tax				
9					
10	STATE				
11	Gross Receipts Tax				
12	Unemployment Comp	2021 Income Statement	13,391	13,208	184
13	Unitary Fees	2021 Income Statement	-	-	-
14	Use Tax	2021 Income Statement	-	-	-
15	Unauthor Ins Tax	2021 Income Statement	-	-	-
16	Wis Recycling Fee	2021 Income Statement	-	-	-
17	Single Business Tax	2021 Income Statement	-		
18	Property	2021 Income Statement	7,024,434	6,937,887	86,546
19					
20	LOCAL				
21	Real Est & Property				
22					
23	IBS				
24	Payroll Taxes	2021 Income Statement	116,485	114,888	1,596
25					
26	OTHER				
27	Franchise Tax Fees		-		
28					
29	Total Taxes Other Than Income Taxes	Sum of Lines 5 - 27	7,904,065	7,805,464	98,601

Schedule C8

Michigan Public Service Commission
Upper Peninsula Power Company
Federal Income Taxes
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-14)
Schedule No.: C8
Page: 1 of 1
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Integrated Retail	(e) Wholesale
	Federal				
1	Book Income Before Taxes & Interest	Exhibit A-3 (NLW-7) Sch C-1	21,600,933	21,353,622	247,311
2	Interest Expense	Line 22	6,119,328	6,054,046	65,281
3	Income Reconciliation	Line 33	(16,526,097)	(16,368,653)	(157,444)
4	Taxable Income	Line 1 - Line 2 + Line 3	(1,044,492)	(1,069,078)	24,586
5					
6	Tax Rate		21.0000%	21.0000%	21.0000%
7					
8	Taxes Calculated	Line 4 * Line 6	(219,343)	(224,506)	5,163
9	TCJA Calc C	(939,258)	(939,258)	(939,258)	-
10	Tax Liability	Line 8 + Line 9	(1,158,601)	(1,163,764)	5,163
11					
12	Net Tax Adjustment	Line 43	3,484,678	3,451,941	32,737
13					
14	**Taxes Allowable**	Line 10 + Line 12	**2,326,077**	**2,288,177**	**37,900**
15					
16					
17					
18					
19	Interest Calc				
20	Rate Base	Exhibit A-2 (NLW-3) Sch B-1	298,915,316	295,726,464	3,188,852
21	x Weighted Cost of Debt	Exhibit A-4 (GRH-1) Sch D-1	2.0472%	2.0472%	2.0472%
22	Interest Expense		6,119,328	6,054,046	65,281
23					
24					
25	**Net Income Additions/Deductions**	**Allocated on**			
26	State Tax Liability		67,609	69,160	(1,551)
27	Energy	Energy	-	-	-
28	Rate Base	Rate Base	(19,935,910)	(19,695,986)	(239,924)
29	Demand	CP Less Interruptible	64,971	64,971	-
30	Distribution Plant	Distribution Plant	7,339,311	7,199,611	139,700
31	Customer	Customer	-		
32	General & Common	Salaries and Wages	(4,062,077)	(4,006,409)	(55,668)
33	Total Additions/Deductions		(16,526,097)	(16,368,653)	(157,444)
34					
35					
36	Deferred Expense				
37	Energy	Energy	-	-	-
38	Rate Base	Rate Base	4,186,541	4,136,157	50,384
39	Demand	CP Less Interruptible	(13,644)	(13,644)	-
40	Distribution Plant	Distribution Plant	(1,541,255)	(1,511,918)	(29,337)
41	Customer	Customer	-		
42	General & Common	Salaries and Wages	853,036	841,346	11,690
43	Total Deferreds		3,484,678	3,451,941	32,737

Schedule C9

Michigan Public Service Commission
Upper Peninsula Power Company
State Income Taxes
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-15)
Schedule No.: C9
Page: 1 of 2
Witness: Natasha L Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
	Michigan State Taxes				
1	Book Income Before Taxes & Interest	Exhibit A-3 (NLW-7) Sch C-1	21,600,933	21,353,622	247,311
2	Interest Expense	Line 22	6,119,328	6,054,046	65,281
3	Income Reconciliation	Line 32	(16,608,414)	(16,452,241)	(156,172)
4	Taxable Income	Line 1 - Line 2 + Line 3	(1,126,809)	(1,152,666)	25,857
5					
6	Tax Rate		6.00000%	6.00000%	6.00000%
7					
8	Taxes Calculated	Line 4 * Line 6	(67,609)	(69,160)	1,551
9	TCJA Calc C		-	-	-
10	Tax Liability	Line 8 + Line 9	(67,609)	(69,160)	1,551
11					
12	Net Tax Adjustment	Line 42	787,239	779,836	7,403
13					
14	**Taxes Allowable**	Line 10 + Line 12	**719,630**	**710,676**	**8,954**
15					
16					
17					
18					
19	Interest Calc				
20	Rate Base	Exhibit A-2 (NLW-3) Sch B-1	298,915,316	295,726,464	3,188,852
21	x Weighted Cost of Debt	Exhibit A-4 (GRH-1) Sch D-1	2.0472%	2.0472%	2.0472%
22	Interest Expense		6,119,328	6,054,046	65,281
23					
24					
25	**Net Income Additions/Deductions**	**Allocated on**			
26	Energy	Energy	-	-	-
27	Rate Base	Rate Base	(19,935,910)	(19,695,986)	(239,924)
28	Demand	CP Less Interruptible	64,971	64,971	-
29	Distribution Plant	Distribution Plant	7,324,602	7,185,182	139,420
30	Customer	Customer	-		
31	General & Common	Salaries and Wages	(4,062,077)	(4,006,409)	(55,668)
32	Total Additions/Deductions		(16,608,414)	(16,452,241)	(156,172)
33					
34					
35	**Deferred Expense**	**Allocated on**			
36	Energy	Energy	-	-	-
37	Rate Base	Rate Base	944,962	933,590	11,372
38	Demand	CP Less Interruptible	(3,080)	(3,080)	-
39	Distribution Plant	Distribution Plant	(347,186)	(340,578)	(6,609)
40	Customer	Customer	-		
41	General & Common	Salaries and Wages	192,542	189,904	2,639
42	Total Deferreds		787,239	779,836	7,403

Schedule C10

Michigan Public Service Commission
Upper Peninsula Power Company
Other (or Local) Taxes
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-16)
Schedule No.: C10
Page: 1 of 1
Witness: Natasha L Wonch

(a)	(b)	(c)	(d)	(e)
Line No.	**Description**	**Source**	**Total**	**Retail**	**Wholesale**
1					
2					

Schedule C11

Michigan Public Service Commission
Upper Peninsula Power Company
Allowance for Funds Used During Construction
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-3 (NLW-17)
Schedule No.: C11
Page: 1 of 1
Witness: Natasha L Wonch

(a)	(b)	(c)	(d)	(e)
Line No.	**Description**	**Source**	**Total**	**Retail**	**Wholesale**
1					
2	AFUDC Debt		-	-	-
3	AFUDC Equity		-	-	-
4					
5	Total AFUDC	Line 2 + Line 3	-	-	-

Schedule D1

Michigan Public Service Commission
Upper Peninsula Power Company
Overall Rate of Return Summary
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-4 (GRH-1)
Schedule: D1
Page: 1 of 1
Witness: Gradon R. Haehnel

	(a)	(b)		(c)	(d)	(e)		(f)	(g)	(h)	(i)	(j)	(k)
		Capital Structure						Weighted Cost					
Line No.	Description	Amount (1)		Percent Capital	Percent of Total Capital	Cost Rate %		Capital	Total Cost %	Conversion Factor	Pre-Tax Return	Percent Capital Incl ST	Weighted Cost Incl ST
1													
2	Long-Term Debt	$ 120,291,292	(2)	44.51%	40.25%	4.6922%	(2)	2.09%	1.8886%		1.8886%	42.84%	2.0101%
3													
4	Preferred Stock	$ -	(4)	0.00%	0.00%	0.0000%	(4)	0.00%	0.0000%		0.0000%	0.00%	0.0000%
5													
6	Common Shareholders' Equity	$ 149,985,631	(5)	55.49%	50.19%	9.9000%	(5)	5.49%	4.9684%	1.3466	6.6904%	53.41%	5.2880%
7													
8	Total Permanent Capital	$ 270,276,923		100.00%				7.58%					
9													
10	Short-Term Debt	$ 10,523,077	(3)		3.52%	4.5037%	(3)		0.1586%		0.1586%	3.75%	0.1688%
11													
12	Job Development - ITC - Debt												
13	Job Development - ITC Equity												
14	Total Job Development - ITC	$ -			0.00%								
15													
16	Deferred Investment Tax Credit	$ -			0.00%			0.00%	0.0000%		0.0000%		
17													
18	Deferred Income Taxes (Net) - Federal	$ 20,184,840			6.75%			0.00%	0.0000%		0.0000%		
19													
20	Capital Structure Adj	$ (2,123,288)			-0.71%			7.47%	-0.0530%		-0.0530%		
21													
22	Total	$ 298,861,552			100.00%				6.9626%		8.6846%	100.00%	7.4668%

(1) See Exh. A-2, Sch. B1
(2) See Exh. A-4, Sch. D2
(3) See Exh. A-4, Sch. D3
(4) See Exh. A-4, Sch. D4
(5) See Exh. A-4, Sch. D5

Schedule D2

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Long-Term Debt
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-4 (GRH-2)
Schedule: D2
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	(a) Description	(b) Original Issue Date	(c) Stated Maturity Date	(d) Interest Rate (%)	(e) Amount of Offering		(f) Price to Public	(g) Underwriting & Financing Expenses (%)	(h) Net Proceeds to the Company (%)	(i) Cost Based on Net Proceeds (%)	(j) Amount Out-standing		(k) Annual Cost	(i)
1														
2	**Mortgage Bonds**													
3	-----													
4	-----													
5	Total Mortgage Bonds										$ -		$ -	
6														
7	**Long Term Debt**													
8	3.59% Senior Secured Fixed Rate Notes	6/3/2021	6/3/2051	3.59%	$ 127,100,000			$ 1,893,744	$ 127,100,000	3.590%	$ 127,100,000		$ 2,623,662	
9	PPP Loan	4/17/2020	6/11/2021	1.00%	$ 4,147,800			$ -	$ 4,147,800	1.000%	$ -		$ 18,348	
10	-----													
11	Total Long Term Debt				$ 131,247,800	(1)					$ 127,100,000		$ 2,642,010	
12														
13	**Long Term Intercompany Debt**													
14	Upper Peninsula Power Holding Co.	9/16/2014	9/16/2024	4.95%	$ 16,230,000			$ 180,847	$ 16,230,000	4.950%	$ -		$ 339,207	
15	Upper Peninsula Power Holding Co.	9/16/2014	9/16/2029	5.20%	$ 27,050,000			$ 300,581	$ 27,050,000	5.200%	$ -		$ 593,898	
16	Upper Peninsula Power Holding Co.	9/16/2014	9/16/2034	5.43%	$ 51,395,000			$ 571,105	$ 51,395,000	5.430%	$ -		$ 1,178,316	
17	Upper Peninsula Power Holding Co.	9/16/2014	9/16/2044	5.91%	$ 13,525,000			$ 150,291	$ 13,525,000	5.910%	$ -		$ 337,494	
18	-----													
19	Total Long Term Intercompany Debt				$ 108,200,000	(2)					$ -		$ 2,448,915	
20														
21														
22	Amortization of Loss on Reacquired Debt												$ 463,633	(3)
23	Amortization of Debt Disc and Exp												$ 89,786	(3)
24	Adjustment to Booked Interest												$ -	
25	-----													
26	**Total Interest Expense**												$ 5,644,343	(4)
27														
28	Unamortized Debt Expense										$ 1,857,447	(5)	$ 36,297	
29	Unamortized Loss on Reacquired Debt										$ 23,725,892	(5)		
30														
31	**Total Long-Term Debt Balance (13 mo.)**										$ 120,291,292	(5)	4.6922%	

-

(1) Post-sale debt
(2) Pre-sale debt
(3) See Income Statement
(4) In Column K, sum of Line Nos.: 11,19,21,22,23
(5) See Balance Sheet

Schedule D3

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Short-Term Debt
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-4 (GRH-3)
Schedule: D3
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	(a) Month	(b) Balance Outstanding	(c) Total Cost	(d) Source
1				
2	Amortization of upfront fees			
3	Pre-Sale - Associated Bank	-	16,970	WP - Debt Fees&Interest
4	Post-Sale - CBIC	313,867	6,133	WP - Axium Debt Fees
5				
6	Line of Credit Fees			
7	Pre-Sale - Associated Bank		10,403	WP - Debt Fees&Interest
8	Post-Sale - CBIC		91,926	WP - Debt Fees&Interest
9				
10	Line of Credit Commitment Fees			
11	Pre-Sale - Associated Bank		2,037	WP - Debt Fees&Interest
12	Post-Sale - CBIC		87,551	WP CIBC Revolvers 2021
13				
14	Credit Rating Fees			
15	Pre-Sale - Associated Bank		-	
16	Post-Sale - CBIC		42,500	WP - Debt Fees&Interest
17				
18	**Total Fees**	313,867	257,519	
19				
20	Interest Expense			
21	Pre-Sale - Associated Bank	-	131,062	WP - Debt Fees&Interest
22	Post-Sale - CBIC	12,000,000	85,347	WP - Debt Fees&Interest
23	**Total Interest**		216,409	
24				
25	**Total Fees and Interest**		473,928	
26				
27	**Average Cost of Short-Term Debt**	10,523,077	4.5037%	June 2023 - July 2024 Balance Sheet

Schedule D4

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Preferred Stock
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-4 (GRH-4)
Schedule: D4
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	(a) Description	(b) Annual Dividend Required	(c) Par Value	(d) Discount or Premium	(e) Finance Expenses	(f) Net Proceeds Received	(g) Number of Shares Outstanding	(h) Total Value of Outstanding Proceeds	(i) Cost Rate (%)	(j) Annual Dollar Amount
1										
2	None									

Schedule D5

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Common Shareholders' Equity
for the Historical Year Ended, December 31, 2021

Case No.: U-21286
Exhibit No.: A-4 (GRH-5)
Schedule: D5
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	Description	Adjusted Common Equity	Return On Equity
1			
2	December-20	136,216,168	
3	January-21	137,771,572	
4	February-21	138,688,686	
5	March-21	135,758,809	
6	April-21	136,800,098	
7	May-21	137,954,602	
8	June-21	160,235,603	
9	July-21	161,437,528	
10	August-21	162,601,622	
11	September-21	160,967,193	
12	October-21	161,357,480	
13	November-21	161,857,793	
14	December-21	158,166,047	
15			
16	Average	149,985,631	9.9000%

Schedule E1.1

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Service Area Sales by Major Customer Classes and System Output
5-Year Historical

Case No.: U-21286
Exhibit No.: A-5 (NEB-1)
Schedule: E1.1
Page: 1 of 1
Witness: Nicole E. Bell

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
		Annual Sales					Losses and Company Use		
Line No.	Year	Residential	Commercial	Industrial	Other	Total	kWh	% of Sales	System Output kWh
1	2017	241,786,715	161,910,465	221,379,528	5,967,369	631,044,077	42,019,171	6.7%	673,063,248
2	2018	250,674,178	163,796,205	214,250,335	5,767,620	634,488,338	42,352,714	6.7%	676,841,052
3	2019	247,442,916	159,201,762	257,947,121	2,789,658	667,381,457	44,332,947	6.6%	711,714,404
4	2020	255,597,502	145,840,439	244,181,952	2,319,575	647,939,468	43,184,324	6.7%	691,123,792
5	2021	262,345,819	149,480,393	260,506,177	2,284,027	674,616,416	44,529,227	6.6%	719,145,643

Schedule E1.2

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Bundled Sales by Major Customer Classes and System Output
5-Year Historical

Case No.: U-21286
Exhibit No.: A-5 (NEB-2)
Schedule: E1.2
Page: 1 of 1
Witness: Nicole E. Bell

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
		Annual Sales					Losses and Company Use		
Line No.	Year	Residential	Commercial	Industrial	Other	Total	kWh	% of Sales	System Output kWh
1	2017	241,786,715	142,458,500	154,384,890	5,967,369	544,597,474	36,633,548	6.7%	581,231,022
2	2018	250,674,178	150,328,488	144,053,914	5,767,620	550,824,199	37,140,439	6.7%	587,964,638
3	2019	247,442,916	146,121,635	187,997,987	2,789,658	584,352,195	39,160,224	6.7%	623,512,419
4	2020	255,597,502	135,144,626	176,467,092	2,319,575	569,528,795	38,299,339	6.7%	607,828,134
5	2021	262,345,819	136,934,843	189,431,905	2,284,027	590,996,594	39,319,712	6.7%	630,316,306

Schedule E1.3

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Electric Choice Sales by Major Customer Classes
5-Year Historical

Case No.: U-21286
Exhibit No.: A-5 (NEB-3)
Schedule: E1.3
Page: 1 of 1
Witness: Nicole E. Bell

	(a)	(b)	(c)	(d)	(e)	(f)
			Annual Sales			
Line No.	Year	Residential	Commercial	Industrial	Other	Total
1	2017	0	19,451,965	66,994,638	0	86,446,603
2	2018	0	13,467,718	70,196,421	0	83,664,138
3	2019	0	13,080,127	69,949,135	0	83,029,261
4	2020	0	10,695,813	67,714,860	0	78,410,673
5	2021	0	12,545,550	71,074,272	0	83,619,822

Schedule A1

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Deficiency (Sufficiency)
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-6 (GRH-6)
Schedule: A1
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Rate Base	Exh. A-7 (NLW-19), Sch. B1	$ 352,308,859	$ 348,730,362	$ 3,578,497
3					
4	Adjusted Net Operating Income	Exh. A-8 (NLW-23), Sch. C1	$ 7,319,520	$ 7,320,589	$ 33,848
5					
6	Overall Rate of Return	Line 4 ÷ Line 2	2.08%	2.10%	0.95%
7					
8	Required Rate of Return	Exh. A-9 (GRH-9), Sch. D1	6.94%	6.94%	6.94%
9					
10	Income Requirements	Line 2 x Line 8	$ 24,443,541	$ 24,195,261	$ 248,280
11					
12	Income Deficiency (Sufficiency)	Line 10 - Line 4	$ 17,124,021	$ 16,874,672	$ 214,432
13					
14	Revenue Conversion Factor	Exh. A-8 (NLW-24), Sch. C2	1.3466	1.3466	1.3466
15					
16	Revenue Deficiency (Sufficiency)	Line 12 x Line 14	$ 23,059,206	$ 22,723,433	$ 288,754
17					
18	Revenue Offset U-20995		$ 2,537,673	$ 2,537,673	$ -
19					
20	Revenue Adjustment U-20757		$ 431,559	$ 431,559	
21					
20	Revenue Adjustment U-20276 (pension liability)		$ (412,379)	$ (412,379)	
21					
22	Revenue Adjustment U-21286		$ -	$ -	
23					
24	Revenue Deficiency (Sufficiency)		$ 25,616,059	$ 25,280,285	$ 288,754
25					
26	Percentage Increase (Decrease)		23.49%	23.35%	N/A
27					
28	Actual ROE		-0.70%	-0.64%	
29					
30	Revenue Deficiency (Sufficiency)		$ 25,616,059	$ 25,280,285	
31					
32	Present Revenues		$ 109,034,335	$ 108,248,744	
33					
34	Percentage Increase (Decrease)		23.49%	23.35%	

Schedule A1.1

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Deficiency (Sufficiency)
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-6 (GRH-7)
Schedule: A1.1
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Rate Base	Exh. A-7 (NLW-19), Sch. B1	$ 352,308,859	$ 348,730,362	$ 3,578,497
3					
4	Adjusted Net Operating Income	Exh. A-8 (NLW-23), Sch. C1	$ 7,319,520	$ 7,320,589	$ 33,848
5					
6	Overall Rate of Return	Line 4 ÷ Line 2	2.08%	2.10%	0.95%
7					
8	Required Rate of Return	Exh. A-9 (GRH-9), Sch. D1	6.94%	6.94%	6.94%
9					
10	Income Requirements	Line 2 x Line 8	$ 24,443,541	$ 24,195,261	$ 248,280
11					
12	Income Deficiency (Sufficiency)	Line 10 - Line 4	$ 17,124,021	$ 16,874,672	$ 214,432
13					
14	Revenue Conversion Factor	Exh. A-8 (NLW-24), Sch. C2	1.3466	1.3466	1.3466
15					
16	Revenue Deficiency (Sufficiency)	Line 12 x Line 14	$ 23,059,206	$ 22,723,433	$ 288,754
17					
18	Revenue Offset U-20995		$ 2,537,673	$ 2,537,673	$ -
19					
20	Revenue Adjustment U-20757		$ 431,559	$ 431,559	
21					
20	Revenue Adjustment U-20276 (pension liability)		$ (412,379)	$ (412,379)	
21					
22	Revenue Adjustment U-21286		$ (12,808,029)	$ (12,640,143)	
23					
24	Revenue Deficiency		$ 12,808,029	$ 12,640,143	$ 288,754
25					
26	Percentage Increase (Decrease)		11.75%	11.68%	N/A
27					
28	Actual ROE		-0.70%	-0.64%	
29					
30	Revenue Deficiency		$ 12,808,029	$ 12,640,143	
31					
32	Present Revenues		$ 109,034,335	$ 108,248,744	
33					
34	Percentage Increase		11.75%	11.68%	

Schedule A1.2

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Deficiency (Sufficiency)
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-6 (GRH-8)
Schedule: A1.2
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Rate Base	Exh. A-7 (NLW-19), Sch. B1	$ 352,308,859	$ 348,730,362	$ 3,578,497
3					
4	Adjusted Net Operating Income	Exh. A-8 (NLW-23), Sch. C1	$ 7,319,520	$ 7,320,589	$ 33,848
5					
6	Overall Rate of Return	Line 4 ÷ Line 2	2.08%	2.10%	0.95%
7					
8	Required Rate of Return	Exh. A-9 (GRH-9), Sch. D1	6.94%	6.94%	6.94%
9					
10	Income Requirements	Line 2 x Line 8	$ 24,443,541	$ 24,195,261	$ 248,280
11					
12	Income Deficiency (Sufficiency)	Line 10 - Line 4	$ 17,124,021	$ 16,874,672	$ 214,432
13					
14	Revenue Conversion Factor	Exh. A-8 (NLW-24), Sch. C2	1.3466	1.3466	1.3466
15					
16	Revenue Deficiency (Sufficiency)	Line 12 x Line 14	$ 23,059,206	$ 22,723,433	$ 288,754
17					
18	Revenue Offset U-20995		$ 2,537,673	$ 2,537,673	$ -
19					
20	Revenue Adjustment U-20757		$ 431,559	$ 431,559	
21					
20	Revenue Adjustment U-20276 (pension liability)		$ (412,379)	$ (412,379)	
21					
22	Revenue Adjustment U-21286		$ 4,269,343	$ 4,213,381	
23					
24	Revenue Deficiency		$ 29,885,402	$ 29,493,666	$ 288,754
25					
26	Percentage Increase (Decrease)		14.02%	13.94%	N/A
27					
28	Actual ROE		-0.70%	-0.64%	
29					
30	Incremental Revenue Deficiency		$ 17,077,372	$ 16,853,524	
31					
32	Present Revenues		$ 121,842,364	$ 120,888,887	
33					
34	Percentage Increase		14.02%	13.94%	

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-20276
Exhibit No.: A-6 (NLW-18)
Schedule: A2
Page: 1 of 3
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) No Rate Relief 06/30/2024	(c) Full Rate Relief 06/30/2024
1	Operating Revenue	109,034,335	132,093,541
2	Operating Expense	99,053,184	99,053,184
3	Pre-Tax Operating Income	9,981,151	33,040,357
4	Income Taxes	(567,317)	5,367,868
5	Net Operating Income	10,548,468	27,672,489
6	Tax Impact of Pro-Forma Interest on NOI		
7	AFUDC and Other Income and Deductions	(3,063,397)	(3,063,397)
8	Interest Charges	(8,520,982)	(8,520,982)
9	Preferred Stock Dividends	-	-
10	Net Income Available for Common and JDITC	(1,035,911)	16,088,110
11	Return Assignable to JDITC	-	-
12	Net Income Available for Common	(1,035,911)	16,088,110
13	Average Common Equity	148,963,979	148,963,979
14	Earned Rate of Return on Common Equity	-0.70%	10.80%
15	Requested Return on Equity	10.80%	10.80%

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-20276
Exhibit No.: A-6 (NLW-18)
Schedule: A2
Page: 2 of 3
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Fiscal Year No Rate Relief 06/30/2024	(c) Fiscal Year Full Rate Relief 06/30/2024
	EBIT Interest Coverage Ratio		
16	Pre-Tax Operating Income	9,981,151	33,040,357
17	AFUDC	-	-
18	Total EBIT	9,981,151	33,040,357
19	Interest Charges	8,520,982	8,520,982
20	EBIT Interest Coverage Ratio	1.17	3.88
	EBITDA Interest Coverage Ratio		
21	Total EBIT	9,981,151	33,040,357
22	Depreciation and Amortization	14,646,530	14,646,530
23	Total EBIDTA	24,627,681	47,686,887
24	Interest Charges	8,520,982	8,520,982
25	EBITDA Interest Coverage Ratio	2.89	5.60
	Funds Flow from Operations (FFO) Interest Coverage Ratio		
26	Net Operating Income	10,548,468	27,672,489
27	Depreciation and Amortization	14,646,530	14,646,530
28	Deferred Income Tax	(401,766)	4,221,719
29	AFUDC	-	-
30	Other Major Recurring Non-Cash Items	-	-
31	Interest Paid	8,520,982	8,520,982
	Less:		
32	Operating Lease Adjustment	-	-
33	Subtotal	33,314,215	55,061,721
34	Interest Charges	8,520,982	8,520,982
35	FFO Interest Coverage Ratio	3.91	6.46
	Overall Fixed Charge Coverage Ratio		
36	Net Income Available for Common	(1,035,911)	16,088,110
37	Interest Charges, Net of Tax Benefit	8,520,982	8,520,982
38	Subtotal Numerator	7,485,071	24,609,092
39	Interest Charges	8,520,982	8,520,982
40	Preferred Stock Dividends	-	-
41	Subtotal Denominator	8,520,982	8,520,982
42	Overall Fixed Charge Coverage Ratio	0.88	2.89

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-20276
Exhibit No.: A-6 (NLW-18)
Schedule: A2
Page: 3 of 3
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) No Rate Relief 06/30/2024	(c) Full Rate Relief 06/30/2024
	Cash Flow Coverage of Dividends Ratio		
43	Net Income Available for Common	(1,035,911)	16,088,110
44	Depreciation and Amortization	14,646,530	14,646,530
45	Deferred Taxes	(401,766)	4,221,719
46	Subtotal	13,208,853	34,956,359
47	Common Dividends	-	-
48	Cash Flow Coverage of Dividends Ratio	n/a	n/a
	Common Dividend Payout Ratio		
49	Common Dividends	-	-
50	Net Income Available for Common	(1,035,911)	16,088,110
51	Common Dividend Payout Ratio	n/a	n/a
	Permanent Captialization		
52	Long Term Debt (excluding Securitization)	127,100,000	127,100,000
53	Preferred Stock	-	-
54	Common Equity	148,963,979	148,963,979
55	Total Permanent Capital	276,063,979	276,063,979
56	Long Term Debt (Excluding Securitization)	46.04%	46.04%
57	Preferred Stock	0.00%	0.00%
58	Common Equity	53.96%	53.96%
59	Total Permanent Capital	100.00%	100.00%

Schedule B1

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Rate Base
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-7 (NLW-19)
Schedule: B1
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Integrated Retail	(e) Wholesale
1					
2	Plant in Service	Exh A-7 (NLW-20), Sch B2	428,615,611	423,579,490	5,036,121
3	Plant Held for Future Use	Exh A-7 (NLW-20), Sch B2	-	-	-
4	Construction Work in Progress	Exh A-7 (NLW-20), Sch B2	22,861,611	22,473,205	388,405
5	Total Utility Plant		451,477,222	446,052,695	5,424,527
6					
7	Less: Depreciation Reserve	Exh A-7 (NLW-21), Sch B3	191,322,665	188,849,174	2,473,491
8					
9	Net Utility Plant	Line 5 - Line 7	260,154,557	257,203,521	2,951,036
10					
11	Net Capital Lease Property		-	-	-
12					
13	Total Utility Property and Plant	Line 9 + Line 11	260,154,557	257,203,521	2,951,036
14					
15	Less: Capital Lease Obligations		-	-	-
16					
17	Net Plant	Line 13 + Line 15	260,154,557	257,203,521	2,951,036
18					
19	Allowance for Working Capital	Exh A-7 (NLW-22), Sch B4	92,154,302	91,526,841	627,461
20					
21	Total Rate Base	Line 17 + Line 19	352,308,859	348,730,362	3,578,497

Schedule B2

Michigan Public Service Commission
Upper Peninsula Power Company
Total Utility Plant
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-7 (NLW-20)
Schedule: B2
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) MPSC Account No.	(c) Total	(d) Retail	(e) Wholesale
1					
2	Plant in service	101	417,676,204	412,768,617	4,907,586
3	Plant purchased or sold	102	-	-	-
4	Experimental plant unclassified	103	-	-	-
5	Plant leased to others	104	-	-	-
6	Completed construction not classified	106	10,939,408	10,810,872	128,535
7	Plant in Service		428,615,611	423,579,490	5,036,121
8					
9	Plant held for future use	105			
10					
11	Construction work in progress	107	22,861,611	22,473,205	388,405
12					
13	Total Projected Test Period Utility Plant	Line 7 + Line 11	451,477,222	446,052,695	5,424,527

Schedule B3

Michigan Public Service Commission
Upper Peninsula Power Company
Depreciation Reserve and Other Deductions
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-7 (NLW-21)
Schedule: B3
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Total Historical Period Accumulated Provision for Depreciation	June 2023 - July 2024 Balance Sheet	191,322,665	188,849,174	2,473,491

Schedule B4

Michigan Public Service Commission
Upper Peninsula Power Company
Working Capital
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-7 (NLW-22)
Schedule: B4
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Assets				
3					
4	Fuel Stock	June 2023 - July 2024 Balance Sheet	50,852	50,852	-
5	Materials & Supplies	June 2023 - July 2024 Balance Sheet	3,576,457	3,491,932	84,525
6	Customer Advances	June 2023 - July 2024 Balance Sheet	(3,959,052)	(3,959,052)	-
7	Special Deposits (Pension and Benefits)	June 2023 - July 2024 Balance Sheet	31,182,437	30,967,364	215,073
8	Customer Accounts Recievable	June 2023 - July 2024 Balance Sheet	8,315,154	8,257,802	57,352
9	Other Accounts Recievable	June 2023 - July 2024 Balance Sheet	225,926	224,368	1,558
10	Accum Provision Uncollectible Accounts	June 2023 - July 2024 Balance Sheet	(730,818)	(725,778)	(5,041)
11	Accounts Recievable from Assoc Co.	June 2023 - July 2024 Balance Sheet	-	-	-
12	Taxes Recievable Other Co.	June 2023 - July 2024 Balance Sheet	-		
13	Misc and Accrued Assets	June 2023 - July 2024 Balance Sheet	-	-	-
14	Derivative Assets	June 2023 - July 2024 Balance Sheet	8,796	8,735	61
15	Other Deferred Debits	June 2023 - July 2024 Balance Sheet	32,100,450	31,879,045	221,405
16	Unamort Debt Exp.	June 2023 - July 2024 Balance Sheet	24,136,988	23,970,509	166,479
17	Prepayments	June 2023 - July 2024 Balance Sheet	1,412,768	1,394,763	18,005
18	Cash and Bank Balances	June 2023 - July 2024 Balance Sheet	6,961,007	6,920,404	40,603
19	Other	June 2023 - July 2024 Balance Sheet	12,014,209	12,014,209	0
20					
21	Total Assets	Sum of Lines 3 - 21	115,295,171	114,495,152	800,020
22					
23	Liabilities				
24	Def Cr SERP	June 2023 - July 2024 Balance Sheet	(2,404,552)	(2,387,968)	(16,585)
25	Accounts Payable	June 2023 - July 2024 Balance Sheet	(7,448,522)	(7,397,148)	(51,374)
26	Accounts Payable Other	June 2023 - July 2024 Balance Sheet	-	-	-
27	Accrued Interest	June 2023 - July 2024 Balance Sheet	(446,722)	(443,641)	(3,081)
28					
29	Tax Collections Payable	June 2023 - July 2024 Balance Sheet	(131,979)	(131,069)	(910)
30	Misc Current and Accrued Liabitlities	June 2023 - July 2024 Balance Sheet	(4,215,842)	(4,186,764)	(29,078)
31	Derivative Liabilities	June 2023 - July 2024 Balance Sheet	-	-	-
32	Other Deferred Credits	June 2023 - July 2024 Balance Sheet	(4,535,189)	(4,503,908)	(31,280)
33	Regulatory Liabilties	June 2023 - July 2024 Balance Sheet	(2,029,735)	(2,015,735)	(14,000)
34	Taxes	June 2023 - July 2024 Balance Sheet	(1,928,329)	(1,902,079)	(26,250)
35					
36	Total Liabilities	Sum of Lines 27 - 40	(23,140,869)	(22,968,311)	(172,559)
37					
38	Total Projected Test Period Working Capital	Line 22 - Line 41	92,154,302	91,526,841	627,461

Schedule B5

Michigan Public Service Commission
Upper Peninsula Power Company
Miscellaneous Utility
Case No. U-21286

Capital Expenditures Exhibit Index

	Title	Witness
	Test Period Capital Expenditures	
A-7 B5	Summary	Haehnel / Lillie
A-7 B5.1 p.1	Power Generation Summary	Haehnel / Lillie
A-7 B5.1 p.2	Power Generation by Facility	Haehnel / Lillie
A-7 B5.2	Capital Expenditures - Ship and Train	n/a
A-7 B5.3 p.1	Nuclear Production Plant & Nuclear Fuel	n/a
A-7 B5.4 p.1	Distribution Plant	Haehnel / Lillie
A-7 B5.5	Advanced Metering Infrastructure (AMI)	Haehnel / Lillie
A-7 B5.6	Corporate Staff Summary	Haehnel / Lillie

Schedule B5

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Summary

Case No.: U-21286
Exhibit No.: A-7 (SSL-1)
Schedule: B5
Page: 1 of 1
Witness: Haehnel / Lillie

Line No.	(a) Description	(b) Historical 12 mos. Ended 12/31/2021	(c) Projected Bridge Period 12 mos. Ending 12/31/2022	(d) Projected Bridge Period 6 mos. Ending 6/30/2023	(e) Projected Bridge Period 18 mos. Ending 6/30/2023	(f) Projected Test Year 12 mos. Ending 6/30/2024	(g) Reference	(h) Last Rate Case Approved Spending Plan U-20276 12 mos. Ended 12/31/2019	(i) Actual Spending Test Year U-20276 12 mos. Ended 12/31/2019
		Capital Expenditures							
1	Distribution	10,404,792	10,875,631	8,475,798	19,351,430	16,083,326	Exhibit A-26 (SSL-6)	8,030,000	6,219,428
2	Substation	3,354,387	3,386,602	2,039,125	5,425,727	5,208,447	Exhibit A-26 (SSL-6)	2,330,578	803,750
3	Generation	1,643,359	2,941,439	155,817	3,097,256	3,066,288	Exhibit A-26 (SSL-6)	1,310,000	1,341,344
4	Corporate | General Plant								
5	IT	1,540,878	3,538,760	3,272,157	6,810,917	3,575,484		983,000	689,782
6	Fleet	1,947,715	2,171,756	460,180	2,631,936	2,111,197	Exhibit A-26 (SSL-6)	1,420,598	510,795
7	Facilities	621,527	324,010	77,909	401,919	1,926,544	Exhibit A-26 (SSL-6)	708,772	674,857
8	Special Projects	480,420	958,730	83,102	1,041,832	2,073,438		4,900,000	10,430,244
9	Total Capital Expenditures	19,993,078	24,196,928	14,564,088	38,761,016	34,044,723		19,682,948	20,670,200

Schedule B5.1

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Power Generation Summary

Case No.: U-21286
Exhibit No.: A-7 (SSL-2)
Schedule: B5.1
Page: 1 of 2
Witness: Haehnel / Lillie

	(a)	(b)	(c)	(d)	(e)	(f)	(e)
		Capital Expenditures					
				Projected Bridge Period		**Projected Test Year**	
Line No.	**Description**	**Historical 12 mos. Ended 12/31/2021**	**12 mos. Ending 12/31/2022**	**6 mos. Ending 6/30/2023**	**18 mos. Ending 6/30/2023**	**12 mos. Ending 6/30/2024**	**Reference**
1	**Generation**						
2	03 Facility	82,290	393,750	77,909	471,659	238,920	Exhibit A-26 (SSL-6)
3	04 Improve Reliability / Load Growth	190,837	-	-	-	10,388	Exhibit A-26 (SSL-6)
4	05 New Equipment / Equipment Upgrade	63,906	1,800,595	155,817	1,956,412	1,245,498	Exhibit A-26 (SSL-6)
5	07 Contractual / Regulatory / Statutory	1,306,327	747,093	-	747,093	339,889	Exhibit A-26 (SSL-6)
6	08 Special Projects	-	-	83,102	83,102	1,231,593	
7	**Total Generation**	1,643,359	2,941,439	316,828	3,258,266	3,066,288	

Schedule B5.1

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Power Generation by Facility

Case No.: U-21286
Exhibit No.: A-7 (SSL-2)
Schedule: B5.1
Page: 2 of 2
Witness: Haehnel / Lillie

	(a)	(b)	(c)	(d)	(e)	(f)
		Capital Expenditures				
Line No.	Description	Historical 12 mos. Ended 12/31/2021	Projected Bridge Period 12 mos. Ending 12/31/2022	Projected Bridge Period 6 mos. Ending 6/30/2023	Projected Bridge Period 18 mos. Ending 6/30/2023	Projected Test Year 12 mos. Ending 6/30/2024
1	**Hydraulic Production Plant**					
2	Hoist	575,394	1,074,568	51,939	1,170,194	451,870
3	McClure	82,290	127,335	98,684	234,784	1,401,953
4	Prickett	778,348	147,021	-	152,723	46,745
5	Victoria | Bond Falls	170,238	1,004,080	72,715	1,118,554	957,964
6	Silver Lake	-	-	-	-	-
9	Subtotal Hydraulic Production Plant	1,606,270	2,353,004	223,338	2,676,255	2,858,532
10						
11	**Other Production Plant**				-	
12	Gladstone	-	36,672	-	38,095	-
13	Portage	-	-	-	-	-
14	Miscellaneous	37,089	158,012	93,490	261,255	207,756
15	Subtotal Other Production Plant	37,089	194,684	93,490	299,350	207,756
16						
17	**Total Production Capital**	1,643,359	2,547,688	316,828	2,975,605	3,066,288

Schedule B5.4

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Distribution and Substation Plant by Business Driver

Case No.: U-21286
Exhibit No.: A-7 (SSL-3)
Schedule: B5.4
Page: 1 of 1
Witness: Haehnel / Lillie

Line No.	(a) Description	(b) Historical 12 mos. Ended 12/31/2021	(c) Projected Bridge Period 12 mos. Ending 12/31/2022	(d) Projected Bridge Period 6 mos. Ending 6/30/2023	(e) Projected Bridge Period 18 mos. Ending 6/30/2023	(f) Projected Test Year 12 mos. Ending 6/30/2024	(e) Reference
		Capital Expenditures					
1	**Distribution**						
2	03 Facility	-	-	-	-	-	Exhibit A-26 (SSL-6)
3	04 Improve Reliability / Load Growth	5,353,027	6,404,951	4,582,970	10,987,921	9,021,693	Exhibit A-26 (SSL-6)
4	05 New Equipment / Equipment Upgrade	2,078,251	2,802,592	3,347,572	6,150,165	5,096,155	Exhibit A-26 (SSL-6)
5	06 New Customer / Service	2,958,286	1,617,155	532,167	2,149,321	1,861,599	Exhibit A-26 (SSL-6)
6	07 Contractual / Regulatory / Statutory	15,369	50,934	13,089	64,023	103,878	Exhibit A-26 (SSL-6)
7	Subtotal Distribution	10,404,934	10,875,631	8,475,798	19,351,430	16,083,326	
8							
9	**Substation**						
10	04 Improve Reliability / Load Growth	935,016	66,214	697,021	763,236	525,623	Exhibit A-26 (SSL-6)
11	05 New Equipment / Equipment Upgrade	1,393,276	2,050,094	1,342,104	3,392,197	4,682,824	Exhibit A-26 (SSL-6)
12	08 Special Projects	1,026,096	1,270,294	-	1,270,294	-	Exhibit A-26 (SSL-6)
13	Subtotal Substation	3,354,387	3,386,602	2,039,125	5,425,727	5,208,447	
14							
15	**Total Distribution & Substation**	13,759,321	14,262,233	10,514,924	24,777,157	21,291,773	

Schedule B5.5

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Advanced Metering Infrastructure (AMI)

Case No.: U-21286
Exhibit No.: A-7 (SSL-4)
Schedule: B5.5
Page: 2 of 2
Witness: Haehnel / Lillie

	(a)	(b)	(c)	(d)	(e)	(f)
		Capital Expenditures				
		Historical	**Projected Bridge Period**			**Projected Test Year**
Line No.	**Description**	**12 mos. Ended 12/31/2021**	**12 mos. Ending 12/31/2022**	**6 mos. Ending 6/30/2023**	**18 mos. Ending 6/30/2023**	**12 mos. Ending 6/30/2024**
1	**Advanced Metering Infrastructure**					
2	Meters		15,280	29,700	44,980	62,203
3	Field Area Network	56,666	-	-	-	-
4	Project Preparation (Professional Services)		20,374	39,600	59,974	82,938
5	Information Technology		473,686	920,699	1,394,385	1,928,297
6	Contingency		-	-	-	-
7	Total AMI Capital Expenditures	56,666	509,340	989,999	1,499,339	$ 2,073,438.00

Schedule B5.6

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Total Corporate | General Plant

Case No.: U-21286
Exhibit No.: A-7 (SSL-5)
Schedule: B5.6
Page: 2 of 2
Witness: Haehnel / Lillie

Line No.	(a) Description	(b) Historical 12 mos. Ended 12/31/2021	(c) Projected Bridge Period 12 mos. Ending 12/31/2022	(d) Projected Bridge Period 6 mos. Ending 6/30/2023	(e) Projected Bridge Period 18 mos. Ending 6/30/2023	(f) Projected Test Year 12 mos. Ending 6/30/2024
		Capital Expenditures				
1	**Corporate | General Plant**					
2	IT	1,540,878	3,538,760	3,272,157	6,810,917	3,575,484
3	Fleet	1,947,715	2,171,756	460,180	2,631,936	1,987,447
4	Facility	621,527	324,010	-	324,010	2,050,294
5	Special Projects	480,420	958,730	-	958,730	2,073,438
6	**Total Corporate | General Plant**	4,590,540	6,993,256	3,732,337	10,725,593	9,686,663

Schedule C1

Michigan Public Service Commission
Upper Peninsula Power Company
Adjusted Net Operating Income
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-23)
Schedule: C1
Page: 1 of 2
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	**Operating Revenues**	Exh A-8 (NLW-25), Sch. C3	109,034,335	108,248,744	785,590
3					
4	**Operating Expenses**				
5	Fuel and Purchased Power (Electric Only)	Exh A-8 (NLW-26), Sch. C4	35,853,764	35,853,764	-
6	Operations and Maintenance Expenses	Exh A-8 (NLW-27), Sch. C5	39,935,577	39,464,178	471,399
7	Depreciation and Amortization	Exh A-8 (NLW-28), Sch. C6	14,646,530	14,452,811	193,719
8	General Taxes	Exh A-8 (NLW-29), Sch. C7	8,617,314	8,514,290	103,024
9	Income Taxes	Exh A-8 (NLW-30 & 31), Sch. C8 & C9	(401,766)	(384,032)	(17,734)
10	Total Operating Expenses	Sum of Lines 5 - 9	98,651,418	97,901,011	750,407
11					
12	**Operating Income**	Line 2 - Line 10	10,382,917	10,347,734	35,183
13					
14	**Operating Income Adjustments**				
15	Allowance For Funds Used During Construction				
16	Loss on Reacquired Securities				
17	Interest	Projected Income Statement	(3,063,458)	(3,027,205)	(1,336)
18	Income Tax Effect of Interest	Projected Income Statement	-	-	-
19	Interest Synchronization Adjustment	Exh A-8 (NLW-24), Sch. C1 page 2	61	60	1
20	Total Operating Income Adjustments	Sum of Lines 15 - 19	(3,063,397)	(3,027,144)	(1,336)
21					
22	**Adjusted Net Operating Income**	Line 12 - Line 20	7,319,520	7,320,589	33,848

Schedule C1

Michigan Public Service Commission
Upper Peninsula Power Company
Actual Net Operating Income
for the Projected Year Ended, June 30, 2024
Net Operating Income

Case No.: U-21286
Exhibit No.: A-8 (NLW-23)
Schedule No.: C1
Page: 2 of 2
Witness: Natasha L. Wonch

Interest Synchronization Calculation

Line	Description	Source	Total	Retail	Wholesale
1	Rate Base	Exh. A-7 (NLW-19), Sch. B1	352,308,859	348,730,362	3,578,497
2	% of Capital Represented by Debt	Exh. A-9 (GRH-9), Sch. D1	50.5705%	50.5705%	50.5705%
3	Portion of Rate Base Funded by Debt	Line 1 x Line 2	178,164,396	176,354,732	1,809,664
4					
5	Cost of Debt	Exh. A-9 (GRH-9), Sch. D1	4.7827%	4.7827%	4.7827%
6	Interest Allowed	Line 3 x Line 5	8,521,064	8,434,514	86,551
7					
8	Interest Deduction on Taxes	Exh A-8 (NLW-30), Sch. C8	8,520,982	8,434,432	86,550
9					
10	Add Interest Deduct	Line 6 - Line 8	82	81	1
11					
12	Affect of Interest Allowed		60.94	60	1

Schedule C2

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Conversion Factor
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-24)
Schedule No.: C2
Page: 1 of 1
Witness: Natasha L. Wonch

Line	Description	Calculations	Amount
1			
2	Income Before Income Taxes		100.000%
3			
4	Michigan Corporate Income Tax	Exh A-8 (NLW-31), Sch. C9	6.000%
5			
6	Wisconsin Corporate Income Tax	Exh A-8 (NLW-31), Sch. C9	0.000%
7			
8	Subtotal of State Income Tax	Line 4 + Line 6	6.000%
9			
10	Federal Income Tax Base	Line 2 - Line 8	94.000%
11			
12	Federal Income Tax Rate	Exh A-8 (NLW-30), Sch. C8	21.000%
13			
14	Effective Federal Income Tax	Line 10 * Line 12	19.740%
15			
16	Income After Taxes	Line 10 - Line 14	74.260%
17			
18	Gross Revenue Conversion Factor	Line 2 / Line 16	1.3466

Schedule C3

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Operating Revenue
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-25)
Schedule No.: C3
Page: 1 of 1
Witness: Natasha L. Wonch

(a)	(b)	(c)	(d)	(e)
Line No.	**Description**	**Source**	**Total**	**Retail**	**Wholesale**
1					
2	Present Revenues	Projected Income Statement	99,957,065	99,957,065	-
3					
4	Other Adjustments	Projected Income Statement	9,077,269	8,291,679	785,590
5					
6	Total Revenue	Line 2 + Line 4	109,034,335	108,248,744	785,590

Schedule C4

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Fuel and Purchased Power
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-26)
Schedule No.: C4
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	Fuel	Projected Income Statement	8,274	8,274	-
3	Purchased Power	Projected Income Statement	26,304,428	26,304,428	-
4	Transmission (PSCR Related)	Projected Income Statement	9,541,062	9,541,062	-
5					
6	Total Production		35,853,764	35,853,764	-

Schedule C5

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Operation and Maintenance Expenses
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-27)
Schedule No.: C5
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	**Operation and Maintenance Expenses:**				
3	Production	Projected Income Statement	5,677,818	5,677,818	-
4	Distribution	Projected Income Statement	15,462,336	15,138,750	323,587
5	Transmission (Non PSCR Related)	Projected Income Statement	-	-	-
6	Customer Accounts	Projected Income Statement	3,255,420	3,255,420	-
7	Customer Service	Projected Income Statement	3,863,186	3,863,186	-
8	Sales	Projected Income Statement	-	-	-
9	Administrative and General	Projected Income Statement	11,676,817	11,529,005	147,812
10					
11	Total Operation and Maintenance Expenses		39,935,577	39,464,178	471,399

Schedule C6

Michigan Public Service Commission
Upper Peninsula Power Company
Depreciation and Amortization Expense
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-28)
Schedule No.: C6
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	**Depreciation and Amortization Expense**				
3	Depreciation & Amortization Expense	Projected Income Statement	14,646,530	14,452,811	193,719
4	Other Amortization Expense	Projected Income Statement	-	-	-
5					
6	Total Depreciation and Amortization Expense	Line 3 + Line 4	14,646,530	14,452,811	193,719

Schedule C7

Michigan Public Service Commission
Upper Peninsula Power Company
General Taxes
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-29)
Schedule No.: C7
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	**Taxes Other Than Income Taxes**				
3					
4	FEDERAL				
5	Retirement Benefits	Projected Income Statement	812,871	801,818	11,054
6	Unemployment Comp	Projected Income Statement	4,591	4,529	62
7	Super Fund Tax	Projected Income Statement	-	-	-
8	Highway Use Tax				
9					
10	STATE				
11	Gross Receipts Tax				
12	Unemployment Comp	Projected Income Statement	14,600	14,401	199
13	Unitary Fees	Projected Income Statement	-	-	-
14	Use Tax	Projected Income Statement	-	-	-
15	Unauthor Ins Tax	Projected Income Statement	-	-	-
16	Wis Recycling Fee	Projected Income Statement	-	-	-
17	Single Business Tax	Projected Income Statement	-		
18	Property	Projected Income Statement	7,658,288	7,568,305	89,983
19					
20	LOCAL				
21	Real Est & Property				
22					
23	IBS				
24	Payroll Taxes	Projected Income Statement	126,964	125,237	1,726
25					
26	OTHER				
27	Franchise Tax Fees		-		
28					
29	Total Taxes Other Than Income Taxes	Sum of Lines 5 - 27	8,617,314	8,514,290	103,024

Schedule C8

Michigan Public Service Commission
Upper Peninsula Power Company
Federal Income Taxes
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-30)
Schedule No.: C8
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Integrated Retail	(e) Wholesale
	Federal				
1	Book Income Before Taxes & Interest	Exhibit A-8 (NLW-23) Sch C-1	9,981,151	9,963,702	17,449
2	Interest Expense	Line 22	8,520,982	8,434,432	86,550
3	Income Reconciliation	Line 33	(9,448,451)	(9,291,836)	(156,615)
4	Taxable Income	Line 1 - Line 2 + Line 3	(7,988,282)	(7,762,567)	(225,716)
5					
6	Tax Rate		21.0000%	21.0000%	21.0000%
7					
8	Taxes Calculated	Line 4 * Line 6	(1,677,539)	(1,630,139)	(47,400)
9	TCJA Calc C	(782,715)	(782,715)	(782,715)	-
10	Tax Liability	Line 8 + Line 9	(2,460,254)	(2,412,854)	(47,400)
11					
12	Net Tax Adjustment	Line 43	2,112,698	2,076,422	36,276
13					
14	**Taxes Allowable**	Line 10 + Line 12	**(347,556)**	**(336,432)**	**(11,124)**
15					
16					
17					
18					
19	Interest Calc				
20	Rate Base	Exhibit A-7 (NLW-19) Sch B-1	352,308,859	348,730,362	3,578,497
21	x Weighted Cost of Debt	Exhibit A-9 (GRH-9) Sch D-1	2.4186%	2.4186%	2.4186%
22	Interest Expense		8,520,982	8,434,432	86,550
23					
24					
25	**Net Income Additions/Deductions**	**Allocated on**			
26	State Tax Liability		592,197	576,271	15,926
27	Energy	Energy	(35,225)	(35,225)	-
28	Rate Base	Rate Base	1,348,789	1,332,827	15,962
29	Demand	CP Less Interruptible	71,700	71,700	-
30	Distribution Plant	Distribution Plant	(6,833,228)	(6,707,178)	(126,050)
31	Customer	Customer	-		
32	General & Common	Salaries and Wages	(4,592,683)	(4,530,231)	(62,452)
33	Total Additions/Deductions		(9,448,451)	(9,291,836)	(156,615)
34					
35					
36	Deferred Expense				
37	Energy	Energy	8,413	8,413	-
38	Rate Base	Rate Base	(283,246)	(279,894)	(3,352)
39	Demand	CP Less Interruptible	(15,057)	(15,057)	-
40	Distribution Plant	Distribution Plant	1,434,978	1,408,507	26,470
41	Customer	Customer	-		
42	General & Common	Salaries and Wages	967,609	954,452	13,158
43	Total Deferreds		2,112,698	2,076,422	36,276

Schedule C9

Michigan Public Service Commission
Upper Peninsula Power Company
State Income Taxes
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-31)
Schedule No.: C9
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
	Michigan State Taxes				
1	Book Income Before Taxes & Interest	Exhibit A-8 (NLW-23) Sch C-1	9,981,151	9,963,702	17,449
2	Interest Expense	Line 22	8,520,982	8,434,432	86,550
3	Income Reconciliation	Line 32	(11,330,112)	(11,133,785)	(196,327)
4	Taxable Income	Line 1 - Line 2 + Line 3	(9,869,943)	(9,604,516)	(265,427)
5					
6	Tax Rate		6.00000%	6.00000%	6.00000%
7					
8	Taxes Calculated	Line 4 * Line 6	(592,197)	(576,271)	(15,926)
9			-	-	-
10	Tax Liability	Line 8 + Line 9	(592,197)	(576,271)	(15,926)
11					
12	Net Tax Adjustment	Line 42	537,987	528,671	9,316
13					
14	**Taxes Allowable**	Line 10 + Line 12	**(54,210)**	**(47,600)**	**(6,610)**
15					
16					
17					
18					
19	Interest Calc				
20	Rate Base	Exhibit A-7 (NLW-19) Sch B-1	352,308,859	348,730,362	3,578,497
21	x Weighted Cost of Debt	Exhibit A-9 (GRH-9) Sch D-1	2.4186%	2.4186%	2.4186%
22	Interest Expense		8,520,982	8,434,432	86,550
23					
24					
25	**Net Income Additions/Deductions**	**Allocated on**			
26	Energy	Energy	(35,225)	(35,225)	-
27	Rate Base	Rate Base	1,348,789	1,332,827	15,962
28	Demand	CP Less Interruptible	71,700	71,700	-
29	Distribution Plant	Distribution Plant	(8,122,692)	(7,972,856)	(149,836)
30	Customer	Customer	-		
31	General & Common	Salaries and Wages	(4,592,683)	(4,530,231)	(62,452)
32	Total Additions/Deductions		(11,330,112)	(11,133,785)	(196,327)
33					
34					
35	**Deferred Expense**	**Allocated on**			
36	Energy	Energy	1,899	1,899	-
37	Rate Base	Rate Base	(63,933)	(63,176)	(757)
38	Demand	CP Less Interruptible	(3,399)	(3,399)	-
39	Distribution Plant	Distribution Plant	385,016	377,913	7,102
40	Customer	Customer	-		
41	General & Common	Salaries and Wages	218,403	215,433	2,970
42	Total Deferreds		537,987	528,671	9,316

Schedule C10

Michigan Public Service Commission
Upper Peninsula Power Company
Other (or Local) Taxes
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-32)
Schedule No.: C10
Page: 1 of 1
Witness: Natasha L. Wonch

(a)	(b)	(c)	(d)	(e)
Line No.	**Description**	**Source**	**Total**	**Retail**	**Wholesale**
1					
2					

Schedule C11

Michigan Public Service Commission
Upper Peninsula Power Company
Allowance for Funds Used During Construction
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-8 (NLW-33)
Schedule No.: C11
Page: 1 of 1
Witness: Natasha L. Wonch

Line No.	(a) Description	(b) Source	(c) Total	(d) Retail	(e) Wholesale
1					
2	AFUDC Debt	Projected Income Statement	(40,063)	(39,626)	(437)
3	AFUDC Equity		-	-	-
4					
5	Total AFUDC	Line 2 + Line 3	(40,063)	(39,626)	(437)

Schedule D1

Michigan Public Service Commission
Upper Peninsula Power Company
Overall Rate of Return Summary
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-9 (GRH-9)
Schedule: D1
Page: 1 of 1
Witness: Gradon R. Haehnel

	(a)	(b)	(c)	(d)	(e)		(f)	(g)	(h)	(i)	(j)	(k)
		Capital Structure					Weighted Cost					
Line No.	Description	Amount (1)	Percent Capital	Percent of Total Capital	Cost Rate %		Capital	Total Cost %	Conversion Factor	Pre-Tax Return	Percent Capital Incl ST	Weighted Cost Incl ST
1												
2	Long-Term Debt	127,100,000	46.04%	36.08%	4.2741%	(2)	1.97%	1.5419%		1.5419%	38.85%	1.6606%
3												
4	Preferred Stock	-	0.00%	0.00%	0.0000%	(4)	0.00%	0.0000%		0.0000%	0.00%	0.0000%
5												
6	Common Shareholders' Equity	148,963,979	53.96%	42.28%	10.8000%	(5)	5.83%	4.5665%	1.3466	6.1492%	45.54%	4.9180%
7												
8	Total Permanent Capital	276,063,979	100.00%				7.80%					
9												
10	Short-Term Debt	51,064,396		14.49%	6.0487%	(3)		0.8767%		0.8767%	15.61%	0.9442%
11												
12	Job Development - ITC - Debt											
13	Job Development - ITC Equity											
14	Total Job Development - ITC	-		0.00%								
15												
16	Deferred Investment Tax Credit	-		0.00%			0.00%	0.0000%		0.0000%		
17												
18	Deferred Income Taxes (Net) - Federal	27,383,181		7.77%			0.00%	0.0000%		0.0000%		
19												
20	Capital Structure Adj	(2,202,697)		-0.63%			7.52%	-0.0470%		-0.0470%		
21												
22	Total	352,308,859		100.00%				6.9381%		8.5208%	100.00%	7.5228%

(1) See Exh. A-2, Sch. B1
(2) See Exh. A-4, Sch. D2
(3) See Exh. A-4, Sch. D3
(4) See Exh. A-4, Sch. D4
(5) See Exh. A-4, Sch. D5

Schedule D2

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Long-Term Debt
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-9 (GRH-10)
Schedule: D2
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	(a) Description	(b) Original Issue Date	(c) Stated Maturity Date	(d) Interest Rate (%)	(e) Amount of Offering		(f) Price to Public	(g) Underwriting & Financing Expenses (%)	(h) Net Proceeds to the Company (%)	(i) Cost Based on Net Proceeds (%)	(j) Amount Out-standing		(k) Annual Cost	
1														
2	**Mortgage Bonds**													
3	**-----**													
4	-----													
5	Total Mortgage Bonds										$ -		$ -	
6														
7	**Long Term Debt**													
8	3.59% Senior Secured Fixed Rate Notes	6/3/2021	6/3/2051	3.59%	$ 127,100,000	(1)		$ 1,893,744	$ 127,100,000	3.590%	$ 127,100,000		$ 4,562,890	
9														
10	-----													
11	Total Long Term Debt				$ 127,100,000						$ 127,100,000		$ 4,562,890	
12														
13														
14	Amortization of Loss on Reacquired Debt												$ 806,318	(2)
15	Amortization of Debt Disc and Exp												$ 63,125	(3)
16	Adjustment to Booked Interest												$ -	
17	-----													
18	**Total Interest Expense**												$ 5,432,332	
19														
20	Unamortized Debt Expense										$ 1,731,198	(4)		
21	Unamortized Loss on Reacquired Debt										$ 22,113,256	(4)		
22														
23	**Total Long-Term Debt Balance (13 mo.)**										$ 127,100,000	(4)	4.2741%	

(1) See Balance Sheet
(2) See Income Statement
(3) See Workpaper: 'WP-Debt Fees' -
(4) See Balance Sheet

Schedule D3

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Short-Term Debt
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-9 (GRH-11)
Schedule: D3
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	(a) Month	(b) Balance Outstanding	(c) Total Cost	(d) Source
1				
2	Amortization of upfront fees		10,667	WP - Debt Fees
3				
4				
5				
6	Line of Credit Fees		15,330	WP - Debt Fees & Interest
7				
8				
9				
10	Line of Credit Commitment Fees		50,215	Exhibit A-48 (GRH-31)
11				
12				
13				
14	Credit Rating Fees		42,500	WP - Debt Fees & Interest
15				
16				
17				
18	**Total Fees**	-	118,712	
19				
20	Interest Expense			
21	Pre-Sale - Associated Bank	-	-	
22	Post-Sale - CBIC	51,064,396	2,970,020	(b) Balance sheet; (c) Exhibit A-48 (GRH-31)
23	**Total Interest**		2,970,020	
24				
25	**Total Fees and Interest**		3,088,732	
26				
27	**Average Cost of Short-Term Debt**	51,064,396	6.0487%	

Schedule D4

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Preferred Stock
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-9 (GRH-12)
Schedule: D4
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	(a) Description	(b) Annual Dividend Required	(c) Par Value	(d) Discount or Premium	(e) Finance Expenses	(f) Net Proceeds Received	(g) Number of Shares Outstanding	(h) Total Value of Outstanding Proceeds	(i) Cost Rate (%)	(j) Annual Dollar Amount
1										
2	None									

Schedule D5

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Common Shareholders' Equity
for the Projected Year Ended, June 30, 2024

Case No.: U-21286
Exhibit No.: A-9 (GRH-13)
Schedule: D5
Page: 1 of 1
Witness: Gradon R. Haehnel

Line No.	Description	Adjusted Common Equity	Return On Equity
1			
2	June-23	152,989,532	
3	July-23	153,380,029	
4	August-23	153,770,526	
5	September-23	150,999,774	
6	October-23	151,390,271	
7	November-23	151,780,769	
8	December-23	149,010,016	
9	January-24	148,769,871	
10	February-24	148,529,727	
11	March-24	145,128,332	
12	April-24	144,888,187	
13	May-24	144,648,042	
14	June-24	141,246,647	
15			
16	Average	148,963,979	10.8000%

Schedule E1.1

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Service Area Sales by Major Customer Classes and System Output
5-Year Projected

Case No.: U-21286
Exhibit No.: A-10 (NEB-4)
Schedule: E1.1
Page: 1 of 1
Witness: Nicole E. Bell

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
			Annual Sales				Losses and Company Use		
Line No.	Year	Residential	Commercial	Industrial	Other	Total	kWh	% of Sales	System Output kWh
1	2023	253,141,229	137,670,382	193,723,155	1,909,346	586,444,112	38,966,929	6.6%	625,411,041
2	2024	252,688,706	136,379,893	193,723,155	1,909,346	584,701,100	38,780,400	6.6%	623,481,500
3	2025	252,249,164	134,035,303	193,723,155	1,909,346	581,916,968	38,529,009	6.6%	620,445,977
4	2026	251,809,615	131,969,325	193,723,155	1,909,346	579,411,441	38,372,360	6.6%	617,783,801
5	2027	251,370,065	129,904,233	193,723,155	1,909,346	576,906,799	38,138,936	6.6%	615,045,735

Schedule E1.2

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Bundled Sales by Major Customer Classes and System Output
5-Year Projected

Case No.: U-21286
Exhibit No.: A-10 (NEB-5)
Schedule: E1.2
Page: 1 of 1
Witness: Nicole E. Bell

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
			Annual Sales				Losses and Company Use		
Line No.	Year	Residential	Commercial	Industrial	Other	Total	kWh	% of Sales	System Output kWh
1	2023	253,141,229	120,935,170	122,648,884	1,909,346	498,634,629	33,496,398	6.7%	532,131,027
2	2024	252,688,706	119,644,681	122,648,884	1,909,346	496,891,617	33,309,869	6.7%	530,201,486
3	2025	252,249,164	117,300,091	122,648,884	1,909,346	494,107,485	33,058,478	6.7%	527,165,963
4	2026	251,809,615	115,234,113	122,648,884	1,909,346	491,601,958	32,901,830	6.7%	524,503,788
5	2027	251,370,065	113,169,021	122,648,884	1,909,346	489,097,316	32,668,405	6.7%	521,765,721

Schedule E1.3

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Electric Choice Sales by Major Customer Classes
5-Year Projected

Case No.: U-21286
Exhibit No.: A-10 (NEB-6)
Schedule: E1.3
Page: 1 of 1
Witness: Nicole E. Bell

	(a)	(b)	(c)	(d)	(e)	(f)
			Annual Sales			
Line No.	Year	Residential	Commercial	Industrial	Other	Total
1	2023	0	16,735,212	71,074,271	0	87,809,483
2	2024	0	16,735,212	71,074,271	0	87,809,483
3	2025	0	16,735,212	71,074,271	0	87,809,483
4	2026	0	16,735,212	71,074,271	0	87,809,483
5	2027	0	16,735,212	71,074,271	0	87,809,483

Schedule E2.1

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Service Area System Output,
Maximum Demand and Load Factor

Case No.: U-21286
Exhibit No.: A-10 (NEB-7)
Schedule: E2.1
Page: 1 of 1
Witness: Nicole E. Bell

Line No.	(a) Year	(b) System Output (kWh)	(c) Maximum Demand (kW)	(d) Annual Load Factor (%)
1	2017	673,063,248	134.28	57.2%
2	2018	676,841,052	137.22	56.3%
3	2019	711,714,404	135.42	60.0%
4	2020	691,123,792	140.95	56.0%
5	2021	719,145,643	139.59	58.8%
6				
7	2023	625,411,041	123.54	57.8%
4	2024	623,481,500	122.64	58.0%
8	2025	620,445,977	121.74	58.2%
9	2026	617,783,801	120.85	58.4%
10	2027	615,045,735	119.95	58.5%

Schedule E2.2

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Bundled System Output,
Maximum Demand and Load Factor

Case No.: U-21286
Exhibit No.: A-10 (NEB-8)
Schedule: E2.2
Page: 1 of 1
Witness: Nicole E. Bell

Line No.	(a) Year	(b) System Output (kWh)	(c) Maximum Demand (kW)	(d) Annual Load Factor (%)
1	2017	586,616,645	119.8	55.9%
2	2018	591,099,369	122.8	54.9%
3	2019	627,507,308	121.3	59.1%
4	2020	619,515,211	128.9	54.8%
5	2021	644,264,904	123.5	59.6%
6				
7	2023	532,131,027	107.9	56.3%
4	2024	530,201,486	107.0	56.6%
8	2025	527,165,963	106.1	56.7%
9	2026	524,503,788	105.2	56.9%
10	2027	521,765,721	104.3	57.1%

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
SUM	1	**SUMMARY AT PRESENT RATES**	**Reference**								
SUM	2										
SUM	3	**DEVELOPMENT OF RETURN**									
SUM	4										
SUM	5	**OPERATING REVENUE**									
SUM	6	Base Sales of Electricity	SCH , LN	100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
SUM	7	Other Operating Revenue	SCH , LN	8,145,752	3,791,620	46,943	2,672,119	65,486	1,569,583		
SUM	8	**TOTAL OPERATING REVENUE**		108,248,744	61,884,252	1,942,944	33,468,612	921,416	10,031,520		
SUM	9										
SUM	10	**OPERATING EXPENSES**									
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN	26,312,701	11,354,060	85,718	9,068,542	230,270	5,574,111		
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN	49,005,240	29,533,209	374,002	14,234,158	268,410	4,595,461		
SUM	13	Depreciation and Amortization Expense	SCH , LN	14,452,811	8,953,457	195,374	4,280,788	86,743	936,450		
SUM	14	Taxes Other Than Income Taxes	SCH , LN	8,514,290	5,311,994	133,807	2,526,429	47,140	494,919		
SUM	15	State and Federal Income Taxes	SCH , LN	(384,032)	(61,318)	261,250	(30,583)	57,285	(610,667)		
SUM	16	**TOTAL OPERATING EXPENSES**		97,901,011	55,091,402	1,050,152	30,079,333	689,849	10,990,274		
SUM	17										
SUM	18	**OPERATING INCOME (RETURN)**		10,347,734	6,792,850	892,792	3,389,278	231,567	(958,754)		
SUM	19										
SUM	20	**OPERATING INCOME ADJUSTMENTS**									
SUM	21	Interest	TOTPLT	(3,027,205)	(1,882,134)	(49,969)	(903,687)	(16,913)	(174,502)		
SUM	22	Income Tax Effect of Interest	RATEBASE	0	0	0	0	0	0		
SUM	23	Interest Synchronization Adjustment	RATEBASE	60	37	1	18	0	4		
SUM	24	**TOTAL OPERATING INCOME ADJUSTMENTS**		(3,027,144)	(1,882,097)	(49,968)	(903,669)	(16,913)	(174,498)		
SUM	25	**ADJUSTED OPERATING INCOME (RETURN)**		7,320,590	4,910,753	842,824	2,485,610	214,654	(1,133,252)		
SUM	26										
SUM	27										
SUM	28	**DEVELOPMENT OF RATE BASE**									
SUM	29	Electric Plant in Service	SCH , LN	423,579,490	263,356,255	6,991,812	126,447,805	2,366,574	24,417,043		
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN	188,849,174	116,589,623	3,467,171	56,754,244	1,069,250	10,968,887		
SUM	31	Plus: Plant Held for Future Use	SCH , LN	0	0	0	0	0	0		
SUM	32	Plus: Constuction Work In Progress	SCH , LN	22,473,205	13,886,644	347,222	6,720,820	132,481	1,386,039		
SUM	33	Plus: Fuel Stock	SCH , LN	50,852	21,943	166	17,526	445	10,773		
SUM	34	Plus: Cash Working Capital	SCH , LN	102,628,466	61,889,989	789,236	30,028,771	567,047	9,353,424		
SUM	35	Plus: Utility Materials and Supplies	SCH , LN	3,491,932	2,257,364	90,169	1,039,978	11,696	92,724		
SUM	36	Plus: Prepayments	SCH , LN	1,394,763	875,162	20,552	410,017	7,611	81,421		
SUM	37	Plus: Cash & Bank Balances	SCH , LN	6,929,139	4,308,122	114,376	2,068,501	38,714	399,427		
SUM	38	Less: Deductions to Rate Base	SCH , LN	22,968,311	17,824,782	655,129	4,127,480	36,760	324,160		
SUM	39	**TOTAL NET RATE BASE**	SCH , LN	348,730,362	212,181,073	4,231,233	105,851,694	2,018,557	24,447,805		
SUM	40										
SUM	41										
SUM	42	**RATE OF RETURN (PRESENT)**		2.10%	2.31%	19.92%	2.35%	10.63%	-4.64%		
SUM	43	**INDEX RATE OF RETURN (PRESENT)**		1.00	1.10	9.49	1.12	5.07	-2.21		
SUM	44										
SUM	45										
SUM	46										
SUM	47	**EQUALIZED RETURN AT PROPOSED ROR**	**Reference**								
SUM	48										
SUM	49	**DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)**									
SUM	50										
SUM	51	**RATE BASE**	SCH , LN	348,730,362	212,181,073	4,231,233	105,851,694	2,018,557	24,447,805		
SUM	52										
SUM	53	**RATE OF RETURN**		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
SUM	54										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION		ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)		(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
SUM	1	**SUMMARY AT PRESENT RATES**		**Reference**								
SUM	2											
SUM	3	**DEVELOPMENT OF RETURN**										
SUM	4											
SUM	5	**OPERATING REVENUE**										
SUM	6	Base Sales of Electricity	SCH , LN		53,540,865	0	4,551,767		12,291,582	0	1,013,188	11,918,663
SUM	7	Other Operating Revenue	SCH , LN		3,460,904	0	330,716		909,701	0	90,657	858,598
SUM	8	**TOTAL OPERATING REVENUE**			57,001,769	0	4,882,483		13,201,283	0	1,103,845	12,777,261
SUM	9											
SUM	10	**OPERATING EXPENSES**										
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN		10,340,496	0	1,013,565		2,913,608	0	302,908	2,996,726
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN		26,829,282	0	2,703,927		6,954,717	0	599,819	3,712,972
SUM	13	Depreciation and Amortization Expense	SCH , LN		8,107,836	0	845,620		2,261,086	0	198,548	1,175,787
SUM	14	Taxes Other Than Income Taxes	SCH , LN		4,803,897	0	508,097		1,357,219	0	118,957	654,672
SUM	15	State and Federal Income Taxes	SCH , LN		157,770	0	(219,089)		(537,480)	0	(70,921)	855,280
SUM	16	**TOTAL OPERATING EXPENSES**			50,239,282	0	4,852,120		12,949,151	0	1,149,312	9,395,438
SUM	17											
SUM	18	**OPERATING INCOME (RETURN)**			6,762,487	0	30,363		252,132	0	(45,467)	3,381,824
SUM	19											
SUM	20	**OPERATING INCOME ADJUSTMENTS**										
SUM	21	Interest	TOTPLT		(1,701,151)	0	(180,983)		(485,563)	0	(42,698)	(235,506)
SUM	22	Income Tax Effect of Interest	RATEBASE		0	0	0		0	0	0	0
SUM	23	Interest Synchronization Adjustment	RATEBASE		33	0	3		9	0	1	5
SUM	24	**TOTAL OPERATING INCOME ADJUSTMENTS**			(1,701,117)	0	(180,980)		(485,554)	0	(42,697)	(235,501)
SUM	25	**ADJUSTED OPERATING INCOME (RETURN)**			5,061,370	0	(150,617)		(233,422)	0	(88,164)	3,146,323
SUM	26											
SUM	27											
SUM	28	**DEVELOPMENT OF RATE BASE**										
SUM	29	Electric Plant in Service	SCH , LN		238,032,297	0	25,323,958		67,942,122	0	5,974,451	32,953,012
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN		105,128,959	0	11,460,664		30,429,336	0	2,699,260	14,951,952
SUM	31	Plus: Plant Held for Future Use	SCH , LN		0	0	0		0	0	0	0
SUM	32	Plus: Constuction Work In Progress	SCH , LN		12,558,601	0	1,328,042		3,573,045	0	315,023	1,818,911
SUM	33	Plus: Fuel Stock	SCH , LN		19,984	0	1,959		5,631	0	585	5,791
SUM	34	Plus: Cash Working Capital	SCH , LN		56,257,618	0	5,632,371		14,687,200	0	1,267,186	7,831,516
SUM	35	Plus: Utility Materials and Supplies	SCH , LN		2,029,795	0	227,569		603,378	0	52,374	194,447
SUM	36	Plus: Prepayments	SCH , LN		792,050	0	83,111		220,488	0	19,230	105,327
SUM	37	Plus: Cash & Bank Balances	SCH , LN		3,893,859	0	414,263		1,111,433	0	97,733	539,063
SUM	38	Less: Deductions to Rate Base	SCH , LN		16,439,182	0	1,385,600		2,839,928	0	183,381	660,567
SUM	39	**TOTAL NET RATE BASE**	SCH , LN		192,016,064	0	20,165,009		54,874,034	0	4,843,941	27,835,548
SUM	40											
SUM	41											
SUM	42	**RATE OF RETURN (PRESENT)**			2.64%	0.00%	-0.75%		-0.43%	0.00%	-1.82%	11.30%
SUM	43	**INDEX RATE OF RETURN (PRESENT)**			1.26	0.00	-0.36		-0.20	0.00	-0.87	5.38
SUM	44											
SUM	45											
SUM	46											
SUM	47	**EQUALIZED RETURN AT PROPOSED ROR**		**Reference**								
SUM	48											
SUM	49	**DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)**										
SUM	50											
SUM	51	**RATE BASE**	SCH , LN		192,016,064	0	20,165,009		54,874,034	0	4,843,941	27,835,548
SUM	52											
SUM	53	**RATE OF RETURN**			6.94%	6.94%	6.94%		6.94%	6.94%	6.94%	6.94%
SUM	54											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
SUM	1	**SUMMARY AT PRESENT RATES**	**Reference**								
SUM	2										
SUM	3	**DEVELOPMENT OF RETURN**									
SUM	4										
SUM	5	**OPERATING REVENUE**									
SUM	6	Base Sales of Electricity	SCH , LN		11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
SUM	7	Other Operating Revenue	SCH , LN		1,891,555	813,163	65,486	1,012,906	46	556,631	
SUM	8	**TOTAL OPERATING REVENUE**			13,663,198	6,386,222	921,416	6,355,560	145,973	3,529,987	
SUM	9										
SUM	10	**OPERATING EXPENSES**									
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN		6,682,491	2,855,300	230,270	3,596,921	0	1,977,190	
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN		6,234,932	2,966,649	268,410	2,999,873	177,378	1,418,210	
SUM	13	Depreciation and Amortization Expense	SCH , LN		1,444,648	645,366	86,743	712,539	4,990	218,921	
SUM	14	Taxes Other Than Income Taxes	SCH , LN		813,356	395,581	47,140	370,635	2,486	121,798	
SUM	15	State and Federal Income Taxes	SCH , LN		(709,578)	(277,462)	57,285	(489,402)	(10,960)	(110,305)	
SUM	16	**TOTAL OPERATING EXPENSES**			14,465,848	6,585,433	689,849	7,190,566	173,894	3,625,814	
SUM	17										
SUM	18	**OPERATING INCOME (RETURN)**			(802,650)	(199,211)	231,567	(835,006)	(27,921)	(95,827)	
SUM	19										
SUM	20	**OPERATING INCOME ADJUSTMENTS**									
SUM	21	Interest	TOTPLT		(288,664)	(139,920)	(16,913)	(131,831)	(653)	(42,017)	
SUM	22	Income Tax Effect of Interest	RATEBASE		0	0	0	0	0	0	
SUM	23	Interest Synchronization Adjustment	RATEBASE		7	3	0	3	0	1	
SUM	24	**TOTAL OPERATING INCOME ADJUSTMENTS**			(288,658)	(139,917)	(16,913)	(131,828)	(653)	(42,016)	
SUM	25	**ADJUSTED OPERATING INCOME (RETURN)**			(1,091,308)	(339,128)	214,654	(966,834)	(28,574)	(137,843)	
SUM	26										
SUM	27										
SUM	28	**DEVELOPMENT OF RATE BASE**									
SUM	29	Electric Plant in Service	SCH , LN		40,391,162	19,578,221	2,366,574	18,446,367	91,423	5,879,254	
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN		18,224,729	8,673,696	1,069,250	8,481,782	3,680	2,483,424	
SUM	31	Plus: Plant Held for Future Use	SCH , LN		0	0	0	0	0	0	
SUM	32	Plus: Constuction Work In Progress	SCH , LN		2,206,346	1,013,841	132,481	1,060,025	4,863	321,151	
SUM	33	Plus: Fuel Stock	SCH , LN		12,915	5,518	445	6,951	0	3,821	
SUM	34	Plus: Cash Working Capital	SCH , LN		13,147,486	6,242,869	567,047	6,337,570	19,726	2,996,128	
SUM	35	Plus: Utility Materials and Supplies	SCH , LN		258,496	189,779	11,696	57,020	268	35,436	
SUM	36	Plus: Prepayments	SCH , LN		132,920	64,971	7,611	60,338	555	20,528	
SUM	37	Plus: Cash & Bank Balances	SCH , LN		660,740	320,271	38,714	301,755	1,496	96,176	
SUM	38	Less: Deductions to Rate Base	SCH , LN		703,026	443,603	36,760	222,662	1,765	99,732	
SUM	39	**TOTAL NET RATE BASE**	SCH , LN		37,882,309	18,298,170	2,018,557	17,565,581	112,885	6,769,339	
SUM	40										
SUM	41										
SUM	42	**RATE OF RETURN (PRESENT)**			-2.88%	-1.85%	10.63%	-5.50%	-25.31%	-2.04%	
SUM	43	**INDEX RATE OF RETURN (PRESENT)**			-1.37	-0.88	5.07	-2.62	-12.06	-0.97	
SUM	44										
SUM	45										
SUM	46										
SUM	47	**EQUALIZED RETURN AT PROPOSED ROR**	**Reference**								
SUM	48										
SUM	49	**DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)**									
SUM	50										
SUM	51	**RATE BASE**	SCH , LN		37,882,309	18,298,170	2,018,557	17,565,581	112,885	6,769,339	
SUM	52										
SUM	53	**RATE OF RETURN**			6.94%	6.94%	6.94%	6.94%	6.94%	6.94%	
SUM	54										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		COS Without Minimum System									
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
SUM	1	**SUMMARY AT PRESENT RATES**	**Reference**								
SUM	2										
SUM	3	**DEVELOPMENT OF RETURN**									
SUM	4										
SUM	5	**OPERATING REVENUE**									
SUM	6	Base Sales of Electricity	SCH , LN	69,658	14,541	1,374,879	1,459,078	436,923	0		
SUM	7	Other Operating Revenue	SCH , LN	5,677	367	20,945	26,990	19,867	87		
SUM	8	**TOTAL OPERATING REVENUE**		75,335	14,908	1,395,824	1,486,067	456,790	87		
SUM	9										
SUM	10	**OPERATING EXPENSES**									
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN	13,919	731	53,993	68,642	17,076	0		
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN	54,697	2,803	172,788	230,287	138,286	5,428		
SUM	13	Depreciation and Amortization Expense	SCH , LN	32,749	1,738	118,844	153,332	38,913	3,129		
SUM	14	Taxes Other Than Income Taxes	SCH , LN	22,965	1,221	84,213	108,400	23,313	2,094		
SUM	15	State and Federal Income Taxes	SCH , LN	(19,054)	1,851	225,605	208,402	56,236	(3,388)		
SUM	16	**TOTAL OPERATING EXPENSES**		105,276	8,344	655,443	769,063	273,825	7,264		
SUM	17										
SUM	18	**OPERATING INCOME (RETURN)**		(29,941)	6,564	740,381	717,004	182,965	(7,177)		
SUM	19										
SUM	20	**OPERATING INCOME ADJUSTMENTS**									
SUM	21	Interest	TOTPLT	(8,701)	(464)	(32,186)	(41,352)	(7,867)	(750)		
SUM	22	Income Tax Effect of Interest	RATEBASE	0	0	0	0	0	0		
SUM	23	Interest Synchronization Adjustment	RATEBASE	0	0	0	1	0	0		
SUM	24	**TOTAL OPERATING INCOME ADJUSTMENTS**		(8,701)	(464)	(32,186)	(41,351)	(7,867)	(750)		
SUM	25	**ADJUSTED OPERATING INCOME (RETURN)**		(38,642)	6,100	708,195	675,653	175,099	(7,927)		
SUM	26										
SUM	27										
SUM	28	**DEVELOPMENT OF RATE BASE**									
SUM	29	Electric Plant in Service	SCH , LN	1,217,532	64,949	4,503,659	5,786,140	1,100,733	104,939		
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN	618,296	34,307	2,339,867	2,992,469	431,541	43,161		
SUM	31	Plus: Plant Held for Future Use	SCH , LN	0	0	0	0	0	0		
SUM	32	Plus: Constuction Work In Progress	SCH , LN	60,212	3,210	222,495	285,917	56,128	5,176		
SUM	33	Plus: Fuel Stock	SCH , LN	27	1	104	133	33	0		
SUM	34	Plus: Cash Working Capital	SCH , LN	115,554	5,921	365,033	486,508	291,260	11,468		
SUM	35	Plus: Utility Materials and Supplies	SCH , LN	16,253	871	60,913	78,037	10,797	1,336		
SUM	36	Plus: Prepayments	SCH , LN	3,441	183	12,449	16,073	4,138	340		
SUM	37	Plus: Cash & Bank Balances	SCH , LN	19,917	1,062	73,673	94,653	18,006	1,717		
SUM	38	Less: Deductions to Rate Base	SCH , LN	53,361	4,694	176,482	234,537	417,795	2,797		
SUM	39	**TOTAL NET RATE BASE**	SCH , LN	761,280	37,197	2,721,978	3,520,454	631,760	79,019		
SUM	40										
SUM	41										
SUM	42	**RATE OF RETURN (PRESENT)**		-5.08%	16.40%	26.02%	19.19%	27.72%	-10.03%		
SUM	43	**INDEX RATE OF RETURN (PRESENT)**		-2.42	7.81	12.39	9.14	13.20	-4.78		
SUM	44										
SUM	45										
SUM	46										
SUM	47	**EQUALIZED RETURN AT PROPOSED ROR**	**Reference**								
SUM	48										
SUM	49	**DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)**									
SUM	50										
SUM	51	**RATE BASE**	SCH , LN	761,280	37,197	2,721,978	3,520,454	631,760	79,019		
SUM	52										
SUM	53	**RATE OF RETURN**		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
SUM	54										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)		
SUM	55	**RETURN (RATE BASE * ROR)**		6.9381%	24,195,261	14,721,335	293,567	7,344,096	140,050	1,696,213		
SUM	56											
SUM	57	**LESS:**										
SUM	58	**OPERATING EXPENSES**										
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN		75,317,942	40,887,270	459,720	23,302,700	498,680	10,169,572		
SUM	60	Depreciation and Amortization Expense	SCH , LN		14,452,811	8,953,457	195,374	4,280,788	86,743	936,450		
SUM	61	Taxes Other Than Income Taxes	SCH , LN		8,514,290	5,311,994	133,807	2,526,429	47,140	494,919		
SUM	62	State and Federal Income Taxes	Calculated		5,464,729	3,339,029	70,878	1,653,369	31,427	370,026		
SUM	63	**TOTAL OPERATING EXPENSES**			103,749,772	58,491,750	859,780	31,763,285	663,991	11,970,967		
SUM	64											
SUM	65	**EQUALS TOTAL COST OF SERVICE**			127,945,033	73,213,085	1,153,347	39,107,381	804,040	13,667,180		
SUM	66											
SUM	67	**LESS:**										
SUM	68	Other Operating Revenue	SCH , LN		8,145,752	3,791,620	46,943	2,672,119	65,486	1,569,583		
SUM	69											
SUM	70	**LESS:**										
SUM	71	Operating Income Adjustments (Present)	SCH , LN		(3,027,144)	(1,882,097)	(49,968)	(903,669)	(16,913)	(174,498)		
SUM	72											
SUM	73	**EQUALS:**										
SUM	74	**DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 6.94%**			122,826,425	71,303,562	1,156,372	37,338,931	755,467	12,272,094		
SUM	75											
SUM	76	**REVENUE DEFICIENCY (SUFFICIENCY)**			22,723,433	13,210,930	(739,630)	6,542,438	(100,463)	3,810,157		
SUM	77											
SUM	78											
SUM	79	**SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)**			22.70%	22.74%	-39.01%	21.24%	-11.74%	45.03%		
SUM	80				1.00	1.00	(1.72)	0.94	(0.52)	1.98		
SUM	81											
SUM	82											
SUM	83											
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SUM	88											
SUM	89											
SUM	90											
SUM	91											
SUM	92											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)		(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
SUM	55	**RETURN (RATE BASE * ROR)**		6.9381%	13,322,267	0	1,399,068		3,807,215	0	336,077	1,931,258
SUM	56											
SUM	57	**LESS:**										
SUM	58	**OPERATING EXPENSES**										
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN		37,169,778	0	3,717,492		9,868,325	0	902,728	6,709,698
SUM	60	Depreciation and Amortization Expense	SCH , LN		8,107,836	0	845,620		2,261,086	0	198,548	1,175,787
SUM	61	Taxes Other Than Income Taxes	SCH , LN		4,803,897	0	508,097		1,357,219	0	118,957	654,672
SUM	62	State and Federal Income Taxes	Calculated		3,020,997	0	318,032		863,005	0	76,121	434,139
SUM	63	**TOTAL OPERATING EXPENSES**			53,102,509	0	5,389,241		14,349,635	0	1,296,354	8,974,296
SUM	64											
SUM	65	**EQUALS TOTAL COST OF SERVICE**			66,424,775	0	6,788,310		18,156,851	0	1,632,431	10,905,554
SUM	66											
SUM	67	**LESS:**										
SUM	68	Other Operating Revenue	SCH , LN		3,460,904	0	330,716		909,701	0	90,657	858,598
SUM	69											
SUM	70	**LESS:**										
SUM	71	Operating Income Adjustments (Present)	SCH , LN		(1,701,117)	0	(180,980)		(485,554)	0	(42,697)	(235,501)
SUM	72											
SUM	73	**EQUALS:**										
SUM	74	**DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 6.94%**			64,664,989	0	6,638,573		17,732,703	0	1,584,471	10,282,457
SUM	75											
SUM	76	**REVENUE DEFICIENCY (SUFFICIENCY)**			11,124,124	0	2,086,806		5,441,122	0	571,283	(1,636,206)
SUM	77											
SUM	78											
SUM	79	**SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)**			20.78%	0.00%	45.85%		44.27%	0.00%	56.38%	-13.73%
SUM	80				0.92	0.00	2.02		1.95	0.00	2.48	(0.60)
SUM	81											
SUM	82											
SUM	83											
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
SUM	55	**RETURN (RATE BASE * ROR)**		6.9381%	2,628,312	1,269,545	140,050	1,218,718	7,832	469,663	
SUM	56										
SUM	57	**LESS:**									
SUM	58	**OPERATING EXPENSES**									
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN		12,917,423	5,821,948	498,680	6,596,794	177,378	3,395,400	
SUM	60	Depreciation and Amortization Expense	SCH , LN		1,444,648	645,366	86,743	712,539	4,990	218,921	
SUM	61	Taxes Other Than Income Taxes	SCH , LN		813,356	395,581	47,140	370,635	2,486	121,798	
SUM	62	State and Federal Income Taxes	Calculated		579,642	280,104	31,427	268,110	1,658	100,257	
SUM	63	**TOTAL OPERATING EXPENSES**			15,755,069	7,142,999	663,991	7,948,078	186,512	3,836,376	
SUM	64										
SUM	65	**EQUALS TOTAL COST OF SERVICE**			18,383,381	8,412,545	804,040	9,166,796	194,344	4,306,039	
SUM	66										
SUM	67	**LESS:**									
SUM	68	Other Operating Revenue	SCH , LN		1,891,555	813,163	65,486	1,012,906	46	556,631	
SUM	69										
SUM	70	**LESS:**									
SUM	71	Operating Income Adjustments (Present)	SCH , LN		(288,658)	(139,917)	(16,913)	(131,828)	(653)	(42,016)	
SUM	72										
SUM	73	**EQUALS:**									
SUM	74	**DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 6.94%**			16,780,484	7,739,299	755,467	8,285,718	194,951	3,791,425	
SUM	75										
SUM	76	**REVENUE DEFICIENCY (SUFFICIENCY)**			5,008,841	2,166,239	(100,463)	2,943,064	49,024	818,069	
SUM	77										
SUM	78										
SUM	79	**SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)**			42.55%	38.87%	-11.74%	55.09%	33.60%	27.51%	
SUM	80				1.87	1.71	(0.52)	2.43	1.48	1.21	
SUM	81										
SUM	82										
SUM	83										
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SUM	90										
SUM	91										
SUM	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)		(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
SUM	55	**RETURN (RATE BASE * ROR)**		6.9381%	52,818	2,581	188,854	244,253	43,832	5,482		
SUM	56											
SUM	57	**LESS:**										
SUM	58	**OPERATING EXPENSES**										
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN		68,616	3,533	226,781	298,930	155,362	5,428		
SUM	60	Depreciation and Amortization Expense	SCH , LN		32,749	1,738	118,844	153,332	38,913	3,129		
SUM	61	Taxes Other Than Income Taxes	SCH , LN		22,965	1,221	84,213	108,400	23,313	2,094		
SUM	62	State and Federal Income Taxes	Calculated		12,646	632	45,602	58,879	10,739	1,260		
SUM	63	**TOTAL OPERATING EXPENSES**			136,977	7,124	475,439	619,540	228,328	11,911		
SUM	64											
SUM	65	**EQUALS TOTAL COST OF SERVICE**			189,795	9,705	664,293	863,793	272,160	17,394		
SUM	66											
SUM	67	**LESS:**										
SUM	68	Other Operating Revenue	SCH , LN		5,677	367	20,945	26,990	19,867	87		
SUM	69											
SUM	70	**LESS:**										
SUM	71	Operating Income Adjustments (Present)	SCH , LN		(8,701)	(464)	(32,186)	(41,351)	(7,867)	(750)		
SUM	72											
SUM	73	**EQUALS:**										
SUM	74	**DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 6.94%**			192,819	9,802	675,534	878,155	260,160	18,057		
SUM	75											
SUM	76	**REVENUE DEFICIENCY (SUFFICIENCY)**			123,161	(4,739)	(699,345)	(580,923)	(176,763)	18,057		
SUM	77											
SUM	78											
SUM	79	**SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)**			176.81%	-32.59%	-50.87%	-39.81%	-40.46%	0.00%		
SUM	80				7.79	(1.44)	(2.24)	(1.75)	(1.78)	0.00		
SUM	81											
SUM	82											
SUM	83											
SUM	84											
SUM	85											
SUM	86											
SUM	87											
SUM	88											
SUM	89											
SUM	90											
SUM	91											
SUM	92											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
PLT	1	**DEVELOPMENT OF RATE BASE - 13 Month Average**									
PLT	2										
PLT	3	**ELECTRIC PLANT IN SERVICE**									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG	0	0	0	0	0	0		
PLT	7	302-Franchises and Consents	PTDPLT	6,485,241	4,009,464	114,065	1,954,023	36,750	370,939		
PLT	8	303-Misc. Intangible Plant	PTDPLT	32,656,971	20,189,989	574,383	9,839,648	185,056	1,867,895		
PLT	9	TOTAL INTANGIBLE		39,142,212	24,199,453	688,447	11,793,672	221,806	2,238,834		
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD	141,425	79,116	482	44,111	1,443	16,272		
PLT	14	311-Structures & Improvements	DPROD	0	0	0	0	0	0		
PLT	15	312-Boiler Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	16	314-Turbo-Generator Units	DPROD	0	0	0	0	0	0		
PLT	17	315-Accessory Electric Equipment	DPROD	0	0	0	0	0	0		
PLT	18	316-Misc Power Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	19	Total Steam Production		141,425	79,116	482	44,111	1,443	16,272		
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD	622,327	348,143	2,122	194,108	6,350	71,605		
PLT	23	331-Structures & Improvements	DPROD	2,063,475	1,154,351	7,037	643,610	21,054	237,422		
PLT	24	332-Reservoirs, Dams and Waterways	DPROD	78,775,193	44,068,495	268,642	24,570,457	803,773	9,063,826		
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD	1,407,313	787,280	4,799	438,949	14,359	161,925		
PLT	26	334-Accessory Electric Equipment	DPROD	7,580,666	4,240,784	25,852	2,364,455	77,348	872,227		
PLT	27	335-Misc Power Plant Equipment	DPROD	906,387	507,052	3,091	282,708	9,248	104,288		
PLT	28	336-Roads, Railroads, and Bridges	DPROD	888,569	497,084	3,030	277,150	9,066	102,238		
PLT	29	Total Steam Production		92,243,930	51,603,189	314,573	28,771,438	941,199	10,613,530		
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD	54,922	30,724	187	17,130	560	6,319		
PLT	33	341-Structures & Improvements	DPROD	108,744	60,834	371	33,918	1,110	12,512		
PLT	34	342-Fuel Holders, Prod & Acc	DPROD	251,503	140,696	858	78,445	2,566	28,938		
PLT	35	343-Other Production Engine	DPROD	2,566,494	1,435,751	8,752	800,505	26,187	295,299		
PLT	36	344-Generators	DPROD	430,675	240,929	1,469	134,330	4,394	49,553		
PLT	37	345-Accessory Electric Equipment	DPROD	187,825	105,073	641	58,584	1,916	21,611		
PLT	38	346-Misc Power Plant Equipment	DPROD	106,676	59,677	364	33,273	1,088	12,274		
PLT	39	Total Other Production Combustion Equipment		3,706,838	2,073,683	12,641	1,156,185	37,822	426,507		
PLT	40										
PLT	41	Production - Energy	DPROD	0	0	0	0	0	0		
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT		96,092,193	53,755,988	327,697	29,971,734	980,465	11,056,309		
PLT	44										
PLT	45										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		COS Without Minimum System									
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
PLT	1	**DEVELOPMENT OF RATE BASE - 13 Month Average**									
PLT	2										
PLT	3	**ELECTRIC PLANT IN SERVICE**									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG	0	0	0		0	0	0	0
PLT	7	302-Franchises and Consents	PTDPLT	3,620,958	0	388,506		1,049,409	0	92,728	513,562
PLT	8	303-Misc. Intangible Plant	PTDPLT	18,233,636	0	1,956,354		5,284,389	0	466,940	2,586,083
PLT	9	TOTAL INTANGIBLE		21,854,594	0	2,344,859		6,333,798	0	559,669	3,099,645
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD	72,041	0	7,075		20,206	0	1,872	17,826
PLT	14	311-Structures & Improvements	DPROD	0	0	0		0	0	0	0
PLT	15	312-Boiler Plant Equipment	DPROD	0	0	0		0	0	0	0
PLT	16	314-Turbo-Generator Units	DPROD	0	0	0		0	0	0	0
PLT	17	315-Accessory Electric Equipment	DPROD	0	0	0		0	0	0	0
PLT	18	316-Misc Power Plant Equipment	DPROD	0	0	0		0	0	0	0
PLT	19	Total Steam Production		72,041	0	7,075		20,206	0	1,872	17,826
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD	317,008	0	31,135		88,915	0	8,238	78,440
PLT	23	331-Structures & Improvements	DPROD	1,051,117	0	103,234		294,819	0	27,315	260,086
PLT	24	332-Reservoirs, Dams and Waterways	DPROD	40,127,425	0	3,941,070		11,254,990	0	1,042,770	9,929,040
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD	716,873	0	70,407		201,070	0	18,629	177,382
PLT	26	334-Accessory Electric Equipment	DPROD	3,861,528	0	379,256		1,083,086	0	100,347	955,488
PLT	27	335-Misc Power Plant Equipment	DPROD	461,706	0	45,346		129,500	0	11,998	114,243
PLT	28	336-Roads, Railroads, and Bridges	DPROD	452,629	0	44,454		126,954	0	11,762	111,998
PLT	29	Total Steam Production		46,988,287	0	4,614,902		13,179,334	0	1,221,059	11,626,676
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD	27,977	0	2,748		7,847	0	727	6,922
PLT	33	341-Structures & Improvements	DPROD	55,393	0	5,440		15,537	0	1,439	13,706
PLT	34	342-Fuel Holders, Prod & Acc	DPROD	128,114	0	12,583		35,933	0	3,329	31,700
PLT	35	343-Other Production Engine	DPROD	1,307,351	0	128,400		366,687	0	33,973	323,488
PLT	36	344-Generators	DPROD	219,382	0	21,546		61,533	0	5,701	54,283
PLT	37	345-Accessory Electric Equipment	DPROD	95,677	0	9,397		26,835	0	2,486	23,674
PLT	38	346-Misc Power Plant Equipment	DPROD	54,340	0	5,337		15,241	0	1,412	13,446
PLT	39	Total Other Production Combustion Equipment		1,888,232	0	185,451		529,614	0	49,068	467,220
PLT	40										
PLT	41	Production - Energy	DPROD	0	0	0		0	0	0	0
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT		48,948,560	0	4,807,428		13,729,153	0	1,272,000	12,111,722
PLT	44										
PLT	45										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
PLT	1	**DEVELOPMENT OF RATE BASE - 13 Month Average**									
PLT	2										
PLT	3	**ELECTRIC PLANT IN SERVICE**									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG		0	0	0	0	0	0	
PLT	7	302-Franchises and Consents	PTDPLT		618,640	298,324	36,750	283,566	679	86,694	
PLT	8	303-Misc. Intangible Plant	PTDPLT		3,115,211	1,502,235	185,056	1,427,919	3,420	436,555	
PLT	9	TOTAL INTANGIBLE			3,733,851	1,800,559	221,806	1,711,485	4,099	523,249	
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD		19,266	4,208	1,443	13,616	0	2,657	
PLT	14	311-Structures & Improvements	DPROD		0	0	0	0	0	0	
PLT	15	312-Boiler Plant Equipment	DPROD		0	0	0	0	0	0	
PLT	16	314-Turbo-Generator Units	DPROD		0	0	0	0	0	0	
PLT	17	315-Accessory Electric Equipment	DPROD		0	0	0	0	0	0	
PLT	18	316-Misc Power Plant Equipment	DPROD		0	0	0	0	0	0	
PLT	19	Total Steam Production			19,266	4,208	1,443	13,616	0	2,657	
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD		84,779	18,515	6,350	59,914	0	11,691	
PLT	23	331-Structures & Improvements	DPROD		281,104	61,391	21,054	198,659	0	38,763	
PLT	24	332-Reservoirs, Dams and Waterways	DPROD		10,731,424	2,343,657	803,773	7,583,994	0	1,479,832	
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD		191,716	41,869	14,359	135,487	0	26,437	
PLT	26	334-Accessory Electric Equipment	DPROD		1,032,703	225,534	77,348	729,820	0	142,407	
PLT	27	335-Misc Power Plant Equipment	DPROD		123,476	26,966	9,248	87,261	0	17,027	
PLT	28	336-Roads, Railroads, and Bridges	DPROD		121,048	26,436	9,066	85,546	0	16,692	
PLT	29	Total Steam Production			12,566,249	2,744,369	941,199	8,880,681	0	1,732,849	
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD		7,482	1,634	560	5,288	0	1,032	
PLT	33	341-Structures & Improvements	DPROD		14,814	3,235	1,110	10,469	0	2,043	
PLT	34	342-Fuel Holders, Prod & Acc	DPROD		34,262	7,483	2,566	24,213	0	4,725	
PLT	35	343-Other Production Engine	DPROD		349,630	76,356	26,187	247,086	0	48,213	
PLT	36	344-Generators	DPROD		58,670	12,813	4,394	41,463	0	8,090	
PLT	37	345-Accessory Electric Equipment	DPROD		25,587	5,588	1,916	18,083	0	3,528	
PLT	38	346-Misc Power Plant Equipment	DPROD		14,532	3,174	1,088	10,270	0	2,004	
PLT	39	Total Other Production Combustion Equipment			504,977	110,283	37,822	356,872	0	69,635	
PLT	40										
PLT	41	Production - Energy	DPROD		0	0	0	0	0	0	
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT			13,090,492	2,858,859	980,465	9,251,169	0	1,805,141	
PLT	44										
PLT	45										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
PLT	1	**DEVELOPMENT OF RATE BASE - 13 Month Average**									
PLT	2										
PLT	3	**ELECTRIC PLANT IN SERVICE**									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG	0	0	0	0	0	0		
PLT	7	302-Franchises and Consents	PTDPLT	20,253	1,083	75,714	97,050	15,394	1,621		
PLT	8	303-Misc. Intangible Plant	PTDPLT	101,987	5,454	381,262	488,703	77,516	8,163		
PLT	9	TOTAL INTANGIBLE		122,240	6,537	456,976	585,753	92,910	9,784		
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD	78	4	303	386	96	0		
PLT	14	311-Structures & Improvements	DPROD	0	0	0	0	0	0		
PLT	15	312-Boiler Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	16	314-Turbo-Generator Units	DPROD	0	0	0	0	0	0		
PLT	17	315-Accessory Electric Equipment	DPROD	0	0	0	0	0	0		
PLT	18	316-Misc Power Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	19	Total Steam Production		78	4	303	386	96	0		
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD	344	18	1,335	1,698	425	0		
PLT	23	331-Structures & Improvements	DPROD	1,141	60	4,428	5,629	1,408	0		
PLT	24	332-Reservoirs, Dams and Waterways	DPROD	43,574	2,287	169,032	214,893	53,749	0		
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD	778	41	3,020	3,839	960	0		
PLT	26	334-Accessory Electric Equipment	DPROD	4,193	220	16,266	20,679	5,172	0		
PLT	27	335-Misc Power Plant Equipment	DPROD	501	26	1,945	2,473	618	0		
PLT	28	336-Roads, Railroads, and Bridges	DPROD	492	26	1,907	2,424	606	0		
PLT	29	Total Steam Production		51,024	2,678	197,933	251,635	62,939	0		
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD	30	2	118	150	37	0		
PLT	33	341-Structures & Improvements	DPROD	60	3	233	297	74	0		
PLT	34	342-Fuel Holders, Prod & Acc	DPROD	139	7	540	686	172	0		
PLT	35	343-Other Production Engine	DPROD	1,420	75	5,507	7,001	1,751	0		
PLT	36	344-Generators	DPROD	238	13	924	1,175	294	0		
PLT	37	345-Accessory Electric Equipment	DPROD	104	5	403	512	128	0		
PLT	38	346-Misc Power Plant Equipment	DPROD	59	3	229	291	73	0		
PLT	39	Total Other Production Combustion Equipment		2,050	108	7,954	10,112	2,529	0		
PLT	40										
PLT	41	Production - Energy	DPROD	0	0	0	0	0	0		
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT		53,153	2,790	206,190	262,132	65,564	0		
PLT	44										
PLT	45										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
PLT	46										
PLT	47	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN	0	0	0	0	0	0		
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB	735,881	349,156	2,007	243,637	5,152	135,929		
PLT	54	361-Structures & Improvements	DDISPSUB	1,540,549	730,949	4,202	510,049	10,786	284,564		
PLT	55	362-Station Equipment	DDISPSUB	35,811,349	16,991,521	97,680	11,856,507	250,725	6,614,915		
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI	35,077,098	23,178,579	112,881	11,601,351	184,288	0		
PLT	58	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	59	Secondary - Demand	DDISTSEC	8,421,287	5,594,089	27,243	2,799,955	0	0		
PLT	60	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	61	Total Account 364		43,498,385	28,772,667	140,124	14,401,306	184,288	0		
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI	17,401,661	11,498,835	56,000	5,755,401	91,425	0		
PLT	64	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	65	Secondary - Demand	DDISTSEC	4,985,655	3,311,869	16,129	1,657,658	0	0		
PLT	66	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	67	Total Account 365		22,387,317	14,810,704	72,129	7,413,059	91,425	0		
PLT	68	366-Underground Conduit	DDISTSEC	0	0	0	0	0	0		
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI	38,196,901	25,240,112	122,920	12,633,190	200,679	0		
PLT	71	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	72	Secondary - Demand	DDISTSEC	2,507,384	1,665,604	8,112	833,669	0	0		
PLT	73	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	74	Total Account 367		40,704,285	26,905,715	131,032	13,466,858	200,679	0		
PLT	75	368-Line Transformers - Demand	DDISTSLT	36,039,726	23,940,451	116,591	11,982,683	0	0		
PLT	76	368-Line Transformers - Customer	CDISTSLT	0	0	0	0	0	0		
PLT	77	369-Services	CSERVICE	20,309,909	17,459,583	106,243	2,744,083	0	0		
PLT	78	370-Meters	CMETERS	18,715,358	14,404,024	16,535	3,964,794	92,405	237,600		
PLT	79	371-Inst. on Customer Premises	CUSTPREM	647,117	0	647,117	0	0	0		
PLT	80	373-Street Lighting / Signal Systems	CLIGHT	3,974,958	0	3,974,958	0	0	0		
PLT	81	TOTAL DISTRIBUTION PLANT		224,364,833	144,364,772	5,308,618	66,582,977	835,459	7,273,007		
PLT	82				129,653,810	9,695,599					
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT		320,457,026	198,120,761	5,636,314	96,554,711	1,815,924	18,329,316		
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										
PLT	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
PLT	46										
PLT	47	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN	0	0	0		0	0	0	0
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB	317,917	0	31,239		89,072	0	8,010	75,446
PLT	54	361-Structures & Improvements	DDISPSUB	665,552	0	65,397		186,470	0	16,769	157,945
PLT	55	362-Station Equipment	DDISPSUB	15,471,304	0	1,520,217		4,334,658	0	389,819	3,671,554
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI	20,577,374	0	2,601,204		7,016,545	0	647,102	1,967,326
PLT	58	Primary - Customer	CDISTPRI	0	0	0		0	0	0	0
PLT	59	Secondary - Demand	DDISTSEC	4,966,295	0	627,794		1,693,425	0	156,176	474,809
PLT	60	Secondary - Customer	CDISTSEC	0	0	0		0	0	0	0
PLT	61	Total Account 364		25,543,669	0	3,228,998		8,709,969	0	803,278	2,442,135
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI	10,208,384	0	1,290,451		3,480,890	0	321,025	975,986
PLT	64	Primary - Customer	CDISTPRI	0	0	0		0	0	0	0
PLT	65	Secondary - Demand	DDISTSEC	2,940,196	0	371,673		1,002,558	0	92,461	281,101
PLT	66	Secondary - Customer	CDISTSEC	0	0	0		0	0	0	0
PLT	67	Total Account 365		13,148,580	0	1,662,124		4,483,449	0	413,486	1,257,087
PLT	68	366-Underground Conduit	DDISTSEC	0	0	0		0	0	0	0
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI	22,407,553	0	2,832,559		7,640,605	0	704,656	2,142,303
PLT	71	Primary - Customer	CDISTPRI	0	0	0		0	0	0	0
PLT	72	Secondary - Demand	DDISTSEC	1,478,682	0	186,922		504,206	0	46,500	141,371
PLT	73	Secondary - Customer	CDISTSEC	0	0	0		0	0	0	0
PLT	74	Total Account 367		23,886,235	0	3,019,480		8,144,812	0	751,156	2,283,674
PLT	75	368-Line Transformers - Demand	DDISTSLT	21,253,746	0	2,686,705		7,247,176	0	668,372	2,031,991
PLT	76	368-Line Transformers - Customer	CDISTSLT	0	0	0		0	0	0	0
PLT	77	369-Services	CSERVICE	16,165,314	0	1,294,269		2,297,644	0	96,807	326,554
PLT	78	370-Meters	CMETERS	13,522,534	0	881,490		2,632,361	0	162,307	1,018,667
PLT	79	371-Inst. on Customer Premises	CUSTPREM	0	0	0		0	0	0	0
PLT	80	373-Street Lighting / Signal Systems	CLIGHT	0	0	0		0	0	0	0
PLT	81	TOTAL DISTRIBUTION PLANT		129,974,852	0	14,389,921		38,125,611	0	3,310,004	13,265,053
PLT	82										
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT		178,923,412	0	19,197,349		51,854,765	0	4,582,004	25,376,774
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										
PLT	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
PLT	46										
PLT	47	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN		0	0	0	0	0	0	
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB		166,031	71,109	5,152	89,770	0	46,158	
PLT	54	361-Structures & Improvements	DDISPSUB		347,582	148,864	10,786	187,932	0	96,631	
PLT	55	362-Station Equipment	DDISPSUB		8,079,843	3,460,476	250,725	4,368,642	0	2,246,274	
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI		2,154,666	1,970,378	184,288	0	0	0	
PLT	58	Primary - Customer	CDISTPRI		0	0	0	0	0	0	
PLT	59	Secondary - Demand	DDISTSEC		475,546	475,546	0	0	0	0	
PLT	60	Secondary - Customer	CDISTSEC		0	0	0	0	0	0	
PLT	61	Total Account 364			2,630,212	2,445,924	184,288	0	0	0	
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI		1,068,925	977,500	91,425	0	0	0	
PLT	64	Primary - Customer	CDISTPRI		0	0	0	0	0	0	
PLT	65	Secondary - Demand	DDISTSEC		281,537	281,537	0	0	0	0	
PLT	66	Secondary - Customer	CDISTSEC		0	0	0	0	0	0	
PLT	67	Total Account 365			1,350,462	1,259,037	91,425	0	0	0	
PLT	68	366-Underground Conduit	DDISTSEC		0	0	0	0	0	0	
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI		2,346,305	2,145,626	200,679	0	0	0	
PLT	71	Primary - Customer	CDISTPRI		0	0	0	0	0	0	
PLT	72	Secondary - Demand	DDISTSEC		141,591	141,591	0	0	0	0	
PLT	73	Secondary - Customer	CDISTSEC		0	0	0	0	0	0	
PLT	74	Total Account 367			2,487,896	2,287,217	200,679	0	0	0	
PLT	75	368-Line Transformers - Demand	DDISTSLT		2,035,144	2,035,144	0	0	0	0	
PLT	76	368-Line Transformers - Customer	CDISTSLT		0	0	0	0	0	0	
PLT	77	369-Services	CSERVICE		23,078	23,078	0	0	0	0	
PLT	78	370-Meters	CMETERS		358,270	151,459	92,405	114,406	33,560	89,633	
PLT	79	371-Inst. on Customer Premises	CUSTPREM		0	0	0	0	0	0	
PLT	80	373-Street Lighting / Signal Systems	CLIGHT		0	0	0	0	0	0	
PLT	81	TOTAL DISTRIBUTION PLANT			17,478,518	11,882,309	835,459	4,760,750	33,560	2,478,696	
PLT	82										
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT			30,569,011	14,741,168	1,815,924	14,011,919	33,560	4,283,837	
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										
PLT	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
PLT	46										
PLT	47	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN	0	0	0	0	0	0		
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB	325	17	1,263	1,605	402	0		
PLT	54	361-Structures & Improvements	DDISPSUB	681	36	2,643	3,360	842	0		
PLT	55	362-Station Equipment	DDISPSUB	15,838	831	61,440	78,110	19,570	0		
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI	19,689	869	65,995	86,553	26,328	0		
PLT	58	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	59	Secondary - Demand	DDISTSEC	4,752	210	15,928	20,889	6,354	0		
PLT	60	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	61	Total Account 364		24,441	1,078	81,922	107,442	32,682	0		
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI	9,768	431	32,740	42,939	13,061	0		
PLT	64	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	65	Secondary - Demand	DDISTSEC	2,813	124	9,430	12,367	3,762	0		
PLT	66	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	67	Total Account 365		12,581	555	42,170	55,306	16,823	0		
PLT	68	366-Underground Conduit	DDISTSEC	0	0	0	0	0	0		
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI	21,440	946	71,864	94,251	28,670	0		
PLT	71	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	72	Secondary - Demand	DDISTSEC	1,415	62	4,742	6,220	1,892	0		
PLT	73	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	74	Total Account 367		22,855	1,008	76,607	100,470	30,562	0		
PLT	75	368-Line Transformers - Demand	DDISTSLT	20,336	897	68,164	89,398	27,193	0		
PLT	76	368-Line Transformers - Customer	CDISTSLT	0	0	0	0	0	0		
PLT	77	369-Services	CSERVICE	28,031	4,004	74,207	106,243	0	0		
PLT	78	370-Meters	CMETERS	16,535	0	0	16,535	0	0		
PLT	79	371-Inst. on Customer Premises	CUSTPREM	0	0	0	0	567,017	80,100		
PLT	80	373-Street Lighting / Signal Systems	CLIGHT	806,002	42,303	3,126,653	3,974,958	0	0		
PLT	81	TOTAL DISTRIBUTION PLANT		947,627	50,730	3,535,069	4,533,427	695,091	80,100		
PLT	82										
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT		1,000,780	53,520	3,741,259	4,795,559	760,656	80,100		
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										
PLT	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
PLT	93	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG	656,836	424,376	5,892	183,354	3,306	39,909		
PLT	97	390-Structures & Improvements	SALWAGXAG	18,900,782	12,211,633	169,531	5,276,097	95,121	1,148,400		
PLT	98	391-Office Furniture & Equipment	SALWAGXAG	4,881,911	3,154,161	43,788	1,362,771	24,569	296,622		
PLT	99	392-Transportation Equipment	SALWAGXAG	15,701,139	10,144,371	140,832	4,382,926	79,018	953,992		
PLT	100	393-Stores Equipment	SALWAGXAG	52,183	33,715	468	14,567	263	3,171		
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG	2,497,477	1,613,599	22,401	697,163	12,569	151,745		
PLT	102	395-Laboratory Equipment	SALWAGXAG	3,441,010	2,223,207	30,864	960,548	17,317	209,074		
PLT	103	396-Power Operated Equipment	SALWAGXAG	2,336,957	1,509,888	20,961	652,354	11,761	141,992		
PLT	104	397-Communication Equipment	SALWAGXAG	4,393,259	2,838,447	39,406	1,226,365	22,110	266,932		
PLT	105	398-Miscellaneous Equipment	SALWAGXAG	307,825	198,883	2,761	85,928	1,549	18,703		
PLT	106	TOTAL GENERAL PLANT		53,169,380	34,352,280	476,905	14,842,073	267,583	3,230,539		
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT	10,810,872	6,683,761	190,146	3,257,350	61,262	618,354		
PLT	109										
PLT	110	**TOTAL ELECTRIC PLANT IN SERVICE**		423,579,490	263,356,255	6,991,812	126,447,805	2,366,574	24,417,043		
PLT	111										
PLT	112										
PLT	113										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
PLT	93	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG	385,658	0	38,718		98,881	0	8,378	44,726
PLT	97	390-Structures & Improvements	SALWAGXAG	11,097,511	0	1,114,122		2,845,352	0	241,089	1,287,020
PLT	98	391-Office Furniture & Equipment	SALWAGXAG	2,866,393	0	287,768		734,930	0	62,271	332,426
PLT	99	392-Transportation Equipment	SALWAGXAG	9,218,855	0	925,516		2,363,673	0	200,276	1,069,145
PLT	100	393-Stores Equipment	SALWAGXAG	30,639	0	3,076		7,856	0	666	3,553
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG	1,466,383	0	147,216		375,974	0	31,857	170,062
PLT	102	395-Laboratory Equipment	SALWAGXAG	2,020,374	0	202,833		518,015	0	43,892	234,310
PLT	103	396-Power Operated Equipment	SALWAGXAG	1,372,134	0	137,754		351,809	0	29,809	159,131
PLT	104	397-Communication Equipment	SALWAGXAG	2,579,483	0	258,964		661,368	0	56,038	299,152
PLT	105	398-Miscellaneous Equipment	SALWAGXAG	180,738	0	18,145		46,340	0	3,926	20,961
PLT	106	TOTAL GENERAL PLANT		31,218,168	0	3,134,112		8,004,197	0	678,201	3,620,487
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT	6,036,123	0	647,638		1,749,362	0	154,578	856,106
PLT	109										
PLT	110	**TOTAL ELECTRIC PLANT IN SERVICE**		238,032,297	0	25,323,958		67,942,122	0	5,974,451	32,953,012
PLT	111										
PLT	112										
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PLT	114										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
PLT	93	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG		62,473	31,368	3,306	27,799	650	11,460	
PLT	97	390-Structures & Improvements	SALWAGXAG		1,797,686	902,637	95,121	799,928	18,709	329,763	
PLT	98	391-Office Furniture & Equipment	SALWAGXAG		464,327	233,143	24,569	206,615	4,832	85,175	
PLT	99	392-Transportation Equipment	SALWAGXAG		1,493,362	749,833	79,018	664,511	15,542	273,939	
PLT	100	393-Stores Equipment	SALWAGXAG		4,963	2,492	263	2,209	52	910	
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG		237,539	119,271	12,569	105,699	2,472	43,574	
PLT	102	395-Laboratory Equipment	SALWAGXAG		327,280	164,331	17,317	145,632	3,406	60,036	
PLT	103	396-Power Operated Equipment	SALWAGXAG		222,272	111,605	11,761	98,906	2,313	40,773	
PLT	104	397-Communication Equipment	SALWAGXAG		417,850	209,807	22,110	185,934	4,349	76,649	
PLT	105	398-Miscellaneous Equipment	SALWAGXAG		29,278	14,701	1,549	13,028	305	5,371	
PLT	106	TOTAL GENERAL PLANT			5,057,031	2,539,188	267,583	2,250,259	52,631	927,649	
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT		1,031,270	497,305	61,262	472,703	1,132	144,519	
PLT	109										
PLT	110	**TOTAL ELECTRIC PLANT IN SERVICE**			40,391,162	19,578,221	2,366,574	18,446,367	91,423	5,879,254	
PLT	111										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
PLT	93	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG	750	38	2,214	3,002	2,736	153		
PLT	97	390-Structures & Improvements	SALWAGXAG	21,595	1,097	63,706	86,398	78,741	4,392		
PLT	98	391-Office Furniture & Equipment	SALWAGXAG	5,578	283	16,455	22,316	20,338	1,134		
PLT	99	392-Transportation Equipment	SALWAGXAG	17,940	912	52,921	71,772	65,412	3,648		
PLT	100	393-Stores Equipment	SALWAGXAG	60	3	176	239	217	12		
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG	2,854	145	8,418	11,416	10,405	580		
PLT	102	395-Laboratory Equipment	SALWAGXAG	3,932	200	11,598	15,729	14,335	800		
PLT	103	396-Power Operated Equipment	SALWAGXAG	2,670	136	7,877	10,683	9,736	543		
PLT	104	397-Communication Equipment	SALWAGXAG	5,020	255	14,808	20,082	18,303	1,021		
PLT	105	398-Miscellaneous Equipment	SALWAGXAG	352	18	1,038	1,407	1,282	72		
PLT	106	TOTAL GENERAL PLANT		60,749	3,087	179,209	243,045	221,506	12,354		
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT	33,762	1,806	126,214	161,782	25,661	2,702		
PLT	109										
PLT	110	**TOTAL ELECTRIC PLANT IN SERVICE**		1,217,532	64,949	4,503,659	5,786,140	1,100,733	104,939		
PLT	111										
PLT	112										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
D&A	1	**DEPRECIATION & AMORTIZATION RESERVE:**									
D&A	2	PRODUCTION PLANT	PRODPLT	59,534,364	33,304,772	203,026	18,569,127	607,451	6,849,988		
D&A	3	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	4	**DISTRIBUTION PLANT**									
D&A	5	360-Land and Land Rights	PLT_360	451,666	214,303	1,232	149,539	3,162	83,430		
D&A	6	361-Structures & Improvements	PLT_361	1,092,899	518,551	2,981	361,840	7,652	201,876		
D&A	7	362-Station Equipment	PLT_362	18,359,347	8,711,016	50,077	6,078,457	128,539	3,391,258		
D&A	8	364-Towers and Fixtures	PLT_364	30,832,377	20,394,544	99,322	10,207,885	130,626	0		
D&A	9	365-Overhead Conductors & Devices	PLT_365	21,310,829	14,098,536	68,660	7,056,604	87,029	0		
D&A	10	366-Underground Conduit	PLT_366	0	0	0	0	0	0		
D&A	11	367-Underground Conductor	PLT_367	13,648,673	9,021,834	43,937	4,515,612	67,290	0		
D&A	12	368-Line Transformers	PLT_368	16,075,547	10,678,656	52,005	5,344,885	0	0		
D&A	13	369-Services	PLT_369	17,749,434	15,258,450	92,849	2,398,136	0	0		
D&A	14	370-Meters	PLT_370	(546,624)	(420,702)	(483)	(115,801)	(2,699)	(6,940)		
D&A	15	371-Inst. on Customer Premises	PLT_371	334,001	0	334,001	0	0	0		
D&A	16	373-Street Lighting / Signal Systems	PLT_373	2,423,836	0	2,423,836	0	0	0		
D&A	17	TOTAL DISTRIBUTION PLANT		121,731,986	78,475,189	3,168,419	35,997,156	421,599	3,669,624		
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT	7,582,825	4,809,662	95,726	2,187,961	40,200	449,275		
D&A	19	**TOTAL DEPRECIATION & AMORTIZATION RESERVE**		188,849,174	116,589,623	3,467,171	56,754,244	1,069,250	10,968,887		
D&A	20										
D&A	21	**NET ELECTRIC PLANT IN SERVICE**									
D&A	22	NET PRODUCTION PLANT		36,557,829	20,451,216	124,671	11,402,607	373,013	4,206,322		
D&A	23	NET TRANSMISSION PLANT		0	0	0	0	0	0		
D&A	24	NET DISTRIBUTION PLANT		102,632,847	65,889,583	2,140,199	30,585,821	413,860	3,603,383		
D&A	25	NET GENERAL & INTANGIBLE PLANT		84,728,767	53,742,071	1,069,626	24,447,783	449,189	5,020,098		
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED		10,810,872	6,683,761	190,146	3,257,350	61,262	618,354		
D&A	27	**TOTAL NET PLANT IN SERVICE**		234,730,315	146,766,632	3,524,641	69,693,561	1,297,324	13,448,157		
D&A	28										
D&A	29	**PLANT HELD FOR FUTURE USE**									
D&A	30	PRODUCTION PLANT	PRODPLT	0	0	0	0	0	0		
D&A	31	TRANSMISSION	TRANPLT	0	0	0	0	0	0		
D&A	32	DISTRIBUTION	DISTPLT	0	0	0	0	0	0		
D&A	33	GENERAL PLANT	INTGENLPLT	0	0	0	0	0	0		
D&A	34	**TOTAL PLANT HELD FOR FUTURE USE**		0	0	0	0	0	0		
D&A	35										
D&A	36	**CONSTRUCTION WORK IN PROGRESS**									
D&A	37	PRODUCTION PLANT	PRODPLT	1,553,260	868,926	5,297	484,471	15,848	178,717		
D&A	38	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	39	DISTRIBUTION PLANT	TOTPLT	20,046,696	12,463,830	330,901	5,984,380	112,003	1,155,583		
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT	873,249	553,888	11,024	251,969	4,630	51,739		
D&A	41	**TOTAL CONSTRUCTION WORK IN PROGRESS**		22,473,205	13,886,644	347,222	6,720,820	132,481	1,386,039		
D&A	42										
D&A	43	**TOTAL NET PLANT IN SERVICE**		257,203,521	160,653,276	3,871,863	76,414,382	1,429,805	14,834,196		
D&A	44										
D&A	45										
D&A	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		COS Without Minimum System									
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
D&A	1	**DEPRECIATION & AMORTIZATION RESERVE:**									
D&A	2	PRODUCTION PLANT	PRODPLT	30,326,307	0	2,978,464		8,505,961	0	788,074	7,503,873
D&A	3	TRANSMISSION PLANT	TRANPLT	0	0	0		0	0	0	0
D&A	4	**DISTRIBUTION PLANT**									
D&A	5	360-Land and Land Rights	PLT_360	195,130	0	19,174		54,670	0	4,917	46,307
D&A	6	361-Structures & Improvements	PLT_361	472,157	0	46,394		132,286	0	11,897	112,049
D&A	7	362-Station Equipment	PLT_362	7,931,649	0	779,367		2,222,242	0	199,848	1,882,290
D&A	8	364-Towers and Fixtures	PLT_364	18,105,776	0	2,288,767		6,173,771	0	569,377	1,731,026
D&A	9	365-Overhead Conductors & Devices	PLT_365	12,516,335	0	1,582,201		4,267,863	0	393,604	1,196,640
D&A	10	366-Underground Conduit	PLT_366	0	0	0		0	0	0	0
D&A	11	367-Underground Conductor	PLT_367	8,009,363	0	1,012,471		2,731,061	0	251,872	765,745
D&A	12	368-Line Transformers	PLT_368	9,480,249	0	1,198,407		3,232,608	0	298,128	906,371
D&A	13	369-Services	PLT_369	14,127,350	0	1,131,100		2,007,980	0	84,602	285,385
D&A	14	370-Meters	PLT_370	(394,956)	0	(25,746)		(76,884)	0	(4,741)	(29,752)
D&A	15	371-Inst. on Customer Premises	PLT_371	0	0	0		0	0	0	0
D&A	16	373-Street Lighting / Signal Systems	PLT_373	0	0	0		0	0	0	0
D&A	17	TOTAL DISTRIBUTION PLANT		70,443,053	0	8,032,136		20,745,598	0	1,809,503	6,896,061
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT	4,359,598	0	450,064		1,177,777	0	101,683	552,017
D&A	19	**TOTAL DEPRECIATION & AMORTIZATION RESERVE**		105,128,959	0	11,460,664		30,429,336	0	2,699,260	14,951,952
D&A	20										
D&A	21	**NET ELECTRIC PLANT IN SERVICE**									
D&A	22	NET PRODUCTION PLANT		18,622,253	0	1,828,964		5,223,193	0	483,927	4,607,848
D&A	23	NET TRANSMISSION PLANT		0	0	0		0	0	0	0
D&A	24	NET DISTRIBUTION PLANT		59,531,798	0	6,357,785		17,380,014	0	1,500,500	6,368,992
D&A	25	NET GENERAL & INTANGIBLE PLANT		48,713,163	0	5,028,908		13,160,218	0	1,136,186	6,168,115
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED		6,036,123	0	647,638		1,749,362	0	154,578	856,106
D&A	27	**TOTAL NET PLANT IN SERVICE**		132,903,338	0	13,863,294		37,512,786	0	3,275,191	18,001,060
D&A	28										
D&A	29	**PLANT HELD FOR FUTURE USE**									
D&A	30	PRODUCTION PLANT	PRODPLT	0	0	0		0	0	0	0
D&A	31	TRANSMISSION	TRANPLT	0	0	0		0	0	0	0
D&A	32	DISTRIBUTION	DISTPLT	0	0	0		0	0	0	0
D&A	33	GENERAL PLANT	INTGENLPLT	0	0	0		0	0	0	0
D&A	34	**TOTAL PLANT HELD FOR FUTURE USE**		0	0	0		0	0	0	0
D&A	35										
D&A	36	**CONSTRUCTION WORK IN PROGRESS**									
D&A	37	PRODUCTION PLANT	PRODPLT	791,218	0	77,709		221,922	0	20,561	195,777
D&A	38	TRANSMISSION PLANT	TRANPLT	0	0	0		0	0	0	0
D&A	39	DISTRIBUTION PLANT	TOTPLT	11,265,326	0	1,198,504		3,215,489	0	282,752	1,559,563
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT	502,058	0	51,830		135,635	0	11,710	63,571
D&A	41	**TOTAL CONSTRUCTION WORK IN PROGRESS**		12,558,601	0	1,328,042		3,573,045	0	315,023	1,818,911
D&A	42										
D&A	43	**TOTAL NET PLANT IN SERVICE**		145,461,939	0	15,191,337		41,085,831	0	3,590,214	19,819,972
D&A	44										
D&A	45										
D&A	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
D&A	1	**DEPRECIATION & AMORTIZATION RESERVE:**									
D&A	2	PRODUCTION PLANT	PRODPLT		8,110,275	1,771,219	607,451	5,731,604	0	1,118,383	
D&A	3	TRANSMISSION PLANT	TRANPLT		0	0	0	0	0	0	
D&A	4	**DISTRIBUTION PLANT**									
D&A	5	360-Land and Land Rights	PLT_360		101,906	43,645	3,162	55,099	0	28,331	
D&A	6	361-Structures & Improvements	PLT_361		246,583	105,608	7,652	133,323	0	68,552	
D&A	7	362-Station Equipment	PLT_362		4,142,280	1,774,077	128,539	2,239,665	0	1,151,594	
D&A	8	364-Towers and Fixtures	PLT_364		1,864,338	1,733,711	130,626	0	0	0	
D&A	9	365-Overhead Conductors & Devices	PLT_365		1,285,525	1,198,497	87,029	0	0	0	
D&A	10	366-Underground Conduit	PLT_366		0	0	0	0	0	0	
D&A	11	367-Underground Conductor	PLT_367		834,224	766,933	67,290	0	0	0	
D&A	12	368-Line Transformers	PLT_368		907,778	907,778	0	0	0	0	
D&A	13	369-Services	PLT_369		20,169	20,169	0	0	0	0	
D&A	14	370-Meters	PLT_370		(10,464)	(4,424)	(2,699)	(3,341)	(980)	(2,618)	
D&A	15	371-Inst. on Customer Premises	PLT_371		0	0	0	0	0	0	
D&A	16	373-Street Lighting / Signal Systems	PLT_373		0	0	0	0	0	0	
D&A	17	TOTAL DISTRIBUTION PLANT			9,392,338	6,545,994	421,599	2,424,745	(980)	1,245,859	
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT		722,116	356,483	40,200	325,433	4,660	119,182	
D&A	19	**TOTAL DEPRECIATION & AMORTIZATION RESERVE**			18,224,729	8,673,696	1,069,250	8,481,782	3,680	2,483,424	
D&A	20										
D&A	21	**NET ELECTRIC PLANT IN SERVICE**									
D&A	22	NET PRODUCTION PLANT			4,980,217	1,087,640	373,013	3,519,564	0	686,757	
D&A	23	NET TRANSMISSION PLANT			0	0	0	0	0	0	
D&A	24	NET DISTRIBUTION PLANT			8,086,181	5,336,315	413,860	2,336,005	34,540	1,232,838	
D&A	25	NET GENERAL & INTANGIBLE PLANT			8,068,765	3,983,264	449,189	3,636,312	52,070	1,331,716	
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED			1,031,270	497,305	61,262	472,703	1,132	144,519	
D&A	27	**TOTAL NET PLANT IN SERVICE**			22,166,433	10,904,524	1,297,324	9,964,584	87,743	3,395,830	
D&A	28										
D&A	29	**PLANT HELD FOR FUTURE USE**									
D&A	30	PRODUCTION PLANT	PRODPLT		0	0	0	0	0	0	
D&A	31	TRANSMISSION	TRANPLT		0	0	0	0	0	0	
D&A	32	DISTRIBUTION	DISTPLT		0	0	0	0	0	0	
D&A	33	GENERAL PLANT	INTGENLPLT		0	0	0	0	0	0	
D&A	34	**TOTAL PLANT HELD FOR FUTURE USE**			0	0	0	0	0	0	
D&A	35										
D&A	36	**CONSTRUCTION WORK IN PROGRESS**									
D&A	37	PRODUCTION PLANT	PRODPLT		211,598	46,211	15,848	149,538	0	29,179	
D&A	38	TRANSMISSION PLANT	TRANPLT		0	0	0	0	0	0	
D&A	39	DISTRIBUTION PLANT	TOTPLT		1,911,588	926,576	112,003	873,009	4,327	278,247	
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT		83,160	41,053	4,630	37,477	537	13,725	
D&A	41	**TOTAL CONSTRUCTION WORK IN PROGRESS**			2,206,346	1,013,841	132,481	1,060,025	4,863	321,151	
D&A	42										
D&A	43	**TOTAL NET PLANT IN SERVICE**			24,372,779	11,918,365	1,429,805	11,024,609	92,606	3,716,981	
D&A	44										
D&A	45										
D&A	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
D&A	1	**DEPRECIATION & AMORTIZATION RESERVE:**									
D&A	2	PRODUCTION PLANT	PRODPLT	32,931	1,728	127,746	162,405	40,621	0		
D&A	3	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	4	**DISTRIBUTION PLANT**									
D&A	5	360-Land and Land Rights	PLT_360	200	10	775	985	247	0		
D&A	6	361-Structures & Improvements	PLT_361	483	25	1,875	2,384	597	0		
D&A	7	362-Station Equipment	PLT_362	8,120	426	31,499	40,044	10,033	0		
D&A	8	364-Towers and Fixtures	PLT_364	17,324	764	58,068	76,157	23,166	0		
D&A	9	365-Overhead Conductors & Devices	PLT_365	11,976	528	40,142	52,646	16,014	0		
D&A	10	366-Underground Conduit	PLT_366	0	0	0	0	0	0		
D&A	11	367-Underground Conductor	PLT_367	7,664	338	25,687	33,689	10,248	0		
D&A	12	368-Line Transformers	PLT_368	9,071	400	30,405	39,876	12,130	0		
D&A	13	369-Services	PLT_369	24,497	3,500	64,852	92,849	0	0		
D&A	14	370-Meters	PLT_370	(483)	0	0	(483)	0	0		
D&A	15	371-Inst. on Customer Premises	PLT_371	0	0	0	0	292,659	41,342		
D&A	16	373-Street Lighting / Signal Systems	PLT_373	491,481	25,795	1,906,560	2,423,836	0	0		
D&A	17	TOTAL DISTRIBUTION PLANT		570,333	31,788	2,159,862	2,761,984	365,093	41,342		
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT	15,031	791	52,259	68,081	25,827	1,818		
D&A	19	**TOTAL DEPRECIATION & AMORTIZATION RESERVE**		618,296	34,307	2,339,867	2,992,469	431,541	43,161		
D&A	20										
D&A	21	**NET ELECTRIC PLANT IN SERVICE**									
D&A	22	NET PRODUCTION PLANT		20,222	1,061	78,444	99,727	24,944	0		
D&A	23	NET TRANSMISSION PLANT		0	0	0	0	0	0		
D&A	24	NET DISTRIBUTION PLANT		377,294	18,942	1,375,207	1,771,443	329,999	38,757		
D&A	25	NET GENERAL & INTANGIBLE PLANT		167,958	8,833	583,926	760,718	288,589	20,319		
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED		33,762	1,806	126,214	161,782	25,661	2,702		
D&A	27	**TOTAL NET PLANT IN SERVICE**		599,236	30,643	2,163,792	2,793,670	669,193	61,779		
D&A	28										
D&A	29	**PLANT HELD FOR FUTURE USE**									
D&A	30	PRODUCTION PLANT	PRODPLT	0	0	0	0	0	0		
D&A	31	TRANSMISSION	TRANPLT	0	0	0	0	0	0		
D&A	32	DISTRIBUTION	DISTPLT	0	0	0	0	0	0		
D&A	33	GENERAL PLANT	INTGENLPLT	0	0	0	0	0	0		
D&A	34	**TOTAL PLANT HELD FOR FUTURE USE**		0	0	0	0	0	0		
D&A	35										
D&A	36	**CONSTRUCTION WORK IN PROGRESS**									
D&A	37	PRODUCTION PLANT	PRODPLT	859	45	3,333	4,237	1,060	0		
D&A	38	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	39	DISTRIBUTION PLANT	TOTPLT	57,622	3,074	213,144	273,840	52,094	4,966		
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT	1,731	91	6,018	7,840	2,974	209		
D&A	41	**TOTAL CONSTRUCTION WORK IN PROGRESS**		60,212	3,210	222,495	285,917	56,128	5,176		
D&A	42										
D&A	43	**TOTAL NET PLANT IN SERVICE**		659,448	33,853	2,386,287	3,079,588	725,321	66,954		
D&A	44										
D&A	45										
D&A	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
RBO	1	**ADDITIONS AND DEDUCTIONS TO RATE BASE**									
RBO	2										
RBO	3	**PLUS: ADDITIONS TO RATE BASE**									
RBO	4	Fuel Stock	ENEFUEL	50,852	21,943	166	17,526	445	10,773		
RBO	5	Cash Working Capital	OMXFPP	102,628,466	61,889,989	789,236	30,028,771	567,047	9,353,424		
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT	(135,579)	(75,846)	(462)	(42,288)	(1,383)	(15,600)		
RBO	8	Transmission	TRANPLT	0	0	0	0	0	0		
RBO	9	Distribution	DISTPLT	3,954,415	2,544,419	93,564	1,173,520	14,725	128,186		
RBO	10	General	GENLPLT	(326,903)	(211,209)	(2,932)	(91,254)	(1,645)	(19,862)		
RBO	11	Total Utility Material and Supplies		3,491,932	2,257,364	90,169	1,039,978	11,696	92,724		
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT	224,624	139,658	3,708	67,055	1,255	12,948		
RBO	14	Insurance - Other	SALWAGES	327,779	211,775	2,940	91,499	1,650	19,916		
RBO	15	IT Related	TOTPLT	842,359	523,728	13,904	251,463	4,706	48,557		
RBO	16	Other Prepaid	SALWAGXAG	0	0	0	0	0	0		
RBO	17	Total Prepayments		1,394,763	875,162	20,552	410,017	7,611	81,421		
RBO	18	Cash & Bank Balances	TOTPLT	6,929,139	4,308,122	114,376	2,068,501	38,714	399,427		
RBO	19	TOTAL ADDITIONS TO RATE BASE		114,495,152	69,352,579	1,014,499	33,564,792	625,513	9,937,769		
RBO	20										
RBO	21	**LESS: DEDUCTIONS TO RATE BASE**									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT	1,768,188	1,099,353	29,187	527,843	9,879	101,926		
RBO	24	Payroll	SALWAGES	133,891	86,506	1,201	37,375	674	8,135		
RBO	25	Taxes	TOTPLT	0	0	0	0	0	0		
RBO	26	Total Accumulated Deferred Income Taxes		1,902,079	1,185,859	30,388	565,218	10,553	110,062		
RBO	27	Customer Deposits	CUSTDEP	14,546,589	12,443,939	470,483	1,627,479	1,930	2,758		
RBO	28	Customer Advances for Construction	DISTPLT	6,519,643	4,194,984	154,259	1,934,783	24,277	211,341		
RBO	29	TOTAL DEDUCTIONS TO RATE BASE		22,968,311	17,824,782	655,129	4,127,480	36,760	324,160		
RBO	30										
RBO	31										
RBO	32	**TOTAL RATE BASE**		348,730,362	212,181,073	4,231,233	105,851,694	2,018,557	24,447,805		
RBO	33										
RBO	34										
RBO	35										
RBO	36										
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RBO	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
RBO	1	**ADDITIONS AND DEDUCTIONS TO RATE BASE**									
RBO	2										
RBO	3	**PLUS: ADDITIONS TO RATE BASE**									
RBO	4	Fuel Stock	ENEFUEL	19,984	0	1,959		5,631	0	585	5,791
RBO	5	Cash Working Capital	OMXFPP	56,257,618	0	5,632,371		14,687,200	0	1,267,186	7,831,516
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT	(69,063)	0	(6,783)		(19,371)	0	(1,795)	(17,089)
RBO	8	Transmission	TRANPLT	0	0	0		0	0	0	0
RBO	9	Distribution	DISTPLT	2,290,798	0	253,621		671,961	0	58,339	233,796
RBO	10	General	GENLPLT	(191,940)	0	(19,270)		(49,213)	0	(4,170)	(22,260)
RBO	11	Total Utility Material and Supplies		2,029,795	0	227,569		603,378	0	52,374	194,447
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT	126,229	0	13,429		36,030	0	3,168	17,475
RBO	14	Insurance - Other	SALWAGES	192,454	0	19,321		49,344	0	4,181	22,320
RBO	15	IT Related	TOTPLT	473,367	0	50,361		135,114	0	11,881	65,533
RBO	16	Other Prepaid	SALWAGXAG	0	0	0		0	0	0	0
RBO	17	Total Prepayments		792,050	0	83,111		220,488	0	19,230	105,327
RBO	18	Cash & Bank Balances	TOTPLT	3,893,859	0	414,263		1,111,433	0	97,733	539,063
RBO	19	TOTAL ADDITIONS TO RATE BASE		62,993,307	0	6,359,273		16,628,131	0	1,437,109	8,676,144
RBO	20										
RBO	21	**LESS: DEDUCTIONS TO RATE BASE**									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT	993,641	0	105,712		283,617	0	24,940	137,559
RBO	24	Payroll	SALWAGES	78,614	0	7,892		20,156	0	1,708	9,117
RBO	25	Taxes	TOTPLT	0	0	0		0	0	0	0
RBO	26	Total Accumulated Deferred Income Taxes		1,072,254	0	113,605		303,773	0	26,648	146,676
RBO	27	Customer Deposits	CUSTDEP	11,590,089	0	853,850		1,428,292	0	60,551	128,433
RBO	28	Customer Advances for Construction	DISTPLT	3,776,838	0	418,146		1,107,862	0	96,183	385,459
RBO	29	TOTAL DEDUCTIONS TO RATE BASE		16,439,182	0	1,385,600		2,839,928	0	183,381	660,567
RBO	30										
RBO	31										
RBO	32	**TOTAL RATE BASE**		192,016,064	0	20,165,009		54,874,034	0	4,843,941	27,835,548
RBO	33										
RBO	34										
RBO	35										
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RBO	43										
RBO	44										
RBO	45										
RBO	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
RBO	1	**ADDITIONS AND DEDUCTIONS TO RATE BASE**									
RBO	2										
RBO	3	**PLUS: ADDITIONS TO RATE BASE**									
RBO	4	Fuel Stock	ENEFUEL		12,915	5,518	445	6,951	0	3,821	
RBO	5	Cash Working Capital	OMXFPP		13,147,486	6,242,869	567,047	6,337,570	19,726	2,996,128	
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT		(18,470)	(4,034)	(1,383)	(13,053)	0	(2,547)	
RBO	8	Transmission	TRANPLT		0	0	0	0	0	0	
RBO	9	Distribution	DISTPLT		308,058	209,425	14,725	83,908	591	43,687	
RBO	10	General	GENLPLT		(31,092)	(15,612)	(1,645)	(13,835)	(324)	(5,704)	
RBO	11	Total Utility Material and Supplies			258,496	189,779	11,696	57,020	268	35,436	
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT		21,419	10,382	1,255	9,782	48	3,118	
RBO	14	Insurance - Other	SALWAGES		31,176	15,654	1,650	13,872	324	5,719	
RBO	15	IT Related	TOTPLT		80,325	38,935	4,706	36,684	182	11,692	
RBO	16	Other Prepaid	SALWAGXAG		0	0	0	0	0	0	
RBO	17	Total Prepayments			132,920	64,971	7,611	60,338	555	20,528	
RBO	18	Cash & Bank Balances	TOTPLT		660,740	320,271	38,714	301,755	1,496	96,176	
RBO	19	TOTAL ADDITIONS TO RATE BASE			14,212,556	6,823,408	625,513	6,763,635	22,044	3,152,090	
RBO	20										
RBO	21	**LESS: DEDUCTIONS TO RATE BASE**									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT		168,609	81,727	9,879	77,002	382	24,542	
RBO	24	Payroll	SALWAGES		12,735	6,394	674	5,667	133	2,336	
RBO	25	Taxes	TOTPLT		0	0	0	0	0	0	
RBO	26	Total Accumulated Deferred Income Taxes			181,343	88,121	10,553	82,669	514	26,878	
RBO	27	Customer Deposits	CUSTDEP		13,788	10,203	1,930	1,655	276	827	
RBO	28	Customer Advances for Construction	DISTPLT		507,895	345,279	24,277	138,339	975	72,027	
RBO	29	TOTAL DEDUCTIONS TO RATE BASE			703,026	443,603	36,760	222,662	1,765	99,732	
RBO	30										
RBO	31										
RBO	32	**TOTAL RATE BASE**			37,882,309	18,298,170	2,018,557	17,565,581	112,885	6,769,339	
RBO	33										
RBO	34										
RBO	35										
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RBO	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
RBO	1	**ADDITIONS AND DEDUCTIONS TO RATE BASE**									
RBO	2										
RBO	3	**PLUS: ADDITIONS TO RATE BASE**									
RBO	4	Fuel Stock	ENEFUEL	27	1	104	133	33	0		
RBO	5	Cash Working Capital	OMXFPP	115,554	5,921	365,033	486,508	291,260	11,468		
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT	(75)	(4)	(291)	(370)	(93)	0		
RBO	8	Transmission	TRANPLT	0	0	0	0	0	0		
RBO	9	Distribution	DISTPLT	16,702	894	62,305	79,901	12,251	1,412		
RBO	10	General	GENLPLT	(374)	(19)	(1,102)	(1,494)	(1,362)	(76)		
RBO	11	Total Utility Material and Supplies		16,253	871	60,913	78,037	10,797	1,336		
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT	646	34	2,388	3,068	584	56		
RBO	14	Insurance - Other	SALWAGES	375	19	1,105	1,498	1,366	76		
RBO	15	IT Related	TOTPLT	2,421	129	8,956	11,507	2,189	209		
RBO	16	Other Prepaid	SALWAGXAG	0	0	0	0	0	0		
RBO	17	Total Prepayments		3,441	183	12,449	16,073	4,138	340		
RBO	18	Cash & Bank Balances	TOTPLT	19,917	1,062	73,673	94,653	18,006	1,717		
RBO	19	TOTAL ADDITIONS TO RATE BASE		155,193	8,038	512,173	675,404	324,234	14,861		
RBO	20										
RBO	21	**LESS: DEDUCTIONS TO RATE BASE**									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT	5,082	271	18,800	24,154	4,595	438		
RBO	24	Payroll	SALWAGES	153	8	451	612	558	31		
RBO	25	Taxes	TOTPLT	0	0	0	0	0	0		
RBO	26	Total Accumulated Deferred Income Taxes		5,235	279	19,251	24,766	5,153	469		
RBO	27	Customer Deposits	CUSTDEP	20,590	2,941	54,507	78,038	392,444	0		
RBO	28	Customer Advances for Construction	DISTPLT	27,536	1,474	102,723	131,733	20,198	2,328		
RBO	29	TOTAL DEDUCTIONS TO RATE BASE		53,361	4,694	176,482	234,537	417,795	2,797		
RBO	30										
RBO	31										
RBO	32	**TOTAL RATE BASE**		761,280	37,197	2,721,978	3,520,454	631,760	79,019		
RBO	33										
RBO	34										
RBO	35										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
REV	1	**OPERATING REVENUES**									
REV	2										
REV	3	**SALES REVENUES**									
REV	4	Sales of Electricity Revenues		100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
REV	5	TOTAL SALES OF ELECTRICITY		100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
REV	6										
REV	7	**Revenue Credits:**									
REV	8	450-Late Payment Revenues	CUST	355,175	303,836	11,487	39,737	47	67		
REV	9	451-Misc Service Revenue	CUST	176,001	150,561	5,692	19,691	23	33		
REV	10	453-Sales of Water and Water Power	ENERGY1	50,194	21,659	164	17,299	439	10,633		
REV	11	454-Rent from Electric Property	DISTPLT	242,985	156,346	5,749	72,109	905	7,877		
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT	0	0	0	0	0	0		
REV	14	Capacity Revenue - EN447	ENERGY1	(1,755,684)	(757,586)	(5,719)	(605,088)	(15,365)	(371,926)		
REV	15	RTMP - Opportunity Sales	ENERGY1	7,994,004	3,449,452	26,042	2,755,094	69,958	1,693,458		
REV	16	Electric True-up	ENERGY1	0	0	0	0	0	0		
REV	17	Naturewise	ENERGY1	0	0	0	0	0	0		
REV	18	Ancillary Services - Non-Firm	ENERGY1	1,083,078	467,354	3,528	373,277	9,478	229,440		
REV	19	Total Revenue Credits		8,145,752	3,791,620	46,943	2,672,119	65,486	1,569,583		
REV	20										
REV	21	**Total Revenue Requirements**		108,248,744	61,884,252	1,942,944	33,468,612	921,416	10,031,520		
REV	22										
REV	23										
REV	24										
REV	25										
REV	26										
REV	27										
REV	28										
REV	29										
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REV	42										
REV	43										
REV	44										
REV	45										
REV	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
REV	1	**OPERATING REVENUES**									
REV	2										
REV	3	**SALES REVENUES**									
REV	4	Sales of Electricity Revenues		53,540,865	0	4,551,767		12,291,582	0	1,013,188	11,918,663
REV	5	TOTAL SALES OF ELECTRICITY		53,540,865	0	4,551,767		12,291,582	0	1,013,188	11,918,663
REV	6										
REV	7	**Revenue Credits:**									
REV	8	450-Late Payment Revenues	CUST	282,988	0	20,848		34,874	0	1,478	3,136
REV	9	451-Misc Service Revenue	CUST	140,230	0	10,331		17,281	0	733	1,554
REV	10	453-Sales of Water and Water Power	ENERGY1	19,725	0	1,933		5,558	0	578	5,717
REV	11	454-Rent from Electric Property	DISTPLT	140,762	0	15,584		41,290	0	3,585	14,366
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT	0	0	0		0	0	0	0
REV	14	Capacity Revenue - EN447	ENERGY1	(689,958)	0	(67,629)		(194,407)	0	(20,211)	(199,953)
REV	15	RTMP - Opportunity Sales	ENERGY1	3,141,523	0	307,929		885,177	0	92,026	910,429
REV	16	Electric True-up	ENERGY1	0	0	0		0	0	0	0
REV	17	Naturewise	ENERGY1	0	0	0		0	0	0	0
REV	18	Ancillary Services - Non-Firm	ENERGY1	425,633	0	41,720		119,929	0	12,468	123,351
REV	19	Total Revenue Credits		3,460,904	0	330,716		909,701	0	90,657	858,598
REV	20										
REV	21	**Total Revenue Requirements**		57,001,769	0	4,882,483		13,201,283	0	1,103,845	12,777,261
REV	22										
REV	23										
REV	24										
REV	25										
REV	26										
REV	27										
REV	28										
REV	29										
REV	30										
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REV	44										
REV	45										
REV	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total (t)	S Large Commerical & Industrial Secondary CP-U Sec (u)	P Large Commerical & Industrial Primary CP-U Prim (v)	Q Large Commerical & Industrial Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)	(z)
		(a)	(b)								
REV	1	**OPERATING REVENUES**									
REV	2										
REV	3	**SALES REVENUES**									
REV	4	Sales of Electricity Revenues			11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
REV	5	TOTAL SALES OF ELECTRICITY			11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
REV	6										
REV	7	**Revenue Credits:**									
REV	8	450-Late Payment Revenues	CUST		337	249	47	40	7	20	
REV	9	451-Misc Service Revenue	CUST		167	123	23	20	3	10	
REV	10	453-Sales of Water and Water Power	ENERGY1		12,747	5,447	439	6,861	0	3,772	
REV	11	454-Rent from Electric Property	DISTPLT		18,929	12,868	905	5,156	36	2,684	
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT		0	0	0	0	0	0	
REV	14	Capacity Revenue - EN447	ENERGY1		(445,881)	(190,517)	(15,365)	(240,000)	0	(131,926)	
REV	15	RTMP - Opportunity Sales	ENERGY1		2,030,193	867,462	69,958	1,092,773	0	600,686	
REV	16	Electric True-up	ENERGY1		0	0	0	0	0	0	
REV	17	Naturewise	ENERGY1		0	0	0	0	0	0	
REV	18	Ancillary Services - Non-Firm	ENERGY1		275,063	117,529	9,478	148,056	0	81,385	
REV	19	Total Revenue Credits			1,891,555	813,163	65,486	1,012,906	46	556,631	
REV	20										
REV	21	**Total Revenue Requirements**			13,663,198	6,386,222	921,416	6,355,560	145,973	3,529,987	
REV	22										
REV	23										
REV	24										
REV	25										
REV	26										
REV	27										
REV	28										
REV	29										
REV	30										
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REV	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
REV	1	**OPERATING REVENUES**									
REV	2										
REV	3	**SALES REVENUES**									
REV	4	Sales of Electricity Revenues		69,658	14,541	1,374,879	1,459,078	436,923	0		
REV	5	TOTAL SALES OF ELECTRICITY		69,658	14,541	1,374,879	1,459,078	436,923	0		
REV	6										
REV	7	**Revenue Credits:**									
REV	8	450-Late Payment Revenues	CUST	503	72	1,331	1,905	9,582	0		
REV	9	451-Misc Service Revenue	CUST	249	36	659	944	4,748	0		
REV	10	453-Sales of Water and Water Power	ENERGY1	27	1	103	131	33	0		
REV	11	454-Rent from Electric Property	DISTPLT	1,026	55	3,828	4,910	753	87		
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT	0	0	0	0	0	0		
REV	14	Capacity Revenue - EN447	ENERGY1	(929)	(49)	(3,603)	(4,580)	(1,139)	0		
REV	15	RTMP - Opportunity Sales	ENERGY1	4,229	222	16,404	20,854	5,188	0		
REV	16	Electric True-up	ENERGY1	0	0	0	0	0	0		
REV	17	Naturewise	ENERGY1	0	0	0	0	0	0		
REV	18	Ancillary Services - Non-Firm	ENERGY1	573	30	2,222	2,825	703	0		
REV	19	Total Revenue Credits		5,677	367	20,945	26,990	19,867	87		
REV	20										
REV	21	**Total Revenue Requirements**		75,335	14,908	1,395,824	1,486,067	456,790	87		
REV	22										
REV	23										
REV	24										
REV	25										
REV	26										
REV	27										
REV	28										
REV	29										
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REV	42										
REV	43										
REV	44										
REV	45										
REV	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	1	**OPERATION & MAINTENANCE EXPENSE**									
O&M	2										
O&M	3	**FUEL AND PURCHASED POWER**									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1	26,304,428	11,350,490	85,691	9,065,690	230,198	5,572,358		
O&M	7	555 - Purchased Power - Demand	DPURCH	0	0	0	0	0	0		
O&M	8	Total Purchased Power		26,304,428	11,350,490	85,691	9,065,690	230,198	5,572,358		
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL	0	0	0	0	0	0		
O&M	12	547-Fuel Handling	ENEFUEL	8,274	3,570	27	2,851	72	1,753		
O&M	13	Total Fuel and Fuel Handling (501 & 547)		8,274	3,570	27	2,851	72	1,753		
O&M	14										
O&M	15	**TOTAL FUEL AND PURCHASED POWER**		26,312,701	11,354,060	85,718	9,068,542	230,270	5,574,111		
O&M	16										
O&M	17										
O&M	18	**PRODUCTION EXPENSE**									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	22	502-Steam Expense	DPROD	0	0	0	0	0	0		
O&M	23	505-Electric Expense	DPROD	0	0	0	0	0	0		
O&M	24	506-Miscellaneous	DPROD	0	0	0	0	0	0		
O&M	25	507-Rent	DPROD	0	0	0	0	0	0		
O&M	26	508-Supplies and Expenses	DPROD	0	0	0	0	0	0		
O&M	27	509-Allowances	DPROD	0	0	0	0	0	0		
O&M	28	Total Steam Production Operation		0	0	0	0	0	0		
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	32	511-Structures	DPROD	19,700	11,021	67	6,145	201	2,267		
O&M	33	512-Boilers	ENERGY1	0	0	0	0	0	0		
O&M	34	513-Electric Plant	ENERGY1	0	0	0	0	0	0		
O&M	35	514-Miscellaneous Plant	DPROD	0	0	0	0	0	0		
O&M	36	Total Steam Production Maintenance		19,700	11,021	67	6,145	201	2,267		
O&M	37										
O&M	38	Total Steam Production O&M		19,700	11,021	67	6,145	201	2,267		
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	1	**OPERATION & MAINTENANCE EXPENSE**									
O&M	2										
O&M	3	**FUEL AND PURCHASED POWER**									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1	10,337,244	0	1,013,246		2,912,692	0	302,813	2,995,784
O&M	7	555 - Purchased Power - Demand	DPURCH	0	0	0		0	0	0	0
O&M	8	Total Purchased Power		10,337,244	0	1,013,246		2,912,692	0	302,813	2,995,784
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL	0	0	0		0	0	0	0
O&M	12	547-Fuel Handling	ENEFUEL	3,251	0	319		916	0	95	942
O&M	13	Total Fuel and Fuel Handling (501 & 547)		3,251	0	319		916	0	95	942
O&M	14										
O&M	15	**TOTAL FUEL AND PURCHASED POWER**		10,340,496	0	1,013,565		2,913,608	0	302,908	2,996,726
O&M	16										
O&M	17										
O&M	18	**PRODUCTION EXPENSE**									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO	0	0	0		0	0	0	0
O&M	22	502-Steam Expense	DPROD	0	0	0		0	0	0	0
O&M	23	505-Electric Expense	DPROD	0	0	0		0	0	0	0
O&M	24	506-Miscellaneous	DPROD	0	0	0		0	0	0	0
O&M	25	507-Rent	DPROD	0	0	0		0	0	0	0
O&M	26	508-Supplies and Expenses	DPROD	0	0	0		0	0	0	0
O&M	27	509-Allowances	DPROD	0	0	0		0	0	0	0
O&M	28	Total Steam Production Operation		0	0	0		0	0	0	0
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM	0	0	0		0	0	0	0
O&M	32	511-Structures	DPROD	10,035	0	986		2,815	0	261	2,483
O&M	33	512-Boilers	ENERGY1	0	0	0		0	0	0	0
O&M	34	513-Electric Plant	ENERGY1	0	0	0		0	0	0	0
O&M	35	514-Miscellaneous Plant	DPROD	0	0	0		0	0	0	0
O&M	36	Total Steam Production Maintenance		10,035	0	986		2,815	0	261	2,483
O&M	37										
O&M	38	Total Steam Production O&M		10,035	0	986		2,815	0	261	2,483
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

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Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
O&M	1	**OPERATION & MAINTENANCE EXPENSE**									
O&M	2										
O&M	3	**FUEL AND PURCHASED POWER**									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1		6,680,389	2,854,402	230,198	3,595,790	0	1,976,568	
O&M	7	555 - Purchased Power - Demand	DPURCH		0	0	0	0	0	0	
O&M	8	Total Purchased Power			6,680,389	2,854,402	230,198	3,595,790	0	1,976,568	
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL		0	0	0	0	0	0	
O&M	12	547-Fuel Handling	ENEFUEL		2,101	898	72	1,131	0	622	
O&M	13	Total Fuel and Fuel Handling (501 & 547)			2,101	898	72	1,131	0	622	
O&M	14										
O&M	15	**TOTAL FUEL AND PURCHASED POWER**			6,682,491	2,855,300	230,270	3,596,921	0	1,977,190	
O&M	16										
O&M	17										
O&M	18	**PRODUCTION EXPENSE**									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO		0	0	0	0	0	0	
O&M	22	502-Steam Expense	DPROD		0	0	0	0	0	0	
O&M	23	505-Electric Expense	DPROD		0	0	0	0	0	0	
O&M	24	506-Miscellaneous	DPROD		0	0	0	0	0	0	
O&M	25	507-Rent	DPROD		0	0	0	0	0	0	
O&M	26	508-Supplies and Expenses	DPROD		0	0	0	0	0	0	
O&M	27	509-Allowances	DPROD		0	0	0	0	0	0	
O&M	28	Total Steam Production Operation			0	0	0	0	0	0	
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM		0	0	0	0	0	0	
O&M	32	511-Structures	DPROD		2,684	586	201	1,897	0	370	
O&M	33	512-Boilers	ENERGY1		0	0	0	0	0	0	
O&M	34	513-Electric Plant	ENERGY1		0	0	0	0	0	0	
O&M	35	514-Miscellaneous Plant	DPROD		0	0	0	0	0	0	
O&M	36	Total Steam Production Maintenance			2,684	586	201	1,897	0	370	
O&M	37										
O&M	38	Total Steam Production O&M			2,684	586	201	1,897	0	370	
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
O&M	1	**OPERATION & MAINTENANCE EXPENSE**									
O&M	2										
O&M	3	**FUEL AND PURCHASED POWER**									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1	13,914	730	53,976	68,621	17,071	0		
O&M	7	555 - Purchased Power - Demand	DPURCH	0	0	0	0	0	0		
O&M	8	Total Purchased Power		13,914	730	53,976	68,621	17,071	0		
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL	0	0	0	0	0	0		
O&M	12	547-Fuel Handling	ENEFUEL	4	0	17	22	5	0		
O&M	13	Total Fuel and Fuel Handling (501 & 547)		4	0	17	22	5	0		
O&M	14										
O&M	15	**TOTAL FUEL AND PURCHASED POWER**		13,919	731	53,993	68,642	17,076	0		
O&M	16										
O&M	17										
O&M	18	**PRODUCTION EXPENSE**									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	22	502-Steam Expense	DPROD	0	0	0	0	0	0		
O&M	23	505-Electric Expense	DPROD	0	0	0	0	0	0		
O&M	24	506-Miscellaneous	DPROD	0	0	0	0	0	0		
O&M	25	507-Rent	DPROD	0	0	0	0	0	0		
O&M	26	508-Supplies and Expenses	DPROD	0	0	0	0	0	0		
O&M	27	509-Allowances	DPROD	0	0	0	0	0	0		
O&M	28	Total Steam Production Operation		0	0	0	0	0	0		
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	32	511-Structures	DPROD	11	1	42	54	13	0		
O&M	33	512-Boilers	ENERGY1	0	0	0	0	0	0		
O&M	34	513-Electric Plant	ENERGY1	0	0	0	0	0	0		
O&M	35	514-Miscellaneous Plant	DPROD	0	0	0	0	0	0		
O&M	36	Total Steam Production Maintenance		11	1	42	54	13	0		
O&M	37										
O&M	38	Total Steam Production O&M		11	1	42	54	13	0		
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	47	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	48	**PRODUCTION EXPENSE CONTINUED**									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO	1,265,434	707,910	4,315	394,696	12,912	145,600		
O&M	52	537-Hydraulic Expenses	DPROD	29,785	16,662	102	9,290	304	3,427		
O&M	53	538-Electric Expense	DPROD	270,954	151,577	924	84,512	2,765	31,176		
O&M	54	539-Miscellaneous	DPROD	23,332	13,052	80	7,277	238	2,685		
O&M	55	540-Rents	DPROD	99,631	55,736	340	31,076	1,017	11,464		
O&M	56	Total Hydraulic Power Generation Operation		1,689,136	944,938	5,760	526,852	17,235	194,351		
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM	455,291	254,699	1,553	142,008	4,646	52,385		
O&M	60	542-Structures	DPROD	46,901	26,238	160	14,629	479	5,396		
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD	130,781	73,162	446	40,791	1,334	15,048		
O&M	62	544-Electric Plant	DPROD	735,318	411,352	2,508	229,350	7,503	84,605		
O&M	63	545-Miscellaneous Plant	DPROD	4,470	2,500	15	1,394	46	514		
O&M	64	Total Hydraulic Power Generation Maintenance		1,372,761	767,951	4,681	428,172	14,007	157,949		
O&M	65										
O&M	66	Total Hydraulic Power Production O&M		3,061,897	1,712,889	10,442	955,024	31,242	352,300		
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	70	548-Generation Expense	DPROD	2,878	1,610	10	898	29	331		
O&M	71	549-Miscellaneous	DPROD	19,226	10,755	66	5,997	196	2,212		
O&M	72	550-Rents	DPROD	0	0	0	0	0	0		
O&M	73	Total Combustion Turbine Production Operation		22,103	12,365	75	6,894	226	2,543		
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	77	552-Structures	DPROD	11,015	6,162	38	3,435	112	1,267		
O&M	78	553-Electric Plant	DPROD	3,152	1,763	11	983	32	363		
O&M	79	554-Miscellaneous Plant	DPROD	7,196	4,025	25	2,244	73	828		
O&M	80	Total Combustion Turbine Production Maintenance		21,362	11,951	73	6,663	218	2,458		
O&M	81										
O&M	82	Total Combustion Turbine Production O&M		43,466	24,316	148	13,557	443	5,001		
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD	2,552,755	1,101,527	8,316	879,794	22,340	540,778		
O&M	86	557-Other Expenses	DPROD	0	0	0	0	0	0		
O&M	87	Total System Control and Dispatch		2,552,755	1,101,527	8,316	879,794	22,340	540,778		
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE		5,677,818	2,849,752	18,973	1,854,520	54,226	900,346		
O&M	90	TOTAL PRODUCTION O&M EXPENSE		31,990,519	14,203,812	104,691	10,923,062	284,496	6,474,457		
O&M	91										
O&M	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	47	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	48	**PRODUCTION EXPENSE CONTINUED**									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO	644,601	0	63,309		180,799	0	16,751	159,499
O&M	52	537-Hydraulic Expenses	DPROD	15,172	0	1,490		4,255	0	394	3,754
O&M	53	538-Electric Expense	DPROD	138,022	0	13,556		38,713	0	3,587	34,152
O&M	54	539-Miscellaneous	DPROD	11,885	0	1,167		3,334	0	309	2,941
O&M	55	540-Rents	DPROD	50,751	0	4,984		14,235	0	1,319	12,558
O&M	56	Total Hydraulic Power Generation Operation		860,432	0	84,506		241,335	0	22,360	212,903
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM	231,921	0	22,778		65,050	0	6,027	57,386
O&M	60	542-Structures	DPROD	23,891	0	2,346		6,701	0	621	5,912
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD	66,619	0	6,543		18,685	0	1,731	16,484
O&M	62	544-Electric Plant	DPROD	374,565	0	36,787		105,058	0	9,734	92,681
O&M	63	545-Miscellaneous Plant	DPROD	2,277	0	224		639	0	59	563
O&M	64	Total Hydraulic Power Generation Maintenance		699,273	0	68,678		196,133	0	18,172	173,026
O&M	65										
O&M	66	Total Hydraulic Power Production O&M		1,559,705	0	153,185		437,468	0	40,531	385,930
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO	0	0	0		0	0	0	0
O&M	70	548-Generation Expense	DPROD	1,466	0	144		411	0	38	363
O&M	71	549-Miscellaneous	DPROD	9,793	0	962		2,747	0	254	2,423
O&M	72	550-Rents	DPROD	0	0	0		0	0	0	0
O&M	73	Total Combustion Turbine Production Operation		11,259	0	1,106		3,158	0	293	2,786
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM	0	0	0		0	0	0	0
O&M	77	552-Structures	DPROD	5,611	0	551		1,574	0	146	1,388
O&M	78	553-Electric Plant	DPROD	1,606	0	158		450	0	42	397
O&M	79	554-Miscellaneous Plant	DPROD	3,665	0	360		1,028	0	95	907
O&M	80	Total Combustion Turbine Production Maintenance		10,882	0	1,069		3,052	0	283	2,693
O&M	81										
O&M	82	Total Combustion Turbine Production O&M		22,141	0	2,175		6,210	0	575	5,479
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD	1,003,194	0	98,332		282,667	0	29,387	290,731
O&M	86	557-Other Expenses	DPROD	0	0	0		0	0	0	0
O&M	87	Total System Control and Dispatch		1,003,194	0	98,332		282,667	0	29,387	290,731
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE		2,595,075	0	254,677		729,160	0	70,754	684,622
O&M	90	TOTAL PRODUCTION O&M EXPENSE		12,935,571	0	1,268,242		3,642,767	0	373,663	3,681,348
O&M	91										
O&M	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
O&M	47	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	48	**PRODUCTION EXPENSE CONTINUED**									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO		172,388	37,648	12,912	121,828	0	23,772	
O&M	52	537-Hydraulic Expenses	DPROD		4,058	886	304	2,867	0	560	
O&M	53	538-Electric Expense	DPROD		36,912	8,061	2,765	26,086	0	5,090	
O&M	54	539-Miscellaneous	DPROD		3,178	694	238	2,246	0	438	
O&M	55	540-Rents	DPROD		13,573	2,964	1,017	9,592	0	1,872	
O&M	56	Total Hydraulic Power Generation Operation			230,108	50,254	17,235	162,620	0	31,731	
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM		62,024	13,545	4,646	43,833	0	8,553	
O&M	60	542-Structures	DPROD		6,389	1,395	479	4,515	0	881	
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD		17,816	3,891	1,334	12,591	0	2,457	
O&M	62	544-Electric Plant	DPROD		100,171	21,877	7,503	70,792	0	13,813	
O&M	63	545-Miscellaneous Plant	DPROD		609	133	46	430	0	84	
O&M	64	Total Hydraulic Power Generation Maintenance			187,009	40,841	14,007	132,161	0	25,788	
O&M	65										
O&M	66	Total Hydraulic Power Production O&M			417,117	91,095	31,242	294,781	0	57,519	
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO		0	0	0	0	0	0	
O&M	70	548-Generation Expense	DPROD		392	86	29	277	0	54	
O&M	71	549-Miscellaneous	DPROD		2,619	572	196	1,851	0	361	
O&M	72	550-Rents	DPROD		0	0	0	0	0	0	
O&M	73	Total Combustion Turbine Production Operation			3,011	658	226	2,128	0	415	
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM		0	0	0	0	0	0	
O&M	77	552-Structures	DPROD		1,500	328	112	1,060	0	207	
O&M	78	553-Electric Plant	DPROD		429	94	32	303	0	59	
O&M	79	554-Miscellaneous Plant	DPROD		980	214	73	693	0	135	
O&M	80	Total Combustion Turbine Production Maintenance			2,910	636	218	2,057	0	401	
O&M	81										
O&M	82	Total Combustion Turbine Production O&M			5,921	1,293	443	4,185	0	817	
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD		648,309	277,010	22,340	348,959	0	191,819	
O&M	86	557-Other Expenses	DPROD		0	0	0	0	0	0	
O&M	87	Total System Control and Dispatch			648,309	277,010	22,340	348,959	0	191,819	
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE			1,074,032	369,984	54,226	649,821	0	250,525	
O&M	90	TOTAL PRODUCTION O&M EXPENSE			7,756,522	3,225,284	284,496	4,246,742	0	2,227,715	
O&M	91										
O&M	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
O&M	47	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	48	**PRODUCTION EXPENSE CONTINUED**									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO	700	37	2,715	3,452	863	0		
O&M	52	537-Hydraulic Expenses	DPROD	16	1	64	81	20	0		
O&M	53	538-Electric Expense	DPROD	150	8	581	739	185	0		
O&M	54	539-Miscellaneous	DPROD	13	1	50	64	16	0		
O&M	55	540-Rents	DPROD	55	3	214	272	68	0		
O&M	56	Total Hydraulic Power Generation Operation		934	49	3,624	4,608	1,153	0		
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM	252	13	977	1,242	311	0		
O&M	60	542-Structures	DPROD	26	1	101	128	32	0		
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD	72	4	281	357	89	0		
O&M	62	544-Electric Plant	DPROD	407	21	1,578	2,006	502	0		
O&M	63	545-Miscellaneous Plant	DPROD	2	0	10	12	3	0		
O&M	64	Total Hydraulic Power Generation Maintenance		759	40	2,946	3,745	937	0		
O&M	65										
O&M	66	Total Hydraulic Power Production O&M		1,694	89	6,570	8,353	2,089	0		
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	70	548-Generation Expense	DPROD	2	0	6	8	2	0		
O&M	71	549-Miscellaneous	DPROD	11	1	41	52	13	0		
O&M	72	550-Rents	DPROD	0	0	0	0	0	0		
O&M	73	Total Combustion Turbine Production Operation		12	1	47	60	15	0		
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	77	552-Structures	DPROD	6	0	24	30	8	0		
O&M	78	553-Electric Plant	DPROD	2	0	7	9	2	0		
O&M	79	554-Miscellaneous Plant	DPROD	4	0	15	20	5	0		
O&M	80	Total Combustion Turbine Production Maintenance		12	1	46	58	15	0		
O&M	81										
O&M	82	Total Combustion Turbine Production O&M		24	1	93	119	30	0		
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD	1,350	71	5,238	6,659	1,657	0		
O&M	86	557-Other Expenses	DPROD	0	0	0	0	0	0		
O&M	87	Total System Control and Dispatch		1,350	71	5,238	6,659	1,657	0		
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE		3,079	162	11,944	15,184	3,789	0		
O&M	90	TOTAL PRODUCTION O&M EXPENSE		16,997	892	65,937	83,826	20,865	0		
O&M	91										
O&M	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	93	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	94										
O&M	95	**TRANSMISSION EXPENSE**									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO	0	0	0	0	0	0		
O&M	98	561.000-Load Dispatching	DTRANLD	0	0	0	0	0	0		
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN3	402,513	145,450	836	101,493	2,146	152,587		
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN3	(532,611)	(192,461)	(1,106)	(134,297)	(2,840)	(201,906)		
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN3	16,103	5,819	33	4,060	86	6,105		
O&M	102	562-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	103	563-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	104	564-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	105	566-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	106	567-Rents	TRANPLT	0	0	0	0	0	0		
O&M	107	Total Transmission Operations		(113,995)	(41,192)	(237)	(28,744)	(608)	(43,214)		
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN	10,339,065	4,908,506	28,218	3,425,104	72,422	1,904,816		
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN	(786,779)	(373,526)	(2,147)	(260,642)	(5,511)	(144,952)		
O&M	112	565-Wheeling - Point to Point	DTRAN	0	0	0	0	0	0		
O&M	113	Total Wheeling		9,552,287	4,534,980	26,070	3,164,462	66,910	1,759,864		
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM	0	0	0	0	0	0		
O&M	117	569-Structures	PLT_352	0	0	0	0	0	0		
O&M	118	570-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	119	571-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	120	572-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	121	573-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	122	Total Transmission Maintenance		0	0	0	0	0	0		
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE		9,438,292	4,493,787	25,834	3,135,718	66,303	1,716,650		
O&M	125										
O&M	126										
O&M	127	**REGIONAL MARKET EXPENSE**									
O&M	128	575.1-Operation Supervision	ENERGY3	0	0	0	0	0	0		
O&M	129	575.4-Capacity Market Administration	ENERGY3	0	0	0	0	0	0		
O&M	130	575.5-Ancillary Services Market Administration	ENERGY3	0	0	0	0	0	0		
O&M	131	575.6-Market Monitoring and Compliance	ENERGY3	0	0	0	0	0	0		
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY3	95,090	31,427	237	25,101	662	37,663		
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY3	7,680	2,538	19	2,027	54	3,042		
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY3	0	0	0	0	0	0		
O&M	135	575.8-Rents	ENERGY3	0	0	0	0	0	0		
O&M	136	TOTAL REGIONAL MARKET EXPENSE		102,770	33,965	256	27,128	716	40,704		
O&M	137										
O&M	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	93	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	94										
O&M	95	**TRANSMISSION EXPENSE**									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO	0	0	0		0	0	0	0
O&M	98	561.000-Load Dispatching	DTRANLD	0	0	0		0	0	0	0
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN3	132,436	0	13,013		37,105	0	3,337	31,429
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN3	(175,242)	0	(17,219)		(49,098)	0	(4,415)	(41,587)
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN3	5,298	0	521		1,484	0	133	1,257
O&M	102	562-Station Equipment	PLT_353	0	0	0		0	0	0	0
O&M	103	563-Overhead Lines	OHTRAN	0	0	0		0	0	0	0
O&M	104	564-Underground Lines	UGTRAN	0	0	0		0	0	0	0
O&M	105	566-Miscellaneous	TRANPLT	0	0	0		0	0	0	0
O&M	106	567-Rents	TRANPLT	0	0	0		0	0	0	0
O&M	107	Total Transmission Operations		(37,507)	0	(3,685)		(10,508)	0	(945)	(8,901)
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN	4,469,346	0	439,160		1,252,195	0	112,611	1,060,637
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN	(340,107)	0	(33,419)		(95,289)	0	(8,569)	(80,712)
O&M	112	565-Wheeling - Point to Point	DTRAN	0	0	0		0	0	0	0
O&M	113	Total Wheeling		4,129,239	0	405,741		1,156,906	0	104,041	979,925
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM	0	0	0		0	0	0	0
O&M	117	569-Structures	PLT_352	0	0	0		0	0	0	0
O&M	118	570-Station Equipment	PLT_353	0	0	0		0	0	0	0
O&M	119	571-Overhead Lines	OHTRAN	0	0	0		0	0	0	0
O&M	120	572-Underground Lines	UGTRAN	0	0	0		0	0	0	0
O&M	121	573-Miscellaneous	TRANPLT	0	0	0		0	0	0	0
O&M	122	Total Transmission Maintenance		0	0	0		0	0	0	0
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE		4,091,732	0	402,055		1,146,397	0	103,096	971,025
O&M	125										
O&M	126										
O&M	127	**REGIONAL MARKET EXPENSE**									
O&M	128	575.1-Operation Supervision	ENERGY3	0	0	0		0	0	0	0
O&M	129	575.4-Capacity Market Administration	ENERGY3	0	0	0		0	0	0	0
O&M	130	575.5-Ancillary Services Market Administration	ENERGY3	0	0	0		0	0	0	0
O&M	131	575.6-Market Monitoring and Compliance	ENERGY3	0	0	0		0	0	0	0
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY3	28,622	0	2,805		8,065	0	838	8,295
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY3	2,312	0	227		651	0	68	670
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY3	0	0	0		0	0	0	0
O&M	135	575.8-Rents	ENERGY3	0	0	0		0	0	0	0
O&M	136	TOTAL REGIONAL MARKET EXPENSE		30,933	0	3,032		8,716	0	906	8,965
O&M	137										
O&M	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
O&M	93	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	94										
O&M	95	**TRANSMISSION EXPENSE**									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO		0	0	0	0	0	0	
O&M	98	561.000-Load Dispatching	DTRANLD		0	0	0	0	0	0	
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN3		69,165	29,622	2,146	37,396	95,963	19,228	
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN3		(91,519)	(39,196)	(2,840)	(49,483)	(126,979)	(25,443)	
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN3		2,767	1,185	86	1,496	3,839	769	
O&M	102	562-Station Equipment	PLT_353		0	0	0	0	0	0	
O&M	103	563-Overhead Lines	OHTRAN		0	0	0	0	0	0	
O&M	104	564-Underground Lines	UGTRAN		0	0	0	0	0	0	
O&M	105	566-Miscellaneous	TRANPLT		0	0	0	0	0	0	
O&M	106	567-Rents	TRANPLT		0	0	0	0	0	0	
O&M	107	Total Transmission Operations			(19,588)	(8,389)	(608)	(10,591)	(27,177)	(5,446)	
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN		2,330,067	999,661	72,422	1,257,984	0	646,832	
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN		(177,313)	(76,072)	(5,511)	(95,730)	0	(49,222)	
O&M	112	565-Wheeling - Point to Point	DTRAN		0	0	0	0	0	0	
O&M	113	Total Wheeling			2,152,755	923,589	66,910	1,162,255	0	597,610	
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM		0	0	0	0	0	0	
O&M	117	569-Structures	PLT_352		0	0	0	0	0	0	
O&M	118	570-Station Equipment	PLT_353		0	0	0	0	0	0	
O&M	119	571-Overhead Lines	OHTRAN		0	0	0	0	0	0	
O&M	120	572-Underground Lines	UGTRAN		0	0	0	0	0	0	
O&M	121	573-Miscellaneous	TRANPLT		0	0	0	0	0	0	
O&M	122	Total Transmission Maintenance			0	0	0	0	0	0	
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE			2,133,167	915,200	66,303	1,151,664	(27,177)	592,164	
O&M	125										
O&M	126										
O&M	127	**REGIONAL MARKET EXPENSE**									
O&M	128	575.1-Operation Supervision	ENERGY3		0	0	0	0	0	0	
O&M	129	575.4-Capacity Market Administration	ENERGY3		0	0	0	0	0	0	
O&M	130	575.5-Ancillary Services Market Administration	ENERGY3		0	0	0	0	0	0	
O&M	131	575.6-Market Monitoring and Compliance	ENERGY3		0	0	0	0	0	0	
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY3		19,046	7,903	662	10,480	21,422	5,761	
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY3		1,538	638	54	846	1,730	465	
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY3		0	0	0	0	0	0	
O&M	135	575.8-Rents	ENERGY3		0	0	0	0	0	0	
O&M	136	TOTAL REGIONAL MARKET EXPENSE			20,584	8,542	716	11,327	23,152	6,226	
O&M	137										
O&M	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
O&M	93	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	94										
O&M	95	**TRANSMISSION EXPENSE**									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO	0	0	0	0	0	0		
O&M	98	561.000-Load Dispatching	DTRANLD	0	0	0	0	0	0		
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN3	136	7	526	669	168	0		
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN3	(179)	(9)	(696)	(885)	(222)	0		
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN3	5	0	21	27	7	0		
O&M	102	562-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	103	563-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	104	564-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	105	566-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	106	567-Rents	TRANPLT	0	0	0	0	0	0		
O&M	107	Total Transmission Operations		(38)	(2)	(149)	(189)	(47)	0		
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN	4,575	240	17,749	22,564	5,653	0		
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN	(348)	(18)	(1,351)	(1,717)	(430)	0		
O&M	112	565-Wheeling - Point to Point	DTRAN	0	0	0	0	0	0		
O&M	113	Total Wheeling		4,227	222	16,398	20,847	5,223	0		
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM	0	0	0	0	0	0		
O&M	117	569-Structures	PLT_352	0	0	0	0	0	0		
O&M	118	570-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	119	571-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	120	572-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	121	573-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	122	Total Transmission Maintenance		0	0	0	0	0	0		
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE		4,189	220	16,249	20,658	5,176	0		
O&M	125										
O&M	126										
O&M	127	**REGIONAL MARKET EXPENSE**									
O&M	128	575.1-Operation Supervision	ENERGY3	0	0	0	0	0	0		
O&M	129	575.4-Capacity Market Administration	ENERGY3	0	0	0	0	0	0		
O&M	130	575.5-Ancillary Services Market Administration	ENERGY3	0	0	0	0	0	0		
O&M	131	575.6-Market Monitoring and Compliance	ENERGY3	0	0	0	0	0	0		
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY3	39	2	149	190	47	0		
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY3	3	0	12	15	4	0		
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY3	0	0	0	0	0	0		
O&M	135	575.8-Rents	ENERGY3	0	0	0	0	0	0		
O&M	136	TOTAL REGIONAL MARKET EXPENSE		42	2	162	205	51	0		
O&M	137										
O&M	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	139	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	140										
O&M	141	**DISTRIBUTION EXPENSES**									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO	2,041,489	1,245,747	38,549	590,030	10,203	156,960		
O&M	145	581-Load Dispatch	DDISPSUB	0	0	0	0	0	0		
O&M	146	582-Station Equipment	PLT_362	1,253,535	594,769	3,419	415,023	8,776	231,548		
O&M	147	583-Overhead Lines	OHDIST	28,781	19,038	93	9,529	120	0		
O&M	148	584-Underground Lines	UGDIST	2,551	1,686	8	844	13	0		
O&M	149	585-Street Lighting	PLT_373	26,672	0	26,672	0	0	0		
O&M	150	586-Metering	CMETERS	782,075	601,914	691	165,680	3,861	9,929		
O&M	151	587-Customer Installations	PLT_371	0	0	0	0	0	0		
O&M	152	588-Miscellaneous	DISTPLT	1,663,561	1,070,398	39,361	493,682	6,195	53,926		
O&M	153	589-Rents	DISTPLT	146,893	94,517	3,476	43,592	547	4,762		
O&M	154	Total Distribution Operation		5,945,558	3,628,069	112,269	1,718,381	29,716	457,124		
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM	220,857	141,421	815	73,116	984	4,520		
O&M	158	591-Structures	PLT_361	0	0	0	0	0	0		
O&M	159	592-Station Equipment	PLT_362	983,130	466,469	2,682	325,497	6,883	181,599		
O&M	160	593-Overhead Lines	OHDIST	7,035,816	4,654,190	22,666	2,329,517	29,443	0		
O&M	161	594-Underground Lines	UGDIST	713,426	471,578	2,297	236,034	3,517	0		
O&M	162	595-Transformers	PLT_368	190,533	126,567	616	63,350	0	0		
O&M	163	596-Street Lighting	PLT_373	3,165	0	3,165	0	0	0		
O&M	164	597-Metering	CMETERS	(26,186)	(20,154)	(23)	(5,547)	(129)	(332)		
O&M	165	598-Miscellaneous	DISTPLT	72,450	46,617	1,714	21,500	270	2,349		
O&M	166	Total Distribution Maintenance		9,193,191	5,886,689	33,932	3,043,467	40,968	188,135		
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES		15,138,750	9,514,758	146,201	4,761,848	70,684	645,259		
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP		30,357,630	16,892,263	191,265	9,779,214	191,928	3,302,960		
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA	532,280	469,920	778	61,458	73	51		
O&M	175	902-Meter Reading	CMETRDG	1,131,759	999,066	1,653	130,663	155	221		
O&M	176	903-Customer Records and Collection Expense	CUSTREC	1,165,071	1,028,674	1,702	134,535	160	0		
O&M	177	904-Uncollectible Accounts	EXP_904	426,310	237,736	419	20,114	0	168,041		
O&M	178	905-Miscellaneous CA	CUSTCSS	0	0	0	0	0	0		
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE		3,255,420	2,735,397	4,552	346,770	387	168,314		
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	139	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	140										
O&M	141	**DISTRIBUTION EXPENSES**									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO	1,136,725	0	109,023		301,015	0	24,951	146,355
O&M	145	581-Load Dispatch	DDISPSUB	0	0	0		0	0	0	0
O&M	146	582-Station Equipment	PLT_362	541,555	0	53,213		151,730	0	13,645	128,519
O&M	147	583-Overhead Lines	OHDIST	16,902	0	2,137		5,763	0	532	1,616
O&M	148	584-Underground Lines	UGDIST	1,497	0	189		510	0	47	143
O&M	149	585-Street Lighting	PLT_373	0	0	0		0	0	0	0
O&M	150	586-Metering	CMETERS	565,078	0	36,836		110,001	0	6,782	42,568
O&M	151	587-Customer Installations	PLT_371	0	0	0		0	0	0	0
O&M	152	588-Miscellaneous	DISTPLT	963,703	0	106,695		282,684	0	24,542	98,354
O&M	153	589-Rents	DISTPLT	85,096	0	9,421		24,961	0	2,167	8,685
O&M	154	Total Distribution Operation		3,310,556	0	317,513		876,664	0	72,666	426,240
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM	125,801	0	15,621		42,279	0	3,894	13,525
O&M	158	591-Structures	PLT_361	0	0	0		0	0	0	0
O&M	159	592-Station Equipment	PLT_362	424,734	0	41,735		118,999	0	10,702	100,795
O&M	160	593-Overhead Lines	OHDIST	4,131,876	0	522,314		1,408,901	0	129,936	395,033
O&M	161	594-Underground Lines	UGDIST	418,655	0	52,923		142,755	0	13,166	40,026
O&M	162	595-Transformers	PLT_368	112,364	0	14,204		38,314	0	3,534	10,743
O&M	163	596-Street Lighting	PLT_373	0	0	0		0	0	0	0
O&M	164	597-Metering	CMETERS	(18,920)	0	(1,233)		(3,683)	0	(227)	(1,425)
O&M	165	598-Miscellaneous	DISTPLT	41,970	0	4,647		12,311	0	1,069	4,283
O&M	166	Total Distribution Maintenance		5,236,480	0	650,209		1,759,877	0	162,072	562,980
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES		8,547,036	0	967,722		2,636,540	0	234,739	989,220
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP		15,264,776	0	1,627,487		4,520,813	0	409,495	2,653,831
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA	437,676	0	32,244		53,937	0	2,287	4,850
O&M	175	902-Meter Reading	CMETRDG	930,515	0	68,552		114,671	0	4,861	10,311
O&M	176	903-Customer Records and Collection Expense	CUSTREC	958,091	0	70,583		118,069	0	5,005	10,617
O&M	177	904-Uncollectible Accounts	EXP_904	199,878	0	37,858		2,567	0	0	5,944
O&M	178	905-Miscellaneous CA	CUSTCSS	0	0	0		0	0	0	0
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE		2,526,160	0	209,237		289,244	0	12,153	31,722
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
O&M	139	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	140										
O&M	141	**DISTRIBUTION EXPENSES**									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO		230,464	117,709	10,203	102,552	875	53,533	
O&M	145	581-Load Dispatch	DDISPSUB		0	0	0	0	0	0	
O&M	146	582-Station Equipment	PLT_362		282,826	121,130	8,776	152,919	0	78,628	
O&M	147	583-Overhead Lines	OHDIST		1,739	1,618	120	0	0	0	
O&M	148	584-Underground Lines	UGDIST		156	143	13	0	0	0	
O&M	149	585-Street Lighting	PLT_373		0	0	0	0	0	0	
O&M	150	586-Metering	CMETERS		14,971	6,329	3,861	4,781	1,402	3,746	
O&M	151	587-Customer Installations	PLT_371		0	0	0	0	0	0	
O&M	152	588-Miscellaneous	DISTPLT		129,595	88,102	6,195	35,299	249	18,378	
O&M	153	589-Rents	DISTPLT		11,443	7,779	547	3,117	22	1,623	
O&M	154	Total Distribution Operation			671,194	342,811	29,716	298,667	2,548	155,908	
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM		17,389	13,418	984	2,986	(1)	1,535	
O&M	158	591-Structures	PLT_361		0	0	0	0	0	0	
O&M	159	592-Station Equipment	PLT_362		221,816	95,001	6,883	119,932	0	61,667	
O&M	160	593-Overhead Lines	OHDIST		425,089	395,646	29,443	0	0	0	
O&M	161	594-Underground Lines	UGDIST		43,605	40,088	3,517	0	0	0	
O&M	162	595-Transformers	PLT_368		10,759	10,759	0	0	0	0	
O&M	163	596-Street Lighting	PLT_373		0	0	0	0	0	0	
O&M	164	597-Metering	CMETERS		(501)	(212)	(129)	(160)	(47)	(125)	
O&M	165	598-Miscellaneous	DISTPLT		5,644	3,837	270	1,537	11	800	
O&M	166	Total Distribution Maintenance			723,801	558,537	40,968	124,296	(37)	63,877	
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES			1,394,995	901,349	70,684	422,963	2,511	219,785	
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP			4,622,777	2,195,075	191,928	2,235,774	(1,515)	1,068,700	
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA		489	385	73	31	5	15	
O&M	175	902-Meter Reading	CMETRDG		1,107	819	155	133	22	66	
O&M	176	903-Customer Records and Collection Expense	CUSTREC		1,003	843	160	0	0	0	
O&M	177	904-Uncollectible Accounts	EXP_904		11,602	11,602	0	0	168,041	0	
O&M	178	905-Miscellaneous CA	CUSTCSS		0	0	0	0	0	0	
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE			14,201	13,650	387	164	168,068	82	
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
O&M	139	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	140										
O&M	141	**DISTRIBUTION EXPENSES**									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO	4,659	230	16,072	20,960	15,524	2,064		
O&M	145	581-Load Dispatch	DDISPSUB	0	0	0	0	0	0		
O&M	146	582-Station Equipment	PLT_362	554	29	2,151	2,734	685	0		
O&M	147	583-Overhead Lines	OHDIST	16	1	54	71	22	0		
O&M	148	584-Underground Lines	UGDIST	1	0	5	6	2	0		
O&M	149	585-Street Lighting	PLT_373	5,408	284	20,980	26,672	0	0		
O&M	150	586-Metering	CMETERS	691	0	0	691	0	0		
O&M	151	587-Customer Installations	PLT_371	0	0	0	0	0	0		
O&M	152	588-Miscellaneous	DISTPLT	7,026	376	26,211	33,613	5,154	594		
O&M	153	589-Rents	DISTPLT	620	33	2,314	2,968	455	52		
O&M	154	Total Distribution Operation		18,977	953	67,787	87,716	21,842	2,711		
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM	143	7	499	649	166	1		
O&M	158	591-Structures	PLT_361	0	0	0	0	0	0		
O&M	159	592-Station Equipment	PLT_362	435	23	1,687	2,144	537	0		
O&M	160	593-Overhead Lines	OHDIST	3,954	174	13,252	17,380	5,287	0		
O&M	161	594-Underground Lines	UGDIST	401	18	1,343	1,761	536	0		
O&M	162	595-Transformers	PLT_368	108	5	360	473	144	0		
O&M	163	596-Street Lighting	PLT_373	642	34	2,490	3,165	0	0		
O&M	164	597-Metering	CMETERS	(23)	0	0	(23)	0	0		
O&M	165	598-Miscellaneous	DISTPLT	306	16	1,142	1,464	224	26		
O&M	166	Total Distribution Maintenance		5,964	276	20,772	27,013	6,893	27		
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES		24,941	1,229	88,559	114,729	28,735	2,737		
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP		32,251	1,613	116,913	150,777	37,751	2,737		
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA	778	0	0	778	0	0		
O&M	175	902-Meter Reading	CMETRDG	1,653	0	0	1,653	0	0		
O&M	176	903-Customer Records and Collection Expense	CUSTREC	1,702	0	0	1,702	0	0		
O&M	177	904-Uncollectible Accounts	EXP_904	0	0	0	0	419	0		
O&M	178	905-Miscellaneous CA	CUSTCSS	0	0	0	0	0	0		
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE		4,133	0	0	4,133	419	0		
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	185	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS	359,821	230,655	6,398	81,429	1,642	39,697		
O&M	189	908-Customer Assistance	CUSTCSS	3,305,290	2,118,780	58,774	748,000	15,080	364,655		
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS	0	0	0	0	0	0		
O&M	191	909-Informational and Instructional Expenses	CUSTCSS	198,075	126,971	3,522	44,825	904	21,853		
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS	0	0	0	0	0	0		
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE		3,863,186	2,476,406	68,695	874,254	17,626	426,205		
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS	0	0	0	0	0	0		
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS	0	0	0	0	0	0		
O&M	198	SALES EXPENSES TOTAL		0	0	0	0	0	0		
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE		7,118,605	5,211,803	73,247	1,221,024	18,013	594,519		
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP		37,476,235	22,104,066	264,511	11,000,238	209,941	3,897,479		
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG	3,701,615	2,391,582	33,202	1,033,295	18,629	224,908		
O&M	206	921-Office Supplies & Expense	SALWAGXAG	1,579,628	1,020,584	14,169	440,948	7,950	95,977		
O&M	207	922-A&G Expense Transferred	SALWAGXAG	0	0	0	0	0	0		
O&M	208	923-Outside Services - Legal	SALWAGXAG	415,274	268,305	3,725	115,922	2,090	25,232		
O&M	209	924-Property Insurance	TOTPLT	806,845	501,648	13,318	240,861	4,508	46,510		
O&M	210	925-Injuries and Damages	SALWAGXAG	990,343	639,852	8,883	276,451	4,984	60,173		
O&M	211	926-Pensions & Benefits	SALWAGES	3,335,473	2,155,020	29,918	931,087	16,786	202,661		
O&M	212	928-Regulatory Commission	SALWAGES	678,646	438,467	6,087	189,442	3,415	41,234		
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG	0	0	0	0	0	0		
O&M	214	930-Miscellaneous	SALWAGXAG	14,281	9,227	128	3,987	72	868		
O&M	215	931-Rents	GENLPLT	6,901	4,459	62	1,926	35	419		
O&M	216	935-Maintenance of General Plant	GENLPLT	0	0	0	0	0	0		
O&M	217	TOTAL A&G EXPENSE		11,529,005	7,429,143	109,491	3,233,920	58,469	697,982		
O&M	218										
O&M	219	**TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)**		75,317,942	40,887,270	459,720	23,302,700	498,680	10,169,572		
O&M	220										
O&M	221	**TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)**		49,005,240	29,533,209	374,002	14,234,158	268,410	4,595,461		
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	185	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS	213,243	0	17,412		37,360	0	2,796	21,845
O&M	189	908-Customer Assistance	CUSTCSS	1,958,837	0	159,943		343,186	0	25,688	200,670
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS	0	0	0		0	0	0	0
O&M	191	909-Informational and Instructional Expenses	CUSTCSS	117,386	0	9,585		20,566	0	1,539	12,025
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS	0	0	0		0	0	0	0
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE		2,289,467	0	186,939		401,112	0	30,024	234,540
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS	0	0	0		0	0	0	0
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS	0	0	0		0	0	0	0
O&M	198	SALES EXPENSES TOTAL		0	0	0		0	0	0	0
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE		4,815,627	0	396,176		690,356	0	42,177	266,263
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP		20,080,403	0	2,023,663		5,211,169	0	451,673	2,920,094
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG	2,173,387	0	218,195		557,247	0	47,216	252,056
O&M	206	921-Office Supplies & Expense	SALWAGXAG	927,472	0	93,112		237,800	0	20,149	107,562
O&M	207	922-A&G Expense Transferred	SALWAGXAG	0	0	0		0	0	0	0
O&M	208	923-Outside Services - Legal	SALWAGXAG	243,826	0	24,479		62,516	0	5,297	28,277
O&M	209	924-Property Insurance	TOTPLT	453,410	0	48,238		129,418	0	11,380	62,770
O&M	210	925-Injuries and Damages	SALWAGXAG	581,476	0	58,377		149,088	0	12,632	67,436
O&M	211	926-Pensions & Benefits	SALWAGES	1,958,408	0	196,612		502,127	0	42,546	227,124
O&M	212	928-Regulatory Commission	SALWAGES	398,464	0	40,003		102,164	0	8,656	46,211
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG	0	0	0		0	0	0	0
O&M	214	930-Miscellaneous	SALWAGXAG	8,385	0	842		2,150	0	182	972
O&M	215	931-Rents	GENLPLT	4,052	0	407		1,039	0	88	470
O&M	216	935-Maintenance of General Plant	GENLPLT	0	0	0		0	0	0	0
O&M	217	TOTAL A&G EXPENSE		6,748,879	0	680,264		1,743,548	0	148,147	792,879
O&M	218										
O&M	219	**TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)**		37,169,778	0	3,717,492		9,868,325	0	902,728	6,709,698
O&M	220										
O&M	221	**TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)**		26,829,282	0	2,703,927		6,954,717	0	599,819	3,712,972
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
O&M	185	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS		46,683	19,427	1,642	25,615	3	14,079	
O&M	189	908-Customer Assistance	CUSTCSS		428,831	178,456	15,080	235,294	31	129,330	
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS		0	0	0	0	0	0	
O&M	191	909-Informational and Instructional Expenses	CUSTCSS		25,698	10,694	904	14,100	2	7,750	
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS		0	0	0	0	0	0	
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE			501,212	208,577	17,626	275,010	37	151,159	
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS		0	0	0	0	0	0	
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS		0	0	0	0	0	0	
O&M	198	SALES EXPENSES TOTAL			0	0	0	0	0	0	
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE			515,414	222,227	18,013	275,173	168,105	151,241	
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP			5,138,191	2,417,302	209,941	2,510,948	166,590	1,219,941	
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG		352,067	176,776	18,629	156,661	3,664	64,582	
O&M	206	921-Office Supplies & Expense	SALWAGXAG		150,241	75,438	7,950	66,854	1,564	27,560	
O&M	207	922-A&G Expense Transferred	SALWAGXAG		0	0	0	0	0	0	
O&M	208	923-Outside Services - Legal	SALWAGXAG		39,497	19,832	2,090	17,575	411	7,245	
O&M	209	924-Property Insurance	TOTPLT		76,938	37,293	4,508	35,137	174	11,199	
O&M	210	925-Injuries and Damages	SALWAGXAG		94,193	47,295	4,984	41,914	980	17,279	
O&M	211	926-Pensions & Benefits	SALWAGES		317,243	159,291	16,786	141,165	3,302	58,194	
O&M	212	928-Regulatory Commission	SALWAGES		64,547	32,410	3,415	28,722	672	11,840	
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG		0	0	0	0	0	0	
O&M	214	930-Miscellaneous	SALWAGXAG		1,358	682	72	604	14	249	
O&M	215	931-Rents	GENLPLT		656	330	35	292	7	120	
O&M	216	935-Maintenance of General Plant	GENLPLT		0	0	0	0	0	0	
O&M	217	TOTAL A&G EXPENSE			1,096,741	549,347	58,469	488,925	10,788	198,269	
O&M	218										
O&M	219	**TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)**			12,917,423	5,821,948	498,680	6,596,794	177,378	3,395,400	
O&M	220										
O&M	221	**TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)**			6,234,932	2,966,649	268,410	2,999,873	177,378	1,418,210	
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
O&M	185	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS	349	41	1,039	1,429	4,969	0		
O&M	189	908-Customer Assistance	CUSTCSS	3,203	380	9,545	13,128	45,646	0		
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS	0	0	0	0	0	0		
O&M	191	909-Informational and Instructional Expenses	CUSTCSS	192	23	572	787	2,735	0		
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS	0	0	0	0	0	0		
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE		3,744	444	11,156	15,344	53,351	0		
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS	0	0	0	0	0	0		
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS	0	0	0	0	0	0		
O&M	198	SALES EXPENSES TOTAL		0	0	0	0	0	0		
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE		7,877	444	11,156	19,477	53,770	0		
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP		40,127	2,056	128,069	170,253	91,521	2,737		
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG	4,229	215	12,476	16,921	15,421	860		
O&M	206	921-Office Supplies & Expense	SALWAGXAG	1,805	92	5,324	7,221	6,581	367		
O&M	207	922-A&G Expense Transferred	SALWAGXAG	0	0	0	0	0	0		
O&M	208	923-Outside Services - Legal	SALWAGXAG	474	24	1,400	1,898	1,730	96		
O&M	209	924-Property Insurance	TOTPLT	2,319	124	8,579	11,022	2,097	200		
O&M	210	925-Injuries and Damages	SALWAGXAG	1,132	57	3,338	4,527	4,126	230		
O&M	211	926-Pensions & Benefits	SALWAGES	3,811	194	11,242	15,247	13,896	775		
O&M	212	928-Regulatory Commission	SALWAGES	775	39	2,287	3,102	2,827	158		
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG	0	0	0	0	0	0		
O&M	214	930-Miscellaneous	SALWAGXAG	16	1	48	65	59	3		
O&M	215	931-Rents	GENLPLT	8	0	23	32	29	2		
O&M	216	935-Maintenance of General Plant	GENLPLT	0	0	0	0	0	0		
O&M	217	TOTAL A&G EXPENSE		14,570	746	44,718	60,034	46,766	2,691		
O&M	218										
O&M	219	**TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)**		68,616	3,533	226,781	298,930	155,362	5,428		
O&M	220										
O&M	221	**TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)**		54,697	2,803	172,788	230,287	138,286	5,428		
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
DAX	1	**DEPRECIATION AND AMORTIZATION EXPENSE**									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENLPLT	0	0	0	0	0	0		
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT	4,248,727	2,376,827	14,489	1,325,203	43,351	488,856		
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT	0	0	0	0	0	0		
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT	0	0	0	0	0	0		
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT	6,082,544	3,913,738	143,917	1,805,068	22,649	197,172		
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT	4,121,541	2,662,892	36,968	1,150,516	20,742	250,422		
DAX	13										
DAX	14	**TOTAL DEPRECIATION EXPENSE**		14,452,811	8,953,457	195,374	4,280,788	86,743	936,450		
DAX	15										
DAX	16	**TOTAL AMORTIZATION EXPENSE**		0	0	0	0	0	0		
DAX	17										
DAX	18	**TOTAL DEPRECIATION & AMORTIZATION EXPENSE**		14,452,811	8,953,457	195,374	4,280,788	86,743	936,450		
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
DAX	24										
DAX	25										
DAX	26										
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DAX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
DAX	1	**DEPRECIATION AND AMORTIZATION EXPENSE**									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENLPLT	0	0	0		0	0	0	0
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT	2,164,266	0	212,561		607,036	0	56,242	535,521
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT	0	0	0		0	0	0	0
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT	0	0	0		0	0	0	0
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT	3,523,626	0	390,112		1,033,588	0	89,734	359,616
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT	2,419,945	0	242,948		620,463	0	52,572	280,650
DAX	13										
DAX	14	**TOTAL DEPRECIATION EXPENSE**		8,107,836	0	845,620		2,261,086	0	198,548	1,175,787
DAX	15										
DAX	16	**TOTAL AMORTIZATION EXPENSE**		0	0	0		0	0	0	0
DAX	17										
DAX	18	**TOTAL DEPRECIATION & AMORTIZATION EXPENSE**		8,107,836	0	845,620		2,261,086	0	198,548	1,175,787
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
DAX	1	**DEPRECIATION AND AMORTIZATION EXPENSE**									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENLPLT		0	0	0	0	0	0	
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT		578,798	126,405	43,351	409,041	0	79,814	
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT		0	0	0	0	0	0	
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT		0	0	0	0	0	0	
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT		473,844	322,130	22,649	129,064	910	67,198	
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT		392,007	196,831	20,742	174,434	4,080	71,909	
DAX	13										
DAX	14	**TOTAL DEPRECIATION EXPENSE**			1,444,648	645,366	86,743	712,539	4,990	218,921	
DAX	15										
DAX	16	**TOTAL AMORTIZATION EXPENSE**			0	0	0	0	0	0	
DAX	17										
DAX	18	**TOTAL DEPRECIATION & AMORTIZATION EXPENSE**			1,444,648	645,366	86,743	712,539	4,990	218,921	
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
DAX	24										
DAX	25										
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DAX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
DAX	1	**DEPRECIATION AND AMORTIZATION EXPENSE**									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENLPLT	0	0	0	0	0	0		
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT	2,350	123	9,117	11,590	2,899	0		
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT	0	0	0	0	0	0		
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT	0	0	0	0	0	0		
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT	25,690	1,375	95,836	122,901	18,844	2,172		
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT	4,709	239	13,892	18,840	17,171	958		
DAX	13										
DAX	14	**TOTAL DEPRECIATION EXPENSE**		32,749	1,738	118,844	153,332	38,913	3,129		
DAX	15										
DAX	16	**TOTAL AMORTIZATION EXPENSE**		0	0	0	0	0	0		
DAX	17										
DAX	18	**TOTAL DEPRECIATION & AMORTIZATION EXPENSE**		32,749	1,738	118,844	153,332	38,913	3,129		
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
OTX	1	**OTHER OPERATING EXPENSES**									
OTX	2										
OTX	3	**TAXES OTHER THAN INCOME TAXES**									
OTX	4										
OTX	5	**Payroll Related**									
OTX	6	FICA	SALWAGES	801,818	518,048	7,192	223,825	4,035	48,718		
OTX	7	FUTA	SALWAGES	4,529	2,926	41	1,264	23	275		
OTX	8	SUTA	SALWAGES	14,401	9,304	129	4,020	72	875		
OTX	9	IBS Payroll Taxes	SALWAGES	0	0	0	0	0	0		
OTX	10	Unemployment Compensation	SALWAGES	0	0	0	0	0	0		
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT	7,568,305	4,705,517	124,926	2,259,306	42,285	436,271		
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT	0	0	0	0	0	0		
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE	0	0	0	0	0	0		
OTX	18	Other	RATEBASE	125,237	76,199	1,520	38,014	725	8,780		
OTX	19	Total Other		125,237	76,199	1,520	38,014	725	8,780		
OTX	20										
OTX	21										
OTX	22	**TOTAL TAXES OTHER THAN INCOME**		8,514,290	5,311,994	133,807	2,526,429	47,140	494,919		
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
OTX	29										
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OTX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
OTX	1	**OTHER OPERATING EXPENSES**									
OTX	2										
OTX	3	**TAXES OTHER THAN INCOME TAXES**									
OTX	4										
OTX	5	**Payroll Related**									
OTX	6	FICA	SALWAGES	470,784	0	47,264		120,707	0	10,228	54,599
OTX	7	FUTA	SALWAGES	2,659	0	267		682	0	58	308
OTX	8	SUTA	SALWAGES	8,456	0	849		2,168	0	184	981
OTX	9	IBS Payroll Taxes	SALWAGES	0	0	0		0	0	0	0
OTX	10	Unemployment Compensation	SALWAGES	0	0	0		0	0	0	0
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT	4,253,041	0	452,476		1,213,956	0	106,748	588,788
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT	0	0	0		0	0	0	0
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE	0	0	0		0	0	0	0
OTX	18	Other	RATEBASE	68,958	0	7,242		19,707	0	1,740	9,996
OTX	19	Total Other		68,958	0	7,242		19,707	0	1,740	9,996
OTX	20										
OTX	21										
OTX	22	**TOTAL TAXES OTHER THAN INCOME**		4,803,897	0	508,097		1,357,219	0	118,957	654,672
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
OTX	29										
OTX	30										
OTX	31										
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OTX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total (t)	S Large Commerical & Industrial Secondary CP-U Sec (u)	P Large Commerical & Industrial Primary CP-U Prim (v)	Q Large Commerical & Industrial Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
OTX	1	**OTHER OPERATING EXPENSES**									
OTX	2										
OTX	3	**TAXES OTHER THAN INCOME TAXES**									
OTX	4										
OTX	5	**Payroll Related**									
OTX	6	FICA	SALWAGES		76,262	38,292	4,035	33,935	794	13,989	
OTX	7	FUTA	SALWAGES		431	216	23	192	4	79	
OTX	8	SUTA	SALWAGES		1,370	688	72	609	14	251	
OTX	9	IBS Payroll Taxes	SALWAGES		0	0	0	0	0	0	
OTX	10	Unemployment Compensation	SALWAGES		0	0	0	0	0	0	
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT		721,689	349,814	42,285	329,590	1,633	105,048	
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT		0	0	0	0	0	0	
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE		0	0	0	0	0	0	
OTX	18	Other	RATEBASE		13,604	6,571	725	6,308	41	2,431	
OTX	19	Total Other			13,604	6,571	725	6,308	41	2,431	
OTX	20										
OTX	21										
OTX	22	**TOTAL TAXES OTHER THAN INCOME**			813,356	395,581	47,140	370,635	2,486	121,798	
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
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OTX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
OTX	1	**OTHER OPERATING EXPENSES**									
OTX	2										
OTX	3	**TAXES OTHER THAN INCOME TAXES**									
OTX	4										
OTX	5	**Payroll Related**									
OTX	6	FICA	SALWAGES	916	47	2,703	3,665	3,340	186		
OTX	7	FUTA	SALWAGES	5	0	15	21	19	1		
OTX	8	SUTA	SALWAGES	16	1	49	66	60	3		
OTX	9	IBS Payroll Taxes	SALWAGES	0	0	0	0	0	0		
OTX	10	Unemployment Compensation	SALWAGES	0	0	0	0	0	0		
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT	21,754	1,160	80,469	103,384	19,667	1,875		
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT	0	0	0	0	0	0		
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE	0	0	0	0	0	0		
OTX	18	Other	RATEBASE	273	13	978	1,264	227	28		
OTX	19	Total Other		273	13	978	1,264	227	28		
OTX	20										
OTX	21										
OTX	22	**TOTAL TAXES OTHER THAN INCOME**		22,965	1,221	84,213	108,400	23,313	2,094		
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ITX	1	**DEVELOPMENT OF PRESENT INCOME TAX EXPENSE**									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN	100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
ITX	4	OTHER OPERATING REVENUE	SCH , LN	8,145,752	3,791,620	46,943	2,672,119	65,486	1,569,583		
ITX	5	TOTAL OPERATING REVENUES	SCH , LN	108,248,744	61,884,252	1,942,944	33,468,612	921,416	10,031,520		
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN	75,317,942	40,887,270	459,720	23,302,700	498,680	10,169,572		
ITX	8	DEPRECIATION EXPENSE	SCH , LN	14,452,811	8,953,457	195,374	4,280,788	86,743	936,450		
ITX	9	AMORTIZATION EXPENSE	SCH , LN	0	0	0	0	0	0		
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN	8,514,290	5,311,994	133,807	2,526,429	47,140	494,919		
ITX	11	**NET OPERATING INCOME BEFORE TAXES & INTEREST**		9,963,702	6,731,532	1,154,042	3,358,695	288,853	(1,569,421)		
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 2.42%)		8,434,432	5,131,836	102,337	2,560,141	48,821	591,297		
ITX	14										
ITX	15	**SUBTOTAL BOOK INCOME BEFORE TAXES**		1,529,269	1,599,696	1,051,705	798,554	240,032	(2,160,718)		
ITX	16										
ITX	17	**STATE INCOME TAXES**									
ITX	18										
ITX	19	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(35,225)	(19,706)	(120)	(10,987)	(359)	(4,053)		
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT	604,597	389,021	14,305	179,422	2,251	19,599		
ITX	23	Goodwill	RATEBASE	21,364	12,999	259	6,485	124	1,498		
ITX	24	Interest	RATEBASE	706,866	430,085	8,577	214,558	4,092	49,555		
ITX	25										
ITX	26	Environmental Remediation	PRODPLT	71,700	40,110	245	22,364	732	8,250		
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT	19,631	12,631	464	5,826	73	636		
ITX	29	Net Operating Loss	DISTPLT	(4,777,301)	(3,073,895)	(113,034)	(1,417,722)	(17,789)	(154,861)		
ITX	30	Plant Depreciation - Distribution	DISTPLT	(2,994,104)	(1,926,519)	(70,842)	(888,537)	(11,149)	(97,057)		
ITX	31	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	32	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	33	Regulatory Liabilities	DISTPLT	451,923	290,784	10,693	134,114	1,683	14,650		
ITX	34	Regulatory Asset - Non-Current	DISTPLT	(673,005)	(433,037)	(15,924)	(199,722)	(2,506)	(21,816)		
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES	(4,297,012)	(2,776,262)	(38,542)	(1,199,498)	(21,625)	(261,084)		
ITX	37	Plant Depreciation - General & Common	SALWAGES	14,778	9,548	133	4,125	74	898		
ITX	38	Retirement - Medical	SALWAGES	(1,236,227)	(798,716)	(11,088)	(345,089)	(6,222)	(75,112)		
ITX	39	Pension	SALWAGES	443,471	286,523	3,978	123,794	2,232	26,945		
ITX	40	Post Retirement - Life Insurance	SALWAGES	76,552	49,460	687	21,369	385	4,651		
ITX	41	SERP	SALWAGES	454,268	293,498	4,075	126,807	2,286	27,601		
ITX	42	Pension Restoration	SALWAGES	13,940	9,007	125	3,891	70	847		
ITX	43	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**		(11,133,785)	(7,204,470)	(206,012)	(3,218,801)	(45,649)	(458,854)		
ITX	44										
ITX	45	**STATE TAXABLE INCOME**		(9,604,516)	(5,604,774)	845,694	(2,420,246)	194,383	(2,619,572)		
ITX	46										
ITX	47	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	48										
ITX	49	**STATE TAXABLE INCOME**		(9,604,516)	(5,604,774)	845,694	(2,420,246)	194,383	(2,619,572)		
ITX	50										
ITX	51	**STATE INCOME TAX @ 6.00%**		(576,271)	(336,286)	50,742	(145,215)	11,663	(157,174)		
ITX	52										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ITX	1	**DEVELOPMENT OF PRESENT INCOME TAX EXPENSE**									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN	53,540,865	0	4,551,767		12,291,582	0	1,013,188	11,918,663
ITX	4	OTHER OPERATING REVENUE	SCH , LN	3,460,904	0	330,716		909,701	0	90,657	858,598
ITX	5	TOTAL OPERATING REVENUES	SCH , LN	57,001,769	0	4,882,483		13,201,283	0	1,103,845	12,777,261
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN	37,169,778	0	3,717,492		9,868,325	0	902,728	6,709,698
ITX	8	DEPRECIATION EXPENSE	SCH , LN	8,107,836	0	845,620		2,261,086	0	198,548	1,175,787
ITX	9	AMORTIZATION EXPENSE	SCH , LN	0	0	0		0	0	0	0
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN	4,803,897	0	508,097		1,357,219	0	118,957	654,672
ITX	11	**NET OPERATING INCOME BEFORE TAXES & INTEREST**		6,920,257	0	(188,725)		(285,347)	0	(116,388)	4,237,104
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 2.42%)		4,644,123	0	487,713		1,327,190	0	117,156	673,234
ITX	14										
ITX	15	**SUBTOTAL BOOK INCOME BEFORE TAXES**		2,276,135	0	(676,439)		(1,612,537)	0	(233,544)	3,563,870
ITX	16										
ITX	17	**STATE INCOME TAXES**									
ITX	18										
ITX	19	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(17,943)	0	(1,762)		(5,033)	0	(466)	(4,440)
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT	350,244	0	38,777		102,737	0	8,919	35,745
ITX	23	Goodwill	RATEBASE	11,763	0	1,235		3,362	0	297	1,705
ITX	24	Interest	RATEBASE	389,211	0	40,874		111,228	0	9,819	56,422
ITX	25										
ITX	26	Environmental Remediation	PRODPLT	36,523	0	3,587		10,244	0	949	9,037
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT	11,372	0	1,259		3,336	0	290	1,161
ITX	29	Net Operating Loss	DISTPLT	(2,767,497)	0	(306,398)		(811,792)	0	(70,478)	(282,447)
ITX	30	Plant Depreciation - Distribution	DISTPLT	(1,734,489)	0	(192,031)		(508,779)	0	(44,171)	(177,019)
ITX	31	Contribution in Aid of Construction	DISTPLT	0	0	0		0	0	0	0
ITX	32	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	33	Regulatory Liabilities	DISTPLT	261,800	0	28,985		76,794	0	6,667	26,719
ITX	34	Regulatory Asset - Non-Current	DISTPLT	(389,873)	0	(43,164)		(114,362)	0	(9,929)	(39,790)
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES	(2,522,971)	0	(253,291)		(646,878)	0	(54,810)	(292,598)
ITX	37	Plant Depreciation - General & Common	SALWAGES	8,677	0	871		2,225	0	188	1,006
ITX	38	Retirement - Medical	SALWAGES	(725,846)	0	(72,870)		(186,104)	0	(15,769)	(84,179)
ITX	39	Pension	SALWAGES	260,382	0	26,141		66,761	0	5,657	30,197
ITX	40	Post Retirement - Life Insurance	SALWAGES	44,947	0	4,512		11,524	0	976	5,213
ITX	41	SERP	SALWAGES	266,721	0	26,777		68,386	0	5,794	30,933
ITX	42	Pension Restoration	SALWAGES	8,185	0	822		2,099	0	178	949
ITX	43	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**		(6,508,793)	0	(695,677)		(1,814,252)	0	(155,889)	(681,386)
ITX	44										
ITX	45	**STATE TAXABLE INCOME**		(4,232,659)	0	(1,372,115)		(3,426,789)	0	(389,434)	2,882,484
ITX	46										
ITX	47	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	48										
ITX	49	**STATE TAXABLE INCOME**		(4,232,659)	0	(1,372,115)		(3,426,789)	0	(389,434)	2,882,484
ITX	50										
ITX	51	**STATE INCOME TAX @ 6.00%**		(253,960)	0	(82,327)		(205,607)	0	(23,366)	172,949
ITX	52										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
ITX	1	**DEVELOPMENT OF PRESENT INCOME TAX EXPENSE**									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN		11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
ITX	4	OTHER OPERATING REVENUE	SCH , LN		1,891,555	813,163	65,486	1,012,906	46	556,631	
ITX	5	TOTAL OPERATING REVENUES	SCH , LN		13,663,198	6,386,222	921,416	6,355,560	145,973	3,529,987	
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN		12,917,423	5,821,948	498,680	6,596,794	177,378	3,395,400	
ITX	8	DEPRECIATION EXPENSE	SCH , LN		1,444,648	645,366	86,743	712,539	4,990	218,921	
ITX	9	AMORTIZATION EXPENSE	SCH , LN		0	0	0	0	0	0	
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN		813,356	395,581	47,140	370,635	2,486	121,798	
ITX	11	**NET OPERATING INCOME BEFORE TAXES & INTEREST**			(1,512,228)	(476,673)	288,853	(1,324,408)	(38,881)	(206,132)	
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 2.42%)			916,226	442,562	48,821	424,843	2,730	163,724	
ITX	14										
ITX	15	**SUBTOTAL BOOK INCOME BEFORE TAXES**			(2,428,454)	(919,235)	240,032	(1,749,251)	(41,611)	(369,856)	
ITX	16										
ITX	17	**STATE INCOME TAXES**									
ITX	18										
ITX	19	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(4,799)	(1,048)	(359)	(3,391)	0	(662)	
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT		47,099	32,019	2,251	12,829	90	6,679	
ITX	23	Goodwill	RATEBASE		2,321	1,121	124	1,076	7	415	
ITX	24	Interest	RATEBASE		76,786	37,090	4,092	35,605	229	13,721	
ITX	25										
ITX	26	Environmental Remediation	PRODPLT		9,768	2,133	732	6,903	0	1,347	
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT		1,529	1,040	73	417	3	217	
ITX	29	Net Operating Loss	DISTPLT		(372,162)	(253,005)	(17,789)	(101,369)	(715)	(52,778)	
ITX	30	Plant Depreciation - Distribution	DISTPLT		(233,247)	(158,567)	(11,149)	(63,531)	(448)	(33,078)	
ITX	31	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0	
ITX	32	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0	
ITX	33	Regulatory Liabilities	DISTPLT		35,206	23,934	1,683	9,589	68	4,993	
ITX	34	Regulatory Asset - Non-Current	DISTPLT		(52,429)	(35,642)	(2,506)	(14,280)	(101)	(7,435)	
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES		(408,696)	(205,211)	(21,625)	(181,860)	(4,254)	(74,970)	
ITX	37	Plant Depreciation - General & Common	SALWAGES		1,406	706	74	625	15	258	
ITX	38	Retirement - Medical	SALWAGES		(117,580)	(59,038)	(6,222)	(52,320)	(1,224)	(21,569)	
ITX	39	Pension	SALWAGES		42,179	21,179	2,232	18,769	439	7,737	
ITX	40	Post Retirement - Life Insurance	SALWAGES		7,281	3,656	385	3,240	76	1,336	
ITX	41	SERP	SALWAGES		43,206	21,694	2,286	19,226	450	7,926	
ITX	42	Pension Restoration	SALWAGES		1,326	666	70	590	14	243	
ITX	43	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**			(920,806)	(567,274)	(45,649)	(307,884)	(5,351)	(145,620)	
ITX	44										
ITX	45	**STATE TAXABLE INCOME**			(3,349,260)	(1,486,508)	194,383	(2,057,135)	(46,962)	(515,476)	
ITX	46										
ITX	47	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	48										
ITX	49	**STATE TAXABLE INCOME**			(3,349,260)	(1,486,508)	194,383	(2,057,135)	(46,962)	(515,476)	
ITX	50										
ITX	51	**STATE INCOME TAX @ 6.00%**			(200,956)	(89,190)	11,663	(123,428)	(2,818)	(30,929)	
ITX	52										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
ITX	1	**DEVELOPMENT OF PRESENT INCOME TAX EXPENSE**									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN	69,658	14,541	1,374,879	1,459,078	436,923	0		
ITX	4	OTHER OPERATING REVENUE	SCH , LN	5,677	367	20,945	26,990	19,867	87		
ITX	5	TOTAL OPERATING REVENUES	SCH , LN	75,335	14,908	1,395,824	1,486,067	456,790	87		
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN	68,616	3,533	226,781	298,930	155,362	5,428		
ITX	8	DEPRECIATION EXPENSE	SCH , LN	32,749	1,738	118,844	153,332	38,913	3,129		
ITX	9	AMORTIZATION EXPENSE	SCH , LN	0	0	0	0	0	0		
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN	22,965	1,221	84,213	108,400	23,313	2,094		
ITX	11	**NET OPERATING INCOME BEFORE TAXES & INTEREST**		(48,996)	8,415	965,986	925,406	239,201	(10,565)		
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 2.42%)		18,412	900	65,834	85,146	15,280	1,911		
ITX	14										
ITX	15	**SUBTOTAL BOOK INCOME BEFORE TAXES**		(67,408)	7,516	900,152	840,260	223,921	(12,476)		
ITX	16										
ITX	17	**STATE INCOME TAXES**									
ITX	18										
ITX	19	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(19)	(1)	(76)	(96)	(24)	0		
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT	2,554	137	9,526	12,216	1,873	216		
ITX	23	Goodwill	RATEBASE	47	2	167	216	39	5		
ITX	24	Interest	RATEBASE	1,543	75	5,517	7,136	1,281	160		
ITX	25										
ITX	26	Environmental Remediation	PRODPLT	40	2	154	196	49	0		
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT	83	4	309	397	61	7		
ITX	29	Net Operating Loss	DISTPLT	(20,177)	(1,080)	(75,271)	(96,528)	(14,800)	(1,706)		
ITX	30	Plant Depreciation - Distribution	DISTPLT	(12,646)	(677)	(47,175)	(60,498)	(9,276)	(1,069)		
ITX	31	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	32	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	33	Regulatory Liabilities	DISTPLT	1,909	102	7,120	9,131	1,400	161		
ITX	34	Regulatory Asset - Non-Current	DISTPLT	(2,843)	(152)	(10,604)	(13,598)	(2,085)	(240)		
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES	(4,910)	(249)	(14,483)	(19,642)	(17,902)	(998)		
ITX	37	Plant Depreciation - General & Common	SALWAGES	17	1	50	68	62	3		
ITX	38	Retirement - Medical	SALWAGES	(1,412)	(72)	(4,167)	(5,651)	(5,150)	(287)		
ITX	39	Pension	SALWAGES	507	26	1,495	2,027	1,848	103		
ITX	40	Post Retirement - Life Insurance	SALWAGES	87	4	258	350	319	18		
ITX	41	SERP	SALWAGES	519	26	1,531	2,077	1,892	106		
ITX	42	Pension Restoration	SALWAGES	16	1	47	64	58	3		
ITX	43	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**		(34,687)	(1,850)	(125,600)	(162,137)	(40,356)	(3,518)		
ITX	44										
ITX	45	**STATE TAXABLE INCOME**		(102,095)	5,666	774,552	678,123	183,565	(15,994)		
ITX	46										
ITX	47	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	48										
ITX	49	**STATE TAXABLE INCOME**		(102,095)	5,666	774,552	678,123	183,565	(15,994)		
ITX	50										
ITX	51	**STATE INCOME TAX @ 6.00%**		(6,126)	340	46,473	40,687	11,014	(960)		
ITX	52										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ITX	53	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(1,899)	(1,062)	(6)	(592)	(19)	(218)		
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT	28,658	18,440	678	8,505	107	929		
ITX	57	Goodwill	RATEBASE	1,013	616	12	307	6	71		
ITX	58	Interest	RATEBASE	33,505	20,386	407	10,170	194	2,349		
ITX	59										
ITX	60	Environmental Remediation	PRODPLT	3,399	1,901	12	1,060	35	391		
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT	931	599	22	276	3	30		
ITX	63	Net Operating Loss	DISTPLT	(226,444)	(145,703)	(5,358)	(67,200)	(843)	(7,340)		
ITX	64	Plant Depreciation - Distribution	DISTPLT	(141,921)	(91,317)	(3,358)	(42,117)	(528)	(4,600)		
ITX	65	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	66	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	67	Regulatory Asset - Current	DISTPLT	21,421	13,783	507	6,357	80	694		
ITX	68	Regulatory Asset - Non-Current	DISTPLT	(31,900)	(20,526)	(755)	(9,467)	(119)	(1,034)		
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES	(203,678)	(131,595)	(1,827)	(56,856)	(1,025)	(12,375)		
ITX	71	Plant Depreciation - General & Common	SALWAGES	0	0	0	0	0	0		
ITX	72	Retirement - Medical	SALWAGES	(58,597)	(37,859)	(526)	(16,357)	(295)	(3,560)		
ITX	73	Pension	SALWAGES	21,021	13,581	189	5,868	106	1,277		
ITX	74	Post Retirement - Life Insurance	SALWAGES	3,629	2,344	33	1,013	18	220		
ITX	75	SERP	SALWAGES	21,532	13,912	193	6,011	108	1,308		
ITX	76	Pension Restoration	SALWAGES	661	427	6	184	3	40		
ITX	77	**SUBTOTAL DEFERRED EXPENSE ADJUSTMENT**		(528,671)	(342,073)	(9,772)	(152,838)	(2,170)	(21,819)		
ITX	78										
ITX	169	**STATE INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	0	0	0	0	0	0		
ITX											
ITX	79	**STATE INCOME TAX EXPENSE**		(47,600)	5,786	60,514	7,623	13,833	(135,356)		
ITX	80										
ITX	81										
ITX	82										
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
ITX	89										
ITX	90										
ITX	91										
ITX	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ITX	53	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(967)	0	(95)		(271)	0	(25)	(239)
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT	16,602	0	1,838		4,870	0	423	1,694
ITX	57	Goodwill	RATEBASE	558	0	59		159	0	14	81
ITX	58	Interest	RATEBASE	18,449	0	1,937		5,272	0	465	2,674
ITX	59										
ITX	60	Environmental Remediation	PRODPLT	1,731	0	170		486	0	45	428
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT	539	0	60		158	0	14	55
ITX	63	Net Operating Loss	DISTPLT	(131,179)	0	(14,523)		(38,479)	0	(3,341)	(13,388)
ITX	64	Plant Depreciation - Distribution	DISTPLT	(82,215)	0	(9,102)		(24,116)	0	(2,094)	(8,391)
ITX	65	Contribution in Aid of Construction	DISTPLT	0	0	0		0	0	0	0
ITX	66	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	67	Regulatory Asset - Current	DISTPLT	12,409	0	1,374		3,640	0	316	1,266
ITX	68	Regulatory Asset - Non-Current	DISTPLT	(18,480)	0	(2,046)		(5,421)	0	(471)	(1,886)
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES	(119,589)	0	(12,006)		(30,662)	0	(2,598)	(13,869)
ITX	71	Plant Depreciation - General & Common	SALWAGES	0	0	0		0	0	0	0
ITX	72	Retirement - Medical	SALWAGES	(34,405)	0	(3,454)		(8,821)	0	(747)	(3,990)
ITX	73	Pension	SALWAGES	12,342	0	1,239		3,164	0	268	1,431
ITX	74	Post Retirement - Life Insurance	SALWAGES	2,131	0	214		546	0	46	247
ITX	75	SERP	SALWAGES	12,643	0	1,269		3,242	0	275	1,466
ITX	76	Pension Restoration	SALWAGES	388	0	39		99	0	8	45
ITX	77	**SUBTOTAL DEFERRED EXPENSE ADJUSTMENT**		(309,045)	0	(33,028)		(86,134)	0	(7,401)	(32,374)
ITX	78										
ITX	169	**STATE INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	0	0	0		0	0	0	0
ITX											
ITX	79	**STATE INCOME TAX EXPENSE**		55,085	0	(49,299)		(119,474)	0	(15,965)	205,323
ITX	80										
ITX	81										
ITX	82										
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
ITX	89										
ITX	90										
ITX	91										
ITX	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ITX	53	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(259)	(56)	(19)	(183)	0	(36)	
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT		2,233	1,518	107	608	4	317	
ITX	57	Goodwill	RATEBASE		110	53	6	51	0	20	
ITX	58	Interest	RATEBASE		3,640	1,758	194	1,688	11	650	
ITX	59										
ITX	60	Environmental Remediation	PRODPLT		463	101	35	327	0	64	
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT		72	49	3	20	0	10	
ITX	63	Net Operating Loss	DISTPLT		(17,640)	(11,992)	(843)	(4,805)	(34)	(2,502)	
ITX	64	Plant Depreciation - Distribution	DISTPLT		(11,056)	(7,516)	(528)	(3,011)	(21)	(1,568)	
ITX	65	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0	
ITX	66	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0	
ITX	67	Regulatory Asset - Current	DISTPLT		1,669	1,134	80	455	3	237	
ITX	68	Regulatory Asset - Non-Current	DISTPLT		(2,485)	(1,689)	(119)	(677)	(5)	(352)	
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES		(19,372)	(9,727)	(1,025)	(8,620)	(202)	(3,554)	
ITX	71	Plant Depreciation - General & Common	SALWAGES		0	0	0	0	0	0	
ITX	72	Retirement - Medical	SALWAGES		(5,573)	(2,798)	(295)	(2,480)	(58)	(1,022)	
ITX	73	Pension	SALWAGES		1,999	1,004	106	890	21	367	
ITX	74	Post Retirement - Life Insurance	SALWAGES		345	173	18	154	4	63	
ITX	75	SERP	SALWAGES		2,048	1,028	108	911	21	376	
ITX	76	Pension Restoration	SALWAGES		63	32	3	28	1	12	
ITX	77	**SUBTOTAL DEFERRED EXPENSE ADJUSTMENT**			(43,744)	(26,929)	(2,170)	(14,645)	(254)	(6,919)	
ITX	78										
ITX	169	**STATE INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE		0	0	0	0	0	0	
ITX											
ITX	79	**STATE INCOME TAX EXPENSE**			(157,212)	(62,261)	13,833	(108,783)	(2,563)	(24,010)	
ITX	80										
ITX	81										
ITX	82										
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
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ITX	90										
ITX	91										
ITX	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
ITX	53	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(1)	(0)	(4)	(5)	(1)	0		
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT	121	6	452	579	89	10		
ITX	57	Goodwill	RATEBASE	2	0	8	10	2	0		
ITX	58	Interest	RATEBASE	73	4	262	338	61	8		
ITX	59										
ITX	60	Environmental Remediation	PRODPLT	2	0	7	9	2	0		
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT	4	0	15	19	3	0		
ITX	63	Net Operating Loss	DISTPLT	(956)	(51)	(3,568)	(4,575)	(702)	(81)		
ITX	64	Plant Depreciation - Distribution	DISTPLT	(599)	(32)	(2,236)	(2,868)	(440)	(51)		
ITX	65	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	66	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	67	Regulatory Asset - Current	DISTPLT	90	5	338	433	66	8		
ITX	68	Regulatory Asset - Non-Current	DISTPLT	(135)	(7)	(503)	(645)	(99)	(11)		
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES	(233)	(12)	(687)	(931)	(849)	(47)		
ITX	71	Plant Depreciation - General & Common	SALWAGES	0	0	0	0	0	0		
ITX	72	Retirement - Medical	SALWAGES	(67)	(3)	(198)	(268)	(244)	(14)		
ITX	73	Pension	SALWAGES	24	1	71	96	88	5		
ITX	74	Post Retirement - Life Insurance	SALWAGES	4	0	12	17	15	1		
ITX	75	SERP	SALWAGES	25	1	73	98	90	5		
ITX	76	Pension Restoration	SALWAGES	1	0	2	3	3	0		
ITX	77	**SUBTOTAL DEFERRED EXPENSE ADJUSTMENT**		(1,645)	(88)	(5,956)	(7,689)	(1,916)	(167)		
ITX	78										
ITX	169	**STATE INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	0	0	0	0	0	0		
ITX											
ITX	79	**STATE INCOME TAX EXPENSE**		(4,481)	428	52,429	48,376	12,930	(793)		
ITX	80										
ITX	81										
ITX	82										
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
ITX	89										
ITX	90										
ITX	91										
ITX	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION		ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
ITX	93	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**										
ITX	94											
ITX	95	**FEDERAL INCOME TAXES**										
ITX	96											
ITX	97	**SUBTOTAL BOOK INCOME BEFORE TAXES**	SCH , LN		1,529,269	1,599,696	1,051,705	798,554	240,032	(2,160,718)		
ITX	98											
ITX	99	**NET INCOME ADDITIONS/DEDUCTIONS**										
ITX	100	State Income Taxes		#VALUE!	576,271	336,286	(50,742)	145,215	(11,663)	157,174		
ITX	101											
ITX	102	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(35,225)	(19,706)	(120)	(10,987)	(359)	(4,053)		
ITX	103											
ITX	104	Customer Advances for Construction	DISTPLT		604,597	389,021	14,305	179,422	2,251	19,599		
ITX	105	Goodwill	RATEBASE		21,364	12,999	259	6,485	124	1,498		
ITX	106	Interest	RATEBASE		706,866	430,085	8,577	214,558	4,092	49,555		
ITX	107											
ITX	108	Environmental Remediation	PRODPLT		71,700	40,110	245	22,364	732	8,250		
ITX	109											
ITX	110	Deferred Income and Deductions	DISTPLT		19,631	12,631	464	5,826	73	636		
ITX	111	Net Operating Loss	DISTPLT		(4,144,462)	(2,666,703)	(98,061)	(1,229,919)	(15,433)	(134,347)		
ITX	112	Plant Depreciation - Distribution	DISTPLT		(2,361,265)	(1,519,327)	(55,869)	(700,734)	(8,793)	(76,543)		
ITX	113	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0		
ITX	114	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0		
ITX	115	Regulatory Liabilities	DISTPLT		451,923	290,784	10,693	134,114	1,683	14,650		
ITX	116	Regulatory Asset - Non-Current	DISTPLT		(673,005)	(433,037)	(15,924)	(199,722)	(2,506)	(21,816)		
ITX	117											
ITX	118	Goodwill - General Plant Related	SALWAGES		(4,297,012)	(2,776,262)	(38,542)	(1,199,498)	(21,625)	(261,084)		
ITX	119	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0		
ITX	120	Plant Depreciation - General & Common	SALWAGES		14,778	9,548	133	4,125	74	898		
ITX	121	Retirement - Medical	SALWAGES		(1,236,227)	(798,716)	(11,088)	(345,089)	(6,222)	(75,112)		
ITX	122	Pension	SALWAGES		746,604	482,375	6,697	208,412	3,757	45,363		
ITX	123	Post Retirement - Life Insurance	SALWAGES		76,552	49,460	687	21,369	385	4,651		
ITX	124	SERP	SALWAGES		151,134	97,646	1,356	42,189	761	9,183		
ITX	125	Pension Restoration	SALWAGES		13,940	9,007	125	3,891	70	847		
ITX	126	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**			(9,291,836)	(6,053,799)	(226,807)	(2,697,981)	(52,599)	(260,651)		
ITX	127											
ITX	128	**FEDERAL TAXABLE INCOME**			(7,762,567)	(4,454,103)	824,899	(1,899,426)	187,433	(2,421,370)		
ITX	129	Federal Income Tax @ 21%			(1,630,139)	(935,362)	173,229	(398,880)	39,361	(508,488)		
ITX	130											
ITX	131											
ITX	132											
ITX	133											
ITX	134											
ITX	135											
ITX	136											
ITX	137											
ITX	138											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION		ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)		(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ITX	93	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**										
ITX	94											
ITX	95	**FEDERAL INCOME TAXES**										
ITX	96											
ITX	97	**SUBTOTAL BOOK INCOME BEFORE TAXES**	SCH , LN		2,276,135	0	(676,439)		(1,612,537)	0	(233,544)	3,563,870
ITX	98											
ITX	99	**NET INCOME ADDITIONS/DEDUCTIONS**										
ITX	100	State Income Taxes		#VALUE!	253,960	0	82,327		205,607	0	23,366	(172,949)
ITX	101											
ITX	102	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(17,943)	0	(1,762)		(5,033)	0	(466)	(4,440)
ITX	103											
ITX	104	Customer Advances for Construction	DISTPLT		350,244	0	38,777		102,737	0	8,919	35,745
ITX	105	Goodwill	RATEBASE		11,763	0	1,235		3,362	0	297	1,705
ITX	106	Interest	RATEBASE		389,211	0	40,874		111,228	0	9,819	56,422
ITX	107											
ITX	108	Environmental Remediation	PRODPLT		36,523	0	3,587		10,244	0	949	9,037
ITX	109											
ITX	110	Deferred Income and Deductions	DISTPLT		11,372	0	1,259		3,336	0	290	1,161
ITX	111	Net Operating Loss	DISTPLT		(2,400,893)	0	(265,810)		(704,255)	0	(61,142)	(245,032)
ITX	112	Plant Depreciation - Distribution	DISTPLT		(1,367,884)	0	(151,443)		(401,242)	0	(34,835)	(139,604)
ITX	113	Contribution in Aid of Construction	DISTPLT		0	0	0		0	0	0	0
ITX	114	Goodwill - Distribution Related	DISTPLT		0	0	0		0	0	0	0
ITX	115	Regulatory Liabilities	DISTPLT		261,800	0	28,985		76,794	0	6,667	26,719
ITX	116	Regulatory Asset - Non-Current	DISTPLT		(389,873)	0	(43,164)		(114,362)	0	(9,929)	(39,790)
ITX	117											
ITX	118	Goodwill - General Plant Related	SALWAGES		(2,522,971)	0	(253,291)		(646,878)	0	(54,810)	(292,598)
ITX	119	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0		0	0	0	0
ITX	120	Plant Depreciation - General & Common	SALWAGES		8,677	0	871		2,225	0	188	1,006
ITX	121	Retirement - Medical	SALWAGES		(725,846)	0	(72,870)		(186,104)	0	(15,769)	(84,179)
ITX	122	Pension	SALWAGES		438,366	0	44,009		112,395	0	9,523	50,839
ITX	123	Post Retirement - Life Insurance	SALWAGES		44,947	0	4,512		11,524	0	976	5,213
ITX	124	SERP	SALWAGES		88,738	0	8,909		22,752	0	1,928	10,291
ITX	125	Pension Restoration	SALWAGES		8,185	0	822		2,099	0	178	949
ITX	126	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**			(5,521,625)	0	(532,174)		(1,393,572)	0	(113,851)	(779,505)
ITX	127											
ITX	128	**FEDERAL TAXABLE INCOME**			(3,245,490)	0	(1,208,612)		(3,006,109)	0	(347,395)	2,784,365
ITX	129	Federal Income Tax @ 21%			(681,553)	0	(253,809)		(631,283)	0	(72,953)	584,717
ITX	130											
ITX	131											
ITX	132											
ITX	133											
ITX	134											
ITX	135											
ITX	136											
ITX	137											
ITX	138											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
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		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ITX	93	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	94										
ITX	95	**FEDERAL INCOME TAXES**									
ITX	96										
ITX	97	**SUBTOTAL BOOK INCOME BEFORE TAXES**	SCH , LN		(2,428,454)	(919,235)	240,032	(1,749,251)	(41,611)	(369,856)	
ITX	98										
ITX	99	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	100	State Income Taxes	#VALUE!		200,956	89,190	(11,663)	123,428	2,818	30,929	
ITX	101										
ITX	102	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(4,799)	(1,048)	(359)	(3,391)	0	(662)	
ITX	103										
ITX	104	Customer Advances for Construction	DISTPLT		47,099	32,019	2,251	12,829	90	6,679	
ITX	105	Goodwill	RATEBASE		2,321	1,121	124	1,076	7	415	
ITX	106	Interest	RATEBASE		76,786	37,090	4,092	35,605	229	13,721	
ITX	107										
ITX	108	Environmental Remediation	PRODPLT		9,768	2,133	732	6,903	0	1,347	
ITX	109										
ITX	110	Deferred Income and Deductions	DISTPLT		1,529	1,040	73	417	3	217	
ITX	111	Net Operating Loss	DISTPLT		(322,863)	(219,490)	(15,433)	(87,940)	(620)	(45,786)	
ITX	112	Plant Depreciation - Distribution	DISTPLT		(183,948)	(125,052)	(8,793)	(50,103)	(353)	(26,086)	
ITX	113	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0	
ITX	114	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0	
ITX	115	Regulatory Liabilities	DISTPLT		35,206	23,934	1,683	9,589	68	4,993	
ITX	116	Regulatory Asset - Non-Current	DISTPLT		(52,429)	(35,642)	(2,506)	(14,280)	(101)	(7,435)	
ITX	117										
ITX	118	Goodwill - General Plant Related	SALWAGES		(408,696)	(205,211)	(21,625)	(181,860)	(4,254)	(74,970)	
ITX	119	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0	
ITX	120	Plant Depreciation - General & Common	SALWAGES		1,406	706	74	625	15	258	
ITX	121	Retirement - Medical	SALWAGES		(117,580)	(59,038)	(6,222)	(52,320)	(1,224)	(21,569)	
ITX	122	Pension	SALWAGES		71,011	35,655	3,757	31,598	739	13,026	
ITX	123	Post Retirement - Life Insurance	SALWAGES		7,281	3,656	385	3,240	76	1,336	
ITX	124	SERP	SALWAGES		14,375	7,218	761	6,396	150	2,637	
ITX	125	Pension Restoration	SALWAGES		1,326	666	70	590	14	243	
ITX	126	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**			(621,251)	(411,053)	(52,599)	(157,599)	(2,344)	(100,708)	
ITX	127										
ITX	128	**FEDERAL TAXABLE INCOME**			(3,049,705)	(1,330,288)	187,433	(1,906,851)	(43,955)	(470,564)	
ITX	129	Federal Income Tax @ 21%			(640,438)	(279,360)	39,361	(400,439)	(9,231)	(98,819)	
ITX	130										
ITX	131										
ITX	132										
ITX	133										
ITX	134										
ITX	135										
ITX	136										
ITX	137										
ITX	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
ITX	93	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	94										
ITX	95	**FEDERAL INCOME TAXES**									
ITX	96										
ITX	97	**SUBTOTAL BOOK INCOME BEFORE TAXES**	SCH , LN	(67,408)	7,516	900,152	840,260	223,921	(12,476)		
ITX	98										
ITX	99	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	100	State Income Taxes	#VALUE!	6,126	(340)	(46,473)	(40,687)	(11,014)	960		
ITX	101										
ITX	102	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(19)	(1)	(76)	(96)	(24)	0		
ITX	103										
ITX	104	Customer Advances for Construction	DISTPLT	2,554	137	9,526	12,216	1,873	216		
ITX	105	Goodwill	RATEBASE	47	2	167	216	39	5		
ITX	106	Interest	RATEBASE	1,543	75	5,517	7,136	1,281	160		
ITX	107										
ITX	108	Environmental Remediation	PRODPLT	40	2	154	196	49	0		
ITX	109										
ITX	110	Deferred Income and Deductions	DISTPLT	83	4	309	397	61	7		
ITX	111	Net Operating Loss	DISTPLT	(17,505)	(937)	(65,300)	(83,741)	(12,840)	(1,480)		
ITX	112	Plant Depreciation - Distribution	DISTPLT	(9,973)	(534)	(37,204)	(47,711)	(7,315)	(843)		
ITX	113	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	114	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	115	Regulatory Liabilities	DISTPLT	1,909	102	7,120	9,131	1,400	161		
ITX	116	Regulatory Asset - Non-Current	DISTPLT	(2,843)	(152)	(10,604)	(13,598)	(2,085)	(240)		
ITX	117										
ITX	118	Goodwill - General Plant Related	SALWAGES	(4,910)	(249)	(14,483)	(19,642)	(17,902)	(998)		
ITX	119	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0	0	0	0		
ITX	120	Plant Depreciation - General & Common	SALWAGES	17	1	50	68	62	3		
ITX	121	Retirement - Medical	SALWAGES	(1,412)	(72)	(4,167)	(5,651)	(5,150)	(287)		
ITX	122	Pension	SALWAGES	853	43	2,516	3,413	3,110	173		
ITX	123	Post Retirement - Life Insurance	SALWAGES	87	4	258	350	319	18		
ITX	124	SERP	SALWAGES	173	9	509	691	630	35		
ITX	125	Pension Restoration	SALWAGES	16	1	47	64	58	3		
ITX	126	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**		(23,215)	(1,904)	(152,132)	(177,251)	(47,449)	(2,107)		
ITX	127										
ITX	128	**FEDERAL TAXABLE INCOME**		(90,623)	5,612	748,021	663,009	176,472	(14,583)		
ITX	129	Federal Income Tax @ 21%		(19,031)	1,178	157,084	139,232	37,059	(3,062)		
ITX	130										
ITX	131								ES to update rate class formulas*		
ITX	132										
ITX	133										
ITX	134										
ITX	135										
ITX	136										
ITX	137										
ITX	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
ITX	139	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	140	**FEDERAL INCOME TAXES CONTINUED**									
ITX	141										
ITX	142	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	143	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(8,413)	(4,706)	(29)	(2,624)	(86)	(968)		
ITX	144										
ITX	145	Customer Advances for Construction	DISTPLT	126,965	81,694	3,004	37,679	473	4,116		
ITX	146	Goodwill	RATEBASE	4,486	2,730	54	1,362	26	315		
ITX	147	Interest	RATEBASE	148,442	90,318	1,801	45,057	859	10,407		
ITX	148										
ITX	149	Environmental Remediation	PRODPLT	15,057	8,423	51	4,696	154	1,732		
ITX	150										
ITX	151	Deferred Income and Deductions	DISTPLT	4,123	2,653	98	1,223	15	134		
ITX	152	Net Operating Loss	DISTPLT	(870,337)	(560,008)	(20,593)	(258,283)	(3,241)	(28,213)		
ITX	153	Plant Depreciation - Distribution	DISTPLT	(495,866)	(319,059)	(11,733)	(147,154)	(1,846)	(16,074)		
ITX	154	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	155	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	156	Regulatory Asset - Current	DISTPLT	94,904	61,065	2,245	28,164	353	3,076		
ITX	157	Regulatory Asset - Non-Current	DISTPLT	(141,331)	(90,938)	(3,344)	(41,942)	(526)	(4,581)		
ITX	158										
ITX	159	Goodwill - General Plant Related	SALWAGES	(902,372)	(583,015)	(8,094)	(251,895)	(4,541)	(54,828)		
ITX	160	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0	0	0	0		
ITX	161	Plant Depreciation - General & Common	SALWAGES	0	0	0	0	0	0		
ITX	162	Retirement - Medical	SALWAGES	(259,608)	(167,730)	(2,329)	(72,469)	(1,307)	(15,774)		
ITX	163	Pension	SALWAGES	156,787	101,299	1,406	43,767	789	9,526		
ITX	164	Post Retirement - Life Insurance	SALWAGES	16,076	10,387	144	4,488	81	977		
ITX	165	SERP	SALWAGES	31,738	20,506	285	8,860	160	1,928		
ITX	166	Pension Restoration	SALWAGES	2,927	1,891	26	817	15	178		
ITX	167	**TOTAL DEFERRED INCOME TAX EXPENSE**		(2,076,421)	(1,344,491)	(37,005)	(598,254)	(8,622)	(88,049)		
ITX	168										
ITX	169	**FEDERAL INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	(782,715)	(476,234)	(9,497)	(237,581)	(4,531)	(54,872)		
ITX	171										
ITX	172	**FEDERAL INCOME TAX EXPENSE**		(336,433)	(67,105)	200,737	(38,206)	43,453	(475,311)		
ITX	173										
ITX	174	**TOTAL STATE & FEDERAL INCOME TAX EXPENSE**		(384,032)	(61,318)	261,250	(30,583)	57,285	(610,667)		
ITX	175										
ITX	176	**TOTAL OPERATING DEDUCTIONS**		97,901,011	55,091,402	1,050,152	30,079,333	689,849	10,990,274		
ITX	177										
ITX	178										
ITX	179	**TAX RATES**									
ITX	180	STATE TAX RATE		6.00%							
ITX	181	FEDERAL TAX RATE - CURRENT		0.21							
ITX	182	INCREMENTAL TAX RATE		0.257400							
ITX	183	1-INCREMENTAL TAX RATE		0.742600							
ITX	184	TAX GROSS-UP FACTOR		1.34660000							
ITX	185	STATE TAX RATE		4.74%							
ITX	186	WEIGHTED COST OF DEBT		2.4186%							
ITX	187										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ITX	139	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	140	**FEDERAL INCOME TAXES CONTINUED**									
ITX	141										
ITX	142	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	143	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(4,286)	0	(421)		(1,202)	0	(111)	(1,060)
ITX	144										
ITX	145	Customer Advances for Construction	DISTPLT	73,551	0	8,143		21,575	0	1,873	7,507
ITX	146	Goodwill	RATEBASE	2,470	0	259		706	0	62	358
ITX	147	Interest	RATEBASE	81,734	0	8,584		23,358	0	2,062	11,849
ITX	148										
ITX	149	Environmental Remediation	PRODPLT	7,670	0	753		2,151	0	199	1,898
ITX	150										
ITX	151	Deferred Income and Deductions	DISTPLT	2,388	0	264		701	0	61	244
ITX	152	Net Operating Loss	DISTPLT	(504,187)	0	(55,820)		(147,894)	0	(12,840)	(51,457)
ITX	153	Plant Depreciation - Distribution	DISTPLT	(287,256)	0	(31,803)		(84,261)	0	(7,315)	(29,317)
ITX	154	Contribution in Aid of Construction	DISTPLT	0	0	0		0	0	0	0
ITX	155	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	156	Regulatory Asset - Current	DISTPLT	54,978	0	6,087		16,127	0	1,400	5,611
ITX	157	Regulatory Asset - Non-Current	DISTPLT	(81,873)	0	(9,064)		(24,016)	0	(2,085)	(8,356)
ITX	158										
ITX	159	Goodwill - General Plant Related	SALWAGES	(529,824)	0	(53,191)		(135,844)	0	(11,510)	(61,446)
ITX	160	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0		0	0	0	0
ITX	161	Plant Depreciation - General & Common	SALWAGES	0	0	0		0	0	0	0
ITX	162	Retirement - Medical	SALWAGES	(152,428)	0	(15,303)		(39,082)	0	(3,311)	(17,678)
ITX	163	Pension	SALWAGES	92,057	0	9,242		23,603	0	2,000	10,676
ITX	164	Post Retirement - Life Insurance	SALWAGES	9,439	0	948		2,420	0	205	1,095
ITX	165	SERP	SALWAGES	18,635	0	1,871		4,778	0	405	2,161
ITX	166	Pension Restoration	SALWAGES	1,719	0	173		441	0	37	199
ITX	167	**TOTAL DEFERRED INCOME TAX EXPENSE**		(1,215,212)	0	(129,279)		(336,440)	0	(28,869)	(127,716)
ITX	168										
ITX	169	**FEDERAL INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	(430,974)	0	(45,260)		(123,163)	0	(10,872)	(62,476)
ITX	171										
ITX	172	**FEDERAL INCOME TAX EXPENSE**		102,685	0	(169,789)		(418,006)	0	(54,956)	649,957
ITX	173										
ITX	174	**TOTAL STATE & FEDERAL INCOME TAX EXPENSE**		157,770	0	(219,089)		(537,480)	0	(70,921)	855,280
ITX	175										
ITX	176	**TOTAL OPERATING DEDUCTIONS**		50,239,282	0	4,852,120		12,949,151	0	1,149,312	9,395,438
ITX	177										
ITX	178										
ITX	179	**TAX RATES**									
ITX	180	STATE TAX RATE									
ITX	181	FEDERAL TAX RATE - CURRENT									
ITX	182	INCREMENTAL TAX RATE									
ITX	183	1-INCREMENTAL TAX RATE									
ITX	184	TAX GROSS-UP FACTOR									
ITX	185	STATE TAX RATE									
ITX	186	WEIGHTED COST OF DEBT									
ITX	187										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ITX	139	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	140	**FEDERAL INCOME TAXES CONTINUED**									
ITX	141										
ITX	142	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	143	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(1,146)	(250)	(86)	(810)	0	(158)	
ITX	144										
ITX	145	Customer Advances for Construction	DISTPLT		9,891	6,724	473	2,694	19	1,403	
ITX	146	Goodwill	RATEBASE		487	235	26	226	1	87	
ITX	147	Interest	RATEBASE		16,125	7,789	859	7,477	48	2,881	
ITX	148										
ITX	149	Environmental Remediation	PRODPLT		2,051	448	154	1,450	0	283	
ITX	150										
ITX	151	Deferred Income and Deductions	DISTPLT		321	218	15	87	1	46	
ITX	152	Net Operating Loss	DISTPLT		(67,801)	(46,093)	(3,241)	(18,467)	(130)	(9,615)	
ITX	153	Plant Depreciation - Distribution	DISTPLT		(38,629)	(26,261)	(1,846)	(10,522)	(74)	(5,478)	
ITX	154	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0	
ITX	155	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0	
ITX	156	Regulatory Asset - Current	DISTPLT		7,393	5,026	353	2,014	14	1,048	
ITX	157	Regulatory Asset - Non-Current	DISTPLT		(11,010)	(7,485)	(526)	(2,999)	(21)	(1,561)	
ITX	158										
ITX	159	Goodwill - General Plant Related	SALWAGES		(85,826)	(43,094)	(4,541)	(38,191)	(893)	(15,744)	
ITX	160	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0	
ITX	161	Plant Depreciation - General & Common	SALWAGES		0	0	0	0	0	0	
ITX	162	Retirement - Medical	SALWAGES		(24,692)	(12,398)	(1,307)	(10,987)	(257)	(4,529)	
ITX	163	Pension	SALWAGES		14,912	7,488	789	6,636	155	2,735	
ITX	164	Post Retirement - Life Insurance	SALWAGES		1,529	768	81	680	16	280	
ITX	165	SERP	SALWAGES		3,019	1,516	160	1,343	31	554	
ITX	166	Pension Restoration	SALWAGES		278	140	15	124	3	51	
ITX	167	**TOTAL DEFERRED INCOME TAX EXPENSE**			(173,097)	(105,230)	(8,622)	(59,245)	(1,087)	(27,717)	
ITX	168										
ITX	169	**FEDERAL INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE		(85,026)	(41,070)	(4,531)	(39,425)	(253)	(15,194)	
ITX	171										
ITX	172	**FEDERAL INCOME TAX EXPENSE**			(552,367)	(215,201)	43,453	(380,619)	(8,397)	(86,295)	
ITX	173										
ITX	174	**TOTAL STATE & FEDERAL INCOME TAX EXPENSE**			(709,578)	(277,462)	57,285	(489,402)	(10,960)	(110,305)	
ITX	175										
ITX	176	**TOTAL OPERATING DEDUCTIONS**			14,465,848	6,585,433	689,849	7,190,566	173,894	3,625,814	
ITX	177										
ITX	178										
ITX	179	**TAX RATES**									
ITX	180	STATE TAX RATE									
ITX	181	FEDERAL TAX RATE - CURRENT									
ITX	182	INCREMENTAL TAX RATE									
ITX	183	1-INCREMENTAL TAX RATE									
ITX	184	TAX GROSS-UP FACTOR									
ITX	185	STATE TAX RATE									
ITX	186	WEIGHTED COST OF DEBT									
ITX	187										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
ITX	139	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	140	**FEDERAL INCOME TAXES CONTINUED**									
ITX	141										
ITX	142	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	143	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(5)	(0)	(18)	(23)	(6)	0		
ITX	144										
ITX	145	Customer Advances for Construction	DISTPLT	536	29	2,000	2,565	393	45		
ITX	146	Goodwill	RATEBASE	10	0	35	45	8	1		
ITX	147	Interest	RATEBASE	324	16	1,159	1,499	269	34		
ITX	148										
ITX	149	Environmental Remediation	PRODPLT	8	0	32	41	10	0		
ITX	150										
ITX	151	Deferred Income and Deductions	DISTPLT	17	1	65	83	13	1		
ITX	152	Net Operating Loss	DISTPLT	(3,676)	(197)	(13,713)	(17,586)	(2,696)	(311)		
ITX	153	Plant Depreciation - Distribution	DISTPLT	(2,094)	(112)	(7,813)	(10,019)	(1,536)	(177)		
ITX	154	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	155	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	156	Regulatory Asset - Current	DISTPLT	401	21	1,495	1,918	294	34		
ITX	157	Regulatory Asset - Non-Current	DISTPLT	(597)	(32)	(2,227)	(2,856)	(438)	(50)		
ITX	158										
ITX	159	Goodwill - General Plant Related	SALWAGES	(1,031)	(52)	(3,041)	(4,125)	(3,759)	(210)		
ITX	160	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0	0	0	0		
ITX	161	Plant Depreciation - General & Common	SALWAGES	0	0	0	0	0	0		
ITX	162	Retirement - Medical	SALWAGES	(297)	(15)	(875)	(1,187)	(1,082)	(60)		
ITX	163	Pension	SALWAGES	179	9	528	717	653	36		
ITX	164	Post Retirement - Life Insurance	SALWAGES	18	1	54	73	67	4		
ITX	165	SERP	SALWAGES	36	2	107	145	132	7		
ITX	166	Pension Restoration	SALWAGES	3	0	10	13	12	1		
ITX	167	**TOTAL DEFERRED INCOME TAX EXPENSE**		(6,166)	(329)	(22,201)	(28,695)	(7,665)	(645)		
ITX	168										
ITX	169	**FEDERAL INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	(1,709)	(83)	(6,109)	(7,902)	(1,418)	(177)		
ITX	171										
ITX	172	**FEDERAL INCOME TAX EXPENSE**		(14,574)	1,424	173,176	160,026	43,306	(2,595)		
ITX	173										
ITX	174	**TOTAL STATE & FEDERAL INCOME TAX EXPENSE**		(19,054)	1,851	225,605	208,402	56,236	(3,388)		
ITX	175										
ITX	176	**TOTAL OPERATING DEDUCTIONS**		105,276	8,344	655,443	769,063	273,825	7,264		
ITX	177										
ITX	178										
ITX	179	**TAX RATES**									
ITX	180	STATE TAX RATE									
ITX	181	FEDERAL TAX RATE - CURRENT									
ITX	182	INCREMENTAL TAX RATE									
ITX	183	1-INCREMENTAL TAX RATE									
ITX	184	TAX GROSS-UP FACTOR									
ITX	185	STATE TAX RATE									
ITX	186	WEIGHTED COST OF DEBT									
ITX	187										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
S&W	1	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	2										
S&W	3	**PRODUCTION SALARIES & WAGES EXPENSE**									
S&W	4	Operation	OX_PROD	731,315	409,113	2,494	228,102	7,462	84,145		
S&W	5	Maintenance	MX_PROD	771,992	431,869	2,633	240,789	7,877	88,825		
S&W	6	TOTAL PRODUCTION S&W EXPENSE		1,503,307	840,981	5,127	468,891	15,339	172,970		
S&W	7										
S&W	8	**SYSTEM CONTROL AND DISPATCH S&W EXPENSE**									
S&W	9	556-Supervision & Engineering	OX_PROD	2,552,755	1,428,065	8,705	796,220	26,047	293,718		
S&W	10	557-Other Expenditures	MX_PROD	0	0	0	0	0	0		
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH		2,552,755	1,428,065	8,705	796,220	26,047	293,718		
S&W	12										
S&W	13	**TRANSMISSION SALARIES & WAGES EXPENSE**									
S&W	14	Operation	OX_TRAN	0	0	0	0	0	0		
S&W	15	Maintenance	MX_TRAN	0	0	0	0	0	0		
S&W	16	TOTAL TRANSMISSION EXPENSE		0	0	0	0	0	0		
S&W	17										
S&W	18	**REGIONAL MARKET EXPENSE**									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM	95,090	31,427	237	25,101	662	37,663		
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM	7,680	2,538	19	2,027	54	3,042		
S&W	21	TOTAL REGIONAL MARKET EXPENSE		102,770	33,965	256	27,128	716	40,704		
S&W	22										
S&W	23										
S&W	24										
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S&W	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
S&W	1	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	2										
S&W	3	**PRODUCTION SALARIES & WAGES EXPENSE**									
S&W	4	Operation	OX_PROD	372,526	0	36,587		104,486	0	9,681	92,177
S&W	5	Maintenance	MX_PROD	393,246	0	38,622		110,298	0	10,219	97,304
S&W	6	TOTAL PRODUCTION S&W EXPENSE		765,772	0	75,209		214,785	0	19,900	189,481
S&W	7										
S&W	8	**SYSTEM CONTROL AND DISPATCH S&W EXPENSE**									
S&W	9	556-Supervision & Engineering	OX_PROD	1,300,352	0	127,713		364,724	0	33,792	321,756
S&W	10	557-Other Expenditures	MX_PROD	0	0	0		0	0	0	0
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH		1,300,352	0	127,713		364,724	0	33,792	321,756
S&W	12										
S&W	13	**TRANSMISSION SALARIES & WAGES EXPENSE**									
S&W	14	Operation	OX_TRAN	0	0	0		0	0	0	0
S&W	15	Maintenance	MX_TRAN	0	0	0		0	0	0	0
S&W	16	TOTAL TRANSMISSION EXPENSE		0	0	0		0	0	0	0
S&W	17										
S&W	18	**REGIONAL MARKET EXPENSE**									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM	28,622	0	2,805		8,065	0	838	8,295
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM	2,312	0	227		651	0	68	670
S&W	21	TOTAL REGIONAL MARKET EXPENSE		30,933	0	3,032		8,716	0	906	8,965
S&W	22										
S&W	23										
S&W	24										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
S&W	1	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	2										
S&W	3	**PRODUCTION SALARIES & WAGES EXPENSE**									
S&W	4	Operation	OX_PROD		99,626	21,758	7,462	70,407	0	13,738	
S&W	5	Maintenance	MX_PROD		105,167	22,968	7,877	74,323	0	14,502	
S&W	6	TOTAL PRODUCTION S&W EXPENSE			204,793	44,725	15,339	144,729	0	28,240	
S&W	7										
S&W	8	**SYSTEM CONTROL AND DISPATCH S&W EXPENSE**									
S&W	9	556-Supervision & Engineering	OX_PROD		347,758	75,948	26,047	245,764	0	47,955	
S&W	10	557-Other Expenditures	MX_PROD		0	0	0	0	0	0	
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH			347,758	75,948	26,047	245,764	0	47,955	
S&W	12										
S&W	13	**TRANSMISSION SALARIES & WAGES EXPENSE**									
S&W	14	Operation	OX_TRAN		0	0	0	0	0	0	
S&W	15	Maintenance	MX_TRAN		0	0	0	0	0	0	
S&W	16	TOTAL TRANSMISSION EXPENSE			0	0	0	0	0	0	
S&W	17										
S&W	18	**REGIONAL MARKET EXPENSE**									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM		19,046	7,903	662	10,480	21,422	5,761	
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM		1,538	638	54	846	1,730	465	
S&W	21	TOTAL REGIONAL MARKET EXPENSE			20,584	8,542	716	11,327	23,152	6,226	
S&W	22										
S&W	23										
S&W	24										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
S&W	1	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	2										
S&W	3	**PRODUCTION SALARIES & WAGES EXPENSE**									
S&W	4	Operation	OX_PROD	405	21	1,569	1,995	499	0		
S&W	5	Maintenance	MX_PROD	427	22	1,657	2,106	527	0		
S&W	6	TOTAL PRODUCTION S&W EXPENSE		832	44	3,226	4,101	1,026	0		
S&W	7										
S&W	8	**SYSTEM CONTROL AND DISPATCH S&W EXPENSE**									
S&W	9	556-Supervision & Engineering	OX_PROD	1,412	74	5,478	6,964	1,742	0		
S&W	10	557-Other Expenditures	MX_PROD	0	0	0	0	0	0		
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH		1,412	74	5,478	6,964	1,742	0		
S&W	12										
S&W	13	**TRANSMISSION SALARIES & WAGES EXPENSE**									
S&W	14	Operation	OX_TRAN	0	0	0	0	0	0		
S&W	15	Maintenance	MX_TRAN	0	0	0	0	0	0		
S&W	16	TOTAL TRANSMISSION EXPENSE		0	0	0	0	0	0		
S&W	17										
S&W	18	**REGIONAL MARKET EXPENSE**									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM	39	2	149	190	47	0		
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM	3	0	12	15	4	0		
S&W	21	TOTAL REGIONAL MARKET EXPENSE		42	2	162	205	51	0		
S&W	22										
S&W	23										
S&W	24										
S&W	25										
S&W	26										
S&W	27										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
S&W	47	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	48										
S&W	49										
S&W	50	**DISTRIBUTION SALARIES & WAGES EXPENSE**									
S&W	51	Distribution Operations:									
S&W	52	580-Supervision	SALWAGDO	2,041,489	1,245,747	38,549	590,030	10,203	156,960		
S&W	53	581-Load Dispatch	DDISPSUB	0	0	0	0	0	0		
S&W	54	582-Station Equipment	PLT_362	1,253,535	594,769	3,419	415,023	8,776	231,548		
S&W	55	583-Overhead Lines	OHDIST	28,781	19,038	93	9,529	120	0		
S&W	56	584-Underground Lines	UGDIST	2,551	1,686	8	844	13	0		
S&W	57	585-Street Lighting	PLT_371	26,672	0	26,672	0	0	0		
S&W	58	586-Metering	CMETERS	782,075	601,914	691	165,680	3,861	9,929		
S&W	59	587-Customer Installations	PLT_3713	0	0	0	0	0	0		
S&W	60	588-Miscellaneous	DISTPLT	1,663,561	1,070,398	39,361	493,682	6,195	53,926		
S&W	61	589-Rents	DISTPLT	146,893	94,517	3,476	43,592	547	4,762		
S&W	62	Total Distribution Operation		5,945,558	3,628,069	112,269	1,718,381	29,716	457,124		
S&W	63										
S&W	64	Distribution Maintenance									
S&W	65	590-Supervision	SALWAGDM	220,857	141,421	815	73,116	984	4,520		
S&W	66	591-Structures	PLT_362	0	0	0	0	0	0		
S&W	67	592-Station Equipment	PLT_362	983,130	466,469	2,682	325,497	6,883	181,599		
S&W	68	593-Overhead Lines	OHDIST	7,035,816	4,654,190	22,666	2,329,517	29,443	0		
S&W	69	594-Underground Lines	UGDIST	713,426	471,578	2,297	236,034	3,517	0		
S&W	70	595-Transformers	PLT_368	190,533	126,567	616	63,350	0	0		
S&W	71	596-Street Lighting	PLT_373	3,165	0	3,165	0	0	0		
S&W	72	597-Metering	CMETERS	(26,186)	(20,154)	(23)	(5,547)	(129)	(332)		
S&W	73	598-Miscellaneous	DISTPLT	72,450	46,617	1,714	21,500	270	2,349		
S&W	74	Total Distribution Maintenance	MX_DIST	9,193,191	5,886,689	33,932	3,043,467	40,968	188,135		
S&W	75										
S&W	76	TOTAL DISTRIBUTION		15,138,750	9,514,758	146,201	4,761,848	70,684	645,259		
S&W	77										
S&W	78										
S&W	79										
S&W	80										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		COS Without Minimum System									
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
S&W	47	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	48										
S&W	49										
S&W	50	**DISTRIBUTION SALARIES & WAGES EXPENSE**									
S&W	51	Distribution Operations:									
S&W	52	580-Supervision	SALWAGDO	1,136,725	0	109,023		301,015	0	24,951	146,355
S&W	53	581-Load Dispatch	DDISPSUB	0	0	0		0	0	0	0
S&W	54	582-Station Equipment	PLT_362	541,555	0	53,213		151,730	0	13,645	128,519
S&W	55	583-Overhead Lines	OHDIST	16,902	0	2,137		5,763	0	532	1,616
S&W	56	584-Underground Lines	UGDIST	1,497	0	189		510	0	47	143
S&W	57	585-Street Lighting	PLT_371	0	0	0		0	0	0	0
S&W	58	586-Metering	CMETERS	565,078	0	36,836		110,001	0	6,782	42,568
S&W	59	587-Customer Installations	PLT_3713	0	0	0		0	0	0	0
S&W	60	588-Miscellaneous	DISTPLT	963,703	0	106,695		282,684	0	24,542	98,354
S&W	61	589-Rents	DISTPLT	85,096	0	9,421		24,961	0	2,167	8,685
S&W	62	Total Distribution Operation		3,310,556	0	317,513		876,664	0	72,666	426,240
S&W	63										
S&W	64	Distribution Maintenance									
S&W	65	590-Supervision	SALWAGDM	125,801	0	15,621		42,279	0	3,894	13,525
S&W	66	591-Structures	PLT_362	0	0	0		0	0	0	0
S&W	67	592-Station Equipment	PLT_362	424,734	0	41,735		118,999	0	10,702	100,795
S&W	68	593-Overhead Lines	OHDIST	4,131,876	0	522,314		1,408,901	0	129,936	395,033
S&W	69	594-Underground Lines	UGDIST	418,655	0	52,923		142,755	0	13,166	40,026
S&W	70	595-Transformers	PLT_368	112,364	0	14,204		38,314	0	3,534	10,743
S&W	71	596-Street Lighting	PLT_373	0	0	0		0	0	0	0
S&W	72	597-Metering	CMETERS	(18,920)	0	(1,233)		(3,683)	0	(227)	(1,425)
S&W	73	598-Miscellaneous	DISTPLT	41,970	0	4,647		12,311	0	1,069	4,283
S&W	74	Total Distribution Maintenance	MX_DIST	5,236,480	0	650,209		1,759,877	0	162,072	562,980
S&W	75										
S&W	76	TOTAL DISTRIBUTION		8,547,036	0	967,722		2,636,540	0	234,739	989,220
S&W	77										
S&W	78										
S&W	79										
S&W	80										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
S&W	47	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	48										
S&W	49										
S&W	50	**DISTRIBUTION SALARIES & WAGES EXPENSE**									
S&W	51	Distribution Operations:									
S&W	52	580-Supervision	SALWAGDO		230,464	117,709	10,203	102,552	875	53,533	
S&W	53	581-Load Dispatch	DDISPSUB		0	0	0	0	0	0	
S&W	54	582-Station Equipment	PLT_362		282,826	121,130	8,776	152,919	0	78,628	
S&W	55	583-Overhead Lines	OHDIST		1,739	1,618	120	0	0	0	
S&W	56	584-Underground Lines	UGDIST		156	143	13	0	0	0	
S&W	57	585-Street Lighting	PLT_371		0	0	0	0	0	0	
S&W	58	586-Metering	CMETERS		14,971	6,329	3,861	4,781	1,402	3,746	
S&W	59	587-Customer Installations	PLT_3713		0	0	0	0	0	0	
S&W	60	588-Miscellaneous	DISTPLT		129,595	88,102	6,195	35,299	249	18,378	
S&W	61	589-Rents	DISTPLT		11,443	7,779	547	3,117	22	1,623	
S&W	62	Total Distribution Operation			671,194	342,811	29,716	298,667	2,548	155,908	
S&W	63										
S&W	64	Distribution Maintenance									
S&W	65	590-Supervision	SALWAGDM		17,389	13,418	984	2,986	(1)	1,535	
S&W	66	591-Structures	PLT_362		0	0	0	0	0	0	
S&W	67	592-Station Equipment	PLT_362		221,816	95,001	6,883	119,932	0	61,667	
S&W	68	593-Overhead Lines	OHDIST		425,089	395,646	29,443	0	0	0	
S&W	69	594-Underground Lines	UGDIST		43,605	40,088	3,517	0	0	0	
S&W	70	595-Transformers	PLT_368		10,759	10,759	0	0	0	0	
S&W	71	596-Street Lighting	PLT_373		0	0	0	0	0	0	
S&W	72	597-Metering	CMETERS		(501)	(212)	(129)	(160)	(47)	(125)	
S&W	73	598-Miscellaneous	DISTPLT		5,644	3,837	270	1,537	11	800	
S&W	74	Total Distribution Maintenance	MX_DIST		723,801	558,537	40,968	124,296	(37)	63,877	
S&W	75										
S&W	76	TOTAL DISTRIBUTION			1,394,995	901,349	70,684	422,963	2,511	219,785	
S&W	77										
S&W	78										
S&W	79										
S&W	80										
S&W	81										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
S&W	47	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	48										
S&W	49										
S&W	50	**DISTRIBUTION SALARIES & WAGES EXPENSE**									
S&W	51	Distribution Operations:									
S&W	52	580-Supervision	SALWAGDO	4,659	230	16,072	20,960	15,524	2,064		
S&W	53	581-Load Dispatch	DDISPSUB	0	0	0	0	0	0		
S&W	54	582-Station Equipment	PLT_362	554	29	2,151	2,734	685	0		
S&W	55	583-Overhead Lines	OHDIST	16	1	54	71	22	0		
S&W	56	584-Underground Lines	UGDIST	1	0	5	6	2	0		
S&W	57	585-Street Lighting	PLT_371	0	0	0	0	23,371	3,301		
S&W	58	586-Metering	CMETERS	691	0	0	691	0	0		
S&W	59	587-Customer Installations	PLT_3713	0	0	0	0	0	0		
S&W	60	588-Miscellaneous	DISTPLT	7,026	376	26,211	33,613	5,154	594		
S&W	61	589-Rents	DISTPLT	620	33	2,314	2,968	455	52		
S&W	62	Total Distribution Operation		13,569	669	46,807	61,044	45,212	6,012		
S&W	63										
S&W	64	Distribution Maintenance									
S&W	65	590-Supervision	SALWAGDM	143	7	499	649	166	1		
S&W	66	591-Structures	PLT_362	0	0	0	0	0	0		
S&W	67	592-Station Equipment	PLT_362	435	23	1,687	2,144	537	0		
S&W	68	593-Overhead Lines	OHDIST	3,954	174	13,252	17,380	5,287	0		
S&W	69	594-Underground Lines	UGDIST	401	18	1,343	1,761	536	0		
S&W	70	595-Transformers	PLT_368	108	5	360	473	144	0		
S&W	71	596-Street Lighting	PLT_373	642	34	2,490	3,165	0	0		
S&W	72	597-Metering	CMETERS	(23)	0	0	(23)	0	0		
S&W	73	598-Miscellaneous	DISTPLT	306	16	1,142	1,464	224	26		
S&W	74	Total Distribution Maintenance	MX_DIST	5,964	276	20,772	27,013	6,893	27		
S&W	75										
S&W	76	TOTAL DISTRIBUTION		19,533	945	67,579	88,057	52,106	6,039		
S&W	77										
S&W	78										
S&W	79										
S&W	80										
S&W	81										
S&W	82										
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S&W	88										
S&W	89										
S&W	90										
S&W	91										
S&W	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
S&W	93	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	94										
S&W	95	**Customer Accounting Expense**									
S&W	96	901-Supervision	SALWAGCA	532,280	469,920	778	61,458	73	51		
S&W	97	902-Meter Reading	CMETRDG	1,131,759	999,066	1,653	130,663	155	221		
S&W	98	903-Billing & Cashiering	CUSTREC	1,165,071	1,028,674	1,702	134,535	160	0		
S&W	99	905-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE		2,829,110	2,497,661	4,133	326,656	387	273		
S&W	101										
S&W	102	**CUSTOMER SERVICE EXPENSES**									
S&W	103	907-Supervision	SALWAGCS	359,821	230,655	6,398	81,429	1,642	39,697		
S&W	104	908-Customer Assistance	CUSTCSS	3,305,290	2,118,780	58,774	748,000	15,080	364,655		
S&W	105	909-Advertisement	CUSTCSS	198,075	126,971	3,522	44,825	904	21,853		
S&W	106	910-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE		3,863,186	2,476,406	68,695	874,254	17,626	426,205		
S&W	108										
S&W	109	**SALES EXPENSES**									
S&W	110	912-Demonstrations & Selling	OX_902_3	0	0	0	0	0	0		
S&W	111	916-Miscellaneous Sales Expense	OX_902_3	0	0	0	0	0	0		
S&W	112	TOTAL SALES EXPENSES		0	0	0	0	0	0		
S&W	113										
S&W	114	**TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE**		25,989,877	16,791,837	233,117	7,254,996	130,798	1,579,129		
S&W	115										
S&W	116	**ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP**									
S&W	117	Operation	SALWAGXAG	3,752,644	2,424,551	33,659	1,047,539	18,886	228,008		
S&W	118	Maintenance	SALWAGXAG	0	0	0	0	0	0		
S&W	119	TOTAL ADMINISTRATIVE & GENERAL		3,752,644	2,424,551	33,659	1,047,539	18,886	228,008		
S&W	120										
S&W	121	**TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE**		29,742,521	19,216,388	266,777	8,302,536	149,684	1,807,138		
S&W	122										
S&W	123										
S&W	124										
S&W	125										
S&W	126										
S&W	127										
S&W	128										
S&W	129										
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S&W	134										
S&W	135										
S&W	136										
S&W	137										
S&W	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
S&W	93	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	94										
S&W	95	**Customer Accounting Expense**									
S&W	96	901-Supervision	SALWAGCA	437,676	0	32,244		53,937	0	2,287	4,850
S&W	97	902-Meter Reading	CMETRDG	930,515	0	68,552		114,671	0	4,861	10,311
S&W	98	903-Billing & Cashiering	CUSTREC	958,091	0	70,583		118,069	0	5,005	10,617
S&W	99	905-Miscellaneous	CUSTCSS	0	0	0		0	0	0	0
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE		2,326,282	0	171,379		286,677	0	12,153	25,778
S&W	101										
S&W	102	**CUSTOMER SERVICE EXPENSES**									
S&W	103	907-Supervision	SALWAGCS	213,243	0	17,412		37,360	0	2,796	21,845
S&W	104	908-Customer Assistance	CUSTCSS	1,958,837	0	159,943		343,186	0	25,688	200,670
S&W	105	909-Advertisement	CUSTCSS	117,386	0	9,585		20,566	0	1,539	12,025
S&W	106	910-Miscellaneous	CUSTCSS	0	0	0		0	0	0	0
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE		2,289,467	0	186,939		401,112	0	30,024	234,540
S&W	108										
S&W	109	**SALES EXPENSES**									
S&W	110	912-Demonstrations & Selling	OX_902_3	0	0	0		0	0	0	0
S&W	111	916-Miscellaneous Sales Expense	OX_902_3	0	0	0		0	0	0	0
S&W	112	TOTAL SALES EXPENSES		0	0	0		0	0	0	0
S&W	113										
S&W	114	**TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE**		15,259,842	0	1,531,994		3,912,555	0	331,513	1,769,740
S&W	115										
S&W	116	**ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP**									
S&W	117	Operation	SALWAGXAG	2,203,348	0	221,203		564,929	0	47,867	255,530
S&W	118	Maintenance	SALWAGXAG	0	0	0		0	0	0	0
S&W	119	TOTAL ADMINISTRATIVE & GENERAL		2,203,348	0	221,203		564,929	0	47,867	255,530
S&W	120										
S&W	121	**TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE**		17,463,191	0	1,753,197		4,477,483	0	379,380	2,025,271
S&W	122										
S&W	123										
S&W	124										
S&W	125										
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S&W	137										
S&W	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
S&W	93	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	94										
S&W	95	**Customer Accounting Expense**									
S&W	96	901-Supervision	SALWAGCA		489	385	73	31	5	15	
S&W	97	902-Meter Reading	CMETRDG		1,107	819	155	133	22	66	
S&W	98	903-Billing & Cashiering	CUSTREC		1,003	843	160	0	0	0	
S&W	99	905-Miscellaneous	CUSTCSS		0	0	0	0	0	0	
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE			2,599	2,048	387	164	27	82	
S&W	101										
S&W	102	**CUSTOMER SERVICE EXPENSES**									
S&W	103	907-Supervision	SALWAGCS		46,683	19,427	1,642	25,615	3	14,079	
S&W	104	908-Customer Assistance	CUSTCSS		428,831	178,456	15,080	235,294	31	129,330	
S&W	105	909-Advertisement	CUSTCSS		25,698	10,694	904	14,100	2	7,750	
S&W	106	910-Miscellaneous	CUSTCSS		0	0	0	0	0	0	
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE			501,212	208,577	17,626	275,010	37	151,159	
S&W	108										
S&W	109	**SALES EXPENSES**									
S&W	110	912-Demonstrations & Selling	OX_902_3		0	0	0	0	0	0	
S&W	111	916-Miscellaneous Sales Expense	OX_902_3		0	0	0	0	0	0	
S&W	112	TOTAL SALES EXPENSES			0	0	0	0	0	0	
S&W	113										
S&W	114	**TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE**			2,471,942	1,241,188	130,798	1,099,956	25,727	453,447	
S&W	115										
S&W	116	**ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP**									
S&W	117	Operation	SALWAGXAG		356,920	179,213	18,886	158,821	3,715	65,473	
S&W	118	Maintenance	SALWAGXAG		0	0	0	0	0	0	
S&W	119	TOTAL ADMINISTRATIVE & GENERAL			356,920	179,213	18,886	158,821	3,715	65,473	
S&W	120										
S&W	121	**TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE**			2,828,862	1,420,401	149,684	1,258,777	29,441	518,920	
S&W	122										
S&W	123										
S&W	124										
S&W	125										
S&W	126										
S&W	127										
S&W	128										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
S&W	93	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	94										
S&W	95	**Customer Accounting Expense**									
S&W	96	901-Supervision	SALWAGCA	778	0	0	778	0	0		
S&W	97	902-Meter Reading	CMETRDG	1,653	0	0	1,653	0	0		
S&W	98	903-Billing & Cashiering	CUSTREC	1,702	0	0	1,702	0	0		
S&W	99	905-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE		4,133	0	0	4,133	0	0		
S&W	101										
S&W	102	**CUSTOMER SERVICE EXPENSES**									
S&W	103	907-Supervision	SALWAGCS	349	41	1,039	1,429	4,969	0		
S&W	104	908-Customer Assistance	CUSTCSS	3,203	380	9,545	13,128	45,646	0		
S&W	105	909-Advertisement	CUSTCSS	192	23	572	787	2,735	0		
S&W	106	910-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE		3,744	444	11,156	15,344	53,351	0		
S&W	108										
S&W	109	**SALES EXPENSES**									
S&W	110	912-Demonstrations & Selling	OX_902_3	0	0	0	0	0	0		
S&W	111	916-Miscellaneous Sales Expense	OX_902_3	0	0	0	0	0	0		
S&W	112	TOTAL SALES EXPENSES		0	0	0	0	0	0		
S&W	113										
S&W	114	**TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE**		29,695	1,509	87,600	118,804	108,275	6,039		
S&W	115										
S&W	116	**ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP**									
S&W	117	Operation	SALWAGXAG	4,288	218	12,648	17,154	15,634	872		
S&W	118	Maintenance	SALWAGXAG	0	0	0	0	0	0		
S&W	119	TOTAL ADMINISTRATIVE & GENERAL		4,288	218	12,648	17,154	15,634	872		
S&W	120										
S&W	121	**TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE**		33,983	1,727	100,248	135,957	123,909	6,911		
S&W	122										
S&W	123										
S&W	124										
S&W	125										
S&W	126										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)		
AF	1	**ALLOCATION FACTOR TABLE**										
AF	2											
AF	3	**ENERGY - PRODUCTION RELATED**										
AF	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		765,237,842	252,908,738	1,909,346	201,999,407	5,331,038	303,089,312		
AF	5	Energy @ Meter (kWh Sales)	ENERGY2		592,847,764	252,908,738	1,909,346	201,999,407	5,331,038	130,699,234		
AF	6	Energy @ Generation with losses(kWh)	ENERGY1		636,279,458	274,557,726	2,072,786	219,290,556	5,568,270	134,790,120		
AF	7	Energy @ Generation with losses (kWh)	ENEFUEL		636,279,458	274,557,726	2,072,786	219,290,556	5,568,270	134,790,120		
AF	8											
AF	9	Energy - RTMP	ERTMP		1	0	0	0	0	1		
AF	10											
AF	11											
AF	12	**DEMAND**										
AF	13	DEMAND - PRODUCTION RELATED										
AF	14	Demand Production (12CP 75% & Energy 25%)	DPROD		1.0000	0.5594	0.0034	0.3119	0.0102	0.1151		
AF	15											
AF	16											
AF	17	Production Load Dispatching (Average Demand)	DPRODLD		72,635	31,342	237	25,033	636	15,387		
AF	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		86,014	53,077	778	31,227	931	0		
AF	19											
AF	20	DEMAND - TRANSMISSION RELATED										
AF	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		1,119,734	531,598	3,056	370,943	7,843	206,294		
AF	22	Demand Transmission (12CP no AES)	DTRAN3		1,471,812	531,845	3,057	371,116	7,848	557,945		
AF	23	Transmission Load Dispatching (Average Demand)	DTRANLD		72,635	31,342	237	25,033	636	15,387		
AF	24											
AF	25	DEMAND - DISTRIBUTION RELATED										
AF	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		1,120,918	531,845	3,057	371,116	7,848	207,051		
AF	27											
AF	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		214,836	141,961	691	71,055	1,129	0		
AF	29											
AF	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		213,707	141,961	691	71,055	0	0		
AF	31											
AF	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		213,707	141,961	691	71,055	0	0		
AF	33	Distribution Load Dispatching	DDISTLD		67,677	28,871	218	23,059	609	14,920		
AF	34											
AF	35	**Minimum System - Demand Allocation Factors**										
AF	36	**Primary**										
AF	37	kW Capability of Minimum		64.00%								
AF	38	NCP * kW Capability Minimum			137,495							
AF	39	Dist Pri Min kW Allocated on Number of Primary Customers				137,495	117,643	4,448	15,386	18	0	
AF	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS			77,415	24,318	(3,682)	55,669	1,110	0	
AF	41	**Secondary**										
AF	42	Demand Distribution Secondary Lines (NCP)				213,707	141,961	691	71,055	0	0	
AF	43	Demand Adjustment										
AF	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS			71,709	35,490	691	35,527	0	0	
AF	45											
AF	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION		ALLOCATION BASIS		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)		(b)		(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	1	**ALLOCATION FACTOR TABLE**											
AF	2												
AF	3	**ENERGY - PRODUCTION RELATED**											
AF	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3			230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
AF	5	Energy @ Meter (kWh Sales)	ENERGY2			230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
AF	6	Energy @ Generation with losses(kWh)	ENERGY1			250,048,255	0	24,509,471		70,455,285	0	7,324,768	72,465,198
AF	7	Energy @ Generation with losses (kWh)	ENEFUEL			250,048,255	0	24,509,471		70,455,285	0	7,324,768	72,465,198
AF	8												
AF	9	Energy - RTMP	ERTMP			0	0	0		0	0	0	0
AF	10												
AF	11												
AF	12	**DEMAND**											
AF	13	DEMAND - PRODUCTION RELATED											
AF	14	Demand Production (12CP 75% & Energy 25%)	DPROD			0.5094	0.0000	0.0500		0.1429	0.0000	0.0132	0.1260
AF	15												
AF	16												
AF	17	Production Load Dispatching (Average Demand)	DPRODLD			28,544	0	2,798		8,043	0	836	8,272
AF	18	Purchased Capacity (1CP Firm Load Only)	DPURCH			47,121	0	5,956		8,959	0	1,473	10,536
AF	19												
AF	20	DEMAND - TRANSMISSION RELATED											
AF	21	Demand Transmission (12CP no AES or RTMP)	DTRAN			484,036	0	47,562		135,614	0	12,196	114,868
AF	22	Demand Transmission (12CP no AES)	DTRAN3			484,262	0	47,584		135,678	0	12,202	114,922
AF	23	Transmission Load Dispatching (Average Demand)	DTRANLD			28,544	0	2,798		8,043	0	836	8,272
AF	24												
AF	25	DEMAND - DISTRIBUTION RELATED											
AF	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB			484,262	0	47,584		135,678	0	12,202	114,922
AF	27												
AF	28	Demand Distribution Primary Lines (NCP)	DDISTPRI			126,030	0	15,932		42,974	0	3,963	12,049
AF	29												
AF	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC			126,030	0	15,932		42,974	0	3,963	12,049
AF	31												
AF	32	Demand Distribution Line Transformers (NCP)	DDISTSLT			126,030	0	15,932		42,974	0	3,963	12,049
AF	33	Distribution Load Dispatching	DDISTLD			26,294	0	2,577		7,409	0	770	7,620
AF	34												
AF	35	**Minimum System - Demand Allocation Factors**											
AF	36	**Primary**											
AF	37	kW Capability of Minimum		64.00%									
AF	38	NCP * kW Capability Minimum			137,495								
AF	39	Dist Pri Min kW Allocated on Number of Primary Customers				109,571	0	8,072		13,503	0	572	1,214
AF	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS			16,459	0	7,859		29,471	0	3,391	10,835
AF	41	**Secondary**											
AF	42	Demand Distribution Secondary Lines (NCP)				126,030	0	15,932		42,974	0	3,963	12,049
AF	43	Demand Adjustment				0.2500	0.2500	0.2500		0.5000	0.5000	0.5000	0.5000
AF	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS			31,507	0	3,983		21,487	0	1,982	6,025
AF	45												
AF	46												

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		(s)	Large Comm & Ind CP-U Total (t)	S Large Commerical & Industrial Secondary CP-U Sec (u)	P Large Commerical & Industrial Primary CP-U Prim (v)	Q Large Commerical & Industrial Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)	(z)
		(a)	(b)									
AF	1	**ALLOCATION FACTOR TABLE**										
AF	2											
AF	3	**ENERGY - PRODUCTION RELATED**										
AF	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3			153,271,071	63,601,055	5,331,038	84,338,977	172,390,078	46,360,257	
AF	5	Energy @ Meter (kWh Sales)	ENERGY2			153,271,071	63,601,055	5,331,038	84,338,977	0	46,360,257	
AF	6	Energy @ Generation with losses(kWh)	ENERGY1			161,592,362	69,045,305	5,568,270	86,978,787	0	47,811,333	
AF	7	Energy @ Generation with losses (kWh)	ENEFUEL			161,592,362	69,045,305	5,568,270	86,978,787	0	47,811,333	
AF	8											
AF	9	Energy - RTMP	ERTMP			0	0	0	0	1	0	
AF	10											
AF	11											
AF	12	**DEMAND**										
AF	13	DEMAND - PRODUCTION RELATED										
AF	14	Demand Production (12CP 75% & Energy 25%)	DPROD			0.1362	0.0298	0.0102	0.0963	0.0000	0.0188	
AF	15											
AF	16											
AF	17	Production Load Dispatching (Average Demand)	DPRODLD			18,447	7,882	636	9,929	0	5,458	
AF	18	Purchased Capacity (1CP Firm Load Only)	DPURCH			11,191	10,260	931	0	0	0	
AF	19											
AF	20	DEMAND - TRANSMISSION RELATED										
AF	21	Demand Transmission (12CP no AES or RTMP)	DTRAN			252,349	108,265	7,843	136,241	0	70,053	
AF	22	Demand Transmission (12CP no AES)	DTRAN3			252,904	108,315	7,848	136,741	350,894	70,310	
AF	23	Transmission Load Dispatching (Average Demand)	DTRANLD			18,447	7,882	636	9,929	0	5,458	
AF	24											
AF	25	DEMAND - DISTRIBUTION RELATED										
AF	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB			252,904	108,315	7,848	136,741	0	70,310	
AF	27											
AF	28	Demand Distribution Primary Lines (NCP)	DDISTPRI			13,197	12,068	1,129	0	0	0	
AF	29											
AF	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC			13,197	12,068	0	0	0	0	
AF	31											
AF	32	Demand Distribution Line Transformers (NCP)	DDISTSLT			12,068	12,068	0	0	0	0	
AF	33	Distribution Load Dispatching	DDISTLD			17,497	7,260	609	9,628	0	5,292	
AF	34											
AF	35	**Minimum System - Demand Allocation Factors**										
AF	36	**Primary**										
AF	37	kW Capability of Minimum		64.00%								
AF	38	NCP * kW Capability Minimum			137,495							
AF	39	Dist Pri Min kW Allocated on Number of Primary Customers				115	96	18	0	0	0	
AF	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS			13,082	11,971	1,110	0	0	0	
AF	41	**Secondary**										
AF	42	Demand Distribution Secondary Lines (NCP)				12,068	12,068	0	0	0	0	
AF	43	Demand Adjustment					0.5000					
AF	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS			6,034	6,034	0	0	0	0	
AF	45											
AF	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)		(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AF	1	**ALLOCATION FACTOR TABLE**										
AF	2											
AF	3	**ENERGY - PRODUCTION RELATED**										
AF	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		310,032	16,272	1,202,681	1,528,985	380,361	0		
AF	5	Energy @ Meter (kWh Sales)	ENERGY2		310,032	16,272	1,202,681	1,528,985	380,361	0		
AF	6	Energy @ Generation with losses(kWh)	ENERGY1		336,571	17,665	1,305,630	1,659,866	412,920	0		
AF	7	Energy @ Generation with losses (kWh)	ENEFUEL		336,571	17,665	1,305,630	1,659,866	412,920	0		
AF	8											
AF	9	Energy - RTMP	ERTMP		0	0	0	0	0	0		
AF	10											
AF	11											
AF	12	**DEMAND**										
AF	13	DEMAND - PRODUCTION RELATED										
AF	14	Demand Production (12CP 75% & Energy 25%)	DPROD		0.0006	0.0000	0.0021	0.0027	0.0007	0.0000		
AF	15											
AF	16											
AF	17	Production Load Dispatching (Average Demand)	DPRODLD		38	2	149	189	47	0		
AF	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		121	5	404	530	247	0		
AF	19											
AF	20	DEMAND - TRANSMISSION RELATED										
AF	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		496	26	1,922	2,444	612	0		
AF	22	Demand Transmission (12CP no AES)	DTRAN3		496	26	1,923	2,445	613	0		
AF	23	Transmission Load Dispatching (Average Demand)	DTRANLD		38	2	149	189	47	0		
AF	24											
AF	25	DEMAND - DISTRIBUTION RELATED										
AF	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		496	26	1,923	2,445	613	0		
AF	27											
AF	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		121	5	404	530	161	0		
AF	29											
AF	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		121	5	404	530	161	0		
AF	31											
AF	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		121	5	404	530	161	0		
AF	33	Distribution Load Dispatching	DDISTLD		35	2	137	175	43	0		
AF	34											
AF	35	**Minimum System - Demand Allocation Factors**										
AF	36	**Primary**										
AF	37	kW Capability of Minimum		64.00%								
AF	38	NCP * kW Capability Minimum		137,495								
AF	39	Dist Pri Min kW Allocated on Number of Primary Customers			195	28	515	738	3,710	0		
AF	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0	(22)	(111)	(134)	(3,549)	0		
AF	41	**Secondary**										
AF	42	Demand Distribution Secondary Lines (NCP)			121	5	404	530	161	0		
AF	43	Demand Adjustment			1.0000	1.0000	1.0000		1.0000	1.0000		
AF	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		121	5	404	530	161	0		
AF	45											
AF	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
AF	47	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	48										
AF	49	**CUSTOMER**									
AF	50										
AF	51	**Minimum System - Customer Allocation Factors**									
AF	52	**Primary**									
AF	53	Number of Primary Customers - MS	CDISTPRI	52,742	45,127	1,706	5,902	7	0		
AF	54	**Secondary**									
AF	55	Number of Secondary Customers		52,452	45,127	1,423	5,902	-	0		
AF	56	Residential Customer Adjustment									
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	29,889	22,563	1,423	5,902	0	0		
AF	58	**Line Transformers**									
AF	59	Number of Line Transformer Customers		52,456	45,127	1,423	5,902	-	4		
AF	60	Line Transformer Adjustment									
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	28,093	22,563	1,423	4,102	0	4		
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE	41,928,122	36,043,861	219,330	5,664,931	0	0		
AF	65	370-Meters (New Meter Cost)	CMETERS	8,086,138	6,223,388	7,144	1,713,025	39,925	102,657		
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM	1,860	0	1,860	0	0	0		
AF	68	373-Street Lighting & Signal Systems	CLIGHT	1,528,985	0	1,528,985	0	0	0		
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP	52,752	45,127	1,706	5,902	7	10		
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG	51,121	45,127	75	5,902	7	10		
AF	73	903-Customer Records & Collections (Bills)	CUSTREC	613,326	541,523	896	70,823	84	0		
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter		0.5000	0.2133	0.0016	0.1704	0.0045	0.1102		
AF	77	50% Number of Customers		0.5000	0.4277	0.0162	0.0559	0.0001	0.0001		
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS	1.0000	0.6410	0.0178	0.2263	0.0046	0.1103		
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS	613,326	541,523	896	70,823	84	0		
AF	83	Number of Customers (Average Annual)	CUST	52,752	45,127	1,706	5,902	7	10		
AF	84	Number of Services (Customers)	CSERV	51,312	45,127	283	5,902	0	0		
AF	85	Number of Lamps	CLAMP	8,731	0	8,731	0	0	0		
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	47	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	48										
AF	49	**CUSTOMER**									
AF	50										
AF	51	**Minimum System - Customer Allocation Factors**									
AF	52	**Primary**									
AF	53	Number of Primary Customers - MS	CDISTPRI	42,031	0	3,096		5,180	0	220	466
AF	54	**Secondary**									
AF	55	Number of Secondary Customers		42,031	0	3,096		5,180	0	220	466
AF	56	Residential Customer Adjustment		0.5000	0.5000	0.5000		1.00	1.00	1.00	1.00
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	21,015	0	1,548		5,180	0	220	466
AF	58	**Line Transformers**									
AF	59	Number of Line Transformer Customers		42,031	0	3,096		5,180	0	220	466
AF	60	Line Transformer Adjustment		2.00	2.00	2.00		1.50	1.50	1.50	1.00
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	21,015	0	1,548		3,453	0	146	466
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE	33,371,950	0	2,671,911		4,743,296	0	199,849	674,143
AF	65	370-Meters (New Meter Cost)	CMETERS	5,842,532	0	380,856		1,137,335	0	70,126	440,124
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM	0	0	0		0	0	0	0
AF	68	373-Street Lighting & Signal Systems	CLIGHT	0	0	0		0	0	0	0
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP	42,031	0	3,096		5,180	0	220	466
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG	42,031	0	3,096		5,180	0	220	466
AF	73	903-Customer Records & Collections (Bills)	CUSTREC	504,366	0	37,157		62,155	0	2,635	5,589
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter		0.1943	0.0000	0.0190		0.0547	0.0000	0.0057	0.0563
AF	77	50% Number of Customers		0.3984	0.0000	0.0293		0.0491	0.0000	0.0021	0.0044
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.5926	0.0000	0.0484		0.1038	0.0000	0.0078	0.0607
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS	504,366	0	37,157		62,155	0	2,635	5,589
AF	83	Number of Customers (Average Annual)	CUST	42,031	0	3,096		5,180	0	220	466
AF	84	Number of Services (Customers)	CSERV	42,031	0	3,096		5,180	0	220	466
AF	85	Number of Lamps	CLAMP	0	0	0		0	0	0	0
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AF	47	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	48										
AF	49	**CUSTOMER**									
AF	50										
AF	51	**Minimum System - Customer Allocation Factors**									
AF	52	**Primary**									
AF	53	Number of Primary Customers - MS	CDISTPRI		44	37	7	0	0	0	
AF	54	**Secondary**									
AF	55	Number of Secondary Customers			37	37	0	0	0	0	
AF	56	Residential Customer Adjustment				1.00	1.00	1.00	1.00	1.00	
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC		37	37	0	0	0	0	
AF	58	**Line Transformers**									
AF	59	Number of Line Transformer Customers			37	37	0	0	1	3	
AF	60	Line Transformer Adjustment				1.00	1.00	1.00	1.00	1.00	
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT		37	37	0	0	1	3	
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE		47,643	47,643	0	0	0	0	
AF	65	370-Meters (New Meter Cost)	CMETERS		154,794	65,439	39,925	49,430	14,500	38,727	
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM		0	0	0	0	0	0	
AF	68	373-Street Lighting & Signal Systems	CLIGHT		0	0	0	0	0	0	
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP		50	37	7	6	1	3	
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG		50	37	7	6	1	3	
AF	73	903-Customer Records & Collections (Bills)	CUSTREC		528	444	84	0	0	0	
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter			0.1293	0.0536	0.0045	0.0711	0.0000	0.0391	
AF	77	50% Number of Customers			0.0005	0.0004	0.0001	0.0001	0.0000	0.0000	
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS		0.1297	0.0540	0.0046	0.0712	0.0000	0.0391	
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS		528	444	84	0	0	0	
AF	83	Number of Customers (Average Annual)	CUST		50	37	7	6	1	3	
AF	84	Number of Services (Customers)	CSERV		37	37	0	0	0	0	
AF	85	Number of Lamps	CLAMP		0	0	0	0	0	0	
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AF	47	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	48										
AF	49	**CUSTOMER**									
AF	50										
AF	51	**Minimum System - Customer Allocation Factors**									
AF	52	**Primary**									
AF	53	Number of Primary Customers - MS	CDISTPRI	75	11	198	283	1,423	0		
AF	54	**Secondary**									
AF	55	Number of Secondary Customers		0	0	0	0	1,423	0		
AF	56	Residential Customer Adjustment		1.00	1.00	1.00		1.00	1.00		
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	0	0	0	0	1,423	0		
AF	58	**Line Transformers**									
AF	59	Number of Line Transformer Customers		0	0	0	0	1,423	0		
AF	60	Line Transformer Adjustment		1.00	1.00	1.00		1.00	1.00		
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	0	0	0	0	1,423	0		
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE	57,868	8,267	153,195	219,330	0	0		
AF	65	370-Meters (New Meter Cost)	CMETERS	7,144	0	0	7,144	0	0		
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM	0	0	0	0	1,630	230		
AF	68	373-Street Lighting & Signal Systems	CLIGHT	310,032	16,272	1,202,681	1,528,985	0	0		
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP	75	11	198	283	1,423	0		
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG	75	0	0	75	0	0		
AF	73	903-Customer Records & Collections (Bills)	CUSTREC	896	0	0	896	0	0		
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter		0.0003	0.0000	0.0010	0.0013	0.0003	0.0000		
AF	77	50% Number of Customers		0.0007	0.0001	0.0019	0.0027	0.0135	0.0000		
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.0010	0.0001	0.0029	0.0040	0.0138	0.0000		
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS	896	0	0	896	0	0		
AF	83	Number of Customers (Average Annual)	CUST	75	11	198	283	1,423	0		
AF	84	Number of Services (Customers)	CSERV	75	11	198	283	0	0		
AF	85	Number of Lamps	CLAMP	0	123	6,748	6,871	1,630	230		
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	93	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	95										
AF	96	**Plant**									
AF	97	Intangible Plant In Service	INTPLT	39,142,212	24,199,453	688,447	11,793,672	221,806	2,238,834		
AF	98	Production Plant In Service	PRODPLT	96,092,193	53,755,988	327,697	29,971,734	980,465	11,056,309		
AF	99	Transmission Plant in Service	TRANPLT	0	0	0	0	0	0		
AF	100	Distribution Plant in Service	DISTPLT	224,364,833	144,364,772	5,308,618	66,582,977	835,459	7,273,007		
AF	101	General Plant in Service	GENLPLT	53,169,380	34,352,280	476,905	14,842,073	267,583	3,230,539		
AF	102	Intangible and General Plant in Service	INTGENLPLT	92,311,592	58,551,733	1,165,352	26,635,744	489,389	5,469,373		
AF	103	Total Transmission and Distribution Plant	TDPLT	224,364,833	144,364,772	5,308,618	66,582,977	835,459	7,273,007		
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT	320,457,026	198,120,761	5,636,314	96,554,711	1,815,924	18,329,316		
AF	105	Total Electric Plant In Service	TOTPLT	423,579,490	263,356,255	6,991,812	126,447,805	2,366,574	24,417,043		
AF	106	Net Electric Plant In Service	NETPLT	234,730,315	146,766,632	3,524,641	69,693,561	1,297,324	13,448,157		
AF	107	Rate Base	RATEBASE	348,730,362	212,181,073	4,231,233	105,851,694	2,018,557	24,447,805		
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	**Distribution Plant in Service**									
AF	116	Acct 360-Land and Land Rights	PLT_360	735,881	349,156	2,007	243,637	5,152	135,929		
AF	117	Acct 361-Structures & Improvements	PLT_361	1,540,549	730,949	4,202	510,049	10,786	284,564		
AF	118	Acct 362-Station Equipment	PLT_362	35,811,349	16,991,521	97,680	11,856,507	250,725	6,614,915		
AF	119	Acct 364-Towers and Fixtures	PLT_364	43,498,385	28,772,667	140,124	14,401,306	184,288	0		
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365	22,387,317	14,810,704	72,129	7,413,059	91,425	0		
AF	121	Acct 366-Underground Conduit	PLT_366	0	0	0	0	0	0		
AF	122	Acct 367 - Underground Conductor	PLT_367	40,704,285	26,905,715	131,032	13,466,858	200,679	0		
AF	123	Acct 368-Line Transformers	PLT_368	36,039,726	23,940,451	116,591	11,982,683	0	0		
AF	124	Acct 369-Services	PLT_369	20,309,909	17,459,583	106,243	2,744,083	0	0		
AF	125	Acct 370-Meters	PLT_370	18,715,358	14,404,024	16,535	3,964,794	92,405	237,600		
AF	126	Acct 371-Inst. on Customer Premises	PLT_371	647,117	0	647,117	0	0	0		
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373	3,974,958	0	3,974,958	0	0	0		
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	65,885,702	43,583,372	212,253	21,814,365	275,713	0		
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	40,704,285	26,905,715	131,032	13,466,858	200,679	0		
AF	130	Accounts 371&373	PLT_3713	4,622,075	0	4,622,075	0	0	0		
AF	131										
AF	132	Accts 360-362-Distibution Substation	PLT_SUB	38,087,779	18,071,626	103,889	12,610,193	266,662	7,035,408		
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	90,675,660	59,917,526	291,801	29,989,942	476,391	0		
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0	0	0	0	0	0		
AF	135										
AF	136										
AF	137										
AF	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	93	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	95										
AF	96	**Plant**									
AF	97	Intangible Plant In Service	INTPLT	21,854,594	0	2,344,859		6,333,798	0	559,669	3,099,645
AF	98	Production Plant In Service	PRODPLT	48,948,560	0	4,807,428		13,729,153	0	1,272,000	12,111,722
AF	99	Transmission Plant in Service	TRANPLT	0	0	0		0	0	0	0
AF	100	Distribution Plant in Service	DISTPLT	129,974,852	0	14,389,921		38,125,611	0	3,310,004	13,265,053
AF	101	General Plant in Service	GENLPLT	31,218,168	0	3,134,112		8,004,197	0	678,201	3,620,487
AF	102	Intangible and General Plant in Service	INTGENLPLT	53,072,761	0	5,478,972		14,337,995	0	1,237,869	6,720,132
AF	103	Total Transmission and Distribution Plant	TDPLT	129,974,852	0	14,389,921		38,125,611	0	3,310,004	13,265,053
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT	178,923,412	0	19,197,349		51,854,765	0	4,582,004	25,376,774
AF	105	Total Electric Plant In Service	TOTPLT	238,032,297	0	25,323,958		67,942,122	0	5,974,451	32,953,012
AF	106	Net Electric Plant In Service	NETPLT	132,903,338	0	13,863,294		37,512,786	0	3,275,191	18,001,060
AF	107	Rate Base	RATEBASE	192,016,064	0	20,165,009		54,874,034	0	4,843,941	27,835,548
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	**Distribution Plant in Service**									
AF	116	Acct 360-Land and Land Rights	PLT_360	317,917	0	31,239		89,072	0	8,010	75,446
AF	117	Acct 361-Structures & Improvements	PLT_361	665,552	0	65,397		186,470	0	16,769	157,945
AF	118	Acct 362-Station Equipment	PLT_362	15,471,304	0	1,520,217		4,334,658	0	389,819	3,671,554
AF	119	Acct 364-Towers and Fixtures	PLT_364	25,543,669	0	3,228,998		8,709,969	0	803,278	2,442,135
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365	13,148,580	0	1,662,124		4,483,449	0	413,486	1,257,087
AF	121	Acct 366-Underground Conduit	PLT_366	0	0	0		0	0	0	0
AF	122	Acct 367 - Underground Conductor	PLT_367	23,886,235	0	3,019,480		8,144,812	0	751,156	2,283,674
AF	123	Acct 368-Line Transformers	PLT_368	21,253,746	0	2,686,705		7,247,176	0	668,372	2,031,991
AF	124	Acct 369-Services	PLT_369	16,165,314	0	1,294,269		2,297,644	0	96,807	326,554
AF	125	Acct 370-Meters	PLT_370	13,522,534	0	881,490		2,632,361	0	162,307	1,018,667
AF	126	Acct 371-Inst. on Customer Premises	PLT_371	0	0	0		0	0	0	0
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0	0	0		0	0	0	0
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	38,692,250	0	4,891,122		13,193,418	0	1,216,764	3,699,222
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	23,886,235	0	3,019,480		8,144,812	0	751,156	2,283,674
AF	130	Accounts 371&373	PLT_3713	0	0	0		0	0	0	0
AF	131										
AF	132	Accts 360-362-Distibution Substation	PLT_SUB	16,454,773	0	1,616,853		4,610,201	0	414,598	3,904,945
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	53,193,312	0	6,724,214		18,138,041	0	1,672,783	5,085,614
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0	0	0		0	0	0	0
AF	135										
AF	136										
AF	137										
AF	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
AF	93	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	95										
AF	96	**Plant**									
AF	97	Intangible Plant In Service	INTPLT		3,733,851	1,800,559	221,806	1,711,485	4,099	523,249	
AF	98	Production Plant In Service	PRODPLT		13,090,492	2,858,859	980,465	9,251,169	0	1,805,141	
AF	99	Transmission Plant in Service	TRANPLT		0	0	0	0	0	0	
AF	100	Distribution Plant in Service	DISTPLT		17,478,518	11,882,309	835,459	4,760,750	33,560	2,478,696	
AF	101	General Plant in Service	GENLPLT		5,057,031	2,539,188	267,583	2,250,259	52,631	927,649	
AF	102	Intangible and General Plant in Service	INTGENLPLT		8,790,881	4,339,748	489,389	3,961,744	56,730	1,450,898	
AF	103	Total Transmission and Distribution Plant	TDPLT		17,478,518	11,882,309	835,459	4,760,750	33,560	2,478,696	
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT		30,569,011	14,741,168	1,815,924	14,011,919	33,560	4,283,837	
AF	105	Total Electric Plant In Service	TOTPLT		40,391,162	19,578,221	2,366,574	18,446,367	91,423	5,879,254	
AF	106	Net Electric Plant In Service	NETPLT		22,166,433	10,904,524	1,297,324	9,964,584	87,743	3,395,830	
AF	107	Rate Base	RATEBASE		37,882,309	18,298,170	2,018,557	17,565,581	112,885	6,769,339	
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	**Distribution Plant in Service**									
AF	116	Acct 360-Land and Land Rights	PLT_360		166,031	71,109	5,152	89,770	0	46,158	
AF	117	Acct 361-Structures & Improvements	PLT_361		347,582	148,864	10,786	187,932	0	96,631	
AF	118	Acct 362-Station Equipment	PLT_362		8,079,843	3,460,476	250,725	4,368,642	0	2,246,274	
AF	119	Acct 364-Towers and Fixtures	PLT_364		2,630,212	2,445,924	184,288	0	0	0	
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365		1,350,462	1,259,037	91,425	0	0	0	
AF	121	Acct 366-Underground Conduit	PLT_366		0	0	0	0	0	0	
AF	122	Acct 367 - Underground Conductor	PLT_367		2,487,896	2,287,217	200,679	0	0	0	
AF	123	Acct 368-Line Transformers	PLT_368		2,035,144	2,035,144	0	0	0	0	
AF	124	Acct 369-Services	PLT_369		23,078	23,078	0	0	0	0	
AF	125	Acct 370-Meters	PLT_370		358,270	151,459	92,405	114,406	33,560	89,633	
AF	126	Acct 371-Inst. on Customer Premises	PLT_371		0	0	0	0	0	0	
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373		0	0	0	0	0	0	
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST		3,980,674	3,704,961	275,713	0	0	0	
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST		2,487,896	2,287,217	200,679	0	0	0	
AF	130	Accounts 371&373	PLT_3713		0	0	0	0	0	0	
AF	131										
AF	132	Accts 360-362-Distibution Substation	PLT_SUB		8,593,456	3,680,449	266,662	4,646,344	0	2,389,063	
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI		5,569,896	5,093,505	476,391	0	0	0	
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC		0	0	0	0	0	0	
AF	135										
AF	136										
AF	137										
AF	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
AF	93	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	95										
AF	96	**Plant**									
AF	97	Intangible Plant In Service	INTPLT	122,240	6,537	456,976	585,753	92,910	9,784		
AF	98	Production Plant In Service	PRODPLT	53,153	2,790	206,190	262,132	65,564	0		
AF	99	Transmission Plant in Service	TRANPLT	0	0	0	0	0	0		
AF	100	Distribution Plant in Service	DISTPLT	947,627	50,730	3,535,069	4,533,427	695,091	80,100		
AF	101	General Plant in Service	GENLPLT	60,749	3,087	179,209	243,045	221,506	12,354		
AF	102	Intangible and General Plant in Service	INTGENLPLT	182,989	9,624	636,185	828,798	314,416	22,138		
AF	103	Total Transmission and Distribution Plant	TDPLT	947,627	50,730	3,535,069	4,533,427	695,091	80,100		
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT	1,000,780	53,520	3,741,259	4,795,559	760,656	80,100		
AF	105	Total Electric Plant In Service	TOTPLT	1,217,532	64,949	4,503,659	5,786,140	1,100,733	104,939		
AF	106	Net Electric Plant In Service	NETPLT	599,236	30,643	2,163,792	2,793,670	669,193	61,779		
AF	107	Rate Base	RATEBASE	761,280	37,197	2,721,978	3,520,454	631,760	79,019		
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	**Distribution Plant in Service**									
AF	116	Acct 360-Land and Land Rights	PLT_360	325	17	1,263	1,605	402	0		
AF	117	Acct 361-Structures & Improvements	PLT_361	681	36	2,643	3,360	842	0		
AF	118	Acct 362-Station Equipment	PLT_362	15,838	831	61,440	78,110	19,570	0		
AF	119	Acct 364-Towers and Fixtures	PLT_364	24,441	1,078	81,922	107,442	32,682	0		
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365	12,581	555	42,170	55,306	16,823	0		
AF	121	Acct 366-Underground Conduit	PLT_366	0	0	0	0	0	0		
AF	122	Acct 367 - Underground Conductor	PLT_367	22,855	1,008	76,607	100,470	30,562	0		
AF	123	Acct 368-Line Transformers	PLT_368	20,336	897	68,164	89,398	27,193	0		
AF	124	Acct 369-Services	PLT_369	28,031	4,004	74,207	106,243	0	0		
AF	125	Acct 370-Meters	PLT_370	16,535	0	0	16,535	0	0		
AF	126	Acct 371-Inst. on Customer Premises	PLT_371	0	0	0	0	567,017	80,100		
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373	806,002	42,303	3,126,653	3,974,958	0	0		
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	37,022	1,633	124,092	162,748	49,505	0		
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	22,855	1,008	76,607	100,470	30,562	0		
AF	130	Accounts 371&373	PLT_3713	806,002	42,303	3,126,653	3,974,958	567,017	80,100		
AF	131										
AF	132	Accts 360-362-Distibution Substation	PLT_SUB	16,845	884	65,346	83,075	20,814	0		
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	50,897	2,246	170,599	223,742	68,059	0		
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0	0	0	0	0	0		
AF	135										
AF	136										
AF	137										
AF	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	139	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	141										
AF	142	**Production Expense**									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	416,021	232,731	1,419	129,759	4,245	47,867		
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	958,532	536,223	3,269	298,972	9,780	110,288		
AF	145	Salaries and Wages Production Operation	SALWAGPO	731,315	409,113	2,494	228,102	7,462	84,145		
AF	146	Salaries and Wages Production Maintenance	SALWAGPM	771,992	431,869	2,633	240,789	7,877	88,825		
AF	147										
AF	148	**Transmission Expense**									
AF	149	O&M Accounts 561-567	OX_TRAN	(113,995)	(41,192)	(237)	(28,744)	(608)	(43,214)		
AF	150	O&M Accounts 569-573	MX_TRAN	0	0	0	0	0	0		
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO	0	0	0	0	0	0		
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM	0	0	0	0	0	0		
AF	153										
AF	154	**Regional Market Expens**									
AF	155	O&M Accounts 575	OX_RM	102,770	33,965	256	27,128	716	40,704		
AF	156										
AF	157	**Distribution Expense**									
AF	158	Acct 580-Supervision	OX_580	2,041,489	1,245,747	38,549	590,030	10,203	156,960		
AF	159	Acct 581-Load Dispatch	OX_581	0	0	0	0	0	0		
AF	160	Acct 582-Station Equipment	OX_582	1,253,535	594,769	3,419	415,023	8,776	231,548		
AF	161	Acct 583-Overhead Lines	OX_583	28,781	19,038	93	9,529	120	0		
AF	162	Acct 584-Underground Lines	OX_584	2,551	1,686	8	844	13	0		
AF	163	Acct 585-Street Lighting	OX_585	26,672	0	26,672	0	0	0		
AF	164	Acct 586-Metering	OX_586	782,075	601,914	691	165,680	3,861	9,929		
AF	165	Acct 587-Customer Installations	OX_587	0	0	0	0	0	0		
AF	166	Acct 588-Miscellaneous	OX_588	1,663,561	1,070,398	39,361	493,682	6,195	53,926		
AF	167	Acct 589-Rents	OX_589	146,893	94,517	3,476	43,592	547	4,762		
AF	168	Acct 590-Supervision	MX_590	220,857	141,421	815	73,116	984	4,520		
AF	169	Acct 592-Station Equipment	MX_592	983,130	466,469	2,682	325,497	6,883	181,599		
AF	170	Acct 593-Overhead Lines	MX_593	7,035,816	4,654,190	22,666	2,329,517	29,443	0		
AF	171	Acct 594-Underground Lines	MX_594	713,426	471,578	2,297	236,034	3,517	0		
AF	172	Acct 595-Transformers	MX_595	190,533	126,567	616	63,350	0	0		
AF	173	Acct 596-Street Lighting	MX_596	3,165	0	3,165	0	0	0		
AF	174	Acct 597-Metering	MX_597	(26,186)	(20,154)	(23)	(5,547)	(129)	(332)		
AF	175	Acct 598-Miscellaneous	MX_598	72,450	46,617	1,714	21,500	270	2,349		
AF	176	O&M Accounts 581-589	OX_DIST	3,904,069	2,382,322	73,720	1,128,351	19,512	300,164		
AF	177	O&M Accounts 591-598	MX_DIST	8,972,335	5,745,267	33,117	2,970,351	39,984	183,615		
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO	5,945,558	3,628,069	112,269	1,718,381	29,716	457,124		
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM	9,193,191	5,886,689	33,932	3,043,467	40,968	188,135		
AF	180										
AF	181										
AF	182										
AF	183										
AF	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		COS Without Minimum System									
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	139	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	141										
AF	142	**Production Expense**									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	211,917	0	20,813		59,439	0	5,507	52,436
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	488,268	0	47,955		136,950	0	12,688	120,816
AF	145	Salaries and Wages Production Operation	SALWAGPO	372,526	0	36,587		104,486	0	9,681	92,177
AF	146	Salaries and Wages Production Maintenance	SALWAGPM	393,246	0	38,622		110,298	0	10,219	97,304
AF	147										
AF	148	**Transmission Expense**									
AF	149	O&M Accounts 561-567	OX_TRAN	(37,507)	0	(3,685)		(10,508)	0	(945)	(8,901)
AF	150	O&M Accounts 569-573	MX_TRAN	0	0	0		0	0	0	0
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO	0	0	0		0	0	0	0
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM	0	0	0		0	0	0	0
AF	153										
AF	154	**Regional Market Expens**									
AF	155	O&M Accounts 575	OX_RM	30,933	0	3,032		8,716	0	906	8,965
AF	156										
AF	157	**Distribution Expense**									
AF	158	Acct 580-Supervision	OX_580	1,136,725	0	109,023		301,015	0	24,951	146,355
AF	159	Acct 581-Load Dispatch	OX_581	0	0	0		0	0	0	0
AF	160	Acct 582-Station Equipment	OX_582	541,555	0	53,213		151,730	0	13,645	128,519
AF	161	Acct 583-Overhead Lines	OX_583	16,902	0	2,137		5,763	0	532	1,616
AF	162	Acct 584-Underground Lines	OX_584	1,497	0	189		510	0	47	143
AF	163	Acct 585-Street Lighting	OX_585	0	0	0		0	0	0	0
AF	164	Acct 586-Metering	OX_586	565,078	0	36,836		110,001	0	6,782	42,568
AF	165	Acct 587-Customer Installations	OX_587	0	0	0		0	0	0	0
AF	166	Acct 588-Miscellaneous	OX_588	963,703	0	106,695		282,684	0	24,542	98,354
AF	167	Acct 589-Rents	OX_589	85,096	0	9,421		24,961	0	2,167	8,685
AF	168	Acct 590-Supervision	MX_590	125,801	0	15,621		42,279	0	3,894	13,525
AF	169	Acct 592-Station Equipment	MX_592	424,734	0	41,735		118,999	0	10,702	100,795
AF	170	Acct 593-Overhead Lines	MX_593	4,131,876	0	522,314		1,408,901	0	129,936	395,033
AF	171	Acct 594-Underground Lines	MX_594	418,655	0	52,923		142,755	0	13,166	40,026
AF	172	Acct 595-Transformers	MX_595	112,364	0	14,204		38,314	0	3,534	10,743
AF	173	Acct 596-Street Lighting	MX_596	0	0	0		0	0	0	0
AF	174	Acct 597-Metering	MX_597	(18,920)	0	(1,233)		(3,683)	0	(227)	(1,425)
AF	175	Acct 598-Miscellaneous	MX_598	41,970	0	4,647		12,311	0	1,069	4,283
AF	176	O&M Accounts 581-589	OX_DIST	2,173,831	0	208,491		575,649	0	47,715	279,885
AF	177	O&M Accounts 591-598	MX_DIST	5,110,679	0	634,589		1,717,598	0	158,179	549,455
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO	3,310,556	0	317,513		876,664	0	72,666	426,240
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM	5,236,480	0	650,209		1,759,877	0	162,072	562,980
AF	180										
AF	181										
AF	182										
AF	183										
AF	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AF	139	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	141										
AF	142	**Production Expense**									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD		56,674	12,377	4,245	40,052	0	7,815	
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD		130,579	28,517	9,780	92,282	0	18,007	
AF	145	Salaries and Wages Production Operation	SALWAGPO		99,626	21,758	7,462	70,407	0	13,738	
AF	146	Salaries and Wages Production Maintenance	SALWAGPM		105,167	22,968	7,877	74,323	0	14,502	
AF	147										
AF	148	**Transmission Expense**									
AF	149	O&M Accounts 561-567	OX_TRAN		(19,588)	(8,389)	(608)	(10,591)	(27,177)	(5,446)	
AF	150	O&M Accounts 569-573	MX_TRAN		0	0	0	0	0	0	
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO		0	0	0	0	0	0	
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM		0	0	0	0	0	0	
AF	153										
AF	154	**Regional Market Expens**									
AF	155	O&M Accounts 575	OX_RM		20,584	8,542	716	11,327	23,152	6,226	
AF	156										
AF	157	**Distribution Expense**									
AF	158	Acct 580-Supervision	OX_580		230,464	117,709	10,203	102,552	875	53,533	
AF	159	Acct 581-Load Dispatch	OX_581		0	0	0	0	0	0	
AF	160	Acct 582-Station Equipment	OX_582		282,826	121,130	8,776	152,919	0	78,628	
AF	161	Acct 583-Overhead Lines	OX_583		1,739	1,618	120	0	0	0	
AF	162	Acct 584-Underground Lines	OX_584		156	143	13	0	0	0	
AF	163	Acct 585-Street Lighting	OX_585		0	0	0	0	0	0	
AF	164	Acct 586-Metering	OX_586		14,971	6,329	3,861	4,781	1,402	3,746	
AF	165	Acct 587-Customer Installations	OX_587		0	0	0	0	0	0	
AF	166	Acct 588-Miscellaneous	OX_588		129,595	88,102	6,195	35,299	249	18,378	
AF	167	Acct 589-Rents	OX_589		11,443	7,779	547	3,117	22	1,623	
AF	168	Acct 590-Supervision	MX_590		17,389	13,418	984	2,986	(1)	1,535	
AF	169	Acct 592-Station Equipment	MX_592		221,816	95,001	6,883	119,932	0	61,667	
AF	170	Acct 593-Overhead Lines	MX_593		425,089	395,646	29,443	0	0	0	
AF	171	Acct 594-Underground Lines	MX_594		43,605	40,088	3,517	0	0	0	
AF	172	Acct 595-Transformers	MX_595		10,759	10,759	0	0	0	0	
AF	173	Acct 596-Street Lighting	MX_596		0	0	0	0	0	0	
AF	174	Acct 597-Metering	MX_597		(501)	(212)	(129)	(160)	(47)	(125)	
AF	175	Acct 598-Miscellaneous	MX_598		5,644	3,837	270	1,537	11	800	
AF	176	O&M Accounts 581-589	OX_DIST		440,730	225,102	19,512	196,116	1,673	102,375	
AF	177	O&M Accounts 591-598	MX_DIST		706,413	545,119	39,984	121,310	(36)	62,342	
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO		671,194	342,811	29,716	298,667	2,548	155,908	
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM		723,801	558,537	40,968	124,296	(37)	63,877	
AF	180										
AF	181										
AF	182										
AF	183										
AF	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
AF	139	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	141										
AF	142	**Production Expense**									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	230	12	893	1,135	284	0		
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	530	28	2,057	2,615	654	0		
AF	145	Salaries and Wages Production Operation	SALWAGPO	405	21	1,569	1,995	499	0		
AF	146	Salaries and Wages Production Maintenance	SALWAGPM	427	22	1,657	2,106	527	0		
AF	147										
AF	148	**Transmission Expense**									
AF	149	O&M Accounts 561-567	OX_TRAN	(38)	(2)	(149)	(189)	(47)	0		
AF	150	O&M Accounts 569-573	MX_TRAN	0	0	0	0	0	0		
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO	0	0	0	0	0	0		
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM	0	0	0	0	0	0		
AF	153										
AF	154	**Regional Market Expens**									
AF	155	O&M Accounts 575	OX_RM	42	2	162	205	51	0		
AF	156										
AF	157	**Distribution Expense**									
AF	158	Acct 580-Supervision	OX_580	4,659	230	16,072	20,960	15,524	2,064		
AF	159	Acct 581-Load Dispatch	OX_581	0	0	0	0	0	0		
AF	160	Acct 582-Station Equipment	OX_582	554	29	2,151	2,734	685	0		
AF	161	Acct 583-Overhead Lines	OX_583	16	1	54	71	22	0		
AF	162	Acct 584-Underground Lines	OX_584	1	0	5	6	2	0		
AF	163	Acct 585-Street Lighting	OX_585	5,408	284	20,980	26,672	0	0		
AF	164	Acct 586-Metering	OX_586	691	0	0	691	0	0		
AF	165	Acct 587-Customer Installations	OX_587	0	0	0	0	0	0		
AF	166	Acct 588-Miscellaneous	OX_588	7,026	376	26,211	33,613	5,154	594		
AF	167	Acct 589-Rents	OX_589	620	33	2,314	2,968	455	52		
AF	168	Acct 590-Supervision	MX_590	143	7	499	649	166	1		
AF	169	Acct 592-Station Equipment	MX_592	435	23	1,687	2,144	537	0		
AF	170	Acct 593-Overhead Lines	MX_593	3,954	174	13,252	17,380	5,287	0		
AF	171	Acct 594-Underground Lines	MX_594	401	18	1,343	1,761	536	0		
AF	172	Acct 595-Transformers	MX_595	108	5	360	473	144	0		
AF	173	Acct 596-Street Lighting	MX_596	642	34	2,490	3,165	0	0		
AF	174	Acct 597-Metering	MX_597	(23)	0	0	(23)	0	0		
AF	175	Acct 598-Miscellaneous	MX_598	306	16	1,142	1,464	224	26		
AF	176	O&M Accounts 581-589	OX_DIST	14,318	723	51,715	66,756	6,317	646		
AF	177	O&M Accounts 591-598	MX_DIST	5,821	270	20,273	26,364	6,728	26		
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO	13,569	669	46,807	61,044	45,212	6,012		
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM	5,964	276	20,772	27,013	6,893	27		
AF	180										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
AF	185	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	187										
AF	188	**Customer Accounting Expense**									
AF	189	Account 902	OX_902	1,131,759	999,066	1,653	130,663	155	221		
AF	190	Account 903	OX_903	1,165,071	1,028,674	1,702	134,535	160	0		
AF	191	Account 904	OX_904	426,310	237,736	419	20,114	0	168,041		
AF	192	Accounts 902 & 903	OX_902_3	2,296,829	2,027,741	3,355	265,198	315	221		
AF	193	O&M Accounts 902-905	OX_CA	2,723,140	2,265,477	3,774	285,311	315	168,262		
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA	2,296,829	2,027,741	3,355	265,198	315	221		
AF	195										
AF	196	**Customer Service Expense**									
AF	197	Account908	OX_908	0	0	0	0	0	0		
AF	198	Account909	OX_909	198,075	126,971	3,522	44,825	904	21,853		
AF	199	Account910	OX_910	0	0	0	0	0	0		
AF	200	O&M Accounts 908-910	OX_CS	3,503,364	2,245,751	62,296	792,825	15,984	386,508		
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS	3,863,186	2,476,406	68,695	874,254	17,626	426,205		
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST	7,118,605	5,211,803	73,247	1,221,024	18,013	594,519		
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	25,989,877	16,791,837	233,117	7,254,996	130,798	1,579,129		
AF	206	Total Salaries and Wages Expense	SALWAGES	29,742,521	19,216,388	266,777	8,302,536	149,684	1,807,138		
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	48,578,930	29,295,473	373,583	14,214,044	268,410	4,427,420		
AF	209										
AF	210										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	185	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	187										
AF	188	**Customer Accounting Expense**									
AF	189	Account 902	OX_902	930,515	0	68,552		114,671	0	4,861	10,311
AF	190	Account 903	OX_903	958,091	0	70,583		118,069	0	5,005	10,617
AF	191	Account 904	OX_904	199,878	0	37,858		2,567	0	0	5,944
AF	192	Accounts 902 & 903	OX_902_3	1,888,606	0	139,135		232,740	0	9,867	20,928
AF	193	O&M Accounts 902-905	OX_CA	2,088,484	0	176,993		235,308	0	9,867	26,872
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA	1,888,606	0	139,135		232,740	0	9,867	20,928
AF	195										
AF	196	**Customer Service Expense**									
AF	197	Account908	OX_908								
AF	198	Account909	OX_909	117,386	0	9,585		20,566	0	1,539	12,025
AF	199	Account910	OX_910	0	0	0		0	0	0	0
AF	200	O&M Accounts 908-910	OX_CS	2,076,224	0	169,527		363,752	0	27,227	212,695
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS	2,289,467	0	186,939		401,112	0	30,024	234,540
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST	4,815,627	0	396,176		690,356	0	42,177	266,263
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	15,259,842	0	1,531,994		3,912,555	0	331,513	1,769,740
AF	206	Total Salaries and Wages Expense	SALWAGES	17,463,191	0	1,753,197		4,477,483	0	379,380	2,025,271
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	26,629,404	0	2,666,069		6,952,150	0	599,819	3,707,028
AF	209										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	(z)
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)	
AF	185	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	187										
AF	188	**Customer Accounting Expense**									
AF	189	Account 902	OX_902		1,107	819	155	133	22	66	
AF	190	Account 903	OX_903		1,003	843	160	0	0	0	
AF	191	Account 904	OX_904		11,602	11,602	0	0	168,041	0	
AF	192	Accounts 902 & 903	OX_902_3		2,110	1,663	315	133	22	66	
AF	193	O&M Accounts 902-905	OX_CA		13,712	13,265	315	133	168,063	66	
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA		2,110	1,663	315	133	22	66	
AF	195										
AF	196	**Customer Service Expense**									
AF	197	Account908	OX_908		0						
AF	198	Account909	OX_909		25,698	10,694	904	14,100	2	7,750	
AF	199	Account910	OX_910		0	0	0	0	0	0	
AF	200	O&M Accounts 908-910	OX_CS		454,529	189,150	15,984	249,395	33	137,080	
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS		501,212	208,577	17,626	275,010	37	151,159	
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST		515,414	222,227	18,013	275,173	168,105	151,241	
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG		2,471,942	1,241,188	130,798	1,099,956	25,727	453,447	
AF	206	Total Salaries and Wages Expense	SALWAGES		2,828,862	1,420,401	149,684	1,258,777	29,441	518,920	
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP		6,223,330	2,955,047	268,410	2,999,873	9,337	1,418,210	
AF	209										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
AF	185	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	187										
AF	188	**Customer Accounting Expense**									
AF	189	Account 902	OX_902	1,653	0	0	1,653	0	0		
AF	190	Account 903	OX_903	1,702	0	0	1,702	0	0		
AF	191	Account 904	OX_904	0	0	0	0	419	0		
AF	192	Accounts 902 & 903	OX_902_3	3,355	0	0	3,355	0	0		
AF	193	O&M Accounts 902-905	OX_CA	3,355	0	0	3,355	419	0		
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA	3,355	0	0	3,355	0	0		
AF	195										
AF	196	**Customer Service Expense**									
AF	197	Account908	OX_908				0				
AF	198	Account909	OX_909	192	23	572	787	2,735	0		
AF	199	Account910	OX_910	0	0	0	0	0	0		
AF	200	O&M Accounts 908-910	OX_CS	3,395	402	10,117	13,915	48,382	0		
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS	3,744	444	11,156	15,344	53,351	0		
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST	7,877	444	11,156	19,477	53,770	0		
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	29,695	1,509	87,600	118,804	108,275	6,039		
AF	206	Total Salaries and Wages Expense	SALWAGES	33,983	1,727	100,248	135,957	123,909	6,911		
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	54,697	2,803	172,788	230,287	137,867	5,428		
AF	209										
AF	210										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	231	**REVENUES AND BILLING DETERMINANTS**									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV	100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
AF	234	Present Rate Sales Revenue	CLAIMREV	122,826,425	71,303,562	1,156,372	37,338,931	755,467	12,272,094		
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1	192,016,064	192,016,064	0	0	0	0		
AF	238	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
AF	239	Residential AH-1 Sales Revenue	SREVRAH1	20,165,009	20,165,009	0	0	0	0		
AF	240	General Service C1 Sales Revenue	SREVGSC1	54,874,034	0	0	54,874,034	0	0		
AF	241	General Service C2 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1	4,843,941	0	0	4,843,941	0	0		
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1	27,835,548	0	0	27,835,548	0	0		
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	18,298,170	0	0	18,298,170	0	0		
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	2,018,557	0	0	0	2,018,557	0		
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	17,565,581	0	0	0	0	17,565,581		
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP	112,885	0	0	0	0	112,885		
AF	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	6,769,339	0	0	0	0	6,769,339		
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	761,280	0	761,280	0	0	0		
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	37,197	0	37,197	0	0	0		
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	2,721,978	0	2,721,978	0	0	0		
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	631,760	0	631,760	0	0	0		
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	79,019	0	79,019	0	0	0		
AF	254	Total Rate Base		348,730,362	212,181,073	4,231,233	0	2,018,557	24,447,805		
AF	255										
AF	256										
AF	257	**PRESENT REVENUES FROM SALES INPUT**									
AF	258										
AF	259	Total Sales of Electricity Revenues		100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
AF	261										
AF	262										
AF	263	**BILLING DETERMINANT INPUTS**									
AF	264	Number of Customer Bills	SCH , LN	613,326	541,523	896	70,823	84	0		
AF	265	Annual kWh Sales @ Meter	SCH , LN	592,847,764	252,908,738	1,909,346	201,999,407	5,331,038	130,699,234		
AF	266	Annual kW - Billed		1,191,498	0	0	415,314	31,064	745,120		
AF	267										
AF	268										
AF	269	**RATE OF RETURN**									
AF	270	Rate of Return (Equalized)	SCH , LN	6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	231	**REVENUES AND BILLING DETERMINANTS**									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV	53,540,865	0	4,551,767		12,291,582	0	1,013,188	11,918,663
AF	234	Present Rate Sales Revenue	CLAIMREV	64,664,989	0	6,638,573		17,732,703	0	1,584,471	10,282,457
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1	192,016,064	0	0		0	0	0	0
AF	238	Residential A-2 Sales Revenue	SREVRA2	0	0	0		0	0	0	0
AF	239	Residential AH-1 Sales Revenue	SREVRAH1	0	0	20,165,009		0	0	0	0
AF	240	General Service C1 Sales Revenue	SREVGSC1	0	0	0		54,874,034	0	0	0
AF	241	General Service C2 Sales Revenue	SREVGSC2	0	0	0		0	0	0	0
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0		0	0	4,843,941	0
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0		0	0	0	27,835,548
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0		0	0	0	0
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0		0	0	0	0
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0		0	0	0	0
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0		0	0	0	0
AF	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0		0	0	0	0
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0		0	0	0	0
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0		0	0	0	0
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0		0	0	0	0
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0		0	0	0	0
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0		0	0	0	0
AF	254	Total Rate Base									
AF	255										
AF	256										
AF	257	**PRESENT REVENUES FROM SALES INPUT**									
AF	258										
AF	259	Total Sales of Electricity Revenues		53,540,865	0	4,551,767		12,291,582	0	1,013,188	11,918,663
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		53,540,865	0	4,551,767		12,291,582		1,013,188	11,918,663
AF	261										
AF	262										
AF	263	**BILLING DETERMINANT INPUTS**									
AF	264	Number of Customer Bills	SCH , LN	504,366	-	37,157		62,155	-	2,635	5,589
AF	265	Annual kWh Sales @ Meter	SCH , LN	230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
AF	266	Annual kW - Billed		0	0	0		0	0	0	270,640
AF	267										
AF	268										
AF	269	**RATE OF RETURN**									
AF	270	Rate of Return (Equalized)	SCH , LN	6.94%	6.94%	6.94%		6.94%	6.94%	6.94%	6.94%
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total (t)	S Large Commerical & Industrial Secondary CP-U Sec (u)	P Large Commerical & Industrial Primary CP-U Prim (v)	Q Large Commerical & Industrial Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)	(z)
		(a)	(b)								
AF	231	**REVENUES AND BILLING DETERMINANTS**									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV		11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
AF	234	Present Rate Sales Revenue	CLAIMREV		16,780,484	7,739,299	755,467	8,285,718	194,951	3,791,425	
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0	
AF	238	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0	
AF	239	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0	
AF	240	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0	
AF	241	General Service C2 Sales Revenue	SREVGSC2		0	0	0	0	0	0	
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0	
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0	
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		18,298,170	18,298,170	0	0	0	0	
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		2,018,557	0	2,018,557	0	0	0	
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		17,565,581	0	0	17,565,581	0	0	
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	112,885	0	
AF	248	Light and Power WP-3 Sales Revenue	SREVLPWP3		0	0	0	0	0	6,769,339	
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0	
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0	
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0	
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0	
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0	
AF	254	Total Rate Base			37,882,309						
AF	255										
AF	256										
AF	257	**PRESENT REVENUES FROM SALES INPUT**									
AF	258										
AF	259	Total Sales of Electricity Revenues			11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)			11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
AF	261										
AF	262				11,763,943						
AF	263	**BILLING DETERMINANT INPUTS**									
AF	264	Number of Customer Bills	SCH , LN		528	444	84	-	-	-	
AF	265	Annual kWh Sales @ Meter	SCH , LN		153,271,071	63,601,055	5,331,038	84,338,977	0	46,360,257	
AF	266	Annual kW - Billed			366,622	144,674	31,064	190,884	413,118	141,118	
AF	267										
AF	268										
AF	269	**RATE OF RETURN**									
AF	270	Rate of Return (Equalized)	SCH , LN		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%	
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AF	231	**REVENUES AND BILLING DETERMINANTS**									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV	69,658	14,541	1,374,879	1,459,078	436,923	0		
AF	234	Present Rate Sales Revenue	CLAIMREV	192,819	9,802	675,534	878,155	260,160	18,057		
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1	0	0	0	0	0	0		
AF	238	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
AF	239	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0	0	0	0		
AF	240	General Service C1 Sales Revenue	SREVGSC1	0	0	0	0	0	0		
AF	241	General Service C2 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0	0	0	0		
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0	0	0	0		
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0	0	0	0		
AF	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	761,280	0	0	761,280	0	0		
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	37,197	0	37,197	0	0		
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	2,721,978	2,721,978	0	0		
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0	0	631,760	0		
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	79,019		
AF	254	Total Rate Base					3,520,454				
AF	255										
AF	256										
AF	257	**PRESENT REVENUES FROM SALES INPUT**									
AF	258										
AF	259	Total Sales of Electricity Revenues		69,658	14,541	1,374,879	1,459,078	436,923	0		
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		69,658	14,541	1,374,879	1,459,078	436,923	0		
AF	261										
AF	262										
AF	263	**BILLING DETERMINANT INPUTS**									
AF	264	Number of Customer Bills	SCH , LN	896	-	-	896	-	-		
AF	265	Annual kWh Sales @ Meter	SCH , LN	310,032	16,272	1,202,681	1,528,985	380,361	0		
AF	266	Annual kW - Billed		0	0	0	0	0	0		
AF	267										
AF	268										
AF	269	**RATE OF RETURN**									
AF	270	Rate of Return (Equalized)	SCH , LN	6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)		
AP	1	**ALLOCATION FACTOR PROPORTIONS TABLE**										
AP	2											
AP	3	**ENERGY - PRODUCTION RELATED**										
AP	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		1.00000	0.33050	0.00250	0.26397	0.00697	0.39607		
AP	5	Energy @ Meter (kWh Sales)	ENERGY2		1.00000	0.42660	0.00322	0.34073	0.00899	0.22046		
AP	6	Energy @ Generation with losses(kWh)	ENERGY1		1.00000	0.43150	0.00326	0.34465	0.00875	0.21184		
AP	7	Energy @ Generation with losses (kWh)	ENEFUEL		1.00000	0.43150	0.00326	0.34465	0.00875	0.21184		
AP	8											
AP	9	Energy - RTMP	ERTMP		1.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	10											
AP	11											
AP	12	**DEMAND**										
AP	13	DEMAND - PRODUCTION RELATED										
AP	14	Demand Production (12CP 75% & Energy 25%)	DPROD		1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	15											
AP	16											
AP	17	Production Load Dispatching (Average Demand)	DPRODLD		1.00000	0.43150	0.00326	0.34465	0.00875	0.21184		
AP	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		1.00000	0.61708	0.00904	0.36305	0.01083	0.00000		
AP	19											
AP	20	DEMAND - TRANSMISSION RELATED										
AP	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		1.00000	0.47475	0.00273	0.33128	0.00700	0.18423		
AP	22	Demand Transmission (12CP no AES)	DTRAN3		1.00000	0.36135	0.00208	0.25215	0.00533	0.37909		
AP	23	Transmission Load Dispatching (Average Demand)	DTRANLD		1.00000	0.43150	0.00326	0.34465	0.00875	0.21184		
AP	24											
AP	25	DEMAND - DISTRIBUTION RELATED										
AP	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		1.00000	0.47447	0.00273	0.33108	0.00700	0.18472		
AP	27											
AP	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		1.00000	0.66079	0.00322	0.33074	0.00525	0.00000		
AP	29											
AP	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		1.00000	0.66428	0.00324	0.33249	0.00000	0.00000		
AP	31											
AP	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		1.00000	0.66428	0.00324	0.33249	0.00000	0.00000		
AP	33	Distribution Load Dispatching	DDISTLD		1.00000	0.42660	0.00322	0.34073	0.00899	0.22046		
AP	34											
AP	35	**Minimum System - Demand Allocation Factors**										
AP	36	**Primary**										
AP	37	kW Capability of Minimum		64.00%								
AP	38	NCP * kW Capability Minimum		137,495								
AP	39	Dist Pri Min kW Allocated on Number of Primary Custom										
AP	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		1.00000	0.31413	(0.04757)	0.71909	0.01434	0.00000		
AP	41	**Secondary**										
AP	42	Demand Distribution Secondary Lines (NCP)										
AP	43	Demand Adjustment										
AP	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		1.00000	0.49492	0.00964	0.49544	0.00000	0.00000		
AP	#REF!	#REF!										
AP	#REF!	#REF!										
AP	45											
AP	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION		ALLOCATION BASIS		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)		(b)		(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	1	**ALLOCATION FACTOR PROPORTIONS TABLE**											
AP	2												
AP	3	**ENERGY - PRODUCTION RELATED**											
AP	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3			0.30099	0.00000	0.02950		0.08481	0.00000	0.00882	0.08723
AP	5	Energy @ Meter (kWh Sales)	ENERGY2			0.38852	0.00000	0.03808		0.10947	0.00000	0.01138	0.11259
AP	6	Energy @ Generation with losses(kWh)	ENERGY1			0.39298	0.00000	0.03852		0.11073	0.00000	0.01151	0.11389
AP	7	Energy @ Generation with losses (kWh)	ENEFUEL			0.39298	0.00000	0.03852		0.11073	0.00000	0.01151	0.11389
AP	8												
AP	9	Energy - RTMP	ERTMP			0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	10												
AP	11												
AP	12	**DEMAND**											
AP	13	DEMAND - PRODUCTION RELATED											
AP	14	Demand Production (12CP 75% & Energy 25%)	DPROD			0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	15												
AP	16												
AP	17	Production Load Dispatching (Average Demand)	DPRODLD			0.39298	0.00000	0.03852		0.11073	0.00000	0.01151	0.11389
AP	18	Purchased Capacity (1CP Firm Load Only)	DPURCH			0.54783	0.00000	0.06925		0.10416	0.00000	0.01712	0.12249
AP	19												
AP	20	DEMAND - TRANSMISSION RELATED											
AP	21	Demand Transmission (12CP no AES or RTMP)	DTRAN			0.43228	0.00000	0.04248		0.12111	0.00000	0.01089	0.10259
AP	22	Demand Transmission (12CP no AES)	DTRAN3			0.32902	0.00000	0.03233		0.09218	0.00000	0.00829	0.07808
AP	23	Transmission Load Dispatching (Average Demand)	DTRANLD			0.39298	0.00000	0.03852		0.11073	0.00000	0.01151	0.11389
AP	24												
AP	25	DEMAND - DISTRIBUTION RELATED											
AP	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB			0.43202	0.00000	0.04245		0.12104	0.00000	0.01089	0.10252
AP	27												
AP	28	Demand Distribution Primary Lines (NCP)	DDISTPRI			0.58663	0.00000	0.07416		0.20003	0.00000	0.01845	0.05609
AP	29												
AP	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC			0.58973	0.00000	0.07455		0.20109	0.00000	0.01855	0.05638
AP	31												
AP	32	Demand Distribution Line Transformers (NCP)	DDISTSLT			0.58973	0.00000	0.07455		0.20109	0.00000	0.01855	0.05638
AP	33	Distribution Load Dispatching	DDISTLD			0.38852	0.00000	0.03808		0.10947	0.00000	0.01138	0.11259
AP	34												
AP	35	**Minimum System - Demand Allocation Factors**											
AP	36	**Primary**											
AP	37	kW Capability of Minimum			64.00%								
AP	38	NCP * kW Capability Minimum			137,495								
AP	39	Dist Pri Min kW Allocated on Number of Primary Custom											
AP	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS			0.21261	0.00000	0.10152		0.38069	0.00000	0.04380	0.13996
AP	41	**Secondary**											
AP	42	Demand Distribution Secondary Lines (NCP)											
AP	43	Demand Adjustment											
AP	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS			0.43938	0.00000	0.05554		0.29964	0.00000	0.02763	0.08401
AP	#REF!	#REF!											
AP	#REF!	#REF!											
AP	45												
AP	46												

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	1	**ALLOCATION FACTOR PROPORTIONS TABLE**									
AP	2										
AP	3	**ENERGY - PRODUCTION RELATED**									
AP	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		0.20029	0.08311	0.00697	0.11021	0.22528	0.06058	
AP	5	Energy @ Meter (kWh Sales)	ENERGY2		0.25853	0.10728	0.00899	0.14226	0.00000	0.07820	
AP	6	Energy @ Generation with losses(kWh)	ENERGY1		0.25396	0.10851	0.00875	0.13670	0.00000	0.07514	
AP	7	Energy @ Generation with losses (kWh)	ENEFUEL		0.25396	0.10851	0.00875	0.13670	0.00000	0.07514	
AP	8										
AP	9	Energy - RTMP	ERTMP		0.00000	0.00000	0.00000	0.00000	1.00000	0.00000	
AP	10										
AP	11										
AP	12	**DEMAND**									
AP	13	DEMAND - PRODUCTION RELATED									
AP	14	Demand Production (12CP 75% & Energy 25%)	DPROD		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	15										
AP	16										
AP	17	Production Load Dispatching (Average Demand)	DPRODLD		0.25396	0.10851	0.00875	0.13670	0.00000	0.07514	
AP	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		0.13011	0.11928	0.01083	0.00000	0.00000	0.00000	
AP	19										
AP	20	DEMAND - TRANSMISSION RELATED									
AP	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		0.22537	0.09669	0.00700	0.12167	0.00000	0.06256	
AP	22	Demand Transmission (12CP no AES)	DTRAN3		0.17183	0.07359	0.00533	0.09291	0.23841	0.04777	
AP	23	Transmission Load Dispatching (Average Demand)	DTRANLD		0.25396	0.10851	0.00875	0.13670	0.00000	0.07514	
AP	24										
AP	25	DEMAND - DISTRIBUTION RELATED									
AP	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		0.22562	0.09663	0.00700	0.12199	0.00000	0.06273	
AP	27										
AP	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		0.06143	0.05617	0.00525	0.00000	0.00000	0.00000	
AP	29										
AP	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		0.05647	0.05647	0.00000	0.00000	0.00000	0.00000	
AP	31										
AP	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		0.05647	0.05647	0.00000	0.00000	0.00000	0.00000	
AP	33	Distribution Load Dispatching	DDISTLD		0.25853	0.10728	0.00899	0.14226	0.00000	0.07820	
AP	34										
AP	35	**Minimum System - Demand Allocation Factors**									
AP	36	**Primary**									
AP	37	kW Capability of Minimum		64.00%							
AP	38	NCP * kW Capability Minimum		137,495							
AP	39	Dist Pri Min kW Allocated on Number of Primary Custom									
AP	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0.16898	0.15464	0.01434	0.00000	0.00000	0.00000	
AP	41	**Secondary**									
AP	42	Demand Distribution Secondary Lines (NCP)									
AP	43	Demand Adjustment									
AP	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		0.08415	0.08415	0.00000	0.00000	0.00000	0.00000	
AP	#REF!	#REF!									
AP	#REF!	#REF!									
AP	45										
AP	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)		(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	1	**ALLOCATION FACTOR PROPORTIONS TABLE**										
AP	2											
AP	3	**ENERGY - PRODUCTION RELATED**										
AP	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		0.00041	0.00002	0.00157	0.00200	0.00050	0.00000		
AP	5	Energy @ Meter (kWh Sales)	ENERGY2		0.00052	0.00003	0.00203	0.00258	0.00064	0.00000		
AP	6	Energy @ Generation with losses(kWh)	ENERGY1		0.00053	0.00003	0.00205	0.00261	0.00065	0.00000		
AP	7	Energy @ Generation with losses (kWh)	ENEFUEL		0.00053	0.00003	0.00205	0.00261	0.00065	0.00000		
AP	8											
AP	9	Energy - RTMP	ERTMP		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	10											
AP	11											
AP	12	**DEMAND**										
AP	13	DEMAND - PRODUCTION RELATED										
AP	14	Demand Production (12CP 75% & Energy 25%)	DPROD		0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	15											
AP	16											
AP	17	Production Load Dispatching (Average Demand)	DPRODLD		0.00053	0.00003	0.00205	0.00261	0.00065	0.00000		
AP	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		0.00140	0.00006	0.00470	0.00617	0.00288	0.00000		
AP	19											
AP	20	DEMAND - TRANSMISSION RELATED										
AP	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		0.00044	0.00002	0.00172	0.00218	0.00055	0.00000		
AP	22	Demand Transmission (12CP no AES)	DTRAN3		0.00034	0.00002	0.00131	0.00166	0.00042	0.00000		
AP	23	Transmission Load Dispatching (Average Demand)	DTRANLD		0.00053	0.00003	0.00205	0.00261	0.00065	0.00000		
AP	24											
AP	25	DEMAND - DISTRIBUTION RELATED										
AP	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		0.00044	0.00002	0.00172	0.00218	0.00055	0.00000		
AP	27											
AP	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	29											
AP	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		0.00056	0.00002	0.00189	0.00248	0.00075	0.00000		
AP	31											
AP	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		0.00056	0.00002	0.00189	0.00248	0.00075	0.00000		
AP	33	Distribution Load Dispatching	DDISTLD		0.00052	0.00003	0.00203	0.00258	0.00064	0.00000		
AP	34											
AP	35	**Minimum System - Demand Allocation Factors**										
AP	36	**Primary**										
AP	37	kW Capability of Minimum		64.00%								
AP	38	NCP * kW Capability Minimum		137,495								
AP	39	Dist Pri Min kW Allocated on Number of Primary Custom										
AP	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0.00000	-0.00029	-0.00144	(0.00173)	-0.04584	0.00000		
AP	41	**Secondary**										
AP	42	Demand Distribution Secondary Lines (NCP)										
AP	43	Demand Adjustment										
AP	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		0.00168	0.00007	0.00564	0.00739	0.00225	0.00000		
AP	#REF!	#REF!										
AP	#REF!	#REF!										
AP	45											
AP	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
AP	47	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	48										
AP	49	**CUSTOMER**									
AP	50										
AP	51	**Minimum System - Customer Allocation Factors**									
AP	52	**Primary**									
AP	53	Number of Primary Customers - MS	CDISTPRI	1.00000	0.85562	0.03235	0.11190	0.00013	0.00000		
AP	54	**Secondary**									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	1.00000	0.75492	0.04762	0.19746	0.00000	0.00000		
AP	58	**Line Transformers**									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	1.00000	0.80318	0.05066	0.14602	0.00000	0.00014		
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE	1.00000	0.85966	0.00523	0.13511	0.00000	0.00000		
AP	65	370-Meters (New Meter Cost)	CMETERS	1.00000	0.76964	0.00088	0.21185	0.00494	0.01270		
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	68	373-Street Lighting & Signal Systems	CLIGHT	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP	1.00000	0.85545	0.03234	0.11188	0.00013	0.00019		
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG	1.00000	0.88276	0.00146	0.11545	0.00014	0.00020		
AP	73	903-Customer Records & Collections (Bills)	CUSTREC	1.00000	0.88293	0.00146	0.11547	0.00014	0.00000		
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter		1.00000	0.42660	0.00322	0.34073	0.00899	0.22046		
AP	77	50% Number of Customers		1.00000	0.85545	0.03234	0.11188	0.00013	0.00019		
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS	1.00000	0.64103	0.01778	0.22630	0.00456	0.11032		
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS	1.00000	0.88293	0.00146	0.11547	0.00014	0.00000		
AP	83	Number of Customers (Average Annual)	CUST	1.00000	0.85545	0.03234	0.11188	0.00013	0.00019		
AP	84	Number of Services (Customers)	CSERV	1.00000	0.87946	0.00552	0.11502	0.00000	0.00000		
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										
AP	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	47	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	48										
AP	49	**CUSTOMER**									
AP	50										
AP	51	**Minimum System - Customer Allocation Factors**									
AP	52	**Primary**									
AP	53	Number of Primary Customers - MS	CDISTPRI	0.79691	0.00000	0.05871		0.09821	0.00000	0.00416	0.00883
AP	54	**Secondary**									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	0.70312	0.00000	0.05180		0.17330	0.00000	0.00735	0.01558
AP	58	**Line Transformers**									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	0.74806	0.00000	0.05511		0.12292	0.00000	0.00521	0.01658
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE	0.79593	0.00000	0.06373		0.11313	0.00000	0.00477	0.01608
AP	65	370-Meters (New Meter Cost)	CMETERS	0.72254	0.00000	0.04710		0.14065	0.00000	0.00867	0.05443
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	68	373-Street Lighting & Signal Systems	CLIGHT	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP	0.79676	0.00000	0.05870		0.09819	0.00000	0.00416	0.00883
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG	0.82218	0.00000	0.06057		0.10132	0.00000	0.00430	0.00911
AP	73	903-Customer Records & Collections (Bills)	CUSTREC	0.82235	0.00000	0.06058		0.10134	0.00000	0.00430	0.00911
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter		0.38852	0.00000	0.03808		0.10947	0.00000	0.01138	0.11259
AP	77	50% Number of Customers		0.79676	0.00000	0.05870		0.09819	0.00000	0.00416	0.00883
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.59264	0.00000	0.04839		0.10383	0.00000	0.00777	0.06071
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS	0.82235	0.00000	0.06058		0.10134	0.00000	0.00430	0.00911
AP	83	Number of Customers (Average Annual)	CUST	0.79676	0.00000	0.05870		0.09819	0.00000	0.00416	0.00883
AP	84	Number of Services (Customers)	CSERV	0.81912	0.00000	0.06035		0.10094	0.00000	0.00428	0.00908
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										
AP	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	47	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	48										
AP	49	**CUSTOMER**									
AP	50										
AP	51	**Minimum System - Customer Allocation Factors**									
AP	52	**Primary**									
AP	53	Number of Primary Customers - MS	CDISTPRI		0.00083	0.00070	0.00013	0.00000	0.00000	0.00000	
AP	54	**Secondary**									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC		0.00124	0.00124	0.00000	0.00000	0.00000	0.00000	
AP	58	**Line Transformers**									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT		0.00132	0.00132	0.00000	0.00000	0.00004	0.00011	
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE		0.00114	0.00114	0.00000	0.00000	0.00000	0.00000	
AP	65	370-Meters (New Meter Cost)	CMETERS		0.01914	0.00809	0.00494	0.00611	0.00179	0.00479	
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	68	373-Street Lighting & Signal Systems	CLIGHT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP		0.00095	0.00070	0.00013	0.00011	0.00002	0.00006	
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG		0.00098	0.00072	0.00014	0.00012	0.00002	0.00006	
AP	73	903-Customer Records & Collections (Bills)	CUSTREC		0.00086	0.00072	0.00014	0.00000	0.00000	0.00000	
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter			0.25853	0.10728	0.00899	0.14226	0.00000	0.07820	
AP	77	50% Number of Customers			0.00095	0.00070	0.00013	0.00011	0.00002	0.00006	
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS		0.12974	0.05399	0.00456	0.07119	0.00001	0.03913	
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS		0.00086	0.00072	0.00014	0.00000	0.00000	0.00000	
AP	83	Number of Customers (Average Annual)	CUST		0.00095	0.00070	0.00013	0.00011	0.00002	0.00006	
AP	84	Number of Services (Customers)	CSERV		0.00072	0.00072	0.00000	0.00000	0.00000	0.00000	
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										
AP	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	47	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	48										
AP	49	**CUSTOMER**									
AP	50										
AP	51	**Minimum System - Customer Allocation Factors**									
AP	52	**Primary**									
AP	53	Number of Primary Customers - MS	CDISTPRI	0.00142	0.00020	0.00375	0.00537	0.02698	0.00000		
AP	54	**Secondary**									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	0.00000	0.00000	0.00000	0.00000	0.04762	0.00000		
AP	58	**Line Transformers**									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	0.00000	0.00000	0.00000	0.00000	0.05066	0.00000		
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE	0.00138	0.00020	0.00365	0.00523	0.00000	0.00000		
AP	65	370-Meters (New Meter Cost)	CMETERS	0.00088	0.00000	0.00000	0.00088	0.00000	0.00000		
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM	0.00000	0.00000	0.00000	0.00000	0.87622	0.12378		
AP	68	373-Street Lighting & Signal Systems	CLIGHT	0.20277	0.01064	0.78659	1.00000	0.00000	0.00000		
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP	0.00142	0.00020	0.00375	0.00536	0.02698	0.00000		
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG	0.00146	0.00000	0.00000	0.00146	0.00000	0.00000		
AP	73	903-Customer Records & Collections (Bills)	CUSTREC	0.00146	0.00000	0.00000	0.00146	0.00000	0.00000		
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter		0.00052	0.00003	0.00203	0.00258	0.00064	0.00000		
AP	77	50% Number of Customers		0.00142	0.00020	0.00375	0.00536	0.02698	0.00000		
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.00097	0.00011	0.00289	0.00397	0.01381	0.00000		
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS	0.00146	0.00000	0.00000	0.00146	0.00000	0.00000		
AP	83	Number of Customers (Average Annual)	CUST	0.00142	0.00020	0.00375	0.00536	0.02698	0.00000		
AP	84	Number of Services (Customers)	CSERV	0.00146	0.00021	0.00385	0.00552	0.00000	0.00000		
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										
AP	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	93	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	95										
AP	96	**Plant**									
AP	97	Intangible Plant In Service	INTPLT	1.00000	0.61824	0.01759	0.30130	0.00567	0.05720		
AP	98	Production Plant In Service	PRODPLT	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	99	Transmission Plant in Service	TRANPLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	100	Distribution Plant in Service	DISTPLT	1.00000	0.64344	0.02366	0.29676	0.00372	0.03242		
AP	101	General Plant in Service	GENLPLT	1.00000	0.64609	0.00897	0.27915	0.00503	0.06076		
AP	102	Intangible and General Plant in Service	INTGENLPLT	1.00000	0.63428	0.01262	0.28854	0.00530	0.05925		
AP	103	Total Transmission and Distribution Plant	TDPLT	1.00000	0.64344	0.02366	0.29676	0.00372	0.03242		
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT	1.00000	0.61824	0.01759	0.30130	0.00567	0.05720		
AP	105	Total Electric Plant In Service	TOTPLT	1.00000	0.62174	0.01651	0.29852	0.00559	0.05764		
AP	106	Net Electric Plant In Service	NETPLT	1.00000	0.62526	0.01502	0.29691	0.00553	0.05729		
AP	107	Rate Base	RATEBASE	1.00000	0.60844	0.01213	0.30353	0.00579	0.07011		
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	**Distribution Plant in Service**									
AP	116	Acct 360-Land and Land Rights	PLT_360	1.00000	0.47447	0.00273	0.33108	0.00700	0.18472		
AP	117	Acct 361-Structures & Improvements	PLT_361	1.00000	0.47447	0.00273	0.33108	0.00700	0.18472		
AP	118	Acct 362-Station Equipment	PLT_362	1.00000	0.47447	0.00273	0.33108	0.00700	0.18472		
AP	119	Acct 364-Towers and Fixtures	PLT_364	1.00000	0.66147	0.00322	0.33108	0.00424	0.00000		
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365	1.00000	0.66157	0.00322	0.33113	0.00408	0.00000		
AP	121	Acct 366-Underground Conduit	PLT_366	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	122	Acct 367 - Underground Conductor	PLT_367	1.00000	0.66100	0.00322	0.33085	0.00493	0.00000		
AP	123	Acct 368-Line Transformers	PLT_368	1.00000	0.66428	0.00324	0.33249	0.00000	0.00000		
AP	124	Acct 369-Services	PLT_369	1.00000	0.85966	0.00523	0.13511	0.00000	0.00000		
AP	125	Acct 370-Meters	PLT_370	1.00000	0.76964	0.00088	0.21185	0.00494	0.01270		
AP	126	Acct 371-Inst. on Customer Premises	PLT_371	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	1.00000	0.66150	0.00322	0.33109	0.00418	0.00000		
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	1.00000	0.66100	0.00322	0.33085	0.00493	0.00000		
AP	130	Accounts 371&373	PLT_3713	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	131										
AP	132	Accts 360-362-Distibution Substation	PLT_SUB	1.00000	0.47447	0.00273	0.33108	0.00700	0.18472		
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	1.00000	0.66079	0.00322	0.33074	0.00525	0.00000		
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	135										
AP	136										
AP	137										
AP	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AP	93	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	95										
AP	96	**Plant**									
AP	97	Intangible Plant In Service	INTPLT	0.55834	0.00000	0.05991		0.16182	0.00000	0.01430	0.07919
AP	98	Production Plant In Service	PRODPLT	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	99	Transmission Plant in Service	TRANPLT	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	100	Distribution Plant in Service	DISTPLT	0.57930	0.00000	0.06414		0.16993	0.00000	0.01475	0.05912
AP	101	General Plant in Service	GENLPLT	0.58715	0.00000	0.05895		0.15054	0.00000	0.01276	0.06809
AP	102	Intangible and General Plant in Service	INTGENLPLT	0.57493	0.00000	0.05935		0.15532	0.00000	0.01341	0.07280
AP	103	Total Transmission and Distribution Plant	TDPLT	0.57930	0.00000	0.06414		0.16993	0.00000	0.01475	0.05912
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT	0.55834	0.00000	0.05991		0.16182	0.00000	0.01430	0.07919
AP	105	Total Electric Plant In Service	TOTPLT	0.56195	0.00000	0.05979		0.16040	0.00000	0.01410	0.07780
AP	106	Net Electric Plant In Service	NETPLT	0.56620	0.00000	0.05906		0.15981	0.00000	0.01395	0.07669
AP	107	Rate Base	RATEBASE	0.55061	0.00000	0.05782		0.15735	0.00000	0.01389	0.07982
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	**Distribution Plant in Service**									
AP	116	Acct 360-Land and Land Rights	PLT_360	0.43202	0.00000	0.04245		0.12104	0.00000	0.01089	0.10252
AP	117	Acct 361-Structures & Improvements	PLT_361	0.43202	0.00000	0.04245		0.12104	0.00000	0.01089	0.10252
AP	118	Acct 362-Station Equipment	PLT_362	0.43202	0.00000	0.04245		0.12104	0.00000	0.01089	0.10252
AP	119	Acct 364-Towers and Fixtures	PLT_364	0.58723	0.00000	0.07423		0.20024	0.00000	0.01847	0.05614
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365	0.58732	0.00000	0.07424		0.20027	0.00000	0.01847	0.05615
AP	121	Acct 366-Underground Conduit	PLT_366	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	122	Acct 367 - Underground Conductor	PLT_367	0.58682	0.00000	0.07418		0.20010	0.00000	0.01845	0.05610
AP	123	Acct 368-Line Transformers	PLT_368	0.58973	0.00000	0.07455		0.20109	0.00000	0.01855	0.05638
AP	124	Acct 369-Services	PLT_369	0.79593	0.00000	0.06373		0.11313	0.00000	0.00477	0.01608
AP	125	Acct 370-Meters	PLT_370	0.72254	0.00000	0.04710		0.14065	0.00000	0.00867	0.05443
AP	126	Acct 371-Inst. on Customer Premises	PLT_371	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	0.58726	0.00000	0.07424		0.20025	0.00000	0.01847	0.05615
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	0.58682	0.00000	0.07418		0.20010	0.00000	0.01845	0.05610
AP	130	Accounts 371&373	PLT_3713	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	131										
AP	132	Accts 360-362-Distibution Substation	PLT_SUB	0.43202	0.00000	0.04245		0.12104	0.00000	0.01089	0.10252
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	0.58663	0.00000	0.07416		0.20003	0.00000	0.01845	0.05609
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	135										
AP	136										
AP	137										
AP	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	93	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	95										
AP	96	**Plant**									
AP	97	Intangible Plant In Service	INTPLT		0.09539	0.04600	0.00567	0.04372	0.00010	0.01337	
AP	98	Production Plant In Service	PRODPLT		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	99	Transmission Plant in Service	TRANPLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	100	Distribution Plant in Service	DISTPLT		0.07790	0.05296	0.00372	0.02122	0.00015	0.01105	
AP	101	General Plant in Service	GENLPLT		0.09511	0.04776	0.00503	0.04232	0.00099	0.01745	
AP	102	Intangible and General Plant in Service	INTGENLPLT		0.09523	0.04701	0.00530	0.04292	0.00061	0.01572	
AP	103	Total Transmission and Distribution Plant	TDPLT		0.07790	0.05296	0.00372	0.02122	0.00015	0.01105	
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT		0.09539	0.04600	0.00567	0.04372	0.00010	0.01337	
AP	105	Total Electric Plant In Service	TOTPLT		0.09536	0.04622	0.00559	0.04355	0.00022	0.01388	
AP	106	Net Electric Plant In Service	NETPLT		0.09443	0.04646	0.00553	0.04245	0.00037	0.01447	
AP	107	Rate Base	RATEBASE		0.10863	0.05247	0.00579	0.05037	0.00032	0.01941	
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	**Distribution Plant in Service**									
AP	116	Acct 360-Land and Land Rights	PLT_360		0.22562	0.09663	0.00700	0.12199	0.00000	0.06273	
AP	117	Acct 361-Structures & Improvements	PLT_361		0.22562	0.09663	0.00700	0.12199	0.00000	0.06273	
AP	118	Acct 362-Station Equipment	PLT_362		0.22562	0.09663	0.00700	0.12199	0.00000	0.06273	
AP	119	Acct 364-Towers and Fixtures	PLT_364		0.06047	0.05623	0.00424	0.00000	0.00000	0.00000	
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365		0.06032	0.05624	0.00408	0.00000	0.00000	0.00000	
AP	121	Acct 366-Underground Conduit	PLT_366		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	122	Acct 367 - Underground Conductor	PLT_367		0.06112	0.05619	0.00493	0.00000	0.00000	0.00000	
AP	123	Acct 368-Line Transformers	PLT_368		0.05647	0.05647	0.00000	0.00000	0.00000	0.00000	
AP	124	Acct 369-Services	PLT_369		0.00114	0.00114	0.00000	0.00000	0.00000	0.00000	
AP	125	Acct 370-Meters	PLT_370		0.01914	0.00809	0.00494	0.00611	0.00179	0.00479	
AP	126	Acct 371-Inst. on Customer Premises	PLT_371		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST		0.06042	0.05623	0.00418	0.00000	0.00000	0.00000	
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST		0.06112	0.05619	0.00493	0.00000	0.00000	0.00000	
AP	130	Accounts 371&373	PLT_3713		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	131										
AP	132	Accts 360-362-Distibution Substation	PLT_SUB		0.22562	0.09663	0.00700	0.12199	0.00000	0.06273	
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI		0.06143	0.05617	0.00525	0.00000	0.00000	0.00000	
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	135										
AP	136										
AP	137										
AP	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
AP	93	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	95										
AP	96	**Plant**									
AP	97	Intangible Plant In Service	INTPLT	0.00312	0.00017	0.01167	0.01496	0.00237	0.00025		
AP	98	Production Plant In Service	PRODPLT	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	99	Transmission Plant in Service	TRANPLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	100	Distribution Plant in Service	DISTPLT	0.00422	0.00023	0.01576	0.02021	0.00310	0.00036		
AP	101	General Plant in Service	GENLPLT	0.00114	0.00006	0.00337	0.00457	0.00417	0.00023		
AP	102	Intangible and General Plant in Service	INTGENLPLT	0.00198	0.00010	0.00689	0.00898	0.00341	0.00024		
AP	103	Total Transmission and Distribution Plant	TDPLT	0.00422	0.00023	0.01576	0.02021	0.00310	0.00036		
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT	0.00312	0.00017	0.01167	0.01496	0.00237	0.00025		
AP	105	Total Electric Plant In Service	TOTPLT	0.00287	0.00015	0.01063	0.01366	0.00260	0.00025		
AP	106	Net Electric Plant In Service	NETPLT	0.00255	0.00013	0.00922	0.01190	0.00285	0.00026		
AP	107	Rate Base	RATEBASE	0.00218	0.00011	0.00781	0.01010	0.00181	0.00023		
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	**Distribution Plant in Service**									
AP	116	Acct 360-Land and Land Rights	PLT_360	0.00044	0.00002	0.00172	0.00218	0.00055	0.00000		
AP	117	Acct 361-Structures & Improvements	PLT_361	0.00044	0.00002	0.00172	0.00218	0.00055	0.00000		
AP	118	Acct 362-Station Equipment	PLT_362	0.00044	0.00002	0.00172	0.00218	0.00055	0.00000		
AP	119	Acct 364-Towers and Fixtures	PLT_364	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	121	Acct 366-Underground Conduit	PLT_366	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	122	Acct 367 - Underground Conductor	PLT_367	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	123	Acct 368-Line Transformers	PLT_368	0.00056	0.00002	0.00189	0.00248	0.00075	0.00000		
AP	124	Acct 369-Services	PLT_369	0.00138	0.00020	0.00365	0.00523	0.00000	0.00000		
AP	125	Acct 370-Meters	PLT_370	0.00088	0.00000	0.00000	0.00088	0.00000	0.00000		
AP	126	Acct 371-Inst. on Customer Premises	PLT_371	0.00000	0.00000	0.00000	0.00000	0.87622	0.12378		
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0.20277	0.01064	0.78659	1.00000	0.00000	0.00000		
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	130	Accounts 371&373	PLT_3713	0.17438	0.00915	0.67646	0.85999	0.12268	0.01733		
AP	131										
AP	132	Accts 360-362-Distibution Substation	PLT_SUB	0.00044	0.00002	0.00172	0.00218	0.00055	0.00000		
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	135										
AP	136										
AP	137										
AP	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	139	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	141										
AP	142	**Production Expense**									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	145	Salaries and Wages Production Operation	SALWAGPO	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	146	Salaries and Wages Production Maintenance	SALWAGPM	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	147										
AP	148	**Transmission Expense**									
AP	149	O&M Accounts 561-567	OX_TRAN	1.00000	0.36135	0.00208	0.25215	0.00533	0.37909		
AP	150	O&M Accounts 569-573	MX_TRAN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	153										
AP	154	**Regional Market Expens**									
AP	155	O&M Accounts 575	OX_RM	1.00000	0.33050	0.00250	0.26397	0.00697	0.39607		
AP	156										
AP	157	**Distribution Expense**									
AP	158	Acct 580-Supervision	OX_580	1.00000	0.61022	0.01888	0.28902	0.00500	0.07688		
AP	159	Acct 581-Load Dispatch	OX_581	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	160	Acct 582-Station Equipment	OX_582	1.00000	0.47447	0.00273	0.33108	0.00700	0.18472		
AP	161	Acct 583-Overhead Lines	OX_583	1.00000	0.66150	0.00322	0.33109	0.00418	0.00000		
AP	162	Acct 584-Underground Lines	OX_584	1.00000	0.66100	0.00322	0.33085	0.00493	0.00000		
AP	163	Acct 585-Street Lighting	OX_585	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	164	Acct 586-Metering	OX_586	1.00000	0.76964	0.00088	0.21185	0.00494	0.01270		
AP	165	Acct 587-Customer Installations	OX_587	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	166	Acct 588-Miscellaneous	OX_588	1.00000	0.64344	0.02366	0.29676	0.00372	0.03242		
AP	167	Acct 589-Rents	OX_589	1.00000	0.64344	0.02366	0.29676	0.00372	0.03242		
AP	168	Acct 590-Supervision	MX_590	1.00000	0.64033	0.00369	0.33106	0.00446	0.02046		
AP	169	Acct 592-Station Equipment	MX_592	1.00000	0.47447	0.00273	0.33108	0.00700	0.18472		
AP	170	Acct 593-Overhead Lines	MX_593	1.00000	0.66150	0.00322	0.33109	0.00418	0.00000		
AP	171	Acct 594-Underground Lines	MX_594	1.00000	0.66100	0.00322	0.33085	0.00493	0.00000		
AP	172	Acct 595-Transformers	MX_595	1.00000	0.66428	0.00324	0.33249	0.00000	0.00000		
AP	173	Acct 596-Street Lighting	MX_596	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	174	Acct 597-Metering	MX_597	1.00000	0.76964	0.00088	0.21185	0.00494	0.01270		
AP	175	Acct 598-Miscellaneous	MX_598	1.00000	0.64344	0.02366	0.29676	0.00372	0.03242		
AP	176	O&M Accounts 581-589	OX_DIST	1.00000	0.61022	0.01888	0.28902	0.00500	0.07688		
AP	177	O&M Accounts 591-598	MX_DIST	1.00000	0.64033	0.00369	0.33106	0.00446	0.02046		
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO	1.00000	0.61022	0.01888	0.28902	0.00500	0.07688		
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM	1.00000	0.64033	0.00369	0.33106	0.00446	0.02046		
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	139	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	141										
AP	142	**Production Expense**									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	145	Salaries and Wages Production Operation	SALWAGPO	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	146	Salaries and Wages Production Maintenance	SALWAGPM	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	147										
AP	148	**Transmission Expense**									
AP	149	O&M Accounts 561-567	OX_TRAN	0.32902	0.00000	0.03233		0.09218	0.00000	0.00829	0.07808
AP	150	O&M Accounts 569-573	MX_TRAN	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	153										
AP	154	**Regional Market Expens**									
AP	155	O&M Accounts 575	OX_RM	0.30099	0.00000	0.02950		0.08481	0.00000	0.00882	0.08723
AP	156										
AP	157	**Distribution Expense**									
AP	158	Acct 580-Supervision	OX_580	0.55681	0.00000	0.05340		0.14745	0.00000	0.01222	0.07169
AP	159	Acct 581-Load Dispatch	OX_581	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	160	Acct 582-Station Equipment	OX_582	0.43202	0.00000	0.04245		0.12104	0.00000	0.01089	0.10252
AP	161	Acct 583-Overhead Lines	OX_583	0.58726	0.00000	0.07424		0.20025	0.00000	0.01847	0.05615
AP	162	Acct 584-Underground Lines	OX_584	0.58682	0.00000	0.07418		0.20010	0.00000	0.01845	0.05610
AP	163	Acct 585-Street Lighting	OX_585	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	164	Acct 586-Metering	OX_586	0.72254	0.00000	0.04710		0.14065	0.00000	0.00867	0.05443
AP	165	Acct 587-Customer Installations	OX_587	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	166	Acct 588-Miscellaneous	OX_588	0.57930	0.00000	0.06414		0.16993	0.00000	0.01475	0.05912
AP	167	Acct 589-Rents	OX_589	0.57930	0.00000	0.06414		0.16993	0.00000	0.01475	0.05912
AP	168	Acct 590-Supervision	MX_590	0.56960	0.00000	0.07073		0.19143	0.00000	0.01763	0.06124
AP	169	Acct 592-Station Equipment	MX_592	0.43202	0.00000	0.04245		0.12104	0.00000	0.01089	0.10252
AP	170	Acct 593-Overhead Lines	MX_593	0.58726	0.00000	0.07424		0.20025	0.00000	0.01847	0.05615
AP	171	Acct 594-Underground Lines	MX_594	0.58682	0.00000	0.07418		0.20010	0.00000	0.01845	0.05610
AP	172	Acct 595-Transformers	MX_595	0.58973	0.00000	0.07455		0.20109	0.00000	0.01855	0.05638
AP	173	Acct 596-Street Lighting	MX_596	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	174	Acct 597-Metering	MX_597	0.72254	0.00000	0.04710		0.14065	0.00000	0.00867	0.05443
AP	175	Acct 598-Miscellaneous	MX_598	0.57930	0.00000	0.06414		0.16993	0.00000	0.01475	0.05912
AP	176	O&M Accounts 581-589	OX_DIST	0.55681	0.00000	0.05340		0.14745	0.00000	0.01222	0.07169
AP	177	O&M Accounts 591-598	MX_DIST	0.56960	0.00000	0.07073		0.19143	0.00000	0.01763	0.06124
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO	0.55681	0.00000	0.05340		0.14745	0.00000	0.01222	0.07169
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM	0.56960	0.00000	0.07073		0.19143	0.00000	0.01763	0.06124
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	139	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	141										
AP	142	**Production Expense**									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	145	Salaries and Wages Production Operation	SALWAGPO		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	146	Salaries and Wages Production Maintenance	SALWAGPM		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	147										
AP	148	**Transmission Expense**									
AP	149	O&M Accounts 561-567	OX_TRAN		0.17183	0.07359	0.00533	0.09291	0.23841	0.04777	
AP	150	O&M Accounts 569-573	MX_TRAN		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	153										
AP	154	**Regional Market Expens**									
AP	155	O&M Accounts 575	OX_RM		0.20029	0.08311	0.00697	0.11021	0.22528	0.06058	
AP	156										
AP	157	**Distribution Expense**									
AP	158	Acct 580-Supervision	OX_580		0.11289	0.05766	0.00500	0.05023	0.00043	0.02622	
AP	159	Acct 581-Load Dispatch	OX_581		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	160	Acct 582-Station Equipment	OX_582		0.22562	0.09663	0.00700	0.12199	0.00000	0.06273	
AP	161	Acct 583-Overhead Lines	OX_583		0.06042	0.05623	0.00418	0.00000	0.00000	0.00000	
AP	162	Acct 584-Underground Lines	OX_584		0.06112	0.05619	0.00493	0.00000	0.00000	0.00000	
AP	163	Acct 585-Street Lighting	OX_585		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	164	Acct 586-Metering	OX_586		0.01914	0.00809	0.00494	0.00611	0.00179	0.00479	
AP	165	Acct 587-Customer Installations	OX_587		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	166	Acct 588-Miscellaneous	OX_588		0.07790	0.05296	0.00372	0.02122	0.00015	0.01105	
AP	167	Acct 589-Rents	OX_589		0.07790	0.05296	0.00372	0.02122	0.00015	0.01105	
AP	168	Acct 590-Supervision	MX_590		0.07873	0.06076	0.00446	0.01352	0.00000	0.00695	
AP	169	Acct 592-Station Equipment	MX_592		0.22562	0.09663	0.00700	0.12199	0.00000	0.06273	
AP	170	Acct 593-Overhead Lines	MX_593		0.06042	0.05623	0.00418	0.00000	0.00000	0.00000	
AP	171	Acct 594-Underground Lines	MX_594		0.06112	0.05619	0.00493	0.00000	0.00000	0.00000	
AP	172	Acct 595-Transformers	MX_595		0.05647	0.05647	0.00000	0.00000	0.00000	0.00000	
AP	173	Acct 596-Street Lighting	MX_596		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	174	Acct 597-Metering	MX_597		0.01914	0.00809	0.00494	0.00611	0.00179	0.00479	
AP	175	Acct 598-Miscellaneous	MX_598		0.07790	0.05296	0.00372	0.02122	0.00015	0.01105	
AP	176	O&M Accounts 581-589	OX_DIST		0.11289	0.05766	0.00500	0.05023	0.00043	0.02622	
AP	177	O&M Accounts 591-598	MX_DIST		0.07873	0.06076	0.00446	0.01352	0.00000	0.00695	
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO		0.11289	0.05766	0.00500	0.05023	0.00043	0.02622	
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM		0.07873	0.06076	0.00446	0.01352	0.00000	0.00695	
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	139	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	141										
AP	142	**Production Expense**									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	145	Salaries and Wages Production Operation	SALWAGPO	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	146	Salaries and Wages Production Maintenance	SALWAGPM	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	147										
AP	148	**Transmission Expense**									
AP	149	O&M Accounts 561-567	OX_TRAN	0.00034	0.00002	0.00131	0.00166	0.00042	0.00000		
AP	150	O&M Accounts 569-573	MX_TRAN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	153										
AP	154	**Regional Market Expens**									
AP	155	O&M Accounts 575	OX_RM	0.00041	0.00002	0.00157	0.00200	0.00050	0.00000		
AP	156										
AP	157	**Distribution Expense**									
AP	158	Acct 580-Supervision	OX_580	0.00228	0.00011	0.00787	0.01027	0.00760	0.00101		
AP	159	Acct 581-Load Dispatch	OX_581	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	160	Acct 582-Station Equipment	OX_582	0.00044	0.00002	0.00172	0.00218	0.00055	0.00000		
AP	161	Acct 583-Overhead Lines	OX_583	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	162	Acct 584-Underground Lines	OX_584	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	163	Acct 585-Street Lighting	OX_585	0.20277	0.01064	0.78659	1.00000	0.00000	0.00000		
AP	164	Acct 586-Metering	OX_586	0.00088	0.00000	0.00000	0.00088	0.00000	0.00000		
AP	165	Acct 587-Customer Installations	OX_587	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	166	Acct 588-Miscellaneous	OX_588	0.00422	0.00023	0.01576	0.02021	0.00310	0.00036		
AP	167	Acct 589-Rents	OX_589	0.00422	0.00023	0.01576	0.02021	0.00310	0.00036		
AP	168	Acct 590-Supervision	MX_590	0.00065	0.00003	0.00226	0.00294	0.00075	0.00000		
AP	169	Acct 592-Station Equipment	MX_592	0.00044	0.00002	0.00172	0.00218	0.00055	0.00000		
AP	170	Acct 593-Overhead Lines	MX_593	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	171	Acct 594-Underground Lines	MX_594	0.00056	0.00002	0.00188	0.00247	0.00075	0.00000		
AP	172	Acct 595-Transformers	MX_595	0.00056	0.00002	0.00189	0.00248	0.00075	0.00000		
AP	173	Acct 596-Street Lighting	MX_596	0.20277	0.01064	0.78659	1.00000	0.00000	0.00000		
AP	174	Acct 597-Metering	MX_597	0.00088	0.00000	0.00000	0.00088	0.00000	0.00000		
AP	175	Acct 598-Miscellaneous	MX_598	0.00422	0.00023	0.01576	0.02021	0.00310	0.00036		
AP	176	O&M Accounts 581-589	OX_DIST	0.00367	0.00019	0.01325	0.01710	0.00162	0.00017		
AP	177	O&M Accounts 591-598	MX_DIST	0.00065	0.00003	0.00226	0.00294	0.00075	0.00000		
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO	0.00228	0.00011	0.00787	0.01027	0.00760	0.00101		
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM	0.00065	0.00003	0.00226	0.00294	0.00075	0.00000		
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
AP	185	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	187										
AP	188	**Customer Accounting Expense**									
AP	189	Account 902	OX_902	1.00000	0.88276	0.00146	0.11545	0.00014	0.00020		
AP	190	Account 903	OX_903	1.00000	0.88293	0.00146	0.11547	0.00014	0.00000		
AP	191	Account 904	OX_904	1.00000	0.55766	0.00098	0.04718	0.00000	0.39418		
AP	192	Accounts 902 & 903	OX_902_3	1.00000	0.88284	0.00146	0.11546	0.00014	0.00010		
AP	193	O&M Accounts 902-905	OX_CA	1.00000	0.83194	0.00139	0.10477	0.00012	0.06179		
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA	1.00000	0.88284	0.00146	0.11546	0.00014	0.00010		
AP	195										
AP	196	**Customer Service Expense**									
AP	197	Account908	OX_908	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	198	Account909	OX_909	1.00000	0.64103	0.01778	0.22630	0.00456	0.11032		
AP	199	Account910	OX_910	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	200	O&M Accounts 908-910	OX_CS	1.00000	0.64103	0.01778	0.22630	0.00456	0.11032		
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS	1.00000	0.64103	0.01778	0.22630	0.00456	0.11032		
AP	202										
AP	203	Total Customer Operations Expense	OMXCUST	1.00000	0.73214	0.01029	0.17153	0.00253	0.08352		
AP	204										
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	1.00000	0.64609	0.00897	0.27915	0.00503	0.06076		
AP	206	Total Salaries and Wages Expense	SALWAGES	1.00000	0.64609	0.00897	0.27915	0.00503	0.06076		
AP	207										
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	1.00000	0.60305	0.00769	0.29260	0.00553	0.09114		
AP	209										
AP	210										
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AP	212										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	185	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	187										
AP	188	**Customer Accounting Expense**									
AP	189	Account 902	OX_902	0.82218	0.00000	0.06057		0.10132	0.00000	0.00430	0.00911
AP	190	Account 903	OX_903	0.82235	0.00000	0.06058		0.10134	0.00000	0.00430	0.00911
AP	191	Account 904	OX_904	0.46886	0.00000	0.08880		0.00602	0.00000	0.00000	0.01394
AP	192	Accounts 902 & 903	OX_902_3	0.82227	0.00000	0.06058		0.10133	0.00000	0.00430	0.00911
AP	193	O&M Accounts 902-905	OX_CA	0.76694	0.00000	0.06500		0.08641	0.00000	0.00362	0.00987
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA	0.82227	0.00000	0.06058		0.10133	0.00000	0.00430	0.00911
AP	195										
AP	196	**Customer Service Expense**									
AP	197	Account908	OX_908	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	198	Account909	OX_909	0.59264	0.00000	0.04839		0.10383	0.00000	0.00777	0.06071
AP	199	Account910	OX_910	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	200	O&M Accounts 908-910	OX_CS	0.59264	0.00000	0.04839		0.10383	0.00000	0.00777	0.06071
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS	0.59264	0.00000	0.04839		0.10383	0.00000	0.00777	0.06071
AP	202										
AP	203	Total Customer Operations Expense	OMXCUST	0.67648	0.00000	0.05565		0.09698	0.00000	0.00592	0.03740
AP	204										
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	0.58715	0.00000	0.05895		0.15054	0.00000	0.01276	0.06809
AP	206	Total Salaries and Wages Expense	SALWAGES	0.58715	0.00000	0.05895		0.15054	0.00000	0.01276	0.06809
AP	207										
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	0.54817	0.00000	0.05488		0.14311	0.00000	0.01235	0.07631
AP	209										
AP	210										
AP	211										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	185	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	187										
AP	188	**Customer Accounting Expense**									
AP	189	Account 902	OX_902		0.00098	0.00072	0.00014	0.00012	0.00002	0.00006	
AP	190	Account 903	OX_903		0.00086	0.00072	0.00014	0.00000	0.00000	0.00000	
AP	191	Account 904	OX_904		0.02722	0.02722	0.00000	0.00000	0.39418	0.00000	
AP	192	Accounts 902 & 903	OX_902_3		0.00092	0.00072	0.00014	0.00006	0.00001	0.00003	
AP	193	O&M Accounts 902-905	OX_CA		0.00504	0.00487	0.00012	0.00005	0.06172	0.00002	
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA		0.00092	0.00072	0.00014	0.00006	0.00001	0.00003	
AP	195										
AP	196	**Customer Service Expense**									
AP	197	Account908	OX_908		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	198	Account909	OX_909		0.12974	0.05399	0.00456	0.07119	0.00001	0.03913	
AP	199	Account910	OX_910		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	200	O&M Accounts 908-910	OX_CS		0.12974	0.05399	0.00456	0.07119	0.00001	0.03913	
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS		0.12974	0.05399	0.00456	0.07119	0.00001	0.03913	
AP	202										
AP	203	Total Customer Operations Expense	OMXCUST		0.07240	0.03122	0.00253	0.03866	0.02361	0.02125	
AP	204										
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG		0.09511	0.04776	0.00503	0.04232	0.00099	0.01745	
AP	206	Total Salaries and Wages Expense	SALWAGES		0.09511	0.04776	0.00503	0.04232	0.00099	0.01745	
AP	207										
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP		0.12811	0.06083	0.00553	0.06175	0.00019	0.02919	
AP	209										
AP	210										
AP	211										
AP	212										
AP	213										
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AP	215										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	185	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	187										
AP	188	**Customer Accounting Expense**									
AP	189	Account 902	OX_902	0.00146	0.00000	0.00000	0.00146	0.00000	0.00000		
AP	190	Account 903	OX_903	0.00146	0.00000	0.00000	0.00146	0.00000	0.00000		
AP	191	Account 904	OX_904	0.00000	0.00000	0.00000	0.00000	0.00098	0.00000		
AP	192	Accounts 902 & 903	OX_902_3	0.00146	0.00000	0.00000	0.00146	0.00000	0.00000		
AP	193	O&M Accounts 902-905	OX_CA	0.00123	0.00000	0.00000	0.00123	0.00015	0.00000		
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA	0.00146	0.00000	0.00000	0.00146	0.00000	0.00000		
AP	195										
AP	196	**Customer Service Expense**									
AP	197	Account908	OX_908	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	198	Account909	OX_909	0.00097	0.00011	0.00289	0.00397	0.01381	0.00000		
AP	199	Account910	OX_910	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	200	O&M Accounts 908-910	OX_CS	0.00097	0.00011	0.00289	0.00397	0.01381	0.00000		
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS	0.00097	0.00011	0.00289	0.00397	0.01381	0.00000		
AP	202										
AP	203	Total Customer Operations Expense	OMXCUST	0.00111	0.00006	0.00157	0.00274	0.00755	0.00000		
AP	204										
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	0.00114	0.00006	0.00337	0.00457	0.00417	0.00023		
AP	206	Total Salaries and Wages Expense	SALWAGES	0.00114	0.00006	0.00337	0.00457	0.00417	0.00023		
AP	207										
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	0.00113	0.00006	0.00356	0.00474	0.00284	0.00011		
AP	209										
AP	210										
AP	211										
AP	212										
AP	213										
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AP	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	231	**REVENUES AND BILLING DETERMINANTS**									
AP	232										
AP	233	Sales of Electricity Revenue - Present	SALESREV	1.00000	0.58033	0.01894	0.30765	0.00855	0.08453		
AP	234	Present Rate Sales Revenue	CLAIMREV	1.00000	0.58052	0.00941	0.30400	0.00615	0.09991		
AP	235										
AP	236										
AP	237	Residential A-1 Sales Revenue	SREVRA1	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000		
AP	238	Residential A-2 Sales Revenue	SREVRA2	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	239	Residential AH-1 Sales Revenue	SREVRAH1	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000		
AP	240	General Service C1 Sales Revenue	SREVGSC1	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	241	General Service C2 Sales Revenue	SREVGSC2	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	1.00000	0.00000	0.00000	0.00000	1.00000	0.00000		
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	1.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP	1.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	1.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	254	Total Rate Base					0.00000				
AP	255										
AP	256										
AP	257	**PRESENT REVENUES FROM SALES INPUT**									
AP	258										
AP	259	Total Sales of Electricity Revenues		1.00000	0.58033	0.01894	0.30765	0.00855	0.08453		
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		1.00000	0.58033	0.01894	0.30765	0.00855	0.08453		
AP	261										
AP	262										
AP	263										
AP	264										
AP	265										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	231	**REVENUES AND BILLING DETERMINANTS**									
AP	232										
AP	233	Sales of Electricity Revenue - Present	SALESREV	0.53486	0.00000	0.04547		0.12279	0.00000	0.01012	0.11906
AP	234	Present Rate Sales Revenue	CLAIMREV	0.52647	0.00000	0.05405		0.14437	0.00000	0.01290	0.08372
AP	235										
AP	236										
AP	237	Residential A-1 Sales Revenue	SREVRA1	1.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	238	Residential A-2 Sales Revenue	SREVRA2	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	239	Residential AH-1 Sales Revenue	SREVRAH1	0.00000	0.00000	1.00000		0.00000	0.00000	0.00000	0.00000
AP	240	General Service C1 Sales Revenue	SREVGSC1	0.00000	0.00000	0.00000		1.00000	0.00000	0.00000	0.00000
AP	241	General Service C2 Sales Revenue	SREVGSC2	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0.00000	0.00000	0.00000		0.00000	0.00000	1.00000	0.00000
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	1.00000
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	254	Total Rate Base									
AP	255										
AP	256										
AP	257	**PRESENT REVENUES FROM SALES INPUT**									
AP	258										
AP	259	Total Sales of Electricity Revenues		0.53486	0.00000	0.04547		0.12279	0.00000	0.01012	0.11906
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		0.53486	0.00000	0.04547		0.12279	0.00000	0.01012	0.11906
AP	261										
AP	262										
AP	263										
AP	264										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total (t)	S Large Commerical & Industrial Secondary CP-U Sec (u)	P Large Commerical & Industrial Primary CP-U Prim (v)	Q Large Commerical & Industrial Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)	(z)
		(a)	(b)								
AP	231	**REVENUES AND BILLING DETERMINANTS**									
AP	232										
AP	233	Sales of Electricity Revenue - Present	SALESREV		0.11760	0.05567	0.00855	0.05337	0.00146	0.02970	
AP	234	Present Rate Sales Revenue	CLAIMREV		0.13662	0.06301	0.00615	0.06746	0.00159	0.03087	
AP	235										
AP	236										
AP	237	Residential A-1 Sales Revenue	SREVRA1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	238	Residential A-2 Sales Revenue	SREVRA2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	239	Residential AH-1 Sales Revenue	SREVRAH1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	240	General Service C1 Sales Revenue	SREVGSC1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	241	General Service C2 Sales Revenue	SREVGSC2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		1.00000	1.00000	0.00000	0.00000	0.00000	0.00000	
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		1.00000	0.00000	1.00000	0.00000	0.00000	0.00000	
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		1.00000	0.00000	0.00000	1.00000	0.00000	0.00000	
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP		0.00000	0.00000	0.00000	0.00000	1.00000	0.00000	
AP	248	Light and Power WP-3 Sales Revenue	SREVLPWP3		0.00000	0.00000	0.00000	0.00000	0.00000	1.00000	
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	254	Total Rate Base									
AP	255										
AP	256										
AP	257	**PRESENT REVENUES FROM SALES INPUT**									
AP	258										
AP	259	Total Sales of Electricity Revenues			0.11760	0.05567	0.00855	0.05337	0.00146	0.02970	
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)			0.11760	0.05567	0.00855	0.05337	0.00146	0.02970	
AP	261										
AP	262										
AP	263										
AP	264										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	231	**REVENUES AND BILLING DETERMINANTS**									
AP	232										
AP	233	Sales of Electricity Revenue - Present	SALESREV	0.00070	0.00015	0.01373	0.01458	0.00436	0.00000		
AP	234	Present Rate Sales Revenue	CLAIMREV	0.00157	0.00008	0.00550	0.00715	0.00212	0.00015		
AP	235										
AP	236										
AP	237	Residential A-1 Sales Revenue	SREVRA1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	238	Residential A-2 Sales Revenue	SREVRA2	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	239	Residential AH-1 Sales Revenue	SREVRAH1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	240	General Service C1 Sales Revenue	SREVGSC1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	241	General Service C2 Sales Revenue	SREVGSC2	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0.00000	1.00000	0.00000	1.00000	0.00000	0.00000		
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0.00000	0.00000	1.00000	1.00000	0.00000	0.00000		
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0.00000	0.00000	0.00000	0.00000	1.00000	0.00000		
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	254	Total Rate Base									
AP	255										
AP	256										
AP	257	**PRESENT REVENUES FROM SALES INPUT**									
AP	258										
AP	259	Total Sales of Electricity Revenues		0.00070	0.00015	0.01373	0.01458	0.00436	0.00000		
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		0.00070	0.00015	0.01373	0.01458	0.00436	0.00000		
AP	261										
AP	262										
AP	263										
AP	264										
AP	265										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**904 Uncollectible Accounts (Write-Offs)**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	467,513	467,513	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	88,550	88,550	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	6,005	0	0	6,005	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	13,903	0	0	13,903	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	27,138	0	0	27,138	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	393,047	0	0	0	0	393,047		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	980	0	980	0	0	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
ADA	23										
ADA	24	Total Account 904	EXP_904	997,136	556,064	980	47,045	0	393,047		
ADA	25										
ADA	26	Total Account 904	EXP_904	1.00000	0.55766	0.00098	0.04718	0.00000	0.39418		
ADA	27										
ADA	28										
ADA	29										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**904 Uncollectible Accounts (Write-Offs)**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	467,513	0	0		0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0		0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	88,550		0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0		6,005	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0		0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0		0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0		0	0	0	13,903
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0		0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0		0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0		0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0		0	0	0	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0		0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0		0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0		0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0		0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0		0	0	0	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0		0	0	0	0
ADA	23										
ADA	24	Total Account 904	EXP_904	467,513	0	88,550		6,005	0	0	13,903
ADA	25										
ADA	26	Total Account 904	EXP_904	0.46886	0.00000	0.08880		0.00602	0.00000	0.00000	0.01394
ADA	27										
ADA	28										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**904 Uncollectible Accounts (Write-Offs)**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0	
ADA	7	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0	
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0	
ADA	9	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0	
ADA	10	General Service C1 Sales Revenue	SREVGSC2		0	0	0	0	0	0	
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0	
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0	
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		27,138	27,138	0	0	0	0	
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		0	0	0	0	0	0	
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		0	0	0	0	0	0	
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	393,047	0	
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3		0	0	0	0	0	0	
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0	
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0	
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0	
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0	
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0	
ADA	23										
ADA	24	Total Account 904	EXP_904		27,138	27,138	0	0	393,047	0	
ADA	25										
ADA	26	Total Account 904	EXP_904		0.02722	0.02722	0.00000	0.00000	0.39418	0.00000	
ADA	27										
ADA	28										
ADA	29										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**904 Uncollectible Accounts (Write-Offs)**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0	0	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0	0	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0	0	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0	0	0	0		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0	0	980	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
ADA	23										
ADA	24	Total Account 904	EXP_904	0	0	0	0	980	0		
ADA	25										
ADA	26	Total Account 904	EXP_904	0.00000	0.00000	0.00000	0.00000	0.00098	0.00000		
ADA	27										
ADA	28										
ADA	29										
ADA	30										
ADA	31										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**AVAILABLE**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0	0	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0	0	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0	0	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0	0	0	0		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0	0	0	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
ADA	23										
ADA	24	Total Available	SREVAVAIL	0	0	0	0	0	0		
ADA	25										
ADA	26	Total Available	SREVAVAIL	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
ADA	27										
ADA	28										
ADA	29										
ADA	30										
ADA	31										
ADA	32										
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ADA	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**AVAILABLE**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0		0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0		0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0		0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0		0	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0		0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0		0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0		0	0	0	0
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0		0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0		0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0		0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0		0	0	0	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0		0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0		0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0		0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0		0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0		0	0	0	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0		0	0	0	0
ADA	23										
ADA	24	Total Available	SREVAVAIL	0	0	0		0	0	0	0
ADA	25										
ADA	26	Total Available	SREVAVAIL	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
ADA	27										
ADA	28										
ADA	29										
ADA	30										
ADA	31										
ADA	32										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**AVAILABLE**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0	
ADA	7	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0	
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0	
ADA	9	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0	
ADA	10	General Service C1 Sales Revenue	SREVGSC2		0	0	0	0	0	0	
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0	
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0	
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		0	0	0	0	0	0	
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		0	0	0	0	0	0	
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		0	0	0	0	0	0	
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	0	0	
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3		0	0	0	0	0	0	
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0	
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0	
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0	
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0	
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0	
ADA	23										
ADA	24	Total Available	SREVAVAIL		0	0	0	0	0	0	
ADA	25										
ADA	26	Total Available	SREVAVAIL		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
ADA	27										
ADA	28										
ADA	29										
ADA	30										
ADA	31										
ADA	32										
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ADA	45										
ADA	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4	(ag)	(ah)
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)		
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**AVAILABLE**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0	0	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0	0	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0	0	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0	0	0	0		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0	0	0	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
ADA	23										
ADA	24	Total Available	SREVAVAIL	0	0	0	0	0	0		
ADA	25										
ADA	26	Total Available	SREVAVAIL	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
ADA	27										
ADA	28										
ADA	29										
ADA	30										
ADA	31										
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ADA	45										
ADA	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
RRW	1	**REVENUE REQUIREMENTS**									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	----------									
RRW	5	RATE BASE		348,730,362	212,181,073	4,231,233	105,851,694	2,018,557	24,447,805		
RRW	6	NET OPER INC (PRESENT RATES)		7,320,590	4,910,753	842,824	2,485,610	214,654	(1,133,252)		
RRW	7	RATE OF RETURN (PRES RATES)		2.10%	2.31%	19.92%	2.35%	10.63%	-4.64%		
RRW	8	RELATIVE RATE OF RETURN		1.00	1.10	9.49	1.12	5.07	-2.21		
RRW	9	SALES REVENUE (PRE RATES)		100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
RRW	10	REVENUE PRES RATES $/KWH		$0.1689	$0.2297	$0.9930	$0.1525	$0.1606	$0.0647		
RRW	11	REVENUE REQUIRED - $/MO/CUST		$1,958.56	$1,287.32	$25,392.87	$5,218.05	$0.00	$0.00		
RRW	12	SALES REV REQUIRED $/KW		$84.01	$0.00	$0.00	$74.15	$27.55	$11.36		
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	----------									
RRW	16	CLAIMED RATE OF RETURN		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
RRW	17	RETURN REQ FOR CLAIMED ROR		24,195,261	14,721,335	293,567	7,344,096	140,050	1,696,213		
RRW	18	SALES REVENUE REQ CLAIMED ROR		122,826,425	71,303,562	1,156,372	37,338,931	755,467	12,272,094		
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV		22,723,433	13,210,930	(739,630)	6,542,438	(100,463)	3,810,157		
RRW	20	PERCENT INCREASE/DECREASE REQUIRED		18.50%	18.53%	-63.96%	17.52%	-13.30%	31.05%		
RRW	21	ANNUAL BOOKED KWH SALES		592,847,764	252,908,738	1,909,346	201,999,407	5,331,038	130,699,234		
RRW	22	SALES REV REQUIRED $/KWH		$0.2072	$0.2819	$0.6056	$0.1848	$0.1417	$0.0939		
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) $/KWH		$0.0383	$0.0522	($0.3874)	$0.0324	($0.0188)	$0.0292		
RRW	24										
RRW	25										
RRW	26										
RRW	27										
RRW	28										
RRW	29										
RRW	30										
RRW	31										
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RRW	40										
RRW	41										
RRW	42										
RRW	43										
RRW	44										
RRW	45										
RRW	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
RRW	1	**REVENUE REQUIREMENTS**									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	----------									
RRW	5	RATE BASE		192,016,064	0	20,165,009		54,874,034	0	4,843,941	27,835,548
RRW	6	NET OPER INC (PRESENT RATES)		5,061,370	0	(150,617)		(233,422)	0	(88,164)	3,146,323
RRW	7	RATE OF RETURN (PRES RATES)		2.64%	0.00%	-0.75%		-0.43%	0.00%	-1.82%	11.30%
RRW	8	RELATIVE RATE OF RETURN		1.26	0.00	-0.36		-0.20	0.00	-0.87	5.38
RRW	9	SALES REVENUE (PRE RATES)		53,540,865	0	4,551,767		12,291,582	0	1,013,188	11,918,663
RRW	10	REVENUE PRES RATES $/KWH		$0.2325	$0.0000	$0.2016		$0.1894	$0.0000	$0.1502	$0.1786
RRW	11	REVENUE REQUIRED - $/MO/CUST		$1,273.86	$0.00	$1,470.01		$2,373.08	$0.00	$4,614.14	$25,590.26
RRW	12	SALES REV REQUIRED $/KW		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$44.04
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	----------									
RRW	16	CLAIMED RATE OF RETURN		6.94%	6.94%	6.94%		6.94%	6.94%	6.94%	6.94%
RRW	17	RETURN REQ FOR CLAIMED ROR		13,322,267	0	1,399,068		3,807,215	0	336,077	1,931,258
RRW	18	SALES REVENUE REQ CLAIMED ROR		64,664,989	0	6,638,573		17,732,703	0	1,584,471	10,282,457
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV		11,124,124	0	2,086,806		5,441,122	0	571,283	(1,636,206)
RRW	20	PERCENT INCREASE/DECREASE REQUIRED		17.20%	0.00%	31.43%		30.68%	0.00%	36.06%	-15.91%
RRW	21	ANNUAL BOOKED KWH SALES		230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
RRW	22	SALES REV REQUIRED $/KWH		$0.2807	$0.0000	$0.2940		$0.2732	$0.0000	$0.2348	$0.1540
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) $/KWH		$0.0483	$0.0000	$0.0924		$0.0838	$0.0000	$0.0847	($0.0245)
RRW	24										
RRW	25										
RRW	26										
RRW	27										
RRW	28										
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RRW	42										
RRW	43										
RRW	44										
RRW	45										
RRW	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total (t)	S Large Commerical & Industrial Secondary CP-U Sec (u)	P Large Commerical & Industrial Primary CP-U Prim (v)	Q Large Commerical & Industrial Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)	(z)
		(a)	(b)								
RRW	1	**REVENUE REQUIREMENTS**									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	----------									
RRW	5	RATE BASE			37,882,309	18,298,170	2,018,557	17,565,581	112,885	6,769,339	
RRW	6	NET OPER INC (PRESENT RATES)			(1,091,308)	(339,128)	214,654	(966,834)	(28,574)	(137,843)	
RRW	7	RATE OF RETURN (PRES RATES)			-2.88%	-1.85%	10.63%	-5.50%	-25.31%	-2.04%	
RRW	8	RELATIVE RATE OF RETURN			-1.37	-0.88	5.07	-2.62	-12.06	-0.97	
RRW	9	SALES REVENUE (PRE RATES)			11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
RRW	10	REVENUE PRES RATES $/KWH			$0.0768	$0.0876	$0.1606	$0.0633	$0.0000	$0.0641	
RRW	11	REVENUE REQUIRED - $/MO/CUST			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
RRW	12	SALES REV REQUIRED $/KW			$32.11	$38.52	$27.55	$27.99	$0.35	$21.07	
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	----------									
RRW	16	CLAIMED RATE OF RETURN			6.94%	6.94%	6.94%	6.94%	6.94%	6.94%	
RRW	17	RETURN REQ FOR CLAIMED ROR			2,628,312	1,269,545	140,050	1,218,718	7,832	469,663	
RRW	18	SALES REVENUE REQ CLAIMED ROR			16,780,484	7,739,299	755,467	8,285,718	194,951	3,791,425	
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV			5,008,841	2,166,239	(100,463)	2,943,064	49,024	818,069	
RRW	20	PERCENT INCREASE/DECREASE REQUIRED			29.85%	27.99%	-13.30%	35.52%	25.15%	21.58%	
RRW	21	ANNUAL BOOKED KWH SALES			153,271,071	63,601,055	5,331,038	84,338,977	0	46,360,257	
RRW	22	SALES REV REQUIRED $/KWH			$0.1095	$0.1217	$0.1417	$0.0982	$0.0000	$0.0818	
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) $/KWH			$0.0327	$0.0341	($0.0188)	$0.0349	$0.0000	$0.0176	
RRW	24										
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RRW	43										
RRW	44										
RRW	45										
RRW	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

SCH ID	LINE NO.	COS Without Minimum System DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
RRW	1	**REVENUE REQUIREMENTS**									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	----------									
RRW	5	RATE BASE		761,280	37,197	2,721,978	3,520,454	631,760	79,019		
RRW	6	NET OPER INC (PRESENT RATES)		(38,642)	6,100	708,195	675,653	175,099	(7,927)		
RRW	7	RATE OF RETURN (PRES RATES)		-5.08%	16.40%	26.02%	19.19%	27.72%	-10.03%		
RRW	8	RELATIVE RATE OF RETURN		-2.42	7.81	12.39	9.14	13.20	-4.78		
RRW	9	SALES REVENUE (PRE RATES)		69,658	14,541	1,374,879	1,459,078	436,923	0		
RRW	10	REVENUE PRES RATES $/KWH		$0.2247	$0.8936	$1.1432	$0.9543	$1.1487	$0.0000		
RRW	11	REVENUE REQUIRED - $/MO/CUST		$932.92	$0.00	$0.00	$19,541.22	$0.00	$0.00		
RRW	12	SALES REV REQUIRED $/KW		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	----------									
RRW	16	CLAIMED RATE OF RETURN		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
RRW	17	RETURN REQ FOR CLAIMED ROR		52,818	2,581	188,854	244,253	43,832	5,482		
RRW	18	SALES REVENUE REQ CLAIMED ROR		192,819	9,802	675,534	878,155	260,160	18,057		
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV		123,161	(4,739)	(699,345)	(580,923)	(176,763)	18,057		
RRW	20	PERCENT INCREASE/DECREASE REQUIRED		63.87%	-48.35%	0.00%	-66.15%	-67.94%	100.00%		
RRW	21	ANNUAL BOOKED KWH SALES		310,032	16,272	1,202,681	1,528,985	380,361	0		
RRW	22	SALES REV REQUIRED $/KWH		$0.6219	$0.6024	$0.5617	$0.5743	$0.6840	$0.0000		
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) $/KWH		$0.3973	($0.2912)	($0.5815)	($0.3799)	($0.4647)	$0.0000		
RRW	24										
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RRW	46										

Schedule F-2

Case No.: U-21286
Exhibit No.: A-11 (NEB-9)
Schedule: Schedule F2.1
Page: 1 of 1
Witness: Nicole E. Bell

Michigan Public Service Commission

Upper Peninsula Power Company
Summary of Present and Proposed Revenue by Rate Schedule
for year ending June 30, 2024

Line No.	(a) Description	(b) Total Present Revenue	(c) Total Proposed Revenue	(d) Total Net Increase/ (Decrease)	(e) Total Net Increase/ (Decrease) (%)
1	**UPPCO RETAIL SYSTEM**				
2	A-1	$53,561,266	$60,148,963	$6,587,698	12.30%
3	AH-1	$4,553,959	$4,890,910	$336,951	7.40%
4	C-1	$12,292,705	$15,555,908	$3,263,203	26.55%
5	H-1	$1,013,191	$1,120,067	$106,876	10.55%
6	P-1	$11,918,654	$12,002,489	$83,835	0.70%
7	Cp-U	$12,179,253	$14,052,362	$1,873,110	15.38%
8	WP-3	$2,767,441	$3,562,621	$795,181	28.73%
9	RTMP	$145,938	$180,499	$34,561	23.68%
10	RTMP-D	$0	$0	$0	0.00%
11	Z-3	$416,665	$248,263	($168,402)	-40.42%
12	SL	$1,601,244	$981,052	($620,192)	-38.73%
13					
14					
15	MPSC JURISDICTIONAL	$100,450,315	$112,743,135	$12,292,820	12.24%

Schedule F-2

Case No.:	U-21286
Exhibit No.:	A-11 (NEB-10)
Schedule:	Schedule F2.2
Page:	1 of 1
Witness:	Nicole E. Bell

Michigan Public Service Commission

Upper Peninsula Power Company
Summary of Present and Proposed Revenue by Rate Schedule
for year ending June 30, 2025

Line No.	(a) Description	(b) Total Present Revenue	(c) Total Proposed Revenue	(d) Total Net Increase/ (Decrease)	(e) Total Net Increase/ (Decrease) (%)
1	**UPPCO RETAIL SYSTEM**				
2	A-1	$60,148,963	$69,216,951	$9,067,988	15.08%
3	AH-1	$4,890,910	$5,606,780	$715,870	14.64%
4	C-1	$15,555,908	$19,155,567	$3,599,659	23.14%
5	H-1	$1,120,067	$1,380,135	$260,069	23.22%
6	P-1	$12,002,489	$14,444,095	$2,441,605	20.34%
7	Cp-U	$14,052,362	$14,694,118	$641,756	4.57%
8	WP-3	$3,562,621	$3,662,448	$99,826	2.80%
9	RTMP	$180,499	$207,249	$26,750	14.82%
10	RTMP-D	$0	$0	$0	0.00%
11	Z-3	$248,263	$248,263	$0	0.00%
12	SL	$981,052	$981,052	$0	0.00%
13					
14					
15	MPSC JURISDICTIONAL	$112,743,135	$129,596,658	$16,853,524	14.95%

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 1 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Residential (A-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	522,108	Cust	$15.00	$7,831,620	$29.00	$15,141,132
4	Energy Charge ($/kWh)	230,331,849	kWh	$0.10760	$24,783,707	$0.08151	$18,775,422
5	**Energy Waste Reduction**	230,331,849	kWh	$0.00840	$1,934,788	$0.00840	$1,934,788
6	**LIEAF**	522,108	Cust	$0.93000	$485,560	$0.93000	$485,560
7	Total - Distribution				$35,035,675		$36,336,902
8							
9	COSS - Distribution						$35,359,796
10	% Deficient						-2.76%
11							
12	**Power Supply**						
13	Energy Charge - Capacity ($/kWh)	230,331,849	kWh	$0.05582	$12,857,124	$0.01291	$2,972,502
14	Energy Charge - Non-Capacity ($/kWh)	230,331,849	kWh	$0.02461	$5,668,467	$0.09048	$20,839,559
15	PSCR Revenues ($/kWh)	230,331,849	kWh	$0.00000	$0	$0.00000	$0
16	Total - Power Supply				$18,525,591		$23,812,061
17							
18	COSS - Power Supply						$23,598,604
19	Capacity						$2,944,596
20	Non-Capacity						$20,654,008
21							
22	% Deficient						-0.90%
23	**Total Base**				**$53,561,266**		**$60,148,963**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 2 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Residential Heating (AH-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	37,157	Cust	$15.00	$557,355	$29.00	$1,077,553
4	Energy Charge - Jun-Sep ($/kWh)	5,087,991	kWh	$0.10760	$547,468	$0.08151	$414,746
5	Energy Charge - <500 kWh Oct-May ($/kWh)	8,702,082	kWh	$0.10760	$936,344	$0.08151	$709,347
6	Energy Charge >500 kWh Oct-May ($/kWh)	8,786,816	kWh	$0.05380	$472,731	$0.04076	$358,127
7	**Energy Waste Reduction**	22,576,889	kWh	$0.00840	$189,646	$0.00840	$189,646
8	**LIEAF**	37,157	Cust	$0.93000	$34,556	$0.93000	$34,556
9	Total - Distribution				$2,738,099		$2,783,975
10							
11	COSS - Distribution						$3,761,082
12	% Deficient						25.98%
13							
14	**Power Supply**						
15	Energy Charge - Capacity - Jun-Sep ($/kWh)	5,087,991	kWh	$0.05587	$284,266	$0.01291	$65,662
16	Energy Charge - Non-Capacity - Jun-Sep ($/kWh)	5,087,991	kWh	$0.02456	$124,961	$0.09048	$460,342
17	Energy Charge - Capacity - <500 kWh Oct-May ($/kWh)	8,702,082	kWh	$0.05587	$486,185	$0.01291	$112,303
18	Energy Charge - Non-Capacity - <500 kWh Oct-May ($/kWh)	8,702,082	kWh	$0.02456	$213,723	$0.09048	$787,332
19	Energy Charge >500kWh - Capacity - Oct-May ($/kWh)	8,786,816	kWh	$0.05587	$490,919	$0.00968	$85,047
20	Energy Charge >500 kWh - Non-Capacity - Oct-May ($/kWh)	8,786,816	kWh	$0.02456	$215,804	$0.06786	$596,249
21	PSCR Revenues ($/kWh)	22,576,889	kWh	$0.00000	$0	$0.00000	$0
22	Total - Power Supply				$1,815,859		$2,106,935
23							
24	COSS - Power Supply						$2,320,392
25	Capacity						$290,918
26	Non-Capacity						$2,029,474
27							
28	% Deficient						9.20%
29	**Total Base**				**$4,553,959**		**$4,890,910**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 3 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Commercial (C-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	62,251	Cust	$17.00	$1,058,267	$38.00	$2,365,538
4	Telemetering Charge ($/Month)	96	Cust	$32.88	$3,156	$32.88	$3,156
5	Energy Charge ($/kWh)	65,815,287	kWh	$0.07384	$4,859,801	$0.08762	$5,766,996
6	**Energy Waste Reduction**	62,251	Cust	$10.97	$682,893	$10.97	$682,893
7	**LIEAF**	62,251	Cust	$0.93	$57,893	$0.93	$57,893
8	Total - Distribution				$6,662,011		$8,876,477
9							
10	COSS - Distribution						$9,803,556
11	% Deficient						9.46%
12							
13	**Power Supply**						
14	Energy Charge - Capacity ($/kWh)	64,839,859	kWh	$0.06503	$4,216,536	$0.01298	$841,339
15	Energy Charge - Non-Capacity ($/kWh)	64,839,859	kWh	$0.02181	$1,414,157	$0.09004	$5,838,092
16	PSCR Revenues ($/kWh)	64,839,859	kWh	$0.00000	$0	$0.00000	$0
17	Total - Power Supply				$5,630,693		$6,679,431
18							
19	COSS - Power Supply						$6,614,549
20	Capacity						$833,228
21	Non-Capacity						$5,781,320
22							
23	% Deficient						87.28%
24	**Total Base**				**$12,292,705**		**$15,555,908**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 4 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Commercial Heating (H-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	2,635	Cust	$17.00	$44,795	$38.00	$100,130
4	Energy Charge - Jun-Sep ($/kWh)	1,713,587	kWh	$0.07384	$126,531	$0.08762	$150,151
5	Energy Charge - <1000 kWh Oct-May	1,049,274	kWh	$0.07384	$77,478	$0.08762	$91,942
6	Energy Charge >1000 kWh Oct-May	3,984,346	kWh	$0.03692	$147,102	$0.04381	$174,562
7	**Energy Waste Reduction**	2,635	Cust	$10.97	$28,906	$10.97	$28,906
8	**LIEAF**	2,635	Cust	$0.93	$2,451	$0.93	$2,451
9	Total - Distribution				$427,263		$548,141
10							
11	COSS - Distribution						$830,201
12	% Deficient						33.97%
13							
14	**Power Supply**						
15	Energy Charge - Capacity - June- Sep ($/kWh)	1,713,587	kWh	$0.06529	$111,880	$0.01298	$22,235
16	Energy Charge - Non-Capacity - June- Sep ($/kWh)	1,713,587	kWh	$0.02155	$36,928	$0.09004	$154,289
17	Energy Charge - Capacity - <1000 kWh Oct-May	1,049,274	kWh	$0.06529	$68,507	$0.01298	$13,615
18	Energy Charge - Non-Capacity - <1000 kWh Oct-May	1,049,274	kWh	$0.02155	$22,612	$0.09004	$94,475
19	Energy Charge - Capacity >1000 kWh - Oct-May	3,984,346	kWh	$0.06529	$260,138	$0.00908	$36,190
20	Energy Charge - Non-Capacity >1000 kWh - Oct-May	3,984,346	kWh	$0.02155	$85,863	$0.06303	$251,122
21	PSCR Revenues ($/kWh)	6,747,207	kWh	$0.00000	$0.00000	$0.00000	$0
22	Total - Power Supply	6,747,207			$585,927		$571,925
23							
24	COSS - Power Supply						$636,807
25	Capacity						$80,150
26	Non-Capacity						$556,657
27							
28	% Deficient						10.19%
29	**Total Base**				**$1,013,191**		**$1,120,067**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 5 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Med Commercial (P-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	5,589	Cust	$35.00	$195,615	$50.00	$279,450
4	Telemetering Charge ($/Month)	408	Cust	$32.88	$13,415	$32.88	$13,415
4	Demand Charge $/kW	270,640	kW	$6.85	$1,853,884	$6.85	$1,853,884
5	Energy Charge ($/kWh)	80,977,640	kWh	$0.03323	$2,690,887	$0.03323	$2,690,887
6	**Energy Waste Reduction**	5,589	Cust	$111.28	$621,944	$111.28	$621,944
7	**LIEAF**	5,589	Cust	$0.93	$5,198	$0.93	$5,198
8	Total - Distribution				$5,380,943		$5,464,778
9							
10	COSS - Distribution						$3,371,901
11	% Deficient						-62.07%
12							
13	**Power Supply**						
14	Demand Charge - Capacity - $/kW	231,180	kW	$7.32	$1,692,238	$7.32	$1,692,238
15	Demand Charge - Non-Capacity - $/kW	231,180	kW	$2.53	$584,885	$2.53	$584,885
16	Energy Charge ($/kWh)	65,416,685	kWh	$0.06513	$4,260,589	$0.06513	$4,260,589
17	PSCR Revenues ($/kWh)	65,416,685	kWh	$0.00000	$0	$0.00000	$0
18	Total - Power Supply				$6,537,712		$6,537,712
19							
20	COSS - Power Supply						$6,148,275
21	Capacity						$765,529
22	Non-Capacity						$5,382,745
23							
24	% Deficient						-6.33%
25	**Total Base**				**$11,918,654**		**$12,002,489**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 6 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Industrial (Cp-U)**						
2	**Distribution Service**						
3	Firm Demand Charge - Secondary	153,545	kW	$5.52	$847,568	$4.32	$663,959
4	Firm Demand Charge - Primary	59,748	kW	$3.23	$192,986	$3.56	$212,463
5	Firm Demand Charge - Transmission	74,400	kW	$2.38	$177,072	$1.74	$129,674
6							
7	Interruptible Demand Charge - Secondary	70,897	kW	$5.52	$391,351	$4.32	$306,573
8	Interruptible Demand Charge - Primary	5,032	kW	$3.23	$16,253	$3.56	$17,894
9	Interruptible Demand Charge - Transmission	97,031	kW	$2.38	$230,934	$1.74	$169,118
10							
11	Customer Demand Charge (Secondary)	153,545	kW	$6.62	$1,016,468	$4.11	$630,761
12	Customer Demand Charge (Primary)	59,749	kW	$3.07	$183,429	$3.38	$201,843
13	Substation Transformer Capacity (Transmission)	321,000	kVA	$0.87	$279,270	$1.04	$334,233
14							
15	Customer Charge - Secondary	456	Cust	$250.00	$114,000	$500.00	$228,000
16	Customer Charge - Primary	72	Cust	$325.00	$23,400	$650.00	$46,800
17	Customer Charge - Transmission	72	Cust	$750.00	$54,000	$1,500.00	$108,000
18	Telemetering Charge	120	Cust	$32.88	$3,946	$32.88	$3,946
19	**Energy Waste Reduction**	600	Cust	$957.89	$574,734	$957.89	$574,734
20	**LIEAF**	600	Cust	$0.93	$558	$0.93	$558
21	Total Distribution Service				$4,105,970		$3,628,556
22							
23	COSS						$4,724,659
24	% Deficient						23.20%
25							
26	**Power Supply**						
27	Firm Demand Charge - Capacity - Secondary	2,880	kW	$6.11	$17,597	$6.75	$19,452
28	Firm Demand Charge - Non-Capacity - Secondary	2,880	kW	$2.46	$7,085	$1.04	$3,001
29	Firm Demand Charge - Capacity - Primary	21,000	kW	$5.89	$123,690	$6.08	$127,656
30	Firm Demand Charge - Non-Capacity - Primary	21,000	kW	$2.39	$50,190	$0.94	$19,697
31	Firm Demand Charge - Capacity - Transmission	74,400	kW	$5.68	$422,592	$5.40	$402,017
32	Firm Demand Charge - Non-Capacity - Transmission	74,400	kW	$2.32	$172,608	$0.83	$62,031
33							$0
34	Interruptible Demand Charge - Capacity - Secondary	70,897	kW	$0.59	$41,829	$1.75	$124,375
35	Interruptible Demand Charge - Non-Capacity - Secondary	70,897	kW	$0.48	$34,031	$0.27	$19,191
36	Interruptible Demand Charge - Capacity - Primary	5,032	kW	$0.43	$2,164	$1.08	$5,429
37	Interruptible Demand Charge - Non-Capacity - Primary	5,032	kW	$0.35	$1,761	$0.17	$838
38	Interruptible Demand Charge - Capacity - Transmission	97,031	kW	$0.27	$26,198	$0.40	$39,147
39	Interruptible Demand Charge - Non-Capacity - Transmission	97,031	kW	$0.23	$22,317	$0.06	$6,040
40							
41	Energy Charge -						
42	On-Peak Energy Charge (Secondary)	28,720,199	kWh	$0.06101	$1,752,219	$0.08186	$2,351,016
43	On-Peak Energy Charge (Primary)	2,037,111	kWh	$0.05881	$119,802	$0.07891	$160,748
44	On-Peak Energy Charge (Transmission)	39,456,513	kWh	$0.05666	$2,235,606	$0.07602	$2,999,520
45	Off-Peak Energy Charge (Secondary)	32,807,854	kWh	$0.03967	$1,301,488	$0.05323	$1,746,253
46	Off-Peak Energy Charge (Primary)	2,330,222	kWh	$0.03823	$89,084	$0.05130	$119,531
47	Off-Peak Energy Charge (Transmission)	44,882,464	kWh	$0.03683	$1,653,021	$0.04941	$2,217,864
48	PSCR Revenues ($/kWh)	150,234,363	kWh	$0.00000	$0	$0.00000	$0
49	Total Power Supply Costs				$8,073,283		$10,423,807
50							
51	Standby Demand	0	kW	$2.00	$0	$2.00	$0
52							
53	COSS						$10,811,819
54	Capacity						$1,445,250
55	Non-Capacity						$9,366,569
56							
57	% Deficient						3.59%
58	**Total Base**				**$12,179,253**		**$14,052,362**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 7 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Industrial (WP-3)**						
2	**Distribution Service**						
3	Customer Charge ($/Month)	36	Cust	$750.00	$27,000	$1,500.00	$54,000
4	Telemetering Charge	12	Cust	$32.88	$395	$32.88	$395
5	Demand Charges Firm ($/kW)	63,324	kW	$2.25	$142,479	$1.60	$101,073
6	Demand Charges Interruptible ($/kW)	77,794	kW	$2.25	$175,037	$1.60	$124,170
7	Substation Capacity Transformer ($/kVA)	489,600	kVA	$0.87	$425,952	$1.04	$509,783
8	**Energy Waste Reduction**	12	Cust	$3,905.74	$46,869	$3,905.74	$46,869
9	**LIEAF**	12	Cust	$0.93	$11	$0.93	$11
8	Total Distribution Service				$817,742		$836,300
9							
10	COSS						$782,605
11	% Deficient						-6.42%
12							
13	**Power Supply**						
14	Demand Charge Firm - Capacity - ($/kW)	0	kW	$5.68	$0	$5.40	$0
15	Demand Charge Firm - Non-Capacity - ($/kW)	0	kW	$2.32	$0	$0.83	$0
16	Demand Charge Interruptible - Capacity - ($/kW)	77,794	kW	$0.27	$21,004	$0.40	$31,386
17	Demand Charge Interruptible - Non-Capacity - ($/kW)	77,794	kW	$0.23	$17,893	$0.06	$4,843
18							
19	Energy Charge -						
20	On-Peak Energy ($/kWh)	20,337,402	kWh	$0.05360	$1,090,085	$0.07602	$1,546,068
21	Off-Peak Energy ($/kWh)	23,151,391	kWh	$0.03545	$820,717	$0.04941	$1,144,024
22	PSCR Revenues ($/kWh)	43,488,793	kWh	$0.00000	$0	$0.00000	$0
23	Total Power Supply Costs				$1,949,699		$2,726,321
24							
25	COSS						$2,727,746
26	Capacity						$230,921
27	Non-Capacity						$2,496,825
28							
29	% Deficient						0%
30	**Total Base**				**$2,767,441**		**$3,562,621**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 8 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Billing Determinants Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Real-Time Market Pricing (RTMP)**						
2	**Distribution Service**						
3	Customer Charge ($/Month)	12	Cust	$1,000.00	$12,000	$1,000.00	$12,000.00
4	Demand Charge ($/kW)	413,118	kW	$0.19	$78,492	$0.27	$113,052.96
5	**Energy Optimization**	12	Cust	$3,619.55	$43,435	$3,619.55	$43,435
6	**LIEAF**	12		$0.93	$11	$0.93	$11
7							
8	**Power Supply**						
9	Scheduling Charge ($/Month)	12	Cust	$1,000.00	$12,000	$1,000.00	$12,000
10							
11							
12	**Total Base**				**$145,938**		**$180,499**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 9 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	(b) Billing Determinants Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Real-Time Market Pricing (RTMP-D)**						
2	**Distribution Service**						
3	Customer Charge ($/Month)	0	Cust	$1,000.00	$0	$1,000.00	$0
4	Demand Charge ($/kW)	0	kW	$0.19	$0	$0.27	$0
5							
6	**Power Supply**						
7	Scheduling Charge ($/Month)	0	Cust	$1,000.00	$0	$1,000.00	$0
8	Energy Charge ($/kWh)	0	kWh	$0.00000	$0	$0.00000	$0
9							
10	**Rate Realignment**	0	kWh	$0.00000	$0	$0.00000	$0
11	**Energy Optimization**	0	Cust	$3,619.55	$0	$3,619.55	$0
12							
13	**Total Base**				**$0**		**$0**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 10 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Billing Determinants Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Private Lighting (Z-3)**						
2	100 watt (Sodium Vapor)	732	Lamps	$21.71	$15,892	$23.94	$17,521
3	250 watt (Sodium Vapor)	24	Lamps	$33.27	$798	$36.68	$880
4	400 watt (Sodium Vapor)	48	Lamps	$40.26	$1,932	$44.39	$2,131
5	175 watt (Mercury Vapor)	48	Lamps	$19.26	$924	$21.23	$1,019
6	400 watt (Mercury Vapor)	0	Lamps	$35.96	$0	$39.65	$0
7	400 watt (Metal Halide)	0	Lamps	$39.99	$0	$44.09	$0
8	1000 watt (Metal Halide)	0	Lamps	$73.62	$0	$81.17	$0
9	Z-3 100 watt (LED)	16,320	Lamps	$19.92	$325,094	$11.23	$183,284
10	Z-3 150 watt (LED)	36	Lamps	$23.71	$854	$12.35	$445
11	Z-3 250 watt (LED)	2,124	Lamps	$27.87	$59,196	$14.60	$31,010
12	Z-3 400 watt (LED)	0	Lamps	$0.00	$0	$21.34	$0
13	Z-3 1000 watt (LED)	0	Lamps	$0.00	$0	$44.92	$0
14	Add'l Wood Pole	1,536	Poles	$4.51	$6,927	$4.51	$6,927
15	Span of Conductor	1,548	Spans	$3.26	$5,046	$3.26	$5,046
16	**Energy Optimization**	19,908	Cust	$0.00	$0	$0.00	$0
17	PSCR Revenues ($/kWh)	380,361	kWh	$0.00000	$0	$0.00000	$0
18	**Total Base**				**$416,665**		**$248,263**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-11)
Schedule: Schedule F3.1
Page: 11 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	(b) Billing Determinants Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Street Lighting (SL)**						
2	SL-3 - Energy	310,032	kWh	$0.16724	$51,850	$0.24315	$75,385
3	SL-3 - Customer Charge	876	Cust	$17.00	$14,892	$38.00	$33,288
4	SL-5 0-99 watt (LED) (closed)	0	Lamps	$11.33	$0	$13.71	$0
5	SL-5 100-199 watt (LED) (closed)	0	Lamps	$14.89	$0	$18.02	$0
6	SL-5 200-299 watt (LED) (closed)	0	Lamps	$18.45	$0	$22.32	$0
7	SL-5 300-399 watt (LED) (closed)	0	Lamps	$22.00	$0	$26.62	$0
8	SL-5 100 watt (Sodium Vapor) (closed)	468	Lamps	$12.60	$5,897	$15.25	$7,135
9	SL-5 150 watt (Sodium Vapor) (closed)	276	Lamps	$14.91	$4,115	$18.04	$4,979
10	SL-5 250 watt (Sodium Vapor) (closed)	12	Lamps	$19.35	$232	$23.41	$281
11	SL -5 400 watt (Sodium Vapor) (closed)	48	Lamps	$24.57	$1,179	$29.73	$1,427
12	SL-5 400 watt (Mercury Vapor) (closed)	0	Lamps	$29.13	$0	$35.25	$0
13	SL-5 Add'l Wood Pole (closed)	0	Poles	$4.51	$0	$4.51	$0
14	SL-5 Span of Conductor (closed)	0	Spans	$3.26	$0	$3.26	$0
15	SL-6 70 watt (Sodium Vapor) (closed)	0	Lamps	$18.95	$0	$20.89	$0
16	SL-6 100 watt (Sodium Vapor)	0	Lamps	$19.70	$0	$21.72	$0
17	SL-6 150 watt (Sodium Vapor)	0	Lamps	$23.90	$0	$26.35	$0
18	SL-6 250 watt (Sodium Vapor)	0	Lamps	$27.13	$0	$29.91	$0
19	SL-6 400 watt (Sodium Vapor)	0	Lamps	$38.21	$0	$42.13	$0
20	SL-6 175 watt (Mercury Vapor)	0	Lamps	$20.05	$0	$22.11	$0
21	SL-6 400 watt (Mercury Vapor)	0	Lamps	$36.82	$0	$40.59	$0
22	SL-6 175 watt (Metal Halide)	0	Lamps	$32.71	$0	$36.06	$0
23	SL-6 400 watt (Metal Halide)	0	Lamps	$40.26	$0	$44.39	$0
24	SL-6 1000 watt (Metal Halide)	0	Lamps	$74.20	$0	$81.81	$0
25	SL-6 100 watt (LED)	62,268	Lamps	$18.08	$1,125,805	$10.21	$635,736
26	SL-6 150 watt (LED)	14,724	Lamps	$21.45	$315,830	$11.23	$165,360
27	SL-6 250 watt (LED)	2,004	Lamps	$25.24	$50,581	$13.27	$26,598
28	SL-6 400 watt (LED)	0	Lamps		$0	$19.40	$0
29	SL-6 1000 watt (LED)	0	Lamps		$0	$40.84	$0
30	SL-6 Add'l Wood Pole	3,372	Poles	$4.51	$15,208	$4.51	$15,208
31	SL-6 Span of Conductor	3,636	Spans	$3.26	$11,853	$3.26	$11,853
32	**Energy Optimization**	876	Cust	$4.34	$3,802	$4.34	$3,802
33	PSCR Revenues ($/kWh)	1,528,985	kWh	$0.00000	$0	$0.00000	$0
34	**Total Base**				**$1,601,244**		**$981,052**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 1 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Residential (A-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	522,108	Cust	$29.00	$15,141,132	$29.00	$15,141,132
4	Energy Charge ($/kWh)	230,331,849	kWh	$0.08151	$18,775,422	$0.12088	$27,843,410
5	**Energy Waste Reduction**	230,331,849	kWh	$0.00840	$1,934,788	$0.00840	$1,934,788
6	**LIEAF**	522,108	Cust	$0.93000	$485,560	$0.93000	$485,560
7	Total - Distribution				$36,336,902		$45,404,890
8							
9	COSS - Distribution						$44,232,747
10	% Deficient						-2.65%
11							
12	**Power Supply**						
13	Energy Charge - Capacity ($/kWh)	230,331,849	kWh	$0.01291	$2,972,502	$0.01291	$2,972,502
14	Energy Charge - Non-Capacity ($/kWh)	230,331,849	kWh	$0.09048	$20,839,559	$0.09048	$20,839,559
15	PSCR Revenues ($/kWh)	230,331,849	kWh	$0.00000	$0	$0.00000	$0
16	Total - Power Supply				$23,812,061		$23,812,061
17							
18	COSS - Power Supply						$23,598,604
19	Capacity						$2,944,596
20	Non-Capacity						$20,654,008
21							
22	% Deficient						-0.90%
23	**Total Base**				**$60,148,963**		**$69,216,951**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 2 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Residential Heating (AH-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	37,157	Cust	$29.00	$1,077,553	$29.00	$1,077,553
4	Energy Charge - Jun-Sep ($/kWh)	5,087,991	kWh	$0.08151	$414,746	$0.12088	$615,056
5	Energy Charge - <500 kWh Oct-May ($/kWh)	8,702,082	kWh	$0.08151	$709,347	$0.12088	$1,051,942
6	Energy Charge >500 kWh Oct-May ($/kWh)	8,786,816	kWh	$0.04076	$358,127	$0.06044	$531,092
7	**Energy Waste Reduction**	22,576,889	kWh	$0.00840	$189,646	$0.00840	$189,646
8	**LIEAF**	37,157	Cust	$0.93000	$34,556	$0.93000	$34,556
9	Total - Distribution				$2,783,975		$3,499,845
10							
11	COSS - Distribution						$4,671,988
12	% Deficient						25.09%
13							
14	**Power Supply**						
15	Energy Charge - Capacity - Jun-Sep ($/kWh)	5,087,991	kWh	$0.01291	$65,662	$0.01291	$65,662
16	Energy Charge - Non-Capacity - Jun-Sep ($/kWh)	5,087,991	kWh	$0.09048	$460,342	$0.09048	$460,342
17	Energy Charge - Capacity - <500 kWh Oct-May ($/kWh)	8,702,082	kWh	$0.01291	$112,303	$0.01291	$112,303
18	Energy Charge - Non-Capacity - <500 kWh Oct-May ($/kWh)	8,702,082	kWh	$0.09048	$787,332	$0.09048	$787,332
19	Energy Charge >500kWh - Capacity - Oct-May ($/kWh)	8,786,816	kWh	$0.00968	$85,047	$0.00968	$85,047
20	Energy Charge >500 kWh - Non-Capacity - Oct-May ($/kWh)	8,786,816	kWh	$0.06786	$596,249	$0.06786	$596,249
21	PSCR Revenues ($/kWh)	22,576,889	kWh	$0.00000	$0	$0.00000	$0
22	Total - Power Supply				$2,106,935		$2,106,935
23							
24	COSS - Power Supply						$2,320,392
25	Capacity						$290,918
26	Non-Capacity						$2,029,474
27							
28	% Deficient						9.20%
29	**Total Base**				**$4,890,910**		**$5,606,780**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 3 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Commercial (C-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	62,251	Cust	$38.00	$2,365,538	$38.00	$2,365,538
4	Telemetering Charge ($/Month)	96	Cust	$32.88	$3,156	$32.88	$3,156
5	Energy Charge ($/kWh)	65,815,287	kWh	$0.08762	$5,766,996	$0.14232	$9,366,655
6	**Energy Waste Reduction**	62,251	Cust	$10.97	$682,893	$10.97	$682,893
7	**LIEAF**	62,251	Cust	$0.93	$57,893	$0.93	$57,893
8	Total - Distribution				$8,876,477		$12,476,137
9							
10	COSS - Distribution						$12,236,734
11	% Deficient						-1.96%
12							
13	**Power Supply**						
14	Energy Charge - Capacity ($/kWh)	64,839,859	kWh	$0.01298	$841,339	$0.01298	$841,339
15	Energy Charge - Non-Capacity ($/kWh)	64,839,859	kWh	$0.09004	$5,838,092	$0.09004	$5,838,092
16	PSCR Revenues ($/kWh)	64,839,859	kWh	$0.00000	$0	$0.00000	$0
17	Total - Power Supply				$6,679,431		$6,679,431
18							
19	COSS - Power Supply						$6,614,549
20	Capacity						$833,228
21	Non-Capacity						$5,781,320
22							
23	% Deficient						87.28%
24	**Total Base**				**$15,555,908**		**$19,155,567**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 4 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Commercial Heating (H-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	2,635	Cust	$38.00	$100,130	$38.00	$100,130
4	Energy Charge - Jun-Sep ($/kWh)	1,713,587	kWh	$0.08762	$150,151	$0.14232	$243,873
5	Energy Charge - <1000 kWh Oct-May	1,049,274	kWh	$0.08762	$91,942	$0.14232	$149,330
6	Energy Charge >1000 kWh Oct-May	3,984,346	kWh	$0.04381	$174,562	$0.07116	$283,521
7	**Energy Waste Reduction**	2,635	Cust	$10.97	$28,906	$10.97	$28,906
8	**LIEAF**	2,635	Cust	$0.93	$2,451	$0.93	$2,451
9	Total - Distribution				$548,141		$808,210
10							
11	COSS - Distribution						$1,047,613
12	% Deficient						22.85%
13							
14	**Power Supply**						
15	Energy Charge - Capacity - June- Sep ($/kWh)	1,713,587	kWh	$0.01298	$22,235	$0.01298	$22,235
16	Energy Charge - Non-Capacity - June- Sep ($/kWh)	1,713,587	kWh	$0.09004	$154,289	$0.09004	$154,289
17	Energy Charge - Capacity - <1000 kWh Oct-May	1,049,274	kWh	$0.01298	$13,615	$0.01298	$13,615
18	Energy Charge - Non-Capacity - <1000 kWh Oct-May	1,049,274	kWh	$0.09004	$94,475	$0.09004	$94,475
19	Energy Charge - Capacity >1000 kWh - Oct-May	3,984,346	kWh	$0.00908	$36,190	$0.00908	$36,190
20	Energy Charge - Non-Capacity >1000 kWh - Oct-May	3,984,346	kWh	$0.06303	$251,122	$0.06303	$251,122
21	PSCR Revenues ($/kWh)	6,747,207	kWh	$0.00000	$0.00000	$0.00000	$0
22	Total - Power Supply	6,747,207			$571,925		$571,925
23							
24	COSS - Power Supply						$636,807
25	Capacity						$80,150
26	Non-Capacity						$556,657
27							
28	% Deficient						10.19%
29	**Total Base**				**$1,120,067**		**$1,380,135**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 5 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Med Commercial (P-1)**						
2	**Distribution**						
3	Service Charge ($/Month)	5,589	Cust	$50.00	$279,450	$50.00	$279,450
4	Telemetering Charge ($/Month)	408	Cust	$32.88	$13,415	$32.88	$13,415
4	Demand Charge $/kW	270,640	kW	$6.85	$1,853,884	$5.80	$1,568,508
5	Energy Charge ($/kWh)	80,977,640	kWh	$0.03323	$2,690,887	$0.07007	$5,674,103
6	**Energy Waste Reduction**	5,589	Cust	$111.28	$621,944	$111.28	$621,944
7	**LIEAF**	5,589	Cust	$0.93	$5,198	$0.93	$5,198
8	Total - Distribution				$5,464,778		$8,162,618
9							
10	COSS - Distribution						$4,782,800
11	% Deficient						-70.67%
12							
13	**Power Supply**						
14	Demand Charge - Capacity - $/kW	231,180	kW	$7.32	$1,692,238	$7.72	$1,784,515
15	Demand Charge - Non-Capacity - $/kW	231,180	kW	$2.53	$584,885	$1.02	$236,373
16	Energy Charge ($/kWh)	65,416,685	kWh	$0.06513	$4,260,589	$0.06513	$4,260,589
17	PSCR Revenues ($/kWh)	65,416,685	kWh	$0.00000	$0	$0.00000	$0
18	Total - Power Supply				$6,537,712		$6,281,477
19							
20	COSS - Power Supply						$6,148,275
21	Capacity						$765,529
22	Non-Capacity						$5,382,745
23							
24	% Deficient						-2.17%
25	**Total Base**				**$12,002,489**		**$14,444,095**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 6 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Industrial (Cp-U)**						
2	**Distribution Service**						
3	Firm Demand Charge - Secondary	153,545	kW	$4.32	$663,959	$5.14	$789,960
4	Firm Demand Charge - Primary	59,748	kW	$3.56	$212,463	$4.23	$252,783
5	Firm Demand Charge - Transmission	74,400	kW	$1.74	$129,674	$2.07	$154,282
6							
7	Interruptible Demand Charge - Secondary	70,897	kW	$4.32	$306,573	$5.14	$364,752
8	Interruptible Demand Charge - Primary	5,032	kW	$3.56	$17,894	$4.23	$21,289
9	Interruptible Demand Charge - Transmission	97,031	kW	$1.74	$169,118	$2.07	$201,212
10							
11	Customer Demand Charge (Secondary)	153,545	kW	$4.11	$630,761	$4.89	$750,462
12	Customer Demand Charge (Primary)	59,749	kW	$3.38	$201,843	$4.02	$240,148
13	Substation Transformer Capacity (Transmission)	321,000	kVA	$1.04	$334,233	$1.04	$334,233
14							
15	Customer Charge - Secondary	456	Cust	$500.00	$228,000	$500.00	$228,000
16	Customer Charge - Primary	72	Cust	$650.00	$46,800	$650.00	$46,800
17	Customer Charge - Transmission	72	Cust	$1,500.00	$108,000	$1,500.00	$108,000
18	Telemetering Charge	120	Cust	$32.88	$3,946	$32.88	$3,946
19	**Energy Waste Reduction**	600	Cust	$957.89	$574,734	$957.89	$574,734
20	**LIEAF**	600	Cust	$0.93	$558	$0.93	$558
21	Total Distribution Service				$3,628,556		$4,071,158
22							
23	COSS						$7,027,179
24	% Deficient						42.07%
25							
26	**Power Supply**						
27	Firm Demand Charge - Capacity - Secondary	2,880	kW	$6.75	$19,452	$6.44	$18,556
28	Firm Demand Charge - Non-Capacity - Secondary	2,880	kW	$1.04	$3,001	$0.99	$2,863
29	Firm Demand Charge - Capacity - Primary	21,000	kW	$6.08	$127,656	$5.80	$121,776
30	Firm Demand Charge - Non-Capacity - Primary	21,000	kW	$0.94	$19,697	$0.89	$18,790
31	Firm Demand Charge - Capacity - Transmission	74,400	kW	$5.40	$402,017	$5.15	$383,498
32	Firm Demand Charge - Non-Capacity - Transmission	74,400	kW	$0.83	$62,031	$0.80	$59,173
33							$0
34	Interruptible Demand Charge - Capacity - Secondary	70,897	kW	$1.75	$124,375	$1.44	$102,317
35	Interruptible Demand Charge - Non-Capacity - Secondary	70,897	kW	$0.27	$19,191	$0.22	$15,787
36	Interruptible Demand Charge - Capacity - Primary	5,032	kW	$1.08	$5,429	$0.80	$4,020
37	Interruptible Demand Charge - Non-Capacity - Primary	5,032	kW	$0.17	$838	$0.12	$620
38	Interruptible Demand Charge - Capacity - Transmission	97,031	kW	$0.40	$39,147	$0.15	$14,995
39	Interruptible Demand Charge - Non-Capacity - Transmission	97,031	kW	$0.06	$6,040	$0.02	$2,314
40							
41	Energy Charge -						
42	On-Peak Energy Charge (Secondary)	28,720,199	kWh	$0.08186	$2,351,016	$0.08428	$2,420,436
43	On-Peak Energy Charge (Primary)	2,037,111	kWh	$0.07891	$160,748	$0.08124	$165,494
44	On-Peak Energy Charge (Transmission)	39,456,513	kWh	$0.07602	$2,999,520	$0.07827	$3,088,089
45	Off-Peak Energy Charge (Secondary)	32,807,854	kWh	$0.05323	$1,746,253	$0.05480	$1,797,816
46	Off-Peak Energy Charge (Primary)	2,330,222	kWh	$0.05130	$119,531	$0.05281	$123,061
47	Off-Peak Energy Charge (Transmission)	44,882,464	kWh	$0.04941	$2,217,864	$0.05087	$2,283,353
48	PSCR Revenues ($/kWh)	150,234,363	kWh	$0.00000	$0	$0.00000	$0
49	Total Power Supply Costs				$10,423,807		$10,622,960
50							
51	Standby Demand		kW	$2.00	$0	$2.00	$0
52							
53	COSS						$10,811,819
54	Capacity						$1,445,250
55	Non-Capacity						$9,366,569
56							
57	% Deficient						1.75%
58	**Total Base**				**$14,052,362**		**$14,694,118**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 7 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Industrial (WP-3)**						
2	**Distribution Service**						
3	Customer Charge ($/Month)	36	Cust	$1,500.00	$54,000	$1,500.00	$54,000
4	Telemetering Charge	12	Cust	$32.88	$395	$32.88	$395
5	Demand Charges Firm ($/kW)	63,324	kW	$1.60	$101,073	$1.90	$120,254
6	Demand Charges Interruptible ($/kW)	77,794	kW	$1.60	$124,170	$1.90	$147,733
7	Substation Capacity Transformer ($/kVA)	489,600	kVA	$1.04	$509,783	$1.04	$509,783
8	**Energy Waste Reduction**	12	Cust	$3,905.74	$46,869	$3,905.74	$46,869
9	**LIEAF**	12	Cust	$0.93	$11	$0.93	$11
8	Total Distribution Service				$836,300		$879,045
9							
10	COSS						$1,302,842
11	% Deficient						48.21%
12							
13	**Power Supply**						
14	Demand Charge Firm - Capacity - ($/kW)	0	kW	$5.40	$0	$5.15	$0
15	Demand Charge Firm - Non-Capacity - ($/kW)	0	kW	$0.83	$0	$0.80	$0
16	Demand Charge Interruptible - Capacity - ($/kW)	77,794	kW	$0.40	$31,386	$0.15	$12,022
17	Demand Charge Interruptible - Non-Capacity - ($/kW)	77,794	kW	$0.06	$4,843	$0.02	$1,855
18				$0.00			
19	Energy Charge -						
20	On-Peak Energy ($/kWh)	20,337,402	kWh	$0.07602	$1,546,068	$0.07827	$1,591,720
21	Off-Peak Energy ($/kWh)	23,151,391	kWh	$0.04941	$1,144,024	$0.05087	$1,177,805
22	PSCR Revenues ($/kWh)	43,488,793	kWh	$0.00000	$0	$0.00000	$0
23	Total Power Supply Costs				$2,726,321		$2,783,402
24							
25	COSS						$2,727,746
26	Capacity						$230,921
27	Non-Capacity						$2,496,825
28							
29	% Deficient						-2%
30	**Total Base**				**$3,562,621**		**$3,662,448**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 8 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Billing Determinants Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Real-Time Market Pricing (RTMP)**						
2	**Distribution Service**						
3	Customer Charge ($/Month)	12	Cust	$1,000.00	$12,000	$1,000.00	$12,000.00
4	Demand Charge ($/kW)	413,118	kW	$0.27	$113,053	$0.34	$139,803.03
5	**Energy Optimization**	12	Cust	$3,619.55	$43,435	$3,619.55	$43,435
6	**LIEAF**	12		$0.93	$11	$0.93	$11
7							
8	**Power Supply**						
9	Scheduling Charge ($/Month)	12	Cust	$1,000.00	$12,000	$1,000.00	$12,000
10							
11							
12	**Total Base**				**$180,499**		**$207,249**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 9 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Real-Time Market Pricing (RTMP-D)**						
2	**Distribution Service**						
3	Customer Charge ($/Month)	0	Cust	$1,000.00	$0	$1,000.00	$0
4	Demand Charge ($/kW)	0	kW	$0.27	$0	$0.34	$0
5							
6	**Power Supply**						
7	Scheduling Charge ($/Month)	0	Cust	$1,000.00	$0	$1,000.00	$0
8	Energy Charge ($/kWh)	0	kWh	$0.00000	$0	$0.00000	$0
9							
10	**Rate Realignment**	0	kWh	$0.00000	$0	$0.00000	$0
11	**Energy Optimization**	0	Cust	$3,619.55	$0	$3,619.55	$0
12							
13	**Total Base**				**$0**		**$0**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-12)
Schedule: Schedule F3.2
Page: 10 of 11
Witness: Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Private Lighting (Z-3)**						
2	100 watt (Sodium Vapor)	732	Lamps	$23.94	$17,521	$23.94	$17,521
3	250 watt (Sodium Vapor)	24	Lamps	$36.68	$880	$36.68	$880
4	400 watt (Sodium Vapor)	48	Lamps	$44.39	$2,131	$44.39	$2,131
5	175 watt (Mercury Vapor)	48	Lamps	$21.23	$1,019	$21.23	$1,019
6	400 watt (Mercury Vapor)	0	Lamps	$39.65	$0	$39.65	$0
7	400 watt (Metal Halide)	0	Lamps	$44.09	$0	$44.09	$0
8	1000 watt (Metal Halide)	0	Lamps	$81.17	$0	$81.17	$0
9	Z-3 100 watt (LED)	16,320	Lamps	$11.23	$183,284	$11.23	$183,284
10	Z-3 150 watt (LED)	36	Lamps	$12.35	$445	$12.35	$445
11	Z-3 250 watt (LED)	2,124	Lamps	$14.60	$31,010	$14.60	$31,010
12	Z-3 400 watt (LED)	0	Lamps	$21.34	$0	$21.34	$0
13	Z-3 1000 watt (LED)	0	Lamps	$44.92	$0	$44.92	$0
14	Add'l Wood Pole	1,536	Poles	$4.51	$6,927	$4.51	$6,927
15	Span of Conductor	1,548	Spans	$3.26	$5,046	$3.26	$5,046
16	**Energy Optimization**	19,908	Cust	$0.00	$0	$0.00	$0
17	PSCR Revenues ($/kWh)	380,361	kWh	$0.00000	$0	$0.00	$0
18	**Total Base**				**$248,263**		**$248,263**

Michigan Public Service Commission
Upper Peninsula Power Company
Present and Proposed Revenue Detail
for year ending June 30, 2025

Case No.:	U-21286
Exhibit No.:	A-11 (NEB-12)
Schedule:	Schedule F3.2
Page:	11 of 11
Witness:	Nicole E. Bell

Line No.	(a) Description	(b) Billing Determinants Quantity	(b) Billing Determinants Units	(c) Present Rate	(d) Present Revenue	(e) Proposed Rate	(f) Proposed Revenue
1	**Street Lighting (SL)**						
2	SL-3 - Energy	310,032	kWh	$0.24315	$75,385	$0.24315	$75,385
3	SL-3 - Customer Charge	876	Cust	$ 38.00	$33,288	$38.00000	$33,288
4	SL-5 0-99 watt (LED) (closed)	0	Lamps	$ 13.71	$0	$13.70930	$0
5	SL-5 100-199 watt (LED) (closed)	0	Lamps	$ 18.02	$0	$18.01690	$0
6	SL-5 200-299 watt (LED) (closed)	0	Lamps	$ 22.32	$0	$22.32450	$0
7	SL-5 300-399 watt (LED) (closed)	0	Lamps	$ 26.62	$0	$26.62000	$0
8	SL-5 100 watt (Sodium Vapor) (closed)	468	Lamps	$ 15.25	$7,135	$15.24600	$7,135
9	SL-5 150 watt (Sodium Vapor) (closed)	276	Lamps	$ 18.04	$4,979	$18.04110	$4,979
10	SL-5 250 watt (Sodium Vapor) (closed)	12	Lamps	$ 23.41	$281	$23.41350	$281
11	SL -5 400 watt (Sodium Vapor) (closed)	48	Lamps	$ 29.73	$1,427	$29.72970	$1,427
12	SL-5 400 watt (Mercury Vapor) (closed)	0	Lamps	$ 35.25	$0	$35.24730	$0
13	SL-5 Add'l Wood Pole (closed)	0	Poles	$ 4.51	$0	$4.51000	$0
14	SL-5 Span of Conductor (closed)	0	Spans	$ 3.26	$0	$3.26000	$0
15	SL-6 70 watt (Sodium Vapor) (closed)	0	Lamps	$ 20.89	$0	$20.89238	$0
16	SL-6 100 watt (Sodium Vapor)	0	Lamps	$ 21.72	$0	$21.71936	$0
17	SL-6 150 watt (Sodium Vapor)	0	Lamps	$ 26.35	$0	$26.34986	$0
18	SL-6 250 watt (Sodium Vapor)	0	Lamps	$ 29.91	$0	$29.91083	$0
19	SL-6 400 watt (Sodium Vapor)	0	Lamps	$ 42.13	$0	$42.12653	$0
20	SL-6 175 watt (Mercury Vapor)	0	Lamps	$ 22.11	$0	$22.10513	$0
21	SL-6 400 watt (Mercury Vapor)	0	Lamps	$ 40.59	$0	$40.59405	$0
22	SL-6 175 watt (Metal Halide)	0	Lamps	$ 36.06	$0	$36.06278	$0
23	SL-6 400 watt (Metal Halide)	0	Lamps	$ 44.39	$0	$44.38665	$0
24	SL-6 1000 watt (Metal Halide)	0	Lamps	$ 81.81	$0	$81.80550	$0
25	SL-6 100 watt (LED)	62,268	Lamps	$ 10.21	$635,736	$10.20967	$635,736
26	SL-6 150 watt (LED)	14,724	Lamps	$ 11.23	$165,360	$11.23063	$165,360
27	SL-6 250 watt (LED)	2,004	Lamps	$ 13.27	$26,598	$13.27257	$26,598
28	SL-6 400 watt (LED)	0	Lamps	$ 19.40	$0	$19.39837	$0
29	SL-6 1000 watt (LED)	0	Lamps	$ 40.84	$0	$40.83867	$0
30	SL-6 Add'l Wood Pole	3,372	Poles	$ 4.51	$15,208	$4.51000	$15,208
31	SL-6 Span of Conductor	3,636	Spans	$ 3.26	$11,853	$3.26000	$11,853
32	**Energy Optimization**	876	Cust	$ 4.34	$3,802	$4.34000	$3,802
33	PSCR Revenues ($/kWh)	1,528,985	kWh	$0.00000	$0	$0.00000	$0
34	**Total Base**				**$981,052**		**$981,052**

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 1 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE A-1							
1		0		$15.93	$29.93	$14.00	87.88%	NA
2		50		$25.75	$39.59	$13.84	53.76%	$0.79190
3		100		$35.57	$49.26	$13.69	38.47%	$0.49260
4		150		$45.39	$58.92	$13.53	29.81%	$0.39283
5		200		$55.22	$68.59	$13.37	24.22%	$0.34295
6		250		$65.04	$78.25	$13.22	20.32%	$0.31302
7		300		$74.86	$87.92	$13.06	17.45%	$0.29306
8		350		$84.68	$97.58	$12.90	15.24%	$0.27881
9		400		$94.50	$107.25	$12.75	13.49%	$0.26812
10		450		$104.32	$116.91	$12.59	12.07%	$0.25981
11		500		$114.15	$126.58	$12.43	10.89%	$0.25316
12		550		$123.97	$136.24	$12.28	9.90%	$0.24771
13		600		$133.79	$145.91	$12.12	9.06%	$0.24318
14		650		$143.61	$155.57	$11.96	8.33%	$0.23934
15		700		$153.43	$165.24	$11.81	7.69%	$0.23605

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 2 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE AH-1							
1		0		$15.93	$29.93	$14.00	87.88%	NA
2		100		$35.57	$49.26	$13.69	38.47%	$0.49260
3		300		$74.86	$87.92	$13.06	17.45%	$0.29306
4		500		$114.15	$126.58	$12.43	10.89%	$0.25316
5		700		$146.26	$156.36	$10.10	6.91%	$0.22337
6		1,000		$194.43	$201.03	$6.60	3.39%	$0.20103
7		1,500		$274.71	$275.47	$0.76	0.28%	$0.18365
8		2,000		$354.99	$349.92	-$5.07	-1.43%	$0.17496
9		2,500		$435.27	$424.37	-$10.90	-2.51%	$0.16975
10		3,000		$515.55	$498.81	-$16.74	-3.25%	$0.16627

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 3 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE C-1							
1		0		$28.90	$38.93	$10.03	34.71%	NA
2		100		$44.97	$57.99	$13.03	28.97%	$0.57994
3		300		$77.10	$96.12	$19.02	24.66%	$0.32040
4		500		$109.24	$134.25	$25.01	22.89%	$0.26850
5		700		$141.38	$172.38	$31.00	21.93%	$0.24625
6		1,000		$189.58	$229.57	$39.99	21.09%	$0.22957
7		2,500		$430.60	$515.53	$84.93	19.72%	$0.20621
8		5,000		$832.30	$992.12	$159.82	19.20%	$0.19842
9		7,500		$1,234.00	$1,468.72	$234.72	19.02%	$0.19583
10		10,000		$1,635.70	$1,945.31	$309.61	18.93%	$0.19453

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 4 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE H-1							
1		0		$28.90	$49.90	$21.00	72.66%	NA
2		100		$44.97	$68.96	$24.00	53.36%	$0.68964
3		300		$77.10	$107.09	$29.99	38.89%	$0.35697
4		500		$109.24	$145.22	$35.98	32.94%	$0.29044
5		700		$141.38	$183.35	$41.97	29.69%	$0.26192
6		1,000		$189.58	$240.54	$50.96	26.88%	$0.24054
7		1,500		$257.61	$310.95	$53.34	20.70%	$0.20730
8		2,000		$325.65	$381.37	$55.72	17.11%	$0.19068
9		2,500		$393.68	$451.78	$58.10	14.76%	$0.18071
10		3,000		$461.71	$522.19	$60.48	13.10%	$0.17406

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 5 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE P-1							
1		0	0	$147.21	$162.21	$15.00	10.19%	NA
2		1,000	10	$412.57	$427.57	$15.00	3.64%	$0.42757
3		4,000	15	$791.15	$806.15	$15.00	1.90%	$0.20154
4		9,000	25	$1,449.95	$1,464.95	$15.00	1.03%	$0.16277
5		13,000	35	$2,010.39	$2,025.39	$15.00	0.75%	$0.15580
6		17,000	45	$2,570.83	$2,585.83	$15.00	0.58%	$0.15211
7		20,000	55	$3,032.91	$3,047.91	$15.00	0.49%	$0.15240
8		23,000	65	$3,494.99	$3,509.99	$15.00	0.43%	$0.15261
9		25,000	75	$3,858.71	$3,873.71	$15.00	0.39%	$0.15495
10		27,000	85	$4,222.43	$4,237.43	$15.00	0.36%	$0.15694
11		29,000	95	$4,586.15	$4,601.15	$15.00	0.33%	$0.15866
12		31,000	105	$4,949.87	$4,964.87	$15.00	0.30%	$0.16016

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 6 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE Cp-U							
1		0	0	$5,096.17	$6,453.88	$1,357.71	26.64%	NA
2		160,000	420	$18,728.62	$21,740.76	$3,012.15	16.08%	$0.13588
3		320,000	840	$32,361.07	$37,027.65	$4,666.58	14.42%	$0.11571
4		480,000	1,260	$45,993.52	$52,314.54	$6,321.02	13.74%	$0.10899
5		640,000	1,680	$59,625.97	$67,601.43	$7,975.46	13.38%	$0.10563
6		800,000	2,100	$73,258.42	$82,888.32	$9,629.90	13.15%	$0.10361
7		960,000	2,520	$86,890.87	$98,175.20	$11,284.33	12.99%	$0.10227
8		1,120,000	2,940	$100,523.32	$113,462.09	$12,938.77	12.87%	$0.10131
9		1,280,000	3,360	$114,155.77	$128,748.98	$14,593.21	12.78%	$0.10059
10		1,440,000	3,780	$127,788.22	$144,035.87	$16,247.65	12.71%	$0.10002
11		1,600,000	4,200	$141,420.67	$159,322.76	$17,902.08	12.66%	$0.09958

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 7 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE WP-3							
1		0	0	$15,357.67	$18,213.71	$2,856.04	18.60%	NA
2		600,000	1,200	$45,808.27	$58,957.21	$13,148.94	28.70%	$0.09826
3		1,200,000	2,400	$76,258.87	$99,700.70	$23,441.83	30.74%	$0.08308
4		1,800,000	3,600	$106,709.47	$140,444.20	$33,734.73	31.61%	$0.07802
5		2,400,000	4,800	$137,160.07	$181,187.69	$44,027.62	32.10%	$0.07549
6		3,000,000	6,000	$167,610.67	$221,931.19	$54,320.52	32.41%	$0.07398
7		3,600,000	7,200	$198,061.27	$262,674.68	$64,613.41	32.62%	$0.07297
8		4,200,000	8,400	$228,511.87	$303,418.18	$74,906.31	32.78%	$0.07224
9		4,800,000	9,600	$258,962.47	$344,161.67	$85,199.20	32.90%	$0.07170
10		5,400,000	10,800	$289,413.07	$384,905.17	$95,492.10	33.00%	$0.07128
11		6,000,000	12,000	$319,863.67	$425,648.66	$105,784.99	33.07%	$0.07094

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 8 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE RTMP							
1		0	0	$5,620.48	$5,620.48	$0.00	0.00%	NA
2		600,000	1,200	$5,848.48	$5,948.87	$100.39	1.72%	$0.00991
3		1,200,000	2,400	$6,076.48	$6,277.26	$200.78	3.30%	$0.00523
4		1,800,000	3,600	$6,304.48	$6,605.65	$301.17	4.78%	$0.00367
5		2,400,000	4,800	$6,532.48	$6,934.04	$401.56	6.15%	$0.00289
6		3,000,000	6,000	$6,760.48	$7,262.43	$501.95	7.42%	$0.00242
7		3,600,000	7,200	$6,988.48	$7,590.82	$602.34	8.62%	$0.00211
8		4,200,000	8,400	$7,216.48	$7,919.21	$702.73	9.74%	$0.00189
9		4,800,000	9,600	$7,444.48	$8,247.59	$803.11	10.79%	$0.00172
10		5,400,000	10,800	$7,672.48	$8,575.98	$903.50	11.78%	$0.00159
11		6,000,000	12,000	$7,900.48	$8,904.37	$1,003.89	12.71%	$0.00148

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 9 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE RTMP-D							
1		0	0	$5,619.55	$5,619.55	$0.00	0.00%	NA
2		600,000	1,200	$5,847.55	$5,947.94	$100.39	1.72%	$0.00991
3		1,200,000	2,400	$6,075.55	$6,276.33	$200.78	3.30%	$0.00523
4		1,800,000	3,600	$6,303.55	$6,604.72	$301.17	4.78%	$0.00367
5		2,400,000	4,800	$6,531.55	$6,933.11	$401.56	6.15%	$0.00289
6		3,000,000	6,000	$6,759.55	$7,261.50	$501.95	7.43%	$0.00242
7		3,600,000	7,200	$6,987.55	$7,589.89	$602.34	8.62%	$0.00211
8		4,200,000	8,400	$7,215.55	$7,918.28	$702.73	9.74%	$0.00189
9		4,800,000	9,600	$7,443.55	$8,246.66	$803.11	10.79%	$0.00172
10		5,400,000	10,800	$7,671.55	$8,575.05	$903.50	11.78%	$0.00159
11		6,000,000	12,000	$7,899.55	$8,903.44	$1,003.89	12.71%	$0.00148

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 10 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE SL-3							
1		0		$21.34	$42.34	$21.00	NA	NA
2		100		$38.06	$66.66	$28.59	75.11%	$0.66655
3		200		$54.79	$90.97	$36.18	66.04%	$0.45485
4		300		$71.51	$115.29	$43.77	61.21%	$0.38429
5		400		$88.24	$139.60	$51.37	58.21%	$0.34900
6		500		$104.96	$163.92	$58.96	56.17%	$0.32783
7		600		$121.68	$188.23	$66.55	54.69%	$0.31372
8		700		$138.41	$212.55	$74.14	53.57%	$0.30364
9		800		$155.13	$236.86	$81.73	52.68%	$0.29608
10		900		$171.86	$261.18	$89.32	51.97%	$0.29020
11		1,000		$188.58	$285.49	$96.91	51.39%	$0.28549

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 11 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE SL (1 Pole, 1 Span)							
1	100W - LED	100		$18.08	$10.21	-$7.87	-43.53%	$0.10210
2	150W - LED	100		$21.45	$11.23	-$10.22	-47.64%	$0.11231
3	250W - LED	100		$25.24	$13.27	-$11.97	-47.41%	$0.13273

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2024

Case No.: U-21286
Exhibit No.: A-11 (NEB-13)
Schedule: Schedule F4.1
Page: 12 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE Z-3 (1 Pole, 1 Span)							
1	100W - LED	100		$19.92	$11.23	-$8.69	-43.62%	$0.11231
2	150W - LED	100		$23.71	$12.35	-$11.36	-47.90%	$0.12354
3	250W - LED	100		$27.87	$14.60	-$13.27	-47.61%	$0.14600
2	400W - LED	100		$0.00	$21.34	$21.34	#DIV/0!	$0.21338
3	1000W - LED	100		$0.00	$44.92	$44.92	#DIV/0!	$0.44923

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 1 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE A-1							
1		0		$29.93	$29.93	$0.00	0.00%	NA
2		50		$39.59	$41.56	$1.97	4.97%	$0.83127
3		100		$49.26	$53.20	$3.94	7.99%	$0.53197
4		150		$58.92	$64.83	$5.91	10.02%	$0.43220
5		200		$68.59	$76.46	$7.87	11.48%	$0.38232
6		250		$78.25	$88.10	$9.84	12.58%	$0.35239
7		300		$87.92	$99.73	$11.81	13.43%	$0.33243
8		350		$97.58	$111.36	$13.78	14.12%	$0.31818
9		400		$107.25	$123.00	$15.75	14.68%	$0.30749
10		450		$116.91	$134.63	$17.72	15.15%	$0.29918
11		500		$126.58	$146.26	$19.68	15.55%	$0.29253
12		550		$136.24	$157.90	$21.65	15.89%	$0.28708
13		600		$145.91	$169.53	$23.62	16.19%	$0.28255
14		650		$155.57	$181.16	$25.59	16.45%	$0.27871
15		700		$165.24	$192.80	$27.56	16.68%	$0.27542

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 2 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE AH-1							
1		0		$29.93	$29.93	$0.00	0.00%	NA
2		100		$49.26	$53.20	$3.94	7.99%	$0.53197
3		300		$87.92	$99.73	$11.81	13.43%	$0.33243
4		500		$126.58	$146.26	$19.68	15.55%	$0.29253
5		700		$156.36	$181.29	$24.93	15.95%	$0.25899
6		1,000		$201.03	$233.83	$32.81	16.32%	$0.23383
7		1,500		$275.47	$321.40	$45.93	16.67%	$0.21427
8		2,000		$349.92	$408.97	$59.05	16.88%	$0.20449
9		2,500		$424.37	$496.54	$72.18	17.01%	$0.19862
10		3,000		$498.81	$584.11	$85.30	17.10%	$0.19470

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 3 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE C-1							
1		0		$49.90	$38.93	-$10.97	-21.98%	NA
2		100		$68.96	$63.46	-$5.50	-7.98%	$0.63463
3		300		$107.09	$112.53	$5.44	5.08%	$0.37510
4		500		$145.22	$161.60	$16.38	11.28%	$0.32319
5		700		$183.35	$210.66	$27.32	14.90%	$0.30095
6		1,000		$240.54	$284.26	$43.72	18.18%	$0.28426
7		2,500		$526.50	$652.26	$125.76	23.89%	$0.26090
8		5,000		$1,003.09	$1,265.59	$262.50	26.17%	$0.25312
9		7,500		$1,479.69	$1,878.92	$399.23	26.98%	$0.25052
10		10,000		$1,956.28	$2,492.25	$535.96	27.40%	$0.24922

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 4 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE H-1							
1		0		$49.90	$49.90	$0.00	0.00%	NA
2		100		$68.96	$74.43	$5.47	7.93%	$0.74433
3		300		$107.09	$123.50	$16.41	15.32%	$0.41166
4		500		$145.22	$172.57	$27.35	18.83%	$0.34513
5		700		$183.35	$221.63	$38.29	20.88%	$0.31662
6		1,000		$240.54	$295.23	$54.69	22.74%	$0.29523
7		1,500		$310.95	$383.88	$72.92	23.45%	$0.25592
8		2,000		$381.37	$472.52	$91.16	23.90%	$0.23626
9		2,500		$451.78	$561.17	$109.39	24.21%	$0.22447
10		3,000		$522.19	$649.81	$127.62	24.44%	$0.21660

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 5 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE P-1							
1		0	0	$162.21	$162.21	$0.00	0.00%	NA
2		1,000	10	$427.57	$442.78	$15.21	3.56%	$0.44278
3		4,000	15	$806.15	$921.07	$114.92	14.26%	$0.23027
4		9,000	25	$1,464.95	$1,742.44	$277.49	18.94%	$0.19360
5		13,000	35	$2,025.39	$2,428.61	$403.22	19.91%	$0.18682
6		17,000	45	$2,585.83	$3,114.78	$528.95	20.46%	$0.18322
7		20,000	55	$3,047.91	$3,665.75	$617.84	20.27%	$0.18329
8		23,000	65	$3,509.99	$4,216.73	$706.74	20.13%	$0.18334
9		25,000	75	$3,873.71	$4,632.50	$758.79	19.59%	$0.18530
10		27,000	85	$4,237.43	$5,048.27	$810.84	19.14%	$0.18697
11		29,000	95	$4,601.15	$5,464.04	$862.89	18.75%	$0.18842
12		31,000	105	$4,964.87	$5,879.81	$914.94	18.43%	$0.18967

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 6 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE Cp-U							
1		0	0	$6,453.88	$6,453.88	$0.00	0.00%	NA
2		160,000	420	$21,740.76	$22,610.46	$869.70	4.00%	$0.14132
3		320,000	840	$37,027.65	$38,767.05	$1,739.40	4.70%	$0.12115
4		480,000	1,260	$52,314.54	$54,923.64	$2,609.10	4.99%	$0.11442
5		640,000	1,680	$67,601.43	$71,080.23	$3,478.80	5.15%	$0.11106
6		800,000	2,100	$82,888.32	$87,236.82	$4,348.50	5.25%	$0.10905
7		960,000	2,520	$98,175.20	$103,393.41	$5,218.20	5.32%	$0.10770
8		1,120,000	2,940	$113,462.09	$119,550.00	$6,087.90	5.37%	$0.10674
9		1,280,000	3,360	$128,748.98	$135,706.58	$6,957.60	5.40%	$0.10602
10		1,440,000	3,780	$144,035.87	$151,863.17	$7,827.30	5.43%	$0.10546
11		1,600,000	4,200	$159,322.76	$168,019.76	$8,697.00	5.46%	$0.10501

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 7 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE WP-3							
1		0	0	$15,357.67	$18,213.71	$2,856.04	18.60%	NA
2		600,000	1,200	$45,808.27	$58,957.21	$13,148.94	28.70%	$0.09826
3		1,200,000	2,400	$76,258.87	$99,700.70	$23,441.83	30.74%	$0.08308
4		1,800,000	3,600	$106,709.47	$140,444.20	$33,734.73	31.61%	$0.07802
5		2,400,000	4,800	$137,160.07	$181,187.69	$44,027.62	32.10%	$0.07549
6		3,000,000	6,000	$167,610.67	$221,931.19	$54,320.52	32.41%	$0.07398
7		3,600,000	7,200	$198,061.27	$262,674.68	$64,613.41	32.62%	$0.07297
8		4,200,000	8,400	$228,511.87	$303,418.18	$74,906.31	32.78%	$0.07224
9		4,800,000	9,600	$258,962.47	$344,161.67	$85,199.20	32.90%	$0.07170
10		5,400,000	10,800	$289,413.07	$384,905.17	$95,492.10	33.00%	$0.07128
11		6,000,000	12,000	$319,863.67	$425,648.66	$105,784.99	33.07%	$0.07094

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 8 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE RTMP							
1		0	0	$5,620.48	$5,620.48	$0.00	0.00%	NA
2		600,000	1,200	$5,848.48	$5,948.87	$100.39	1.72%	$0.00991
3		1,200,000	2,400	$6,076.48	$6,277.26	$200.78	3.30%	$0.00523
4		1,800,000	3,600	$6,304.48	$6,605.65	$301.17	4.78%	$0.00367
5		2,400,000	4,800	$6,532.48	$6,934.04	$401.56	6.15%	$0.00289
6		3,000,000	6,000	$6,760.48	$7,262.43	$501.95	7.42%	$0.00242
7		3,600,000	7,200	$6,988.48	$7,590.82	$602.34	8.62%	$0.00211
8		4,200,000	8,400	$7,216.48	$7,919.21	$702.73	9.74%	$0.00189
9		4,800,000	9,600	$7,444.48	$8,247.59	$803.11	10.79%	$0.00172
10		5,400,000	10,800	$7,672.48	$8,575.98	$903.50	11.78%	$0.00159
11		6,000,000	12,000	$7,900.48	$8,904.37	$1,003.89	12.71%	$0.00148

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 9 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE RTMP-D							
1		0	0	$5,619.55	$5,619.55	$0.00	0.00%	NA
2		600,000	1,200	$5,847.55	$5,947.94	$100.39	1.72%	$0.00991
3		1,200,000	2,400	$6,075.55	$6,276.33	$200.78	3.30%	$0.00523
4		1,800,000	3,600	$6,303.55	$6,604.72	$301.17	4.78%	$0.00367
5		2,400,000	4,800	$6,531.55	$6,933.11	$401.56	6.15%	$0.00289
6		3,000,000	6,000	$6,759.55	$7,261.50	$501.95	7.43%	$0.00242
7		3,600,000	7,200	$6,987.55	$7,589.89	$602.34	8.62%	$0.00211
8		4,200,000	8,400	$7,215.55	$7,918.28	$702.73	9.74%	$0.00189
9		4,800,000	9,600	$7,443.55	$8,246.66	$803.11	10.79%	$0.00172
10		5,400,000	10,800	$7,671.55	$8,575.05	$903.50	11.78%	$0.00159
11		6,000,000	12,000	$7,899.55	$8,903.44	$1,003.89	12.71%	$0.00148

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 10 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE SL-3							
1		0		$21.34	$42.34	$21.00	NA	NA
2		100		$38.06	$66.66	$28.59	75.11%	$0.66655
3		200		$54.79	$90.97	$36.18	66.04%	$0.45485
4		300		$71.51	$115.29	$43.77	61.21%	$0.38429
5		400		$88.24	$139.60	$51.37	58.21%	$0.34900
6		500		$104.96	$163.92	$58.96	56.17%	$0.32783
7		600		$121.68	$188.23	$66.55	54.69%	$0.31372
8		700		$138.41	$212.55	$74.14	53.57%	$0.30364
9		800		$155.13	$236.86	$81.73	52.68%	$0.29608
10		900		$171.86	$261.18	$89.32	51.97%	$0.29020
11		1,000		$188.58	$285.49	$96.91	51.39%	$0.28549

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 11 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE SL (1 Pole, 1 Span)							
1	100W - LED	100		$18.08	$10.21	-$7.87	-43.53%	$0.10210
2	150W - LED	100		$21.45	$11.23	-$10.22	-47.64%	$0.11231
3	250W - LED	100		$25.24	$13.27	-$11.97	-47.41%	$0.13273

Michigan Public Service Commission
Upper Peninsula Power Company
Comparison of Present and Proposed Monthly Bills
for year ending June 30, 2025

Case No.: U-21286
Exhibit No.: A-11 (NEB-14)
Schedule: Schedule F4.2
Page: 12 of 12
Witness: Nicole E. Bell

Line No.	(a) Jurisdiction	(b) Monthly kWh Use	(c) Monthly kW	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Increase Percent	(h) Proposed $/kWh
	INTEGRATED RETAIL SYSTEM: RATE Z-3 (1 Pole, 1 Span)							
1	100W - LED	100		$19.92	$11.23	-$8.69	-43.62%	$0.11231
2	150W - LED	100		$23.71	$12.35	-$11.36	-47.90%	$0.12354
3	250W - LED	100		$27.87	$14.60	-$13.27	-47.61%	$0.14600
4	400W - LED			$0.00	$21.34			
5	1000W - LED			$0.00	$44.92			

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~77th~~ Rev. Sheet No. A-16.00

Replaces XX~~76th~~ Rev. Sheet No. A-16.00

A3. Table of Contents – Check List

TABLE OF CONTENTS – CHECK LIST

	Sheet No.	Effective Date
	2nd Rev. Sheet No. A-1.00	July 22, 2015
R	X~~4th~~ Rev. Sheet No. A-2.00	July 1, 2023~~July 22, 2015~~
	5th Rev. Sheet No. A-3.00	June 3, 2021
	2nd Rev. Sheet No. A-4.00	June 1, 2019
	1st Rev. Sheet No. A-5.00	January 1, 2011
	3rd Rev. Sheet No. A-6.00	April 14, 2022
	1st Rev. Sheet No. A-7.00	January 1, 2011
	1st Rev. Sheet No. A-8.00	January 1, 2010
	3rd Rev. Sheet No. A-9.00	January 1, 2014
	2nd Rev. Sheet No. A-10.00	January 1, 2011
	2nd Rev. Sheet No. A-11.00	January 1, 2014
	2nd Rev. Sheet No. A-12.00	January 1, 2011
	2nd Rev. Sheet No. A-13.00	January 1, 2011
	5th Rev. Sheet No. A-14.00	January 1, 2013
R	4th Rev. Sheet No. A-15.00	August 21, 2017
	XX~~77th~~ Rev. Sheet No. A-16.00	July 1, 2023~~September 1, 2022~~
	8th Rev. Sheet No. A-17.00	June 3, 2021
R	25th Rev. Sheet No. A-18.00	April 14, 2022
	XX~~44th~~ Rev. Sheet No. A-19.00	July 1, 2023~~June 1, 2022~~
	14th Rev. Sheet No. A-20.00	September 1, 2022
	Original Sheet No. A-21.00	October 10, 2007
	Original Sheet No. A-22.00	October 10, 2007
	Original Sheet No. A-23.00	October 10, 2007
	2nd Rev. Sheet No. A-24.00	January 1, 2014
	2nd Rev. Sheet No. A-25.00	January 1, 2014
	Original Sheet No. A-26.00	October 10, 2007
	4th Rev. Sheet No. B-1.00	November 19, 2019
	Original Sheet No. B-2.00	October 10, 2007
	3rd Rev. Sheet No. B-3.00	November 19, 2019
	Original Sheet No. B-4.00	October 10, 2007
	Original Sheet No. B-5.00	October 10, 2007
	5th Rev. Sheet No. B-6.00	November 19, 2019
	4th Rev. Sheet No. B-7.00	November 19, 2019
	5th Rev. Sheet No. B-8.00	November 19, 2019
	4th Rev. Sheet No. B-9.00	November 19, 2019

Continued on Sheet No. A-17.00

Chief Financial Officer
Marquette, Michigan

Issued Under Auth. Of
Mich Public Serv Comm
Dated: XX~~07~~-XX~~07~~-XXXX~~2022~~
In Case No: U-21286~~17377~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~8th~~ Rev. Sheet No. A-17.00

Replaces XX~~7th~~ Rev. Sheet No. A-17.00

A3. Table of Contents – Check List

Continued from Sheet No. A-16.00

TABLE OF CONTENTS – CHECK LIST

	Sheet No.	Effective Date
	Original Sheet No. C-1.00	October 10, 2007
	1st Rev. Sheet No. C-2.00	January 1, 2010
R	X~~1st~~ Rev. Sheet No. C-3.00	July 1, 2023~~January 1, 2010~~
	1st Rev. Sheet No. C-4.00	January 1, 2010
	1st Rev. Sheet No. C-5.00	January 1, 2010
	1st Rev. Sheet No. C-6.00	January 1, 2010
	1st Rev. Sheet No. C-7.00	January 1, 2010
~~R~~	1st Rev. Sheet No. C-8.00	January 1, 2010
R	X~~3rd~~ Rev. Sheet No. C-9.00	July 1, 2023~~June 3, 2021~~
R	X~~3rd~~ Rev. Sheet No. C-10.00	July 1, 2023~~June 1, 2019~~
R	X~~4th~~ Rev. Sheet No. C-11.00	July 1, 2023~~January 1, 2014~~
	Original Sheet No. C-12.00	October 10, 2007
	Original Sheet No. C-13.00	October 10, 2007
	1st Rev. Sheet No. C-14.00	January 1, 2010
	3rd Rev. Sheet No. C-15.00	February 29, 2016
	2nd Rev. Sheet No. C-16.00	February 29, 2016
	2nd Rev. Sheet No. C-17.00	February 29, 2016
	2nd Rev. Sheet No. C-18.00	February 29, 2016
	1st Rev. Sheet No. C-19.00	January 1, 2011
	Original Sheet No. C-19.10	January 1, 2011
	Original Sheet No. C-19.20	January 1, 2011
	1st Rev. Sheet No. C-19.30	January 1, 2014
	1st Rev. Sheet No. C-19.40	January 1, 2014
	2nd Rev. Sheet No. C-19.50	January 1, 2014
	Original Sheet No. C-19.60	January 1, 2011
	2nd Rev. Sheet No. C-19.70	January 1, 2014
	1st Rev. Sheet No. C-19.80	January 1, 2012
	1st Rev. Sheet No. C-19.90	January 1, 2012
	2nd Rev. Sheet No. C-20.00	January 1, 2012
	1st Rev. Sheet No. C-20.10	January 1, 2012
	Original Sheet No. C-20.20	January 1, 2011
	1st Rev. Sheet No. C-20.30	January 1, 2014
	Original Sheet No. C-20.40	January 1, 2011
	1st Rev. Sheet No. C-20.50	January 1, 2014
	1st Rev. Sheet No. C-20.60	January 1, 2014
	1st Rev. Sheet No. C-20.70	January 1, 2014
	Original Sheet No. C-20.90	January 1, 2011
	Original Sheet No. C-20.91	January 1, 2011
	Original Sheet No. C-20.92	January 1, 2011
	Original Sheet No. C-20.93	January 1, 2011
	Original Sheet No. C-20.94	January 1, 2011
	Original Sheet No. C-20.95	January 1, 2011
	Original Sheet No. C-20.96	January 1, 2011
	1st Rev. Sheet No. C-30.00	June 1, 2019

Continued to Sheet No. A-17.00

2023~~2021~~
Chief Financial Officer
Marquette, Michigan

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Mich Public Serv Comm
Dated: XX~~04~~-XX~~21~~-XXXX~~2021~~
In Case No: U-21286~~21031~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

XX~~25th~~ Rev. Sheet No. A-18.00
Replaces XX~~24th~~ Rev. Sheet No. A-18.00

A3. Table of Contents – Check List

Continued from Sheet No. A-17.00

TABLE OF CONTENTS – CHECK LIST

	Sheet No.	Effective Date
	7th Rev. Sheet No. D-1.00	June 1, 2019
	Sheet No. D-2.00	
	14th Rev. Sheet No. D-3.00	January 1,2022
R	X~~9th~~ Rev. Sheet No. D-4.00	July 1, 2023~~June 1, 2019~~
	2nd Rev. Sheet No. D-5.00	January 1, 2011
	9th Rev. Sheet No. D-6.00	June 1, 2019
	3rd Rev. Sheet No. D-7.00	June 1, 2019
R	X~~8th~~ Rev. Sheet No. D-8.00	July 1, 2023~~June 1, 2019~~
	4th Rev. Sheet No. D-9.00	June 1, 2019
	4th Rev. Sheet No. D-10.00	January 1, 2012
	3rd Rev. Sheet No. D-11.00	January 1, 2012
R	XX~~9th~~ Rev. Sheet No. D-12.00	July 1, 2023~~June 1, 2019~~
~~N~~	Original Sheet No. D-12.10	April 14, 2022
	5th Rev. Sheet No. D-13.00	January 1, 2014
R	XX~~9th~~ Rev. Sheet No. D-14.00	July 1, 2023~~June 1, 2019~~
	Original Sheet No. D-14.10	July 1, 2018
	4th Rev. Sheet No. D-15.00	January 1, 2012
R	XX~~9th~~ Rev. Sheet No. D-16.00	July 1, 2023~~June 1, 2019~~
	2nd Rev. Sheet No. D-17.00	January 1, 2011
	4th Rev. Sheet No. D-18.00	January 1, 2012
	3rd Rev. Sheet No. D-19.00	January 1, 2012
	2nd Rev. Sheet No. D-20.00	January 1, 2010
	2nd Rev. Sheet No. D-21.00	January 1, 2010
	2nd Rev. Sheet No. D-22.00	January 1, 2010
	1st Rev. Sheet No. D-23.00	January 1, 2010
	2nd Rev. Sheet No. D-24.00	January 1, 2010
	1st Rev. Sheet No. D-25.00	January 1, 2010
R	X~~6th~~ Rev. Sheet No. D-25.10	July 1, 2023~~June 1, 2019~~
	6th Rev. Sheet No. D-25.20	June 1, 2019
	1st Rev. Sheet No. D-25.30	January 1, 2011
	1st Rev. Sheet No. D-25.40	January 1, 2011
	2nd Rev. Sheet No. D-25.50	June 1, 2019
	4th Rev. Sheet No. D-26.00	January 1, 2012
	3rd Rev. Sheet No. D-27.00	January 1, 2012
R	X~~7th~~ Rev. Sheet No. D-28.00	July 1, 2023~~June 1, 2019~~
	4th Rev. Sheet No. D-29.00	June 1, 2019
	2nd Rev. Sheet No. D-30.00	January 1, 2014
	Original Sheet No. D-31.00	October 10, 2007
	Original Sheet No. D-32.00	October 10, 2007
	Original Sheet No. D-33.00	October 10, 2007
	1st Rev. Sheet No. D-34.00	January 1, 2011
	1st Rev. Sheet No. D-35.00	January 1, 2011
	Original Sheet No. D-36.00	October 10, 2007
	1st Rev. Sheet No. D-37.00	October 10, 2007
	Original Sheet No. D-38.00	October 10, 2007
	5th Rev. Sheet No. D-39.00	September 23, 2016
	2nd Rev. Sheet No. D-40.00	January 1, 2010
	Original Sheet No. D-41.00	October 10, 2007
	1st Rev. Sheet No. D-42.00	January 1, 2014

Continued to Sheet No. A-19.00

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Chief Financial Officer
Marquette, Michigan

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

XX~~44th~~ Rev. Sheet No. A-19.00
Replaces XX~~43rd~~ Rev. Sheet No. A-19.00

A3. Table of Contents – Check List

Continued from Sheet No. A-18.00

TABLE OF CONTENTS – CHECK LIST

	Sheet No.	Effective Date
	1st Rev. Sheet No. D-43.00	January 1, 2014
	1st Rev. Sheet No. D-44.00	January 1, 2014
	1st Rev. Sheet No. D-45.00	January 1, 2014
	1st Rev. Sheet No. D-46.00	January 1, 2014
R	X~~2nd~~ Rev. Sheet No. D-47.00	July 1, 2023~~June 1, 2019~~
	1st Rev. Sheet No. D-48.00	January 1, 2012
	2nd Rev. Sheet No. D-49.00	January 1, 2012
	2nd Rev. Sheet No. D-49.10	June 1, 2019
R	X~~4th~~ Rev. Sheet No. D-49.50	July 1, 2023~~June 1, 2019~~
	1st Rev. Sheet No. D-49.51	January 1, 2012
	1st Rev. Sheet No. D-49.52	January 1, 2012
	1st Rev. Sheet No. D-49.53	January 1, 2012
R	X~~8th~~ Rev. Sheet No. D-50.00	July 1, 2023~~June 1, 2019~~
R	X~~9th~~ Rev. Sheet No. D-51.00	July 1, 2023~~June 1, 2019~~
	6th Rev. Sheet No. D-52.00	June 1, 2019
R	X~~7th~~ Rev. Sheet No. D-53.00	July 1, 2023~~June 1, 2019~~
	4th Rev. Sheet No. D-54.00	June 1, 2019
	4th Rev. Sheet No. D-55.00	January 1, 2012
	2nd Rev. Sheet No. D-56.00	January 1, 2012
R	X~~8th~~ Rev. Sheet No. D-57.00	July 1, 2023~~June 1, 2019~~
	4th Rev. Sheet No. D-58.00	June 1, 2019
	8th Rev. Sheet No. D-59.00	June 1, 2019
	4th Rev. Sheet No. D-60.00	June 1, 2019
	1st Rev. Sheet No. D-60.10	January 1, 2012
	1st Rev. Sheet No. D-60.20	January 1, 2012
	Original Sheet No. D-60.30	January 1, 2012
	1st Rev. Sheet No. D-61.00	January 1, 2010
	Original Sheet No. D-62.00	October 10, 2007
	Original Sheet No. D-63.00	October 10, 2007
	Original Sheet No. D-64.00	October 10, 2007
	Original Sheet No. D-65.00	October 10, 2007
	Original Sheet No. D-66.00	October 10, 2007
	Original Sheet No. D-67.00	October 10, 2007
~~R~~	6th Rev. Sheet No. D-68.00	June 1, 2022
	2nd Rev. Sheet No. D-69.00	October 1, 2014
	1st Rev. Sheet No. D-70.00	June 4, 2009
	1st Rev. Sheet No. D-71.00	June 4, 2009
	1st Rev. Sheet No. D-72.00	June 4, 2009
	Original Sheet No. D-72.10	May 26, 2009
	Original Sheet No. D-72.20	May 26, 2009
	Original Sheet No. D-72.30	May 26, 2009
	Original Sheet No. D-72.40	May 26, 2009
	Original Sheet No. D-72.50	May 26, 2009
	Original Sheet No. D-72.60	May 26, 2009
	8th Rev. Sheet No. D-72.70	March 9, 2020
	2nd Rev. Sheet No. D-72.71	March 9, 2020
	1st Rev. Sheet No. D-72.72	February 23, 2018
	Original Sheet No. D-72.73	February 23, 2018

Continued to Sheet No. A-20.00

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~1st~~ Rev. Sheet No. C-3.00

Replaces XX~~Original~~ Sheet No. C-3.00

C2. Standard Rules & Regulations–Terms and Conditions of Service

Continued from Sheet No. C-2.00

In case of such unauthorized use of service, the Company will continue service only after the customer has agreed to pay for the unmetered energy used, pay all costs of discovery and investigation including rewards for discovery, make provisions and pay charges for an outdoor meter installation or other metering changes as may be required by the Company, and pay a $500 Meter Tampering Penalty Fee.~~and make provisions and pay charges for an outdoor meter installation or other metering changes as may be required by the Company.~~ Failure to enter into such an agreement or failure to comply with the terms of such an agreement shall be cause to discontinue service in accordance with any applicable rules of the Company or Commission.

Restoration of service will be made upon receipt of reasonable assurance of the customer's compliance with the Company's approved Standard Rules and Regulations.

2. Customer Owned Facilities - The Company reserves the right to deny or terminate service to any customer whose wiring or equipment shall constitute a hazard to the Company's equipment or its service to others. However, it disclaims any responsibility to inspect the customer's wiring, equipment or any subsequent wiring changes or modifications and shall not be held liable for any injury or damage or billing errors resulting from the condition thereof.

a. The customer shall be responsible for inadequate performance of such facilities. Before purchasing equipment or installing wiring, it shall be the customer's responsibility to check with the Company as to the characteristics of the service available. Any changes required to bring customer's service into compliance with code will be paid for by customer. The Company reserves the right to make reasonable service charges for work performed by Company personnel resulting from malfunction of the customer's facilities.

b. The customer shall be responsible for notifying the Company of any additions to or changes in the customer's equipment which might exceed the capacity of the Company's facilities, or otherwise affect the quality of service. The customer shall also be responsible for the installation of auxiliary or standby equipment and of alarms and protective devices as required to provide reasonable protection in the event of disturbance or interruption of electrical service. The customer shall install and maintain the necessary devices to protect his equipment against service interruptions and other disturbances on the Company's system, as well as the necessary devices to protect the Company's facilities against overload caused by the customer's equipment. Characteristics and installation of all such equipment or devices shall meet the approval of the Company.

C. Use of Service

Each customer shall, as soon as electric service becomes available, purchase from the Company practically all electric energy used on the premise, and shall become liable for all charges incurred in the purchase of said

Continued to Sheet No. C-4.00

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By G R Haehnel~~J F Schott~~ On and After: 07~~1~~-01~~1~~-2023~~10~~
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

XX~~3rd~~ Rev. Sheet No. C-9.00
Replaces XX~~2nd~~ Rev. Sheet No. C-9.00

C2. Standard Rules & Regulations–Terms and Conditions of Service

Continued from Sheet No. C-8.00

2. Location of Meters - Meters for all single family residential service will be installed outdoors. Meters for other services may be installed outdoors if they are located so they are protected from traffic and are readily accessible for reading and testing. Meters which must be protected from inclement weather while being serviced or tested shall be located indoors or in a suitable housing where such work can be performed.

   Meters located indoors shall be as near as possible to the service entrance, in a clean, dry place, reasonably secure from injury, not subject to vibration, and readily accessible for reading and testing.

   In cases of multiple buildings such as two-family flats or apartment buildings, if the meters are installed indoors, they shall be located within the premises served or at a common location readily accessible to the tenants and the Company.

   An authorized representative of the Company will determine the acceptability of the meter location in all cases.

~~N~~ 3. Non-Standard Meter Provision

~~N~~R ~~N~~ ~~N~~ ~~N~~ ~~N~~ ~~N~~ a. Customers served on Residential and Commercial general Service have the option to choose a Non-Standard meter. For a customer to be eligible to participate in the Non-Standard Meter Provision, the customer must have a meter that is accessible to Company employees and the customer shall have zero instances of unauthorized use, theft, fraud and/or threats of violence toward Company employees.

~~N~~ ~~N~~ ~~N~~ b. A customer electing the Non-Standard Meter Provision will have a Non-Standard Meter installed at their premises, have the meter read manually monthly, and be subject to the following charges:

~~N~~ ~~N~~ i. Upfront Charge: $62.25, a one-time charge per billing meter per request.

~~N~~ ~~N~~ ~~N~~ ii. Monthly Charge: $14.26, per month charge at each premise as defined by the Company's Standard Rules and Regulations. Multiple metered units shall be charged per billing meter.

~~N~~ ~~N~~ ~~N~~ ~~N~~ c. A customer whose current meter is a Standard Meter and requests a Non-Standard meter will pay the Upfront Charge at the time they request this option but will not pay the monthly charge until the Non-Standard Meter is installed.

Continued to Sheet No. C-10.00

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~3rd~~ Rev. Sheet No. C-10.00

Replaces XX~~2nd~~ Rev. Sheet No. C-10.00

C2. Standard Rules & Regulations–Terms and Conditions of Service

Continued from Sheet No. C-9.00

F. Special Charges

The Company will make such charges for reasonable special services as necessary to discourage abuse, and to minimize subsidy of such services by other customers. The following schedule shall apply where applicable:

1. Special Meter Readings

a. When the Company, at the request of the customer:

(1) Reads a meter on a day other than the scheduled meter reading date, and/or

(2) Issues a written bill on a day other than the scheduled billing date.

N N R The customer will be billed a $50.00 charge if the customer's meter needs to be read manually unless there is a change in the customer of record.
~~The customer will be billed a $30.00 charge unless there is a change in the customer of record.~~

N N The customer will be billed a $9.00 charge if the customer has an AMI meter that may be read remotely.

b. The customer may read his/her meter(s) and provide the reading(s) to the Company. The Company will then calculate the amount due and provide this information to the customer at no cost.

R 2. Meter Test Charge $~~33~~92.00

3. Reconnection Billing – Same Customer
The Company's rate schedules assume continuous use of service for extended periods and do not contemplate temporary disconnection except in those cases where it is requested by seasonal customers or others who occupy premises part of the time. Temporary disconnection by any customer shall not void responsibility for annual minimum charges or payment of the annual monthly fixed charge.
In the event of disconnection, when service is resumed at the same premises by the same customer within a 12-month period, and if there has been no service at such location to another customer during the intervening period, the customer shall be billed the fixed charges* for the disconnection period, plus a charge shall be made according to the following conditions:

a. For the general electric service the charge shall be:

N 1. Self-Contained Customers – AMI***

N During Regular Hours** - All Territory Served	$36.00
N Outside Regular Hours - All Territory Served	$51.00

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Issued: XX~~06~~-XX~~05~~-XX~~19~~
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~4th~~ Rev. Sheet No. C-11.00

Replaces XX~~3rd~~ Rev. Sheet No. C-11.00

C2. Standard Rules & Regulations–Terms and Conditions of Service

Continued from Sheet No. C-10.00

~~2. Meter Test Charge $33.00~~

~~3. Reconnection Billing – Same Customer~~

~~The Company's rate schedules assume continuous use of service for extended periods and do not contemplate temporary disconnection except in those cases where it is requested by seasonal customers or others who occupy premises part of the time. Temporary disconnection by any customer shall not void responsibility for annual minimum charges or payment of the annual monthly fixed charge.~~

~~In the event of disconnection, when service is resumed at the same premises by the same customer within a 12-month period, and if there has been no service at such location to another customer during the intervening period, the customer shall be billed the fixed charges* for the disconnection period, plus a charge shall be made according to the following conditions:~~

~~a. For the general electric service the charge shall be:~~

~~During Regular Hours** - All Territory Served $60.00~~
~~Outside Regular Hours - All Territory Served $90.00~~

N 2. Non-Standard Self-Contained Customers****

N During Regular Hours** - All Territory Served $101.00
N Outside Regular Hours - All Territory Served $229.00

N 3. Transformer Rated/3-Phase Customers

N During Regular Hours** - All Territory Served $169.00
N Outside Regular Hours - All Territory Served $255.00

b. For separately metered service (water heating, space heating, etc.), there shall be no additional charge when such service is reconnected along with the customer's general electric service.

* These fixed charge billings shall not apply to customers disconnected for nonpayment.

** Regular Hours are defined as Monday through Friday, ~~7:00am to 3:30pm CST (Iron River System) and~~ 7:30am to 4:00pm ES~~D~~T (Integrated System), not including those days designated as company holidays or legal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

N *** Self-Contained Customers - AMI defines residential and small
N commercial customers that have remote capable standard (AMI)
N meters. Customers with AMI meters that are not communicating
N are included in this category.
N **** Non-Standard Self-Contained Customers defines residential
N and small commercial customers that do not have remote
N capable standard meters.

c. The appropriate regular or outside regular hours charges will apply in situations when returning to the customer's location a second (and each subsequent) time to perform required work, when the second (and each subsequent) call is required due to the customer not being present or being ready for the Company to

perform the requested work.

4. Unhonored Checks And Electronic Transfers
When a customer issues a check or authorizes an electronic transfer payment to the Company that a bank or other financial institution fails to honor (for reasons of insufficient funds, account closed, stop payment order issued, etc.), the customer shall be billed an additional charge of $20.00 per check or electronic transfer.

5. Connection or Disconnection Outside Regular Working Hours
When application is made for service with the request that meters be connected or disconnected outside regular hours or on Saturdays, Sundays or holidays, the charges specified for reconnections outside regular hours shall apply.

Continued to Sheet No. C-12.00

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By G R Haehnel~~D M Derricks~~ On and After: 07~~1~~-01~~1~~-2023~~14~~
Chief Financial Officer~~Asst. VP - Regulatory Affairs~~
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX9th Rev. Sheet No. D-4.00

Replaces XX8th Rev. Sheet No. D-4.00

D2. Residential Service **A-1**

WHO MAY TAKE SERVICE:
Any residential customer in a single family dwelling or a duplex using service for domestic purposes. This rate is also available to certain multiple dwellings in accordance with the standard rules. Services to garages and outbuildings not used for commercial purposes will also be classified as residential. Farm customers using electric service for the production of agricultural products for commercial purposes will be placed on the appropriate commercial rate. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

D
D CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE: DISTRIBUTION SERVICE

Service Charge:
R $29.0015.00/Mo. for Year-Round
R $0.95340.4932/Day for Year-Round
R $58.0030.00/Mo. for Seasonal
R $1.90680.9863/Day for Seasonal

Energy Charge:
R $0.081510.10760 per kWh for all kWh

R POWER SUPPLY SERVICE (Optional)

Energy Charge:
R Non-Capacity $0.012910.05582 per kWh for all kWh
R Capacity $0.090480.02461 per kWh for all kWh
R

MINIMUM CHARGE:
The service charge included in the rate.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

Continued on Sheet No. D-5.00

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By G R Haehnel

Chief Financial Officer~~Director - Regulatory Affairs~~
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Dated: XX~~05~~-XX~~23~~-XX~~19~~
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~2nd~~ Rev. Sheet No. D-5.00

Replaces XX~~1st~~ Rev. Sheet No. D-5.00

D2. Residential Service **A-1**

Continued from Sheet No. D-4.00

N INCOME ASSISTANCE SERVICE PROVISION (RIA):

N When service is supplied to a Principal Residence Customer, where the household receives a Home Heating Credit (HHC) in the State of Michigan, a credit shall be applied during all billing months. For an income assistance customer to qualify for this credit, the Company shall require annual evidence of the HHC energy draft or a self-attestation form. The customer may also qualify for this credit upon confirmation by an authorized State of Federal agency verifying that the customer's total household income does not exceed 150% of the poverty level as published by the United States department of health and human services or if the customer receives any of the following:

N i) Assistance from a state emergency relief program;
N ii) ii) Food stamps or
N iii) iii) Medicaid.

N The number of customer enrolled may be adjusted, at the Company's discretion, in order to dispense Commission-approved RIA funding on an annual basis.

N The monthly credit for the residential Income Assistance Service Provision shall be applied as follows:

N DELIVERY CHARGES: These charges are applicable to Full Service and Retail Open Access customers.

N INCOME ASSISTANCE CREDIT: $(29.00) per customer per month.

TERMS OF PAYMENT:
Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

RULES APPLYING:
Service is governed by the Company's Standard Rules and Regulations.

SEASONAL BILLING:
Service shall be billed for six months. Billing cycles for the business months of May through October shall apply for facilities normally utilized during summer months and November through April for facilities normally utilized during winter months.

Service may remain connected during the off-season, and incidental use during such period may be included with the first billing of the following season, however, the Company may issue bills for electric service to seasonal electric customers during the off-season period if the customer's electric usage since the last issued bill exceeds 500 kWh of electric energy.

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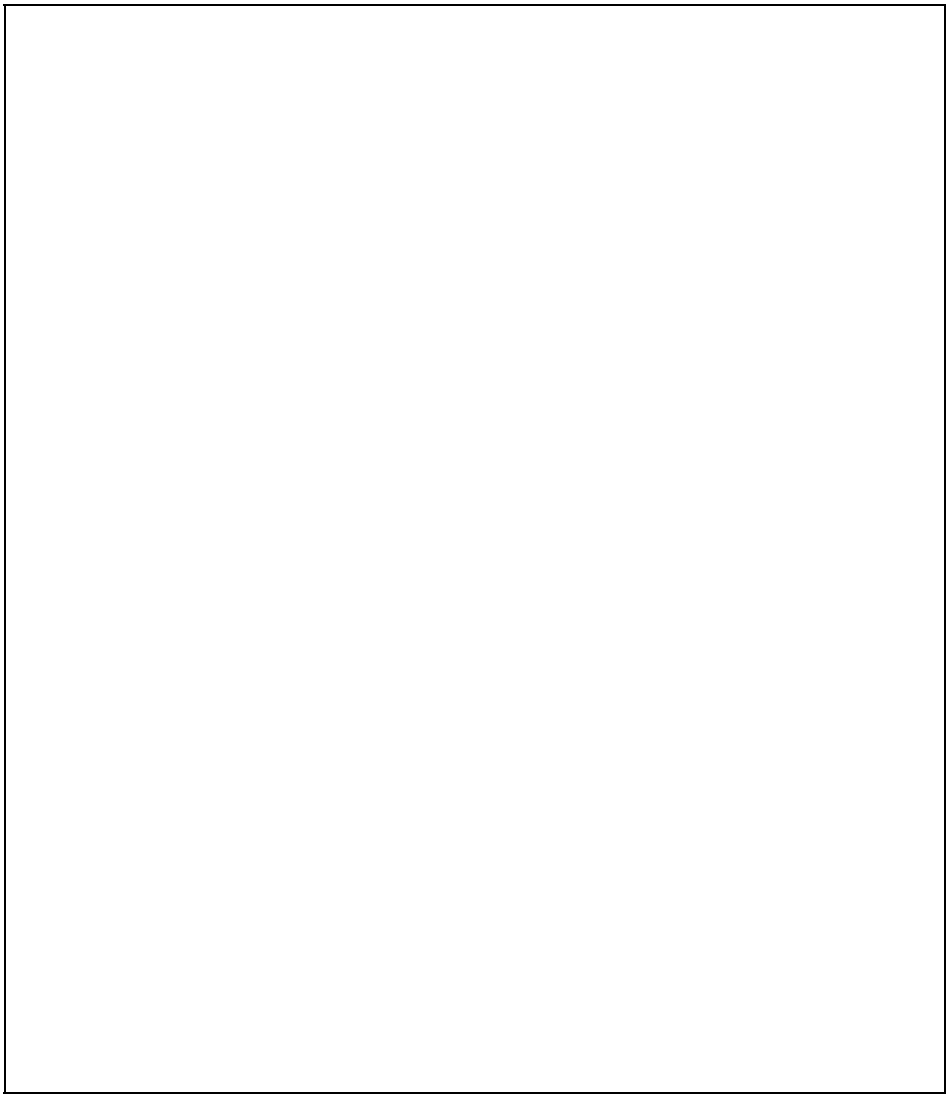

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Chief Financial Officer~~VP External Affairs~~
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~8th~~ Rev. Sheet No. D-8.00

Replaces XX~~7th~~ Rev. Sheet No. D-8.00

D2. Residential Heating Service **AH-1**

WHO MAY TAKE SERVICE:
Any residential customer in a single family dwelling or a duplex using service for domestic purposes, provided the major electric space heating facilities are permanently installed and are the primary source of space heating. This rate is also available to certain multiple dwellings in accordance with the standard rules. Services to garages and outbuildings not used for commercial purposes will also be classified as residential. Farm customers using electric service for the production of agricultural products for commercial purposes will be placed on the appropriate commercial rate. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE: DISTRIBUTION SERVICE
Service Charge:
R $29.00~~15.00~~ per month
R $0.9534~~0.4932~~ per day

Energy Charge:
For billing months of June through September
R $0.08151~~0.10760~~ per kWh for all kWh
R ~~For billing months of October through May~~
R $0.08151~~0.10760~~ per kWh for the first 500 kWh
R $0.04076~~0.05380~~ per kWh for the excess

POWER SUPPLY SERVICE (Optional)
R ~~Energy Charge:~~
R ~~For billing months of June through September~~
R Non-Capacity $0.09048~~0.05587~~ per kWh for all kWh
R Capacity $0.01291~~0.02456~~ per kWh for all kWh

R ~~For billing months of October through May~~
R Non-Capacity $0.09048~~0.05587~~ for the first 500 kWh
R Capacity $0.01291~~0.02456~~ for the first 500 kWh
R Non-Capacity $0.06786XXXXX~~0.05587~~ for the excess kWh
R Capacity $0.00968~~0.02456~~ for the excess kWh

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

MINIMUM CHARGE:
The service charge included in the rate.

Continued on Sheet D-9.00

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By G R Haehnel
Chief Financial Officer~~Director – Regulatory Affairs~~
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In Case No: U-21286~~20276~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~4th~~ Rev. Sheet No. D-9.00

Replaces XX~~3rd~~ Rev. Sheet No. D-9.00

D2. Residential Heating Service **AH-1**

Continued from Sheet D-8.00

N INCOME ASSISTANCE SERVICE PROVISION (RIA):

When service is supplied to a Principal Residence Customer, where the household receives a Home Heating Credit (HHC) in the State of Michigan, a credit shall be applied during all billing months. For an income assistance customer to qualify for this credit, the Company shall require annual evidence of the HHC energy draft or a self-attestation form. The customer may also qualify for this credit upon confirmation by an authorized State of Federal agency verifying that the customer's total household income does not exceed 150% of the poverty level as published by the United States department of health and human services or if the customer receives any of the following:

i) Assistance from a state emergency relief program;
ii) ii) Food stamps or
iii) iii) Medicaid.

The number of customer enrolled may be adjusted, at the Company's discretion, in order to dispense Commission-approved RIA funding on an annual basis.

The monthly credit for the residential Income Assistance Service Provision shall be applied as follows:

DELIVERY CHARGES: These charges are applicable to Full Service and Retail Open Access customers.

INCOME ASSISTANCE CREDIT: $(29.00) per customer per month.

TERMS OF PAYMENT:

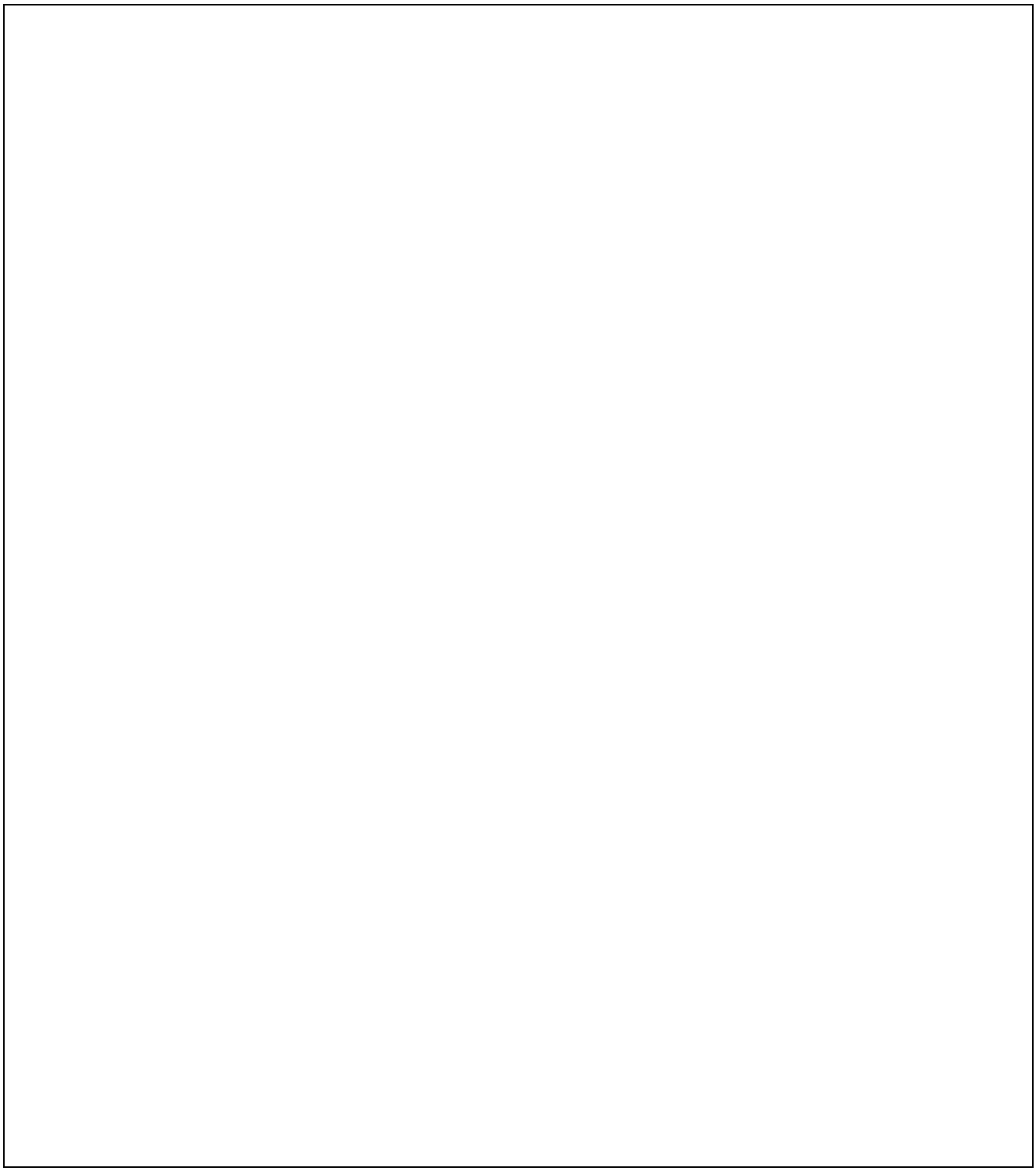
Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

RULES APPLYING:

1) Service is governed by the Company's Standard Rules and Regulations.

2) Separately metered water heating on a separate circuit is available under rate "A-1".

3) Permanently installed heating equipment is heating equipment that is hard-wired into an electric panel which may or may not have a plug.



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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~9th~~ Rev. Sheet No. D-12.00

Replaces XX~~8th~~ Rev. Sheet No. D-12.00

D2. General Service **C-1**

WHO MAY TAKE SERVICE:
Any customer for commercial or industrial purpose with a billing demand of less than 25 kW. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:
Single or three-phase, alternating current, 60 hertz at standard available voltages.

RATE: DISTRIBUTION SERVICE:
Service Charge:
R $38.00~~17.00~~ per month
R $1.2493~~0.5589~~ per day

Energy Charge:
R $0.08762~~0.07384~~ per kWh for all kWh

POWER SUPPLY SERVICE (Optional)
Energy Charge:
R Non-Capacity $0.09004~~0.06503~~ per kWh for all kWh
R Capacity $0.01298~~0.02181~~ per kWh for all kWh

MINIMUM CHARGE:
The service charge included in the rate, plus the energy optimization surcharge.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~D~~ TERMS OF PAYMENT:
~~D~~ Bills are due in 21 days from date of bill. A delayed payment charge
~~D~~ of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

RULES APPLYING:
(1) Service is governed by the Company's Standard Rules and Regulations.
(2) Conjunctional billing will not be permitted in cases where the customer is presently being served lighting and power loads through separate meters. In these instances, whenever the customer at his expense will arrange his wiring to receive energy through one single metered service, then this rate shall apply to his entire requirements.

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~9th~~ Rev. Sheet No. D-14.00

Replaces XX~~8th~~ Rev. Sheet No. D-14.00

D2. Commercial Heating Service **H-1**

WHO MAY TAKE SERVICE:
Any customer for commercial purposes provided that their electric space heating facilities are permanently installed and are the primary source of space heating. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:
Single or three-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE: DISTRIBUTION SERVICE
Service Charge:
R $38.00~~17.00~~ per month
R $1.2493~~0.5589~~ per day

Energy Charge:
For billing months of June through September
R $0.08762~~0.07384~~ per kWh for all kWh
For billing months of October through May
R $0.08762~~0.07384~~ per kWh for first 1000 kWh
R $0.04381~~0.03692~~ per kWh for the excess

POWER SUPPLY SERVICE (Optional)
Energy Charge:
For billing months of June through September
R Non-Capacity $0.09004~~0.06529~~ per kWh for all kWh
R Capacity $0.01298~~0.02155~~ per kWh for all kW
For billing months of October through May
R Non-Capacity $0.09004~~0.06529~~ per kWh for first 1000 kWh
R Capacity $0.01298~~0.02155~~ per kWh for first 1000 kWh
R Non-Capacity $0.06303~~0.06529~~ per kWh for the excess
R Capacity $0.00908~~0.02155~~ per kWh for the excess

MINIMUM CHARGE:
The service charge included in the rate, plus the energy optimization charge.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~D~~
~~D~~
~~D~~

Continued to Page D-14.10

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~9th~~ Rev. Sheet No. D-16.00

Replaces XX~~8th~~ Rev. Sheet No. D-16.00

D2. Light and Power Service **P-1**

WHO MAY TAKE SERVICE:
Any customer for light and power purposes with a billing demand equal to or greater than 25 kW but less than 200 kW. To qualify, the customer must maintain a demand equal to or greater than 25 kW for three consecutive months and at least once in each succeeding twelve-month period. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:
Single or three-phase, alternating current, 60 hertz at standard available voltages.

RATE: DISTRIBUTION SERVICE

Service Charge:
R $50.00~~35.00~~ per month
R $1.6438~~1.1507~~ per day

Demand Charge:
$6.85 per kW per month

Energy Charge:
$0.03323 per kWh for all kWh

POWER SUPPLY SERVICE (Optional)

Demand Charge:
Capacity $7.32 per kW per month
Non-Capacity $2.53 per kW per month

Energy Charge:
$0.06513 per kWh for all kWh

MINIMUM CHARGE:
The capacity charge for 25 kW or the contract minimum, whichever is greater, plus the energy optimization charge.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~D~~
~~D~~ POWER FACTOR BILLING ADJUSTMENT:
~~D~~ This rate is subject to the Company's Power Factor Billing Adjustment.

Continued on Sheet No. D-17.00

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~6th~~ Rev. Sheet No. D-25.10
Replaces XX~~5th~~ Rev. Sheet No. D-25.10

D2. Large Commercial & Industrial Service **Cp-U**

WHO MAY TAKE SERVICE:

This schedule is applicable to customers whose monthly demand is equal to or greater than 200 kW for three consecutive months and at least once in each succeeding 12 month period and others taking standby service. This service is not available for customers required to take service under the Power Supply Default Service. Customers taking service under the Retail Access Service Tariff (RAST) shall be responsible for the Distribution Charges but not the Power Supply Charges under this rate schedule. Customers that purchase power supply service from the Company shall be subject to both the Distribution and Power Supply charges contained in this rate schedule.

Customers that take service directly from the company-owned substation (i.e. Company owns no distribution facilities downstream of substation) will be classified as Transmission and receive the Substation Transformer Capacity charge.

MONTHLY RATE

	Secondary	Primary	Transmission
DISTRIBUTION SERVICE			
Customer Charge:			
R Monthly	$500.00~~250.00~~	$650.00~~325.00~~	
R $1500.00~~750.00~~			
Daily	$16.4383~~8.2192~~	$21.3698~~10.6849~~	
$49.3150~~24.6575~~			
~~R~~			
R Demand Charge			
1. Customer Demand:$/KW	$4.11~~6.62~~	$3.38~~3.07~~	$0.00
Per KW of maximum demand during the current and preceding 11 months,			
~~R~~ plus,			
R			
R 2. On-Peak			
Firm Demand: $/KW	$4.32~~5.52~~	$3.56~~3.23~~	$1.74~~2.38~~
Interruptible Demand: $/KW	$4.32~~5.52~~	$3.23~~3.23~~	$1.74~~2.38~~
~~R~~ 7:00 AM to 11:00 PM; Monday through Friday			
R (except holidays).			
Substation Transformer Capacity: $/kVA			
R $1.04~~0.87~~			

Continued to Sheet No. D-25.20

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UPPER PENINSULA POWER COMPANY

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Replaces XX~~5th~~ Rev. Sheet No. D-25.20

D2. Large Commercial & Industrial Service **Cp-U**

Continued from Sheet No. D-25.10

	Secondary	Primary	Transmission
POWER SUPPLY SERVICE (Optional)			
On-Peak			
Firm Demand: $/kW			
R Capacity	$6.75~~6.11~~	$6.08~~5.89~~	
R $5.40~~5.68~~			
R Non-Capacity	$1.04~~2.46~~	$0.94~~2.39~~	
~~R~~ $0.83~~2.32~~			
R Total	$7.79~~8.57~~	$7.02~~8.28~~	
R $6.23~~8.00~~			
R Interruptible Demand: $/kW			
~~R~~ Capacity	$1.75~~0.59~~	$1.08~~0.43~~	$0.40~~0.27~~
Non-Capacity	$0.27~~0.48~~	$0.17~~0.35~~	
$0.06~~0.23~~			
Total	$2.02~~1.07~~	$1.25~~0.78~~	$0.46~~0.50~~

7:00 AM to 11:00 PM; Monday through Friday (except holidays).

R Energy Charge

1. On-Peak

~~R~~

Energy Charge:$/kWh $0.081860~~.06101~~ $0.078910~~.05881~~

R $0.076020~~.05666~~

7:00 AM to 11:00 PM; Monday through Friday (except holidays).

~~R~~ 2. Off-Peak

Energy Charge:$/kWh $0.053230~~.03967~~ $0.051300~~.03823~~

$0.049410~~.03683~~

11:00 PM to 7:00 AM; Monday through Friday, all day Saturday, Sunday, and holidays.

MINIMUM CHARGE
The monthly minimum charge is the customer charge, demand charges, substation charges and the energy optimization charge.

POWER SUPPLY COST RECOVERY CLAUSE
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

PRIMARY & TRANSMISSION CHARGES
The customer shall provide a support for the company to terminate the primary conductors and install other required equipment. Customer owned substation equipment shall be operated and maintained by the customer. The support and substation equipment is subject to the company's inspection and approval.

ENERGY OPTIMIZATION
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

DEFINITIONS
For customers with company metering equipment installed at:

Secondary	Under 6,000 volts
Primary	6,000 volts to 15,000 volts, inclusive
Transmission	Over 15,000 volts

Continued to Sheet No. D-25.30

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MPSC Vol No 8-ELECTRIC XX~~7th~~ Rev. Sheet No. D-28.00

Replaces XX~~6th~~ Rev. Sheet No. D-28.00

D2. Light and Power Service **WP-3**

WHO MAY TAKE SERVICE:

Any customer for light and power purposes with a billing demand equal to or greater than 5,000 kW and a minimum of 500 kW of on-site generation, served at Transmission or Sub Transmission available voltages. To qualify, the customer must maintain a demand greater than 5,000 kW for three consecutive months in any twelve-month period. Once qualified for this rate schedule, Customer must attain a demand in excess of 5,000 kW once in each succeeding twelve-month period to remain eligible for this rate schedule. A minimum of 1,000 kW of interruptible load is required for interruptible service. Company retains the right to limit Interruptible loads to 8 Mw in total under this rate schedule.

Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

Customers that take service directly from the company-owned substation (i.e. Company owns no distribution facilities downstream of substation) will be classified as Transmission and receive the Substation Transformer Capacity charge.

D

D CHARACTER OF SERVICE:

Three-phase, alternating current, 60 hertz at standard available voltages.

RATES: DISTRIBUTION SERVICE

	Customer Charge:	
R	Monthly	$1500.00~~750.00~~
R	Daily	$49.3150~~24.6575~~
	Customer Demand Charge per month: $/kW	$0.00
	Firm Demand Charge per month: $/kW	$1.60~~2.25~~
	Interruptible Demand Charge per month: $/kW	$1.60~~2.25~~
R		
R	Substation Transformer Capacity: $/kVa	$1.04~~0.87~~
R	POWER SUPPLY SERVICE (Optional)	
	Firm Demand Charge per month: $/kW	
R	Capacity	$5.40~~5.68~~
R	Non-Capacity	$0.83~~2.32~~
R	Total	$6.23~~8.00~~
R	Interruptible Demand Charge per month: $/kW	
R	Capacity	$0.40~~0.27~~
R	Non-Capacity	$0.06~~0.23~~
R	Total	$0.46~~0.50~~
R	On-Peak Energy: $/kWh	$0.07602~~0.05360~~
R	Off-Peak Energy: $/kWh	$0.04941~~0.03545~~

Continued on Sheet No. D-29.00

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~2nd~~ Rev. Sheet No. D-47.00

Replaces XX~~1st~~ Rev. Sheet No. D-47.00

D2. Real-Time Market Pricing **RTMP**

WHO MAY TAKE SERVICE:
Any customer interconnected directly with the American Transmission Company (ATC) with a demand in excess of 1,000 KW.

RATES: DELIVERY SERVICE

Customer Charge per month:	$1,000
R Demand Charge per month:	$0.27~~0.19~~ per kW

Higher of the current month's maximum 15-minute demand in kW or 60% of maximum demand of current or preceding 11 months.

POWER SUPPLY SERVICE (Optional)

Transmission Service:
The Company will charge the customer for transmission costs that the Company is billed from the American Transmission Company (ATC), the Midwest Independent System Operator (MISO) or their successors for costs to provide transmission service the customer. Costs to provide transmission service to the customer shall be determined by using billing determinants such as demand and energy that the ATC and MISO use to bill the Company for transmission service. The Company will use the customer's contribution to these billing determinants used by the ATC and MISO to determine the customer's transmission charge. The Company shall provide supporting calculations in the monthly bill to the customer for determining customer transmission charges. The customer retains the right to audit transmission charges on an annual basis.

Generation Service
Generation service is non-firm subject to interruptions by UPPCO, the MISO, the ATC, or other regulating authorities.

Scheduling Charge per month: $1,000

Energy Charge
Hourly Energy charges will be based on the applicable Locational Marginal Price (LMP) plus applicable Midwest Independent System Operator (MISO) charges and credits, plus $1/mWh. The default LMP pricing node shall be UPPC.Integrated or its successor. Should the Company determine that another pricing node better reflects the LMPs that the Company incurs for service to the customer and there has been a minimum of a 10% pricing differential between the average real time price for 12 months between the two nodes and that use of another pricing node would prevent financial harm to the Company or Company's other customers taking system power, the Company will provide the customer with the alternative pricing node to be used for pricing along with information that demonstrates this new pricing node better reflects the LMPs the company incurs for service to the customer. The Company will provide a 90 day notice to the customer before changing pricing nodes and the pricing node will not be changed prior to January 1, 2013.

Continued on Sheet No. D-47.10

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~4th~~ Rev. Sheet No. D-49.50

Replaces XX~~3rd~~ Rev. Sheet No. D-49.50

D2. Real-Time Market Pricing-Distribution Service **RTMP-D**

WHO MAY TAKE SERVICE:

Any customer that qualifies for the WP-3 tariff schedule. Upon Company approval, Customer may take service under this tariff for a portion of its load and a portion of its load under the WP-3 tariff. Cp-U accounts that are associated accounts of the WP-3 account may take service under this tariff. See the Associated Accounts section of this tariff.

RATES: DELIVERY SERVICE

Customer Charge:

Monthly	$1,000
R Daily	$32.8767
R Demand Charge per month:	$0.27~~2.25~~/kW

Higher of the current month's maximum 15-minute demand in kW or 60% of maximum demand of current or preceding 11 months.

DISTRIBUTION SERVICE

See applicable tariff (Cp-U or WP-3) for distribution charges.

POWER SUPPLY SERVICE (Optional)

Transmission Service:

The Company will charge the customer for transmission costs that the Company is billed from the American Transmission Company (ATC), the Midwest Independent System Operator (MISO) or their successors for costs to provide transmission service the customer. Costs to provide transmission service to the customer shall be determined by using billing determinants such as demand and energy that the ATC and MISO use to bill the Company for transmission service. The Company will use the customer's contribution to these billing determinants used by the ATC and MISO to determine the customer's transmission charge. The Company shall provide supporting calculations in the monthly bill to the customer for determining customer transmission charges. The customer retains the right to audit transmission charges on an annual basis.

Generation Service

Generation service is non-firm subject to interruptions by UPPCO, the Midwest Independent System Operator, the American Transmission Company, or other regulating authorities.

Scheduling Charge per month: $1,000

Energy Charge

Hourly Energy charges will be based on the applicable Locational Marginal Price (LMP) plus applicable Midwest Independent System Operator (MISO) charges and credits, plus $1/MWh. The default LMP pricing node shall be UPPC.Integrated or its successor. Should the Company determine that another pricing node better reflects the LMPs that the Company incurs for service to the customer and there has been a minimum of a 10% pricing differential between the average real time price for 12 months between the two nodes and that use of another pricing node would prevent financial harm to the Company or Company's other customers taking system power, the Company will provide the customer with the alternative pricing node to be used for pricing along with information that demonstrates this new pricing node better reflects the LMPs the company incurs for service to the customer. The Company will provide a 90 day notice to the customer before changing pricing nodes and the pricing node will not be changed prior to January 1, 2013.

Continued on Sheet No. D-49.51

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~8th~~ Rev. Sheet No. D-50.00

Replaces XX~~7th~~ Rev. Sheet No. D-50.00

D2. Street Lighting Service **SL-3**

WHO MAY TAKE SERVICE:
Any municipality for customer owned, operated and maintained street lighting and/or traffic signal system.

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE:

Service Charge:
R $38.00~~17.00~~ per month
R $1.2493~~0.5589~~ per day

Energy Charge ($/kWh)

R	Capacity	$0.01298~~0.01872~~
R	Non-Capacity	$0.09004~~0.14196~~
R	Total	$0.10301~~0.16068~~

MINIMUM CHARGE:
The service charge included in the rate, plus the energy optimization charge.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~D~~ TERMS OF PAYMENT:
~~D~~ Bills are due in 21 days from date of bill. A delayed payment charge of
~~D~~ 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

CONTRACT:
Minimum period of three years subject to automatic renewal periods of one year each. The contract may be terminated at the end of any yearly period upon 90 days written notice by either party. If the contract is terminated before the three year period, the customer may be responsible for the lesser of the cost of removal or the remaining monthly charges.

RULES APPLYING:
Service is governed by the Company's Standard Rules and Regulations.

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UPPER PENINSULA POWER COMPANY

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Replaces XX~~8th~~ Rev. Sheet No. D-51.00

D2. Street Lighting Service (Closed) **SL-5**

WHO MAY TAKE SERVICE:
Any municipality owning its own street lighting system including poles, fixtures, wires, transformers, time switches and other accessories. Additions to mercury vapor lighting services are closed to new customers. This option is closed to new customers effective January 1, 2014.

HOURS OF SERVICE:
All night - Dusk to Dawn

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz at the Company's distribution voltage.

RATE:

Light Emitting Diode (LED)

	Non-Capacity Watts	Per Lamp Per Month All Night
R	0-99	$13.71~~12.46~~
R	100-199	$18.08~~16.38~~
R	200-299	$22.32~~20.30~~
R	300-399	$26.62~~24.20~~

Sodium Vapor

	Non-Capacity Lumens	Watts	Per Lamp Per Month All Night
R	9,000	100	$15.25~~13.86~~
R	14,000	150	$18.04~~16.40~~
R	27,000	250	$23.41~~21.29~~
R	45,000	400	$29.73~~27.03~~

Mercury Vapor

	Non-Capacity Lumens	Watts	All Night
R	20,000	400	$35.25~~32.04~~

Capacity Energy: All Lights
R $0.01516~~0.01872~~ per kWh

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Type of Facility	Monthly Charge
Additional Wood Pole	$4.51/pole
Span of Conductor (200 feet)	$3.26/span

Continued on Sheet No. D-52.00

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MPSC Vol No 8-ELECTRIC XX~~7th~~ Rev. Sheet No. D-53.00

Replaces XX~~6th~~ Rev. Sheet No. D-53.00

D2. Street Lighting Service **SL-6**

WHO MAY TAKE SERVICE:
Any municipality from Company owned, operated and maintained street lighting system as available. Additions to mercury vapor lighting services are closed to new customers.

HOURS OF SERVICE: All night – Dusk to Dawn

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz at the Company's distribution voltage.

Non-Capacity Rate:

	Sodium Vapor Lumens	Watts	Per Lamp Per Month All Night	
R	5,670	70	$20.89~~19.90~~	(Closed)
R	9,000	100	$21.72~~20.69~~	(Closed)
R	14,000	150	$26.35~~25.10~~	(Closed)
R	27,000	250	$29.91~~28.49~~	(Closed)
R	45,000	400	$42.13~~40.12~~	(Closed)

	Mercury Vapor Lumens	Watts	All Night	
R	7,500	175	$22.11~~21.05~~	(Closed)
R	20,000	400	$40.59~~38.66~~	(Closed)

	Metal Halide Lumens	Watts	All Night	
R	8,800	175	$36.06~~34.35~~	(Closed)
R	36,000	400	$44.39~~42.27~~	(Closed)
R	110,000	1,000	$81.81~~77.91~~	(Closed)

	LED Lumens	Watts	All Night
R	9,000*	100*	$10.21~~18.08~~
R	14,000*	150*	$11.23~~21.45~~
R	27,000*	250*	$13.27~~25.24~~
	45,000*	400*	$19.40
~~N~~ R	120,000*	1,000*	$40.84

Capacity Rate: All Lights
$0.015160~~0.01872~~ per kWh

SPECIAL TERMS AND CONDITIONS
The above charges are for lighting units on existing company-owned distribution facilities. The company will own and install the luminaires, complete with lamp, control device, and six-foot mast arm, mounted on an existing company pole. If the customer requests the following facilties, the monthly charges listed below shall be added to the above charges.

Type of Facility	Monthly Charge
Additional Wood Pole	$4.51/pole
Span of Conductor (200 feet)	$3.26/span

* The wattages and lumens listed under the LED lamps are wattages and lumens of sodium vapor lamps to which the LED lamps are considered equivalent. Actual wattages and lumens of LED lamps may vary.

Continued on Sheet No. D-54.00

Issued: XX~~06~~-XX~~05~~-XX~~19~~
By G R Haehnel
Chief Financial Officer~~Director - Regulatory Affairs~~
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Mich Public Serv Comm
Dated: XX~~05~~-XX~~23~~-XX~~19~~
In Case No: U-21286~~20276~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~8th~~ Rev. Sheet No. D-57.00

Replaces XX~~7th~~ Rev. Sheet No. D-57.00

D2. Dusk To Dawn Outdoor Security Lighting **Z-3**

WHO MAY TAKE SERVICE:
Any customer for dusk to dawn outdoor security lighting where customer takes service at the same premises under a standard rate schedule. Additions to mercury vapor lighting services are closed to new customers.

~~D~~
~~D~~

HOURS OF SERVICE:
Daily from dusk to dawn.

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz, nominally at 120 volts.

Non-Capacity Rate:

Sodium Vapor

	Lumens	Watts	Monthly Charge
R	9,000	100	$23.94~~22.80~~/Lamp (Closed)
R	27,000	250	$36.68~~34.93~~/Lamp (Closed)
R	45,000	400	$44.39~~42.27~~/Lamp (Closed)

Mercury Vapor

	Lumens	Watts	Monthly Charge
R	7,500	175	$21.23~~20.22~~/Lamp (Closed)
R	20,000	400	$39.65~~37.76~~/Lamp (Closed)

Metal Halide

	Lumens	Watts	Monthly Charge
R	36,000	400	$44.09~~41.99~~/Lamp (Closed)
R	110,000	1,000	$81.17~~77.30~~/Lamp (Closed)

LED

	Lumens	Watts	Monthly Charge
R	9,000	100*	$11.23~~10.92~~/Lamp
R	14,000	150*	$12.35~~23.71~~/Lamp
R	27,000	250*	$14.60~~27.87~~/Lamp
N	45,000	400*	$21.34/Lamp
N	120,000	1,000*	$44.92/Lamp

*The wattages and lumens listed under the LED lamps are wattages and lumens of sodium vapor lamps to which the LED lamps are considered equivalent. Actual wattages and lumens of LED lamps may vary.

SPECIAL TERMS AND CONDITIONS
The above charges are for lighting on existing company-owned distribution facilities. The Company will own and install the luminaire, complete with lamp, control device and up to and including a 6-foot mast arm, mounted on an existing company pole. If the customer requests a mast arm in excess of 6 feet it will be considered special facilities. If the customer requests an additional pole and span, the monthly charges listed below shall be added to the above charges.

Continued on Sheet No. D-58.00

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Dated: XX~~05~~-XX~~23~~-XX~~19~~
In Case No: U-21286~~20276~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~77th~~ Rev. Sheet No. A-16.00

Replaces XX~~76th~~ Rev. Sheet No. A-16.00

A3. Table of Contents – Check List

TABLE OF CONTENTS – CHECK LIST

	Sheet No.	Effective Date
	2nd Rev. Sheet No. A-1.00	July 22, 2015
R	X~~4th~~ Rev. Sheet No. A-2.00	July 1, 2024~~July 22, 2015~~
	5th Rev. Sheet No. A-3.00	June 3, 2021
	2nd Rev. Sheet No. A-4.00	June 1, 2019
	1st Rev. Sheet No. A-5.00	January 1, 2011
	3rd Rev. Sheet No. A-6.00	April 14, 2022
	1st Rev. Sheet No. A-7.00	January 1, 2011
	1st Rev. Sheet No. A-8.00	January 1, 2010
	3rd Rev. Sheet No. A-9.00	January 1, 2014
	2nd Rev. Sheet No. A-10.00	January 1, 2011
	2nd Rev. Sheet No. A-11.00	January 1, 2014
	2nd Rev. Sheet No. A-12.00	January 1, 2011
	2nd Rev. Sheet No. A-13.00	January 1, 2011
	5th Rev. Sheet No. A-14.00	January 1, 2013
R	4th Rev. Sheet No. A-15.00	August 21, 2017
	XX~~77th~~ Rev. Sheet No. A-16.00	July 1, 2024~~September 1, 2022~~
	8th Rev. Sheet No. A-17.00	June 3, 2021
R	25th Rev. Sheet No. A-18.00	April 14, 2022
	XX~~44th~~ Rev. Sheet No. A-19.00	July 1, 2024~~June 1, 2022~~
	14th Rev. Sheet No. A-20.00	September 1, 2022
	Original Sheet No. A-21.00	October 10, 2007
	Original Sheet No. A-22.00	October 10, 2007
	Original Sheet No. A-23.00	October 10, 2007
	2nd Rev. Sheet No. A-24.00	January 1, 2014
	2nd Rev. Sheet No. A-25.00	January 1, 2014
	Original Sheet No. A-26.00	October 10, 2007
	4th Rev. Sheet No. B-1.00	November 19, 2019
	Original Sheet No. B-2.00	October 10, 2007
	3rd Rev. Sheet No. B-3.00	November 19, 2019
	Original Sheet No. B-4.00	October 10, 2007
	Original Sheet No. B-5.00	October 10, 2007
	5th Rev. Sheet No. B-6.00	November 19, 2019
	4th Rev. Sheet No. B-7.00	November 19, 2019
	5th Rev. Sheet No. B-8.00	November 19, 2019
	4th Rev. Sheet No. B-9.00	November 19, 2019

Continued on Sheet No. A-17.00

Chief Financial Officer
Marquette, Michigan

Issued Under Auth. Of
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In Case No: U-21286~~17377~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~8th~~ Rev. Sheet No. A-17.00

Replaces XX~~7th~~ Rev. Sheet No. A-17.00

A3. Table of Contents – Check List

Continued from Sheet No. A-16.00

TABLE OF CONTENTS – CHECK LIST

	Sheet No.	Effective Date
	Original Sheet No. C-1.00	October 10, 2007
	1st Rev. Sheet No. C-2.00	January 1, 2010
R	X~~1st~~ Rev. Sheet No. C-3.00	July 1, 2024~~January 1, 2010~~
	1st Rev. Sheet No. C-4.00	January 1, 2010
	1st Rev. Sheet No. C-5.00	January 1, 2010
	1st Rev. Sheet No. C-6.00	January 1, 2010
	1st Rev. Sheet No. C-7.00	January 1, 2010
~~R~~	1st Rev. Sheet No. C-8.00	January 1, 2010
R	X~~3rd~~ Rev. Sheet No. C-9.00	July 1, 2024~~June 3, 2021~~
R	X~~3rd~~ Rev. Sheet No. C-10.00	July 1, 2024~~June 1, 2019~~
R	X~~4th~~ Rev. Sheet No. C-11.00	July 1, 2024~~January 1, 2014~~
	Original Sheet No. C-12.00	October 10, 2007
	Original Sheet No. C-13.00	October 10, 2007
	1st Rev. Sheet No. C-14.00	January 1, 2010
	3rd Rev. Sheet No. C-15.00	February 29, 2016
	2nd Rev. Sheet No. C-16.00	February 29, 2016
	2nd Rev. Sheet No. C-17.00	February 29, 2016
	2nd Rev. Sheet No. C-18.00	February 29, 2016
	1st Rev. Sheet No. C-19.00	January 1, 2011
	Original Sheet No. C-19.10	January 1, 2011
	Original Sheet No. C-19.20	January 1, 2011
	1st Rev. Sheet No. C-19.30	January 1, 2014
	1st Rev. Sheet No. C-19.40	January 1, 2014
	2nd Rev. Sheet No. C-19.50	January 1, 2014
	Original Sheet No. C-19.60	January 1, 2011
	2nd Rev. Sheet No. C-19.70	January 1, 2014
	1st Rev. Sheet No. C-19.80	January 1, 2012
	1st Rev. Sheet No. C-19.90	January 1, 2012
	2nd Rev. Sheet No. C-20.00	January 1, 2012
	1st Rev. Sheet No. C-20.10	January 1, 2012
	Original Sheet No. C-20.20	January 1, 2011
	1st Rev. Sheet No. C-20.30	January 1, 2014
	Original Sheet No. C-20.40	January 1, 2011
	1st Rev. Sheet No. C-20.50	January 1, 2014
	1st Rev. Sheet No. C-20.60	January 1, 2014
	1st Rev. Sheet No. C-20.70	January 1, 2014
	Original Sheet No. C-20.90	January 1, 2011
	Original Sheet No. C-20.91	January 1, 2011
	Original Sheet No. C-20.92	January 1, 2011
	Original Sheet No. C-20.93	January 1, 2011
	Original Sheet No. C-20.94	January 1, 2011
	Original Sheet No. C-20.95	January 1, 2011
	Original Sheet No. C-20.96	January 1, 2011
	1st Rev. Sheet No. C-30.00	June 1, 2019

Continued to Sheet No. A-17.00

2024~~2021~~
Chief Financial Officer
Marquette, Michigan

Issued Under Auth. of
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

XX~~25th~~ Rev. Sheet No. A-18.00
Replaces XX~~24th~~ Rev. Sheet No. A-18.00

A3. Table of Contents – Check List

Continued from Sheet No. A-17.00

TABLE OF CONTENTS – CHECK LIST

	Sheet No.	Effective Date
	7th Rev. Sheet No. D-1.00	June 1, 2019
	Sheet No. D-2.00	
	14th Rev. Sheet No. D-3.00	January 1,2022
R	X~~9th~~ Rev. Sheet No. D-4.00	July 1, 2024~~June 1, 2019~~
	2nd Rev. Sheet No. D-5.00	January 1, 2011
	9th Rev. Sheet No. D-6.00	June 1, 2019
	3rd Rev. Sheet No. D-7.00	June 1, 2019
R	X~~8th~~ Rev. Sheet No. D-8.00	July 1, 2024~~June 1, 2019~~
	4th Rev. Sheet No. D-9.00	June 1, 2019
	4th Rev. Sheet No. D-10.00	January 1, 2012
	3rd Rev. Sheet No. D-11.00	January 1, 2012
R	XX~~9th~~ Rev. Sheet No. D-12.00	July 1, 2024~~June 1, 2019~~
~~N~~	Original Sheet No. D-12.10	April 14, 2022
	5th Rev. Sheet No. D-13.00	January 1, 2014
R	XX~~9th~~ Rev. Sheet No. D-14.00	July 1, 2024~~June 1, 2019~~
	Original Sheet No. D-14.10	July 1, 2018
	4th Rev. Sheet No. D-15.00	January 1, 2012
R	XX~~9th~~ Rev. Sheet No. D-16.00	July 1, 2024~~June 1, 2019~~
	2nd Rev. Sheet No. D-17.00	January 1, 2011
	4th Rev. Sheet No. D-18.00	January 1, 2012
	3rd Rev. Sheet No. D-19.00	January 1, 2012
	2nd Rev. Sheet No. D-20.00	January 1, 2010
	2nd Rev. Sheet No. D-21.00	January 1, 2010
	2nd Rev. Sheet No. D-22.00	January 1, 2010
	1st Rev. Sheet No. D-23.00	January 1, 2010
	2nd Rev. Sheet No. D-24.00	January 1, 2010
	1st Rev. Sheet No. D-25.00	January 1, 2010
R	X~~6th~~ Rev. Sheet No. D-25.10	July 1, 2024~~June 1, 2019~~
	6th Rev. Sheet No. D-25.20	June 1, 2019
	1st Rev. Sheet No. D-25.30	January 1, 2011
	1st Rev. Sheet No. D-25.40	January 1, 2011
	2nd Rev. Sheet No. D-25.50	June 1, 2019
	4th Rev. Sheet No. D-26.00	January 1, 2012
	3rd Rev. Sheet No. D-27.00	January 1, 2012
R	X~~7th~~ Rev. Sheet No. D-28.00	July 1, 2024~~June 1, 2019~~
	4th Rev. Sheet No. D-29.00	June 1, 2019
	2nd Rev. Sheet No. D-30.00	January 1, 2014
	Original Sheet No. D-31.00	October 10, 2007
	Original Sheet No. D-32.00	October 10, 2007
	Original Sheet No. D-33.00	October 10, 2007
	1st Rev. Sheet No. D-34.00	January 1, 2011
	1st Rev. Sheet No. D-35.00	January 1, 2011
	Original Sheet No. D-36.00	October 10, 2007
	1st Rev. Sheet No. D-37.00	October 10, 2007
	Original Sheet No. D-38.00	October 10, 2007
	5th Rev. Sheet No. D-39.00	September 23, 2016
	2nd Rev. Sheet No. D-40.00	January 1, 2010
	Original Sheet No. D-41.00	October 10, 2007
	1st Rev. Sheet No. D-42.00	January 1, 2014

Continued to Sheet No. A-19.00

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By G R Haehnel
Chief Financial Officer
Marquette, Michigan

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In Case No: U-2128621137

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

XX~~44th~~ Rev. Sheet No. A-19.00
Replaces XX~~43rd~~ Rev. Sheet No. A-19.00

A3. Table of Contents – Check List

Continued from Sheet No. A-18.00

TABLE OF CONTENTS – CHECK LIST

	Sheet No.	Effective Date
	1st Rev. Sheet No. D-43.00	January 1, 2014
	1st Rev. Sheet No. D-44.00	January 1, 2014
	1st Rev. Sheet No. D-45.00	January 1, 2014
	1st Rev. Sheet No. D-46.00	January 1, 2014
R	X~~2nd~~ Rev. Sheet No. D-47.00	July 1, 2024~~June 1, 2019~~
	1st Rev. Sheet No. D-48.00	January 1, 2012
	2nd Rev. Sheet No. D-49.00	January 1, 2012
	2nd Rev. Sheet No. D-49.10	June 1, 2019
R	X~~4th~~ Rev. Sheet No. D-49.50	July 1, 2024~~June 1, 2019~~
	1st Rev. Sheet No. D-49.51	January 1, 2012
	1st Rev. Sheet No. D-49.52	January 1, 2012
	1st Rev. Sheet No. D-49.53	January 1, 2012
R	X~~8th~~ Rev. Sheet No. D-50.00	July 1, 2024~~June 1, 2019~~
R	X~~9th~~ Rev. Sheet No. D-51.00	July 1, 2024~~June 1, 2019~~
	6th Rev. Sheet No. D-52.00	June 1, 2019
R	X~~7th~~ Rev. Sheet No. D-53.00	July 1, 2024~~June 1, 2019~~
	4th Rev. Sheet No. D-54.00	June 1, 2019
	4th Rev. Sheet No. D-55.00	January 1, 2012
	2nd Rev. Sheet No. D-56.00	January 1, 2012
R	X~~8th~~ Rev. Sheet No. D-57.00	July 1, 2024~~June 1, 2019~~
	4th Rev. Sheet No. D-58.00	June 1, 2019
	8th Rev. Sheet No. D-59.00	June 1, 2019
	4th Rev. Sheet No. D-60.00	June 1, 2019
	1st Rev. Sheet No. D-60.10	January 1, 2012
	1st Rev. Sheet No. D-60.20	January 1, 2012
	Original Sheet No. D-60.30	January 1, 2012
	1st Rev. Sheet No. D-61.00	January 1, 2010
	Original Sheet No. D-62.00	October 10, 2007
	Original Sheet No. D-63.00	October 10, 2007
	Original Sheet No. D-64.00	October 10, 2007
	Original Sheet No. D-65.00	October 10, 2007
	Original Sheet No. D-66.00	October 10, 2007
	Original Sheet No. D-67.00	October 10, 2007
~~R~~	6th Rev. Sheet No. D-68.00	June 1, 2022
	2nd Rev. Sheet No. D-69.00	October 1, 2014
	1st Rev. Sheet No. D-70.00	June 4, 2009
	1st Rev. Sheet No. D-71.00	June 4, 2009
	1st Rev. Sheet No. D-72.00	June 4, 2009
	Original Sheet No. D-72.10	May 26, 2009
	Original Sheet No. D-72.20	May 26, 2009
	Original Sheet No. D-72.30	May 26, 2009
	Original Sheet No. D-72.40	May 26, 2009
	Original Sheet No. D-72.50	May 26, 2009
	Original Sheet No. D-72.60	May 26, 2009
	8th Rev. Sheet No. D-72.70	March 9, 2020
	2nd Rev. Sheet No. D-72.71	March 9, 2020
	1st Rev. Sheet No. D-72.72	February 23, 2018
	Original Sheet No. D-72.73	February 23, 2018

Continued to Sheet No. A-20.00

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By G R Haehnel
Chief Financial Officer
Marquette, Michigan

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Dated: 4-25-2022
In Case No: U-21286~~21152~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~1st~~ Rev. Sheet No. C-3.00

Replaces XX~~Original~~ Sheet No. C-3.00

C2. Standard Rules & Regulations–Terms and Conditions of Service

Continued from Sheet No. C-2.00

In case of such unauthorized use of service, the Company will continue service only after the customer has agreed to pay for the unmetered energy used, pay all costs of discovery and investigation including rewards for discovery, make provisions and pay charges for an outdoor meter installation or other metering changes as may be required by the Company, and pay a $500 Meter Tampering Penalty Fee.~~and make provisions and pay charges for an outdoor meter installation or other metering changes as may be required by the Company.~~ Failure to enter into such an agreement or failure to comply with the terms of such an agreement shall be cause to discontinue service in accordance with any applicable rules of the Company or Commission.

R
R
N

Restoration of service will be made upon receipt of reasonable assurance of the customer's compliance with the Company's approved Standard Rules and Regulations.

2. Customer Owned Facilities - The Company reserves the right to deny or terminate service to any customer whose wiring or equipment shall constitute a hazard to the Company's equipment or its service to others. However, it disclaims any responsibility to inspect the customer's wiring, equipment or any subsequent wiring changes or modifications and shall not be held liable for any injury or damage or billing errors resulting from the condition thereof.

a. The customer shall be responsible for inadequate performance of such facilities. Before purchasing equipment or installing wiring, it shall be the customer's responsibility to check with the Company as to the characteristics of the service available. Any changes required to bring customer's service into compliance with code will be paid for by customer. The Company reserves the right to make reasonable service charges for work performed by Company personnel resulting from malfunction of the customer's facilities.

b. The customer shall be responsible for notifying the Company of any additions to or changes in the customer's equipment which might exceed the capacity of the Company's facilities, or otherwise affect the quality of service. The customer shall also be responsible for the installation of auxiliary or standby equipment and of alarms and protective devices as required to provide reasonable protection in the event of disturbance or interruption of electrical service. The customer shall install and maintain the necessary devices to protect his equipment against service interruptions and other disturbances on the Company's system, as well as the necessary devices to protect the Company's facilities against overload caused by the customer's equipment. Characteristics and installation of all such equipment or devices shall meet the approval of the Company.

C. Use of Service

Each customer shall, as soon as electric service becomes available, purchase from the Company practically all electric energy used on the premise, and shall become liable for all charges incurred in the purchase of said

Continued to Sheet No. C-4.00

Issued: XX~~12~~-XX~~21~~-XX~~09~~ Effective for Service
By G R Haehnel~~J F Schott~~ On and After: 07~~1~~-01~~1~~-2024~~10~~
Chief Financial Officer~~VP Regulatory Affairs~~
Issued Under Auth. of
Marquette, Michigan~~Green Bay, Wisconsin~~ Mich Public Serv Comm
Dated: XX~~12~~-XX~~16~~-XX~~09~~
In Case No: U-21286~~15988~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

XX~~3rd~~ Rev. Sheet No. C-9.00
Replaces XX~~2nd~~ Rev. Sheet No. C-9.00

C2. Standard Rules & Regulations–Terms and Conditions of Service

Continued from Sheet No. C-8.00

2. Location of Meters - Meters for all single family residential service will be installed outdoors. Meters for other services may be installed outdoors if they are located so they are protected from traffic and are readily accessible for reading and testing. Meters which must be protected from inclement weather while being serviced or tested shall be located indoors or in a suitable housing where such work can be performed.

   Meters located indoors shall be as near as possible to the service entrance, in a clean, dry place, reasonably secure from injury, not subject to vibration, and readily accessible for reading and testing.

   In cases of multiple buildings such as two-family flats or apartment buildings, if the meters are installed indoors, they shall be located within the premises served or at a common location readily accessible to the tenants and the Company.

   An authorized representative of the Company will determine the acceptability of the meter location in all cases.

~~N~~ 3. Non-Standard Meter Provision

~~N~~R ~~N~~ ~~N~~ ~~N~~ ~~N~~ ~~N~~ a. Customers served on Residential and Commercial general Service have the option to choose a Non-Standard meter. For a customer to be eligible to participate in the Non-Standard Meter Provision, the customer must have a meter that is accessible to Company employees and the customer shall have zero instances of unauthorized use, theft, fraud and/or threats of violence toward Company employees.

~~N~~ ~~N~~ ~~N~~ b. A customer electing the Non-Standard Meter Provision will have a Non-Standard Meter installed at their premises, have the meter read manually monthly, and be subject to the following charges:

~~N~~ ~~N~~ i. Upfront Charge: $62.25, a one-time charge per billing meter per request.

~~N~~ ~~N~~ ~~N~~ ii. Monthly Charge: $14.26, per month charge at each premise as defined by the Company's Standard Rules and Regulations. Multiple metered units shall be charged per billing meter.

~~N~~ ~~N~~ ~~N~~ ~~N~~ c. A customer whose current meter is a Standard Meter and requests a Non-Standard meter will pay the Upfront Charge at the time they request this option but will not pay the monthly charge until the Non-Standard Meter is installed.

Continued to Sheet No. C-10.00

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By G R Haehnel
Chief Financial Officer~~Director - Regulatory Affairs~~
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Marquette, Michigan

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Mich Public Serv Comm
Dated: XX~~05~~-XX~~23~~-XX~~19~~
In Case No: U-2128~~620276~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~3rd~~ Rev. Sheet No. C-10.00

Replaces XX~~2nd~~ Rev. Sheet No. C-10.00

C2. Standard Rules & Regulations–Terms and Conditions of Service

Continued from Sheet No. C-9.00

F. Special Charges

The Company will make such charges for reasonable special services as necessary to discourage abuse, and to minimize subsidy of such services by other customers. The following schedule shall apply where applicable:

1. Special Meter Readings

a. When the Company, at the request of the customer:

(1) Reads a meter on a day other than the scheduled meter reading date, and/or

(2) Issues a written bill on a day other than the scheduled billing date.

N N R The customer will be billed a $50.00 charge if the customer's meter needs to be read manually unless there is a change in the customer of record.
~~The customer will be billed a $30.00 charge unless there is a change in the customer of record.~~

N N The customer will be billed a $9.00 charge if the customer has an AMI meter that may be read remotely.

b. The customer may read his/her meter(s) and provide the reading(s) to the Company. The Company will then calculate the amount due and provide this information to the customer at no cost.

R 2. Meter Test Charge $~~33~~92.00

3. Reconnection Billing – Same Customer
The Company's rate schedules assume continuous use of service for extended periods and do not contemplate temporary disconnection except in those cases where it is requested by seasonal customers or others who occupy premises part of the time. Temporary disconnection by any customer shall not void responsibility for annual minimum charges or payment of the annual monthly fixed charge.
In the event of disconnection, when service is resumed at the same premises by the same customer within a 12-month period, and if there has been no service at such location to another customer during the intervening period, the customer shall be billed the fixed charges* for the disconnection period, plus a charge shall be made according to the following conditions:

a. For the general electric service the charge shall be:

N 1. Self-Contained Customers – AMI***

N N

During Regular Hours** - All Territory Served	$36.00
Outside Regular Hours - All Territory Served	$51.00

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Continued to Sheet No. C-11.00

~~Continued to Sheet No. C-11.00~~

Issued: XX~~06~~-XX~~05~~-XX~~19~~
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Chief Financial Officer~~Director of Regulatory Affairs~~
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~4th~~ Rev. Sheet No. C-11.00

Replaces XX~~3rd~~ Rev. Sheet No. C-11.00

C2. Standard Rules & Regulations–Terms and Conditions of Service

Continued from Sheet No. C-10.00

~~2. Meter Test Charge $33.00~~

~~3. Reconnection Billing – Same Customer~~
~~The Company's rate schedules assume continuous use of service for extended periods and do not contemplate temporary disconnection except in those cases where it is requested by seasonal customers or others who occupy premises part of the time. Temporary disconnection by any customer shall not void responsibility for annual minimum charges or payment of the annual monthly fixed charge.~~
~~In the event of disconnection, when service is resumed at the same premises by the same customer within a 12-month period, and if there has been no service at such location to another customer during the intervening period, the customer shall be billed the fixed charges* for the disconnection period, plus a charge shall be made according to the following conditions:~~

~~a. For the general electric service the charge shall be:~~

~~During Regular Hours** - All Territory Served $60.00~~
~~Outside Regular Hours - All Territory Served $90.00~~

N 2. Non-Standard Self-Contained Customers****

N During Regular Hours** - All Territory Served $101.00
N Outside Regular Hours - All Territory Served $229.00

N 3. Transformer Rated/3-Phase Customers

N During Regular Hours** - All Territory Served $169.00
N Outside Regular Hours - All Territory Served $255.00

b. For separately metered service (water heating, space heating, etc.), there shall be no additional charge when such service is reconnected along with the customer's general electric service.

* These fixed charge billings shall not apply to customers disconnected for nonpayment.

** Regular Hours are defined as Monday through Friday, ~~7:00am to 3:30pm CST (Iron River System) and~~ 7:30am to 4:00pm ES~~D~~T (Integrated System), not including those days designated as company holidays or legal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

N *** Self-Contained Customers - AMI defines residential and small
N commercial customers that have remote capable standard (AMI)
N meters. Customers with AMI meters that are not communicating
N are included in this category.
N **** Non-Standard Self-Contained Customers defines residential
N and small commercial customers that do not have remote
N capable standard meters.

c. The appropriate regular or outside regular hours charges will apply in situations when returning to the customer's location a second (and each subsequent) time to perform required work, when the second (and each subsequent) call is required due to the customer not being present or being ready for the Company to

perform the requested work.

4. Unhonored Checks And Electronic Transfers
When a customer issues a check or authorizes an electronic transfer payment to the Company that a bank or other financial institution fails to honor (for reasons of insufficient funds, account closed, stop payment order issued, etc.), the customer shall be billed an additional charge of $20.00 per check or electronic transfer.

5. Connection or Disconnection Outside Regular Working Hours
When application is made for service with the request that meters be connected or disconnected outside regular hours or on Saturdays, Sundays or holidays, the charges specified for reconnections outside regular hours shall apply.

Continued to Sheet No. C-12.00

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Chief Financial Officer~~Asst. VP – Regulatory Affairs~~
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX9th Rev. Sheet No. D-4.00

Replaces XX8th Rev. Sheet No. D-4.00

D2. Residential Service **A-1**

WHO MAY TAKE SERVICE:
Any residential customer in a single family dwelling or a duplex using service for domestic purposes. This rate is also available to certain multiple dwellings in accordance with the standard rules. Services to garages and outbuildings not used for commercial purposes will also be classified as residential. Farm customers using electric service for the production of agricultural products for commercial purposes will be placed on the appropriate commercial rate. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

D
D CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE: DISTRIBUTION SERVICE

Service Charge:
R $29.0015.00/Mo. for Year-Round
R $0.95340.4932/Day for Year-Round
R $58.0030.00/Mo. for Seasonal
R $1.90680.9863/Day for Seasonal

Energy Charge:
R $0.1208810.10760 per kWh for all kWh

R POWER SUPPLY SERVICE (Optional)

Energy Charge:
R Non-Capacity $0.012910.05582 per kWh for all kWh
R Capacity $0.090480.02461 per kWh for all kWh
R

MINIMUM CHARGE:
The service charge included in the rate.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

Continued on Sheet No. D-5.00

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In Case No: U-21286~~20276~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~2nd~~ Rev. Sheet No. D-5.00

Replaces XX~~1st~~ Rev. Sheet No. D-5.00

D2. Residential Service **A-1**

Continued from Sheet No. D-4.00

N INCOME ASSISTANCE SERVICE PROVISION (RIA):

When service is supplied to a Principal Residence Customer, where the household receives a Home Heating Credit (HHC) in the State of Michigan, a credit shall be applied during all billing months. For an income assistance customer to qualify for this credit, the Company shall require annual evidence of the HHC energy draft or a self-attestation form. The customer may also qualify for this credit upon confirmation by an authorized State of Federal agency verifying that the customer's total household income does not exceed 150% of the poverty level as published by the United States department of health and human services or if the customer receives any of the following:

i) Assistance from a state emergency relief program;
ii) ii) Food stamps or
iii) iii) Medicaid.

The number of customer enrolled may be adjusted, at the Company's discretion, in order to dispense Commission-approved RIA funding on an annual basis.

The monthly credit for the residential Income Assistance Service Provision shall be applied as follows:

DELIVERY CHARGES: These charges are applicable to Full Service and Retail Open Access customers.

INCOME ASSISTANCE CREDIT: $(29.00) per customer per month.

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TERMS OF PAYMENT:

Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

RULES APPLYING:

Service is governed by the Company's Standard Rules and Regulations.

SEASONAL BILLING:

Service shall be billed for six months. Billing cycles for the business months of May through October shall apply for facilities normally utilized during summer months and November through April for facilities normally utilized during winter months.

Service may remain connected during the off-season, and incidental use during such period may be included with the first billing of the following season, however, the Company may issue bills for electric service to seasonal electric customers during the off-season period if the customer's electric usage since the last issued bill exceeds 500 kWh of electric energy.

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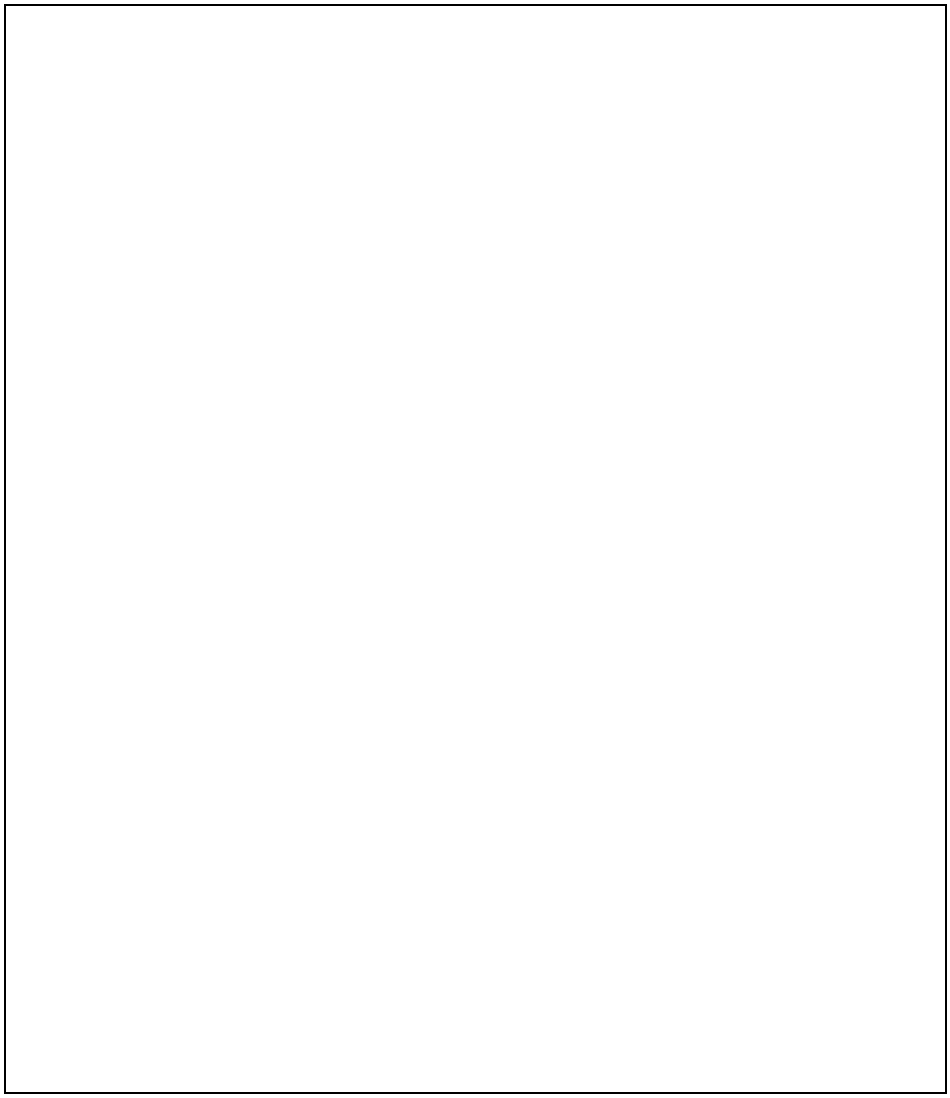

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~8th~~ Rev. Sheet No. D-8.00

Replaces XX~~7th~~ Rev. Sheet No. D-8.00

D2. Residential Heating Service **AH-1**

WHO MAY TAKE SERVICE:
Any residential customer in a single family dwelling or a duplex using service for domestic purposes, provided the major electric space heating facilities are permanently installed and are the primary source of space heating. This rate is also available to certain multiple dwellings in accordance with the standard rules. Services to garages and outbuildings not used for commercial purposes will also be classified as residential. Farm customers using electric service for the production of agricultural products for commercial purposes will be placed on the appropriate commercial rate. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE: DISTRIBUTION SERVICE
Service Charge:
R $29.00~~15.00~~ per month
R $0.9534~~0.4932~~ per day

Energy Charge:
For billing months of June through September
R $0.12088~~0.10760~~ per kWh for all kWh
R For billing months of October through May
R $0.12088~~0.10760~~ per kWh for the first 500 kWh
R $0.06044~~0.05380~~ per kWh for the excess

POWER SUPPLY SERVICE (Optional)
R Energy Charge:
R For billing months of June through September
R Non-Capacity $0.09048~~0.05587~~ per kWh for all kWh
R Capacity $0.01291~~0.02456~~ per kWh for all kWh

R For billing months of October through May
R Non-Capacity $0.09048~~0.05587~~ for the first 500 kWh
R Capacity $0.01291~~0.02456~~ for the first 500 kWh
R Non-Capacity $0.06786XXXXX~~0.05587~~ for the excess kWh
R Capacity $0.00968~~0.02456~~ for the excess kWh

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

MINIMUM CHARGE:
The service charge included in the rate.

Continued on Sheet D-9.00

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~4th~~ Rev. Sheet No. D-9.00

Replaces XX~~3rd~~ Rev. Sheet No. D-9.00

D2. Residential Heating Service **AH-1**

Continued from Sheet D-8.00

N INCOME ASSISTANCE SERVICE PROVISION (RIA):

N When service is supplied to a Principal Residence Customer, where the household receives a Home Heating Credit (HHC) in the State of Michigan, a credit shall be applied during all billing months. For an income assistance customer to qualify for this credit, the Company shall require annual evidence of the HHC energy draft or a self-attestation form. The customer may also qualify for this credit upon confirmation by an authorized State of Federal agency verifying that the customer's total household income does not exceed 150% of the poverty level as published by the United States department of health and human services or if the customer receives any of the following:

N i) Assistance from a state emergency relief program;
N ii) ii) Food stamps or
N iii) iii) Medicaid.

N The number of customer enrolled may be adjusted, at the Company's discretion, in order to dispense Commission-approved RIA funding on an annual basis.

N The monthly credit for the residential Income Assistance Service Provision shall be applied as follows:

N DELIVERY CHARGES: These charges are applicable to Full Service and Retail Open Access customers.

N INCOME ASSISTANCE CREDIT: $(29.00) per customer per month.

TERMS OF PAYMENT:

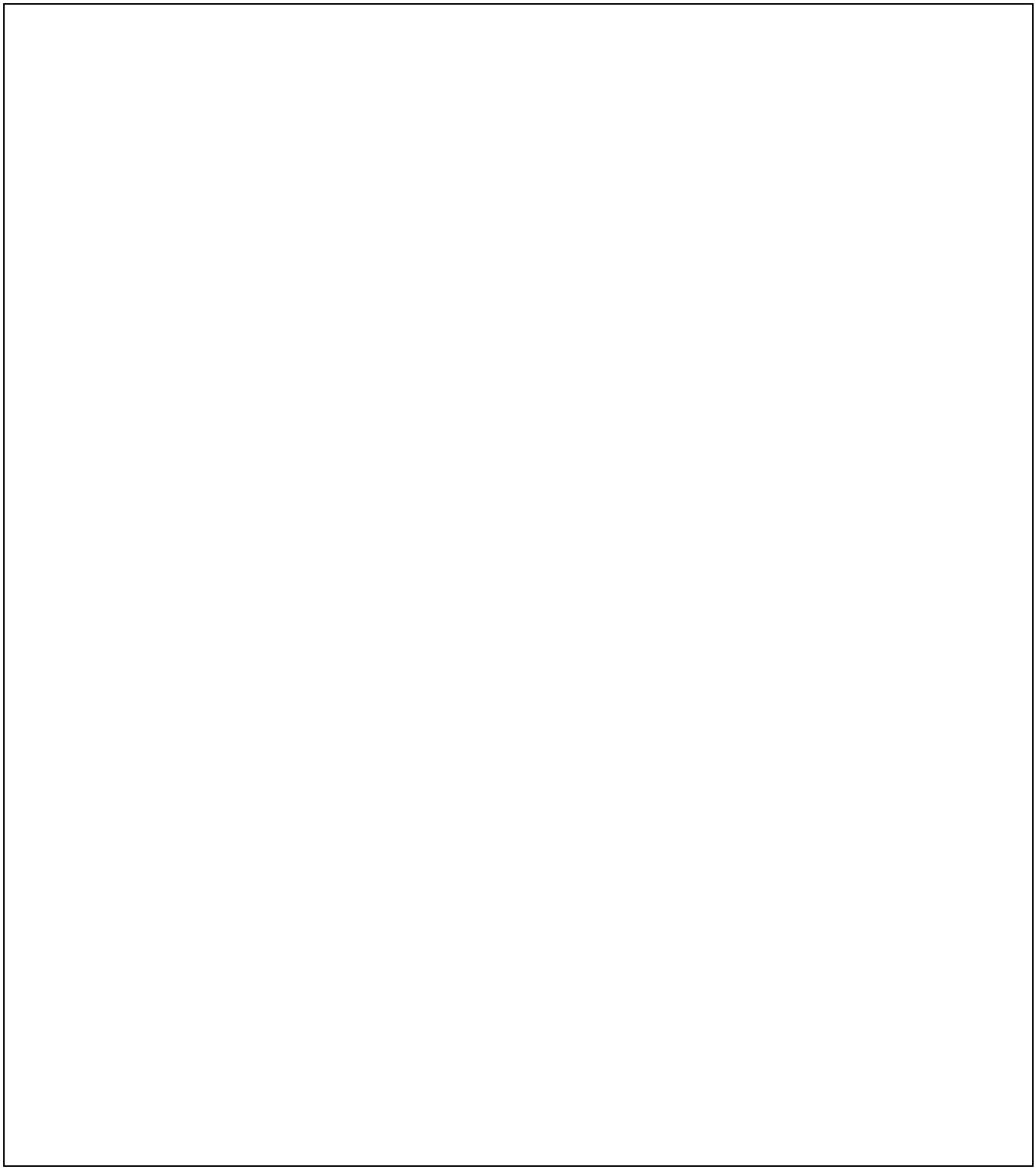
Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

RULES APPLYING:

1) Service is governed by the Company's Standard Rules and Regulations.

2) Separately metered water heating on a separate circuit is available under rate "A-1".

3) Permanently installed heating equipment is heating equipment that is hard-wired into an electric panel which may or may not have a plug.



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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~9th~~ Rev. Sheet No. D-12.00

Replaces XX~~8th~~ Rev. Sheet No. D-12.00

D2. General Service **C-1**

WHO MAY TAKE SERVICE:
Any customer for commercial or industrial purpose with a billing demand of less than 25 kW. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:
Single or three-phase, alternating current, 60 hertz at standard available voltages.

RATE: DISTRIBUTION SERVICE:
Service Charge:
R $38.00~~17.00~~ per month
R $1.249~~30.5589~~ per day

Energy Charge:
R $0.142~~320.07384~~ per kWh for all kWh

POWER SUPPLY SERVICE (Optional)
Energy Charge:
R Non-Capacity $0.090~~040.06503~~ per kWh for all kWh
R Capacity $0.012~~980.02181~~ per kWh for all kWh

MINIMUM CHARGE:
The service charge included in the rate, plus the energy optimization surcharge.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~D~~ TERMS OF PAYMENT:
~~D~~ Bills are due in 21 days from date of bill. A delayed payment charge
~~D~~ of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

RULES APPLYING:
(1) Service is governed by the Company's Standard Rules and Regulations.
(2) Conjunctional billing will not be permitted in cases where the customer is presently being served lighting and power loads through separate meters. In these instances, whenever the customer at his expense will arrange his wiring to receive energy through one single metered service, then this rate shall apply to his entire requirements.

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~9th~~ Rev. Sheet No. D-14.00

Replaces XX~~8th~~ Rev. Sheet No. D-14.00

D2. Commercial Heating Service **H-1**

WHO MAY TAKE SERVICE:
Any customer for commercial purposes provided that their electric space heating facilities are permanently installed and are the primary source of space heating. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:
Single or three-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE: DISTRIBUTION SERVICE
Service Charge:
R $38.00~~17.00~~ per month
R $1.2493~~0.5589~~ per day

Energy Charge:
For billing months of June through September
R $0.142322~~0.07384~~ per kWh for all kWh
For billing months of October through May
R $0.14232~~0.07384~~ per kWh for first 1000 kWh
R $0.07116~~0.03692~~ per kWh for the excess

POWER SUPPLY SERVICE (Optional)
Energy Charge:
For billing months of June through September
R Non-Capacity $0.09004~~0.06529~~ per kWh for all kWh
R Capacity $0.01298~~0.02155~~ per kWh for all kW
For billing months of October through May
R Non-Capacity $0.09004~~0.06529~~ per kWh for first 1000 kWh
R Capacity $0.01298~~0.02155~~ per kWh for first 1000 kWh
R Non-Capacity $0.06303~~0.06529~~ per kWh for the excess
R Capacity $0.00908~~0.02155~~ per kWh for the excess

MINIMUM CHARGE:
The service charge included in the rate, plus the energy optimization charge.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~D~~
~~D~~
~~D~~

Continued to Page D-14.10

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In Case No: U-21286~~20276~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~9th~~ Rev. Sheet No. D-16.00

Replaces XX~~8th~~ Rev. Sheet No. D-16.00

D2. Light and Power Service **P-1**

WHO MAY TAKE SERVICE:
Any customer for light and power purposes with a billing demand equal to or greater than 25 kW but less than 200 kW. To qualify, the customer must maintain a demand equal to or greater than 25 kW for three consecutive months and at least once in each succeeding twelve-month period. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:
Single or three-phase, alternating current, 60 hertz at standard available voltages.

RATE: DISTRIBUTION SERVICE

Service Charge:
R $50.00~~35.00~~ per month
R $1.6438~~1.1507~~ per day

Demand Charge:
R $5.80~~6.85~~ per kW per month

Energy Charge:
R $0.07007~~0.03323~~ per kWh for all kWh

POWER SUPPLY SERVICE (Optional)

Demand Charge:
R Capacity $7.72~~7.32~~ per kW per month
R Non-Capacity $1.02~~2.53~~ per kW per month

Energy Charge:
$0.06513 per kWh for all kWh

MINIMUM CHARGE:
The capacity charge for 25 kW or the contract minimum, whichever is greater, plus the energy optimization charge.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~D~~
~~D~~ POWER FACTOR BILLING ADJUSTMENT:
~~D~~ This rate is subject to the Company's Power Factor Billing Adjustment.

Continued on Sheet No. D-17.00

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~6th~~ Rev. Sheet No. D-25.10
Replaces XX~~5th~~ Rev. Sheet No. D-25.10

D2. Large Commercial & Industrial Service **Cp-U**

WHO MAY TAKE SERVICE:

This schedule is applicable to customers whose monthly demand is equal to or greater than 200 kW for three consecutive months and at least once in each succeeding 12 month period and others taking standby service. This service is not available for customers required to take service under the Power Supply Default Service. Customers taking service under the Retail Access Service Tariff (RAST) shall be responsible for the Distribution Charges but not the Power Supply Charges under this rate schedule. Customers that purchase power supply service from the Company shall be subject to both the Distribution and Power Supply charges contained in this rate schedule.

Customers that take service directly from the company-owned substation (i.e. Company owns no distribution facilities downstream of substation) will be classified as Transmission and receive the Substation Transformer Capacity charge.

MONTHLY RATE

	Secondary	Primary	Transmission
DISTRIBUTION SERVICE			
Customer Charge:			
R Monthly	$500.00~~250.00~~	$650.00~~325.00~~	
R $1500.00~~750.00~~			
Daily	$16.4383~~8.2192~~	$21.3698~~10.6849~~	
$49.3150~~24.6575~~			
~~R~~			
R Demand Charge			
1. Customer Demand:$/KW	$4.89~~6.62~~	$4.02~~3.07~~	$0.00
Per KW of maximum demand during the current and preceding 11 months,			
~~R~~ plus,			
R			
R 2. On-Peak			
Firm Demand: $/KW	$5.14~~5.52~~	$4.23~~3.23~~	$2.07~~2.38~~
Interruptible Demand: $/KW	$5.14~~5.52~~	$4.23~~3.23~~	$2.07~~2.38~~
~~R~~ 7:00 AM to 11:00 PM; Monday through Friday			
R (except holidays).			
Substation Transformer Capacity: $/kVA			
R $1.04~~0.87~~			

Continued to Sheet No. D-25.20

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24~~19~~

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In Case No: U-21286~~20276~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~6th~~ Rev. Sheet No. D-25.20
Replaces XX~~5th~~ Rev. Sheet No. D-25.20

D2. Large Commercial & Industrial Service **Cp-U**

Continued from Sheet No. D-25.10

	Secondary	Primary	Transmission
POWER SUPPLY SERVICE (Optional)			
On-Peak			
Firm Demand: $/kW			
R Capacity	$6.44~~6.11~~	$5.80~~5.89~~	
R $5.15~~5.68~~			
R Non-Capacity	$0.99~~2.46~~	$0.89~~2.39~~	
~~R~~ $0.80~~2.32~~			
R Total	$7.43~~8.57~~	$6.69~~8.28~~	
R $5.95~~8.00~~			
R Interruptible Demand: $/kW			
~~R~~ Capacity	$1.44~~0.59~~	$0.80~~0.43~~	$0.15~~0.27~~
Non-Capacity	$0.22~~0.48~~	$0.12~~0.35~~	
$0.02~~0.23~~			
Total	$1.66~~1.07~~	$0.92~~0.78~~	$0.17~~0.50~~

7:00 AM to 11:00 PM; Monday through Friday (except holidays).

R Energy Charge

1. On-Peak

~~R~~

Energy Charge:$/kWh $0.08428~~0.06101~~ $0.08124~~0.05881~~

R $0.07827~~0.05666~~

7:00 AM to 11:00 PM; Monday through Friday (except holidays).

~~R~~ 2. Off-Peak

Energy Charge:$/kWh $0.05480~~0.03967~~ $0.05281~~0.03823~~

$0.05087~~0.03683~~

11:00 PM to 7:00 AM; Monday through Friday, all day Saturday, Sunday, and holidays.

MINIMUM CHARGE
The monthly minimum charge is the customer charge, demand charges, substation charges and the energy optimization charge.

POWER SUPPLY COST RECOVERY CLAUSE
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

PRIMARY & TRANSMISSION CHARGES
The customer shall provide a support for the company to terminate the primary conductors and install other required equipment. Customer owned substation equipment shall be operated and maintained by the customer. The support and substation equipment is subject to the company's inspection and approval.

ENERGY OPTIMIZATION
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

DEFINITIONS
For customers with company metering equipment installed at:

Secondary	Under 6,000 volts
Primary	6,000 volts to 15,000 volts, inclusive
Transmission	Over 15,000 volts

Continued to Sheet No. D-25.30

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~7th~~ Rev. Sheet No. D-28.00

Replaces XX~~6th~~ Rev. Sheet No. D-28.00

D2. Light and Power Service **WP-3**

WHO MAY TAKE SERVICE:

Any customer for light and power purposes with a billing demand equal to or greater than 5,000 kW and a minimum of 500 kW of on-site generation, served at Transmission or Sub Transmission available voltages. To qualify, the customer must maintain a demand greater than 5,000 kW for three consecutive months in any twelve-month period. Once qualified for this rate schedule, Customer must attain a demand in excess of 5,000 kW once in each succeeding twelve-month period to remain eligible for this rate schedule. A minimum of 1,000 kW of interruptible load is required for interruptible service. Company retains the right to limit Interruptible loads to 8 Mw in total under this rate schedule.

Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

Customers that take service directly from the company-owned substation (i.e. Company owns no distribution facilities downstream of substation) will be classified as Transmission and receive the Substation Transformer Capacity charge.

D

D CHARACTER OF SERVICE:

Three-phase, alternating current, 60 hertz at standard available voltages.

RATES: DISTRIBUTION SERVICE

	Customer Charge:	
R	Monthly	$1500.00~~750.00~~
R	Daily	$49.3150~~24.6575~~
	Customer Demand Charge per month: $/kW	$0.00
	Firm Demand Charge per month: $/kW	$1.90~~2.25~~
	Interruptible Demand Charge per month: $/kW	$1.90~~2.25~~
R		
R	Substation Transformer Capacity: $/kVa	$1.04~~0.87~~
R	POWER SUPPLY SERVICE (Optional)	
	Firm Demand Charge per month: $/kW	
R	Capacity	$5.15~~5.68~~
R	Non-Capacity	$0.80~~2.32~~
R	Total	$5.95~~8.00~~
R	Interruptible Demand Charge per month: $/kW	
R	Capacity	$0.15~~0.27~~
R	Non-Capacity	$0.02~~0.23~~
R	Total	$0.17~~0.50~~
R	On-Peak Energy: $/kWh	$0.07827~~0.05360~~
R	Off-Peak Energy: $/kWh	$0.05087~~0.03545~~

Continued on Sheet No. D-29.00

By G R Haehnel

Chief Financial Officer~~Director - Regulatory Affairs~~
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On and After: 07~~06~~-01~~01~~-24~~19~~

Mich Public Serv Comm
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In Case No: U-21286~~20276~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX2nd Rev. Sheet No. D-47.00

Replaces XX1st Rev. Sheet No. D-47.00

D2. Real-Time Market Pricing **RTMP**

WHO MAY TAKE SERVICE:
Any customer interconnected directly with the American Transmission Company (ATC) with a demand in excess of 1,000 KW.

RATES: DELIVERY SERVICE

Customer Charge per month:	$1,000
R Demand Charge per month:	$0.340.19 per kW

Higher of the current month's maximum 15-minute demand in kW or 60% of maximum demand of current or preceding 11 months.

POWER SUPPLY SERVICE (Optional)

Transmission Service:
The Company will charge the customer for transmission costs that the Company is billed from the American Transmission Company (ATC), the Midwest Independent System Operator (MISO) or their successors for costs to provide transmission service the customer. Costs to provide transmission service to the customer shall be determined by using billing determinants such as demand and energy that the ATC and MISO use to bill the Company for transmission service. The Company will use the customer's contribution to these billing determinants used by the ATC and MISO to determine the customer's transmission charge. The Company shall provide supporting calculations in the monthly bill to the customer for determining customer transmission charges. The customer retains the right to audit transmission charges on an annual basis.

Generation Service
Generation service is non-firm subject to interruptions by UPPCO, the MISO, the ATC, or other regulating authorities.

Scheduling Charge per month: $1,000

Energy Charge
Hourly Energy charges will be based on the applicable Locational Marginal Price (LMP) plus applicable Midwest Independent System Operator (MISO) charges and credits, plus $1/mWh. The default LMP pricing node shall be UPPC.Integrated or its successor. Should the Company determine that another pricing node better reflects the LMPs that the Company incurs for service to the customer and there has been a minimum of a 10% pricing differential between the average real time price for 12 months between the two nodes and that use of another pricing node would prevent financial harm to the Company or Company's other customers taking system power, the Company will provide the customer with the alternative pricing node to be used for pricing along with information that demonstrates this new pricing node better reflects the LMPs the company incurs for service to the customer. The Company will provide a 90 day notice to the customer before changing pricing nodes and the pricing node will not be changed prior to January 1, 2013.

Continued on Sheet No. D-47.10

Chief Financial Officer~~Director – Regulatory Affairs~~
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Dated: XX~~05~~-XX~~23~~-XX~~19~~
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~4th~~ Rev. Sheet No. D-49.50

Replaces XX~~3rd~~ Rev. Sheet No. D-49.50

D2. Real-Time Market Pricing-Distribution Service **RTMP-D**

WHO MAY TAKE SERVICE:
Any customer that qualifies for the WP-3 tariff schedule. Upon Company approval, Customer may take service under this tariff for a portion of its load and a portion of its load under the WP-3 tariff. Cp-U accounts that are associated accounts of the WP-3 account may take service under this tariff. See the Associated Accounts section of this tariff.

RATES: DELIVERY SERVICE

Customer Charge:		
Monthly		$1,000
Daily		$32.8767
Demand Charge per month:		$0.34~~2.25~~/kW

Higher of the current month's maximum 15-minute demand in kW or 60% of maximum demand of current or preceding 11 months.

DISTRIBUTION SERVICE
See applicable tariff (Cp-U or WP-3) for distribution charges.

POWER SUPPLY SERVICE (Optional)

Transmission Service:
The Company will charge the customer for transmission costs that the Company is billed from the American Transmission Company (ATC), the Midwest Independent System Operator (MISO) or their successors for costs to provide transmission service the customer. Costs to provide transmission service to the customer shall be determined by using billing determinants such as demand and energy that the ATC and MISO use to bill the Company for transmission service. The Company will use the customer's contribution to these billing determinants used by the ATC and MISO to determine the customer's transmission charge. The Company shall provide supporting calculations in the monthly bill to the customer for determining customer transmission charges. The customer retains the right to audit transmission charges on an annual basis.

Generation Service
Generation service is non-firm subject to interruptions by UPPCO, the Midwest Independent System Operator, the American Transmission Company, or other regulating authorities.

Scheduling Charge per month: $1,000

Energy Charge
Hourly Energy charges will be based on the applicable Locational Marginal Price (LMP) plus applicable Midwest Independent System Operator (MISO) charges and credits, plus $1/MWh. The default LMP pricing node shall be UPPC.Integrated or its successor. Should the Company determine that another pricing node better reflects the LMPs that the Company incurs for service to the customer and there has been a minimum of a 10% pricing differential between the average real time price for 12 months between the two nodes and that use of another pricing node would prevent financial harm to the Company or Company's other customers taking system power, the Company will provide the customer with the alternative pricing node to be used for pricing along with information that demonstrates this new pricing node better reflects the LMPs the company incurs for service to the customer. The Company will provide a 90 day notice to the customer before changing pricing nodes and the pricing node will not be changed prior to January 1, 2013.

Continued on Sheet No. D-49.51

Issued: XX~~06~~-XX~~05~~-XX~~19~~ Effective for Service
By G R Haehnel On and After: 07~~06~~-01~~01~~-24~~19~~
Chief Financial Officer~~Director – Regulatory Affairs~~
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Dated: XX~~05~~-XX~~23~~-XX~~19~~
In Case No: U-21286~~20276~~

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~8th~~ Rev. Sheet No. D-50.00

Replaces XX~~7th~~ Rev. Sheet No. D-50.00

D2. Street Lighting Service **SL-3**

WHO MAY TAKE SERVICE:
Any municipality for customer owned, operated and maintained street lighting and/or traffic signal system.

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE:

Service Charge:

R $38.00~~17.00~~ per month
R $1.2493~~0.5589~~ per day

Energy Charge ($/kWh)

R	Capacity	$0.01298~~0.01872~~
R	Non-Capacity	$0.09004~~0.14196~~
R	Total	$0.10301~~0.16068~~

MINIMUM CHARGE:
The service charge included in the rate, plus the energy optimization charge.

POWER SUPPLY COST RECOVERY CLAUSE:
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~D~~ TERMS OF PAYMENT:
~~D~~ Bills are due in 21 days from date of bill. A delayed payment charge of
~~D~~ 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

CONTRACT:
Minimum period of three years subject to automatic renewal periods of one year each. The contract may be terminated at the end of any yearly period upon 90 days written notice by either party. If the contract is terminated before the three year period, the customer may be responsible for the lesser of the cost of removal or the remaining monthly charges.

RULES APPLYING:
Service is governed by the Company's Standard Rules and Regulations.

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Chief Financial Officer~~Director – Regulatory Affairs~~
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Marquette, Michigan

Effective for Service
On and After: 0706-0101-2419

Mich Public Serv Comm
Dated: XX05-XX23-XX19
In Case No: U-XXXXX20276

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~9th~~ Rev. Sheet No. D-51.00

Replaces XX~~8th~~ Rev. Sheet No. D-51.00

D2. Street Lighting Service (Closed) **SL-5**

WHO MAY TAKE SERVICE:
Any municipality owning its own street lighting system including poles, fixtures, wires, transformers, time switches and other accessories. Additions to mercury vapor lighting services are closed to new customers. This option is closed to new customers effective January 1, 2014.

HOURS OF SERVICE:
All night - Dusk to Dawn

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz at the Company's distribution voltage.

RATE:

Light Emitting Diode (LED)

Non-Capacity Watts	Per Lamp Per Month All Night
0-99	$13.71~~12.46~~
100-199	$18.08~~16.38~~
200-299	$22.32~~20.30~~
300-399	$26.62~~24.20~~

Sodium Vapor

Non-Capacity Lumens	Watts	Per Lamp Per Month All Night
9,000	100	$15.25~~13.86~~
14,000	150	$18.04~~16.40~~
27,000	250	$23.41~~21.29~~
45,000	400	$29.73~~27.03~~

Mercury Vapor

Non-Capacity Lumens	Watts	All Night
20,000	400	$35.25~~32.04~~

Capacity Energy: All Lights
$0.01516~~0.01872~~ per kWh

Type of Facility	Monthly Charge
Additional Wood Pole	$4.51/pole
Span of Conductor (200 feet)	$3.26/span

Continued on Sheet No. D-52.00

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Dated: XX05-XX23-XX19
In Case No: U-21286276

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~7th~~ Rev. Sheet No. D-53.00

Replaces XX~~6th~~ Rev. Sheet No. D-53.00

D2. Street Lighting Service **SL-6**

WHO MAY TAKE SERVICE:
Any municipality from Company owned, operated and maintained street lighting system as available. Additions to mercury vapor lighting services are closed to new customers.

HOURS OF SERVICE: All night – Dusk to Dawn

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz at the Company's distribution voltage.

Non-Capacity Rate:

	Sodium Vapor Lumens	Watts	Per Lamp Per Month All Night	
R	5,670	70	$20.89~~19.90~~	(Closed)
R	9,000	100	$21.72~~20.69~~	(Closed)
R	14,000	150	$26.35~~25.10~~	(Closed)
R	27,000	250	$29.91~~28.49~~	(Closed)
R	45,000	400	$42.13~~40.12~~	(Closed)

	Mercury Vapor Lumens	Watts	All Night	
R	7,500	175	$22.11~~21.05~~	(Closed)
R	20,000	400	$40.59~~38.66~~	(Closed)

	Metal Halide Lumens	Watts	All Night	
R	8,800	175	$36.06~~34.35~~	(Closed)
R	36,000	400	$44.39~~42.27~~	(Closed)
R	110,000	1,000	$81.81~~77.91~~	(Closed)

	LED Lumens	Watts	All Night
R	9,000*	100*	$10.21~~18.08~~
R	14,000*	150*	$11.23~~21.45~~
R	27,000*	250*	$13.27~~25.24~~
	45,000*	400*	$19.40
~~N~~ R	120,000*	1,000*	$40.84

Capacity Rate: All Lights
$0.0151~~60.01872~~ per kWh

SPECIAL TERMS AND CONDITIONS
The above charges are for lighting units on existing company-owned distribution facilities. The company will own and install the luminaires, complete with lamp, control device, and six-foot mast arm, mounted on an existing company pole. If the customer requests the following facilties, the monthly charges listed below shall be added to the above charges.

Type of Facility	Monthly Charge
Additional Wood Pole	$4.51/pole
Span of Conductor (200 feet)	$3.26/span

* The wattages and lumens listed under the LED lamps are wattages and lumens of sodium vapor lamps to which the LED lamps are considered equivalent. Actual wattages and lumens of LED lamps may vary.

Continued on Sheet No. D-54.00

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC XX~~8th~~ Rev. Sheet No. D-57.00

Replaces XX~~7th~~ Rev. Sheet No. D-57.00

D2. Dusk To Dawn Outdoor Security Lighting **Z-3**

WHO MAY TAKE SERVICE:
Any customer for dusk to dawn outdoor security lighting where customer takes service at the same premises under a standard rate schedule. Additions to mercury vapor lighting services are closed to new customers.

D
D

HOURS OF SERVICE:
Daily from dusk to dawn.

CHARACTER OF SERVICE:
Single-phase, alternating current, 60 hertz, nominally at 120 volts.

Non-Capacity Rate:

Sodium Vapor

	Lumens	Watts	Monthly Charge
R	9,000	100	$23.94~~22.80~~/Lamp (Closed)
R	27,000	250	$36.68~~34.93~~/Lamp (Closed)
R	45,000	400	$44.39~~42.27~~/Lamp (Closed)

Mercury Vapor

	Lumens	Watts	Monthly Charge
R	7,500	175	$21.23~~20.22~~/Lamp (Closed)
R	20,000	400	$39.65~~37.76~~/Lamp (Closed)

Metal Halide

	Lumens	Watts	Monthly Charge
R	36,000	400	$44.09~~41.99~~/Lamp (Closed)
R	110,000	1,000	$81.17~~77.30~~/Lamp (Closed)

LED

	Lumens	Watts	Monthly Charge
R	9,000	100*	$11.23~~10.92~~/Lamp
R	14,000	150*	$12.35~~23.71~~/Lamp
R	27,000	250*	$14.60~~27.87~~/Lamp
N	45,000	400*	$21.34/Lamp
N	120,000	1,000*	$44.92/Lamp

*The wattages and lumens listed under the LED lamps are wattages and lumens of sodium vapor lamps to which the LED lamps are considered equivalent. Actual wattages and lumens of LED lamps may vary.

SPECIAL TERMS AND CONDITIONS
The above charges are for lighting on existing company-owned distribution facilities. The Company will own and install the luminaire, complete with lamp, control device and up to and including a 6-foot mast arm, mounted on an existing company pole. If the customer requests a mast arm in excess of 6 feet it will be considered special facilities. If the customer requests an additional pole and span, the monthly charges listed below shall be added to the above charges.

Continued on Sheet No. D-58.00

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Mich Public Serv Comm
Dated: XX~~05~~-XX~~23~~-XX~~19~~
In Case No: U-21286~~20276~~

Michigan Public Service Commission
Upper Peninsula Power Company
Forecast Adjustments/Inputs Summary
for the Projected Year ended, June 30, 2024

Case No. U-21286
Confidential Exhibit A-12 (GRH-14)

Witness: Gradon R. Haehnel

Forecast Adjustment/Inputs Summary								
A	B	C	D	E	F	G	H	I
Forecast Adjustment No.	**Exhibit No.**	**Category**	**FERC reference**	**2022**	**2023**	**2024**	**Projected Test Year**	
1	Exhibit A-13 (GRH-15)	Inflation Factor (CPI)		3.51%	3.51%	3.51%		factor
2	Exhibit A-14 (GRH-16)	S&W Adjustment - Union			[redacted]	[redacted]		factor
3	Exhibit A-15 (GRH-17)	S&W Adjustment - Non Union			[redacted]	[redacted]		factor
4	Exhibit A-16 (GRH-18)	Union Power Supply S&W Adjustment	FERC 544	$ (17,168)	$ 35,151	$ 36,908	$ 36,030	adjustment
5	Exhibit A-17 (GRH-19)	Union Distribution S&W Adjustment	FERC 582	$ (39,650)	$ 81,184	$ 85,243	$ 83,214	adjustment
6	Exhibit A-18 (GRH-20)	Union Customer Accounts S&W Adjustment	FERC 903	$ (7,852)	$ 16,078	$ 16,882	$ 16,480	adjustment
7	Exhibit A-19 (GRH-21)	Admin (NonUnion) S&W Adjustment	FERC 920	$ (878)	$ 136,848	$ 143,690	$ 140,269	adjustment
8	Exhibit A-20 (GRH-22)	Vegetation Management	FERC 593	$ (265,238)	$ 131,163	$ 16,499	$ 73,831	adjustment
9	Exhibit A-21 (GRH-23)	EWR	FERC 908	$ 296,505	$ 142,985	$ 142,985	$ 50,834	adjustment
10	Exhibit A-22 (GRH-24)	Bad Debt Expense	FERC 904	$ 290,004	$ 434,645	$ 417,975	$ 426,310	input
11	Exhibit A-23 (GRH-25)	Depreciation	FERC 403	$ 9,790,019	$ 10,509,935	$ 11,840,279	$ 11,500,073	input
11	Exhibit A-23 (GRH-25)	Amortization	FERC 404	$ 2,438,986	$ 2,680,293	$ 3,400,504	$ 3,161,252	input
12	Exhibit A-24 (GRH-26)	Exec Deferred Compensation	FERC 926260	[redacted]	[redacted]	[redacted]	[redacted]	input
13	Exhibit A-25 (GRH-27)	Pension Expense	FERC 926060	$ 319,844	$ 499,459	$ 482,953	$ 491,206	input
13	Exhibit A-25 (GRH-27)	Post Retirement Medical	FERC 926180	$ (901,924)	$ (1,405,036)	$ (1,335,676)	$ (1,370,356)	input
13	Exhibit A-25 (GRH-27)	Pension Restoration	FERC 926210	$ 42,329	$ 15,436	$ 15,401	$ 15,419	input
13	Exhibit A-25 (GRH-27)	Supple Emp Ret Plan-SERP	FERC 926220	$ 11,165	$ 11,138	$ 10,618	$ 10,878	input
13	Exhibit A-25 (GRH-27)	Post Retirement Life	FERC 926305	$ 89,173	$ 85,833	$ 83,688	$ 84,761	input

Michigan Public Service Commission
Upper Peninsula Power Company
Inflation Factor
for the Projected Year ended, June 30, 2024

Case No. U-21286
Exhibit A-13 (GRH-15)

Witness: Gradon R. Haehnel

Inflation Factors						
Congressional Budget Office (CBO) - May 2022 Forecast Report						
	actual			forecast		
	2019	2020	2021	2022	2023	2024
CPI	255.6	258.8	271.0	287.5	296.4	303.5
% change		1.25%	4.69%	3.51%	3.51%	3.51%

Vegetation Management Expense					
Inflation Factor		3.51%	3.51%	3.51%	
	2021	**2022**	**2023**	**2024**	**PTY**
Budget / Plan	$ 3,015,117	$ 2,855,709	$ 3,087,108	$ 3,211,964	$ 3,149,536
Inflation Adjusted		$ 3,120,948	$ 2,955,945	$ 3,195,465	$ 3,075,705
Forecast Adjustments		$ (265,238)	$ 131,163	$ 16,499	$ 73,831

Michigan Public Service Commission
Upper Peninsula Power Company
Energy Waste Reduction (EWR) Expense
for the Projected Year ended, June 30, 2024

Case No. U-21286
Exhibit A-21 (GRH-23)

Witness: Gradon R. Haehnel

Energy Waste Reduction (Historical and Forecasted)					
Inflation Factor		3.51%	3.51%	3.51%	
	2021	**2022**	**2023**	**2024**	**PTY**
Budget / Plan	$ 2,985,094	$ 3,386,375	$ 3,386,375	$ 3,527,536	$ 3,456,955
Inflation Adjusted		$ 3,089,871	$ 3,198,325	$ 3,310,586	$ 3,310,586
Forecast Adjustments		$ 296,505	$ 142,985	$ 142,985	$ 50,834

Michigan Public Service Commission
Upper Peninsula Power Company
Bad Debt Expense
for the Projected Year ended, June 30, 2024

Case No. U-21286
Exhibit A-22 (GRH-24)

Witness: Gradon R. Haehnel

Bad Debt Expense (Historical and Projected)							
			Annual			Monthly Average	
		Year Actual	Simple 5 Year Avg	Inflation Factor	Inflation Adjusted 5 Year Avg	Inflation Adjusted Monthly Avg	Inflation Adjusted 5 Year Average
2016		$ 693,202				$ 57,767	
2017		$ 2,198,285				$ 183,190	
2018	Actual	$ 568,896				$ 47,408	
2019	Actual	$ 516,179				$ 43,015	
2020	Actual	$ 524,044				$ 43,670	
2021	Actual	$ 200,410				$ 16,701	
2022	Budget	$ 290,004				$ 24,167	
2023	Projected		$ 419,906	3.51%	$ 434,645	$ 36,220	$ 34,992
2024	Projected		$ 390,109	3.51%	$ 417,975	$ 34,831	$ 32,755

Michigan Public Service Commission
Upper Peninsula Power Company
Depreciation and Amortization Expense
for the Projected Year ended, June 30, 2024

Case No. U-21286
Exhibit A-23 (GRH-25)

Witness: Gradon R. Haehnel

2023-24 Month by Month Forecast

	7/1/2023	8/1/2023	9/1/2023	10/1/2023	11/1/2023	12/1/2023	1/1/2024	2/1/2024	3/1/2024	4/1/2024	5/1/2024	6/1/2024	Total
606201 Acc Dep Util Plt-Basic Cost Re	906,319	913,324	929,998	937,286	940,659	952,347	954,739	955,157	989,762	989,658	992,703	1,038,121	11,500,073
606200 Acc Prov for Depr-Nonutility P	19,940	20,059	20,178	20,296	20,415	20,534	20,653	20,771	20,890	21,009	21,128	21,246	247,119
606001 Accumulated Amortization	222,219	234,339	240,961	248,319	256,196	258,967	261,927	266,965	278,357	289,368	297,263	306,370	3,161,252
	1,148,479	1,167,721	1,191,136	1,205,901	1,217,271	1,231,848	1,237,319	1,242,893	1,289,010	1,300,035	1,311,094	1,365,737	14,908,444

Michigan Public Service Commission
Upper Peninsula Power Company
Pension & OPEB Expense
for the Projected Year ended, June 30, 2024

Case No. U-21286
Exhibit A-25 (GRH-27)

Witness: Gradon R. Haehnel

FERC 926 Summary - Pension, OPEB, and Other Benefits Expense

Line	a	b	c	d	e	f
		2021 Actuals	**2022 Projected**	**2023 Projected**	**2024 Projected**	**Projected Test Year**
1	Average no. of employees	178	185			
2	Pension Summary					
3	UPPCO Retirement Plan		319,844	499,459	482,953	491,206
4	UPPCO SERP Plan		11,165	11,138	10,618	10,878
5	UPPCO Restoration Plan		42,329	15,436	15,401	15,419
6	Total Pension	-	373,338	526,033	508,972	517,503
7						
8	OPEB Summary					
9	Administrative Medical		30,651	77,790	78,875	78,333
10	Non-Administrative Medical		(932,575)	(1,482,826)	(1,414,551)	(1,448,689)
11	Retiree Life Insurance		89,173	85,833	83,688	84,761
12	Total OPEB	-	(812,751)	(1,319,203)	(1,251,988)	(1,285,596)
13						
14	**Inflation escalation factors**		**3.51%**	**3.51%**	**3.51%**	
15	Other Benefits Expense					
16	A&G-Employee Pensions and Bene	798,654	826,687	855,704	885,739	870,721
17	Company Cash Match 401k	566,459	586,342	606,922	628,225	617,574
18	UPPCo A&GOperEmpBenSickLvTrm-G	12,663	13,108	13,568	14,044	13,806
19	Dental Benefits-Active Empl	82,162	85,046	88,031	91,121	89,576
20	Medical Benefits-Active Empl	1,474,061	1,525,801	1,579,356	1,634,792	1,607,074
21	Fully Insured LTD Prem Exp	28,759	29,768	30,813	31,895	31,354
22	Empl Ben-Tuition Reimbursement	19,438	20,120	20,827	21,558	21,192
23	Company Prov Life Insurance	66,716	69,058	71,481	73,990	72,736
24	Defined Contribution Plan Exp	440,886	456,362	472,380	488,960	480,670
25	LT Disability Benefit	58,317	60,364	62,482	64,675	63,579
26	ST Disabil FASB 112	32,502	33,643	34,824	36,046	35,435
27	Benefits-Wellness	35,033	36,263	37,536	38,853	38,195
28	Total Other Benefits Expense		3,742,560	3,873,924	4,009,899	3,941,911
29						
30	Total FERC 926	-	3,303,147	3,080,754	3,266,883	3,173,818

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO Capital Expenditures (CAPEX) Summary by Business Line
2021-2024

Case No.: U-21286
Exhibit No.: A-26 (SSL-6)
Schedule:
Page: 1 of 1
Witness: Stephen S. Lillie

UPPCO Capital Expenditures (CAPEX) Summary by Business Line

Line	A	B	C	D	E	F	G	H	I	J
			2021	**2022**	**2023**	**2024**	**2 YR AVG.**	**2 YR VARIANCE**	**3 YR AVG.**	**3 YR VARIANCE**
1	Distribution									
2	03	Facility	-	-	-	-	-		-	
3	04	Improve Reliability / Load Growth	5,353,027	6,404,951	8,619,056	8,976,706	7,512,003	19.5%	6,792,345	32.2%
4	05	New Equipment / Equipment Upgrade	2,078,251	2,802,592	4,861,494	5,225,067	3,832,043	36.4%	3,247,446	60.9%
5	06	New Customer / Service	2,958,286	1,617,155	1,754,501	2,107,687	1,685,828	25.0%	2,109,980	-0.1%
6	07	Contractual / Regulatory / Statutory	15,369	50,934	103,878	103,878	77,406	34.2%	56,727	83.1%
7	08	Special Projects	(142)	-	-	-	-		(47)	-100.0%
8	**Distribution Total**		**10,404,792**	**10,875,631**	**15,338,929**	**16,413,338**	**13,107,280**	**25.2%**	**12,206,451**	**34.5%**
9	Substation									
10	04	Improve Reliability / Load Growth	935,016	66,214			66,214	-100.0%	500,615	-100.0%
11	05	New Equipment / Equipment Upgrade	1,393,276	2,050,094	1,222,645	-	1,636,369	-100.0%	1,555,338	-100.0%
12	08	Special Projects	1,026,096	1,270,294	2,691,480	4,441,823	1,980,887	124.2%	1,662,623	167.2%
13	**Substation Total**		**3,354,387**	**3,386,602**	**3,914,125**	**4,441,823**	**3,683,470**	**20.6%**	**3,217,961**	**38.0%**
14	Generation									
15	03	Facility	82,290	393,750	186,981	244,115	290,366	-15.9%	221,007	10.5%
16	04	Improve Reliability / Load Growth	190,837	-	10,388	93,490	5,194	1700.0%	67,075	39.4%
17	05	New Equipment / Equipment Upgrade	63,906	1,800,595	1,116,690	637,811	1,458,643	-56.3%	993,730	-35.8%
18	07	Contractual / Regulatory / Statutory	1,306,327	747,093	256,786	1,589,335	501,939	216.6%	770,069	106.4%
19	08	Special Projects	-	-	1,314,696	-	657,348	-100.0%	438,232	-100.0%
20	**Generation Total**		**1,643,359**	**2,941,439**	**2,885,541**	**2,564,751**	**2,913,490**	**-12.0%**	**2,490,113**	**3.0%**
21	Corporate									
22	01	IT	1,540,878	3,538,760	6,076,899	5,199,127	4,807,830	8.1%	3,718,846	39.8%
23	02	Fleet	1,947,715	2,171,756	1,974,983	1,994,459	2,073,370	-3.8%	2,031,485	-1.8%
24	03	Facility	621,527	324,010	1,063,451	1,329,640	693,731	91.7%	669,663	98.6%
25	08	Special Projects	480,420	958,730	-	-	479,365	-100.0%	479,717	-100.0%
26	**Corporate Total**		**4,590,540**	**6,993,256**	**9,115,333**	**8,523,226**	**8,054,295**	**5.8%**	**6,899,710**	**23.5%**
27	**TOTAL 5-YEAR CAPEX PLAN**		**19,993,078**	**24,196,928**	**31,253,928**	**31,943,138**	**27,758,535**	**15.1%**	**24,814,235**	**28.7%**
28										
29	**TOTAL CAPEX PLAN (Excluding Special Projects)**		**19,512,658**	**23,238,198**	**31,253,928**	**31,943,138**	**27,279,170**	**17.1%**	**24,334,518**	**31.3%**

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO Facility CAPEX
Facility Projects > $100K for 2023-2024

Case No.: U-21286
Exhibit No.: A-27 (SSL-7)
Schedule:
Page: 1 of 1
Witness: Stephen S. Lillie

UPPCO Facility CAPEX

Line		Facility Projects > $100K for 2023-2024	2023	2024
1	4000.03	Hancock Property / Utility Entrance & Road Work	311,634	-
2	4000.03	Hancock Property Laydown Yard	415,512	-
3	4000.03	Hancock Property Fencing	207,756	-
4	4000.03	Other/ Unforeseen/General Facility Improvements	128,549	342,798
5	4000.03	Hancock Property / Main Building Concrete	-	779,086
6	4000.03	Hancock Property / Storage Building Concrete	-	207,756
7		**Total Facility Capital**	**1,063,452**	**1,329,639**

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO Substation CAPEX
Substation Projects > $100K for 2023-24

Case No.: U-21286
Exhibit No.: A-28 (SSL-8)
Schedule:
Page: 1 of 1
Witness: Stephen S. Lillie

UPPCO Substation CAPEX

Line	Substation Projects > $100K for 2023-24		2023	2024
1	2000.04.01	Perch Lake 2nd Bank Addition - Add 2 12KV Feeders for Reliability includes new 5/7MVA 138:12KV Xfmr (@ $387K)	1,222,645	-
2	2000.05.03	Substation Tools - annual	103,878	103,878
3	2000.05.06	MTU Substation RTU and RC Upgrades (Replace four 351R's & three G&W Recloser Upgrades)	493,421	-
4	2000.05.06	Project Development for subsequent years - $100K/Year	103,878	103,878
5	2000.05.06	Atlantic RTU and R&C Upgrade (Replace 2 351R's & 2 G&W Recloser Upgrades)	-	467,451
6	2000.05.08	KI Sawyer Sub Replace Aging Two Transformers (UHV-2363 & 2364)-Mfg 1961 -Assuming Two New 10/14 MVA ($472K E	1,001,385	-
7	2000.05.08	KI Sawyer Sub Add two Transformer High Side Protection Equipment - “Estimate assumes construction is feasible. Enginee	415,512	-
8	2000.05.08	Delta Bk 1 (UHV-3038) Aging Transformer - Mfg 1979 - New 10/14 MVA ($472K+20K labor)	511,080	-
9	2000.05.08	MTU Bank 1 Replace Aging Transformer (UHV-0695) - Mfg 1967 - New 10/14MVA ($472 + 50% =$708K+20K labor)	-	756,232
10	2000.05.08	MTU Bank 1 Transformer High Side Protection Equipment - Assuming Constructability	-	259,695
11	2000.05.08	Munising Bank 2 Replace Aging Transformer (UHV-21244) - Mfg 1965 - New 5/7 MVA ($387K + 36% = $526K +20K Labo	-	567,174
12	2000.05.08	Ontonagon Bank 2 (UHV-1220) Replace Aging Transformer - MFG 1967 - New 5/7 MVA ($387K + 36% = $526K +20K Labo	-	567,174
13	2000.05.08	Chatham Replace Aging Transformer (UHV-1733) - Mfg 1964 - New 5/7 MVA ($387K + 36% = $526K +20K Labor)	-	567,174
14	2000.05.08	Delta Bank 1 Transformer High Side Protection Equipment - Assuming Constructability	-	259,695
15	2000.05.08	Delta RTU and R&C upgrade (Replace 4 351R's)	-	415,512
16	2000.05.08	RECURRING PROGRAM - Nine 219A Voltage Regulator Upgrades - 107 Week Leadtime - Ordered 4/2022 & Get 5/2024	-	311,634
17		**Total Substation Capital**	**3,851,799**	**4,379,500**

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO Generation CAPEX
Generation Projects > $100K for 2023-24

Case No.: U-21286
Exhibit No.: A-29 (SSL-9)
Schedule:
Page: 1 of 1
Witness: Stephen S. Lillie

UPPCO Generation CAPEX

Line	Generation Projects > $100K for 2023-24		2023	2024
1	3000.03.02	Hoist Emergency Generators (Dam & Powerhouse)	103,878	-
2	3000.05.05	Victoria - Controls upgrade	488,227	-
3	3000.05.05	Victoria Governors	135,042	-
4	3000.05.05	Prickett RTU Upgrade	-	103,878
5	3000.05.07	Hoist Unit 3 - Penstock Valve Replacement	311,634	-
6	3000.05.07	McClure Unit 1 generator clean/rewind, exciter refurb	-	311,634
7	3000.05.08	Annual New Equipment / Generation Misc. < 20k	155,817	155,817
8	3000.07.02	Victoria Gate Automation Design & Construction	116,551	810,249
9	3000.07.02	Bond Falls Right Embankment Groin Filter	103,878	-
10	3000.07.02	Victoria Tainter Gate Heaters	-	207,756
11	3000.07.02	Victoria Tainter Gate Refurbishment	-	363,573
12	3000.07.02	Bond Falls Intake Outlet Pipe Lining	36,357	155,817
13	3000.08.01	McClure Transformer 1	657,348	-
14	3000.08.01	McClure Transformer 2	657,348	-
15		**Total Generation Capital**	**2,766,080**	**2,108,725**

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO Distribution Reliability CAPEX
Distribution Projects > $50K for 2023-24

Case No.: U-21286
Exhibit No.: A-30 (SSL-10)
Schedule:
Page: 1 of 1
Witness: Stephen S. Lillie

UPPCO Distribution Reliability CAPEX

Line	Distribution Projects > $50K for 2023-24			
	Improve Reliaiblity | Load Growth		**2023**	**2024**
1	1000.04.01	Misc Capital Jobs less than $50k	1,501,038	1,545,187
2	1000.04.01	UPPCO Engineering, Designers, Clerks	1,664,420	1,380,624
3	1000.04.01	Engineering Pre Work for CapEx	51,939	77,909
4	1000.04.02	BRM 1231 reliability - part 1 - south camp & Part 2	519,390	519,390
5	1000.04.02	DLT 589 - Ford River Reliability Part 1 & 2	259,695	363,573
6	1000.04.02	FRE 203 - 35kV system improvements part 1 & 2	675,208	831,025
7	1000.04.02	KI/LL Tie Part 2	675,208	-
8	1000.04.02	FRY 2733 Shag/Charlie Lakes UG Part 2 & 3	311,634	519,390
9	1000.04.02	PLK 401 Reliability - Part 1	259,695	-
10	1000.04.02	M38 747 Tapiola Rd to Prickett Dam Rd OH to UG conversion	675,208	-
11	1000.04.02	KWN 927 Gratiot Lake to Eagle Harbor Crosscut OH to UG	311,634	-
12	1000.04.02	ELE 1121 Point Mills OH to UG conversion	311,634	-
13	1000.04.02	LIN 3063 Establish tie around Sunset Lake	519,390	-
14	1000.04.02	WNA 907 Lake Roland OH to UG conversion	155,817	-
15	1000.04.02	OSC 719 Jacobsville Rd OH to UG conversion Part 2	207,756	-
16	1000.04.02	TBD - SYS. HARDENING, OH TO URD CONV, AND COPPER REPLC	259,695	-
17	1000.04.02	UPPCO WIDE URD Unforeseen Replacement for End of Life Cable Failures	207,756	207,756
18	1000.04.02	GWN 657 - Bass/Johnson Lakes Reliability - Part 1	-	467,451
19	1000.04.02	M38 747 Prickett Dam Rd to Pike Lake Rd OH to UG conversion	-	831,025
20	1000.04.02	HEN 1017 Broemer Road to Chassell Painesdale reconductor	-	519,390
21	1000.04.02	OSC 717 Relocate to highway from Rinne's to Mohawk	-	363,573
22	1000.04.02	OSC 719 Jacobsville OH to UG conversion phase 2	-	259,695
23	1000.04.02	OSC 719 Jacobsville UG tie	-	103,878
24	1000.04.02	LIN 3063 Lake Emily-Iron River OH to UG conversion	-	259,695
25	1000.04.02	M38 749 Mansfeldt Rd rebuild	-	363,573
26	1000.04.02	Uppco Wide Tbd - Sys. Hardening, Oh To Urd Conv, And Copper Replace	-	311,634
27	1000.05.01	Distribution Stores, Shop, Lab & Work Tools	259,695	259,695
28	1000.05.02	Distribution Line Transformers	4,051,245	4,362,880
29	1000.05.03	Distribution Reclosers	155,817	207,756
30	1000.05.04	Distribution Regulators	155,817	155,817
31	1000.05.06	Meters & Installations (incl. PTs and CTs)	233,726	233,726
32	1000.06.01	Services	747,922	924,515
33	1000.06.02	Line Extensions	971,260	1,147,853
34	1000.07.01	Mandated Allowance and unforeseen (Road Moves etc.)	103,878	103,878
35	**Total Improve Reliability | Load Growth Distribution Capital**		**15,246,480**	**16,320,890**

Michigan Public Service Commission
Upper Peninsula Power Company
Reliability Indices
2017 - 2021

Case No.: U-21286
Exhibit No.: A-31 (JRR-1)
Schedule:
Page: 1 of 1
Witness: Jay R. Ringler

Upper Peninsula Power Company (UPPCO)
Reliability Indices

Line	Year	All Weather						Excluding MEDs per IEEE 1366					
		SAIDI		SAIFI		CAIDI		SAIDI		SAIFI		CAIDI	
		Annual	5 yr Avg.	Annual	5 yr Avg.	Annual	5 yr Avg.	Annual	5 yr Avg.	Annual	5 yr Avg.	Annual	5 yr Avg.
1	2017	573		2.08		276		176		1.23		143	
2	2018	134		1.13		119		134		1.13		119	
3	2019	782		2.39		328		211		1.78		119	
4	2020	231		1.83		126		206		1.77		116	
5	2021	249	394	1.38	1.76	181	206	149	175	1.16	1.41	128	125

6 The data above excludes transmission-caused outages.

Michigan Public Service Commission
Upper Peninsula Power Company
Major Event Days ("MEDs")
2017 - 2021

Case No.: U-21286
Exhibit No.: A-32 (JRR-2)
Schedule:
Page: 1 of 1
Witness: Jay R. Ringler

Line	Year	TMED	#MEDs	Ave # UPPCO Cust
1	2017	20.2	5	59,298
2	2018	20.8	0	59,000
3	2019	17.0	5	58,893
4	2020	17.4	1	58,607
5	2021	18.5	1	58,551

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO 2017-2021 Outages By Cause
5 year average

Case No.: U-21286
Exhibit No.: A-33 (JRR-3)
Schedule:
Page: 1 of 1
Witness: Jay R. Ringler

UPPCO 2017-2021 All-Weather, Including Transmission-caused

Line	Cause Description	Events	%	SAIDI	%	SAIFI	%
1	Weather	1,658	16%	793	38%	1.72	18%
2	Tree	2,916	29%	763	36%	3.42	36%
3	Dist Equip Fail	1,999	20%	143	7%	1.31	14%
4	Transmission	212	2%	121	6%	0.80	8%
5	Unknown	867	9%	80	4%	0.59	6%
6	Vehicle Accident	175	2%	70	3%	0.49	5%
7	Switching	67	1%	50	2%	0.35	4%
8	Planned Outage	723	7%	35	2%	0.23	2%
9	Animals	1,328	13%	26	1%	0.45	5%
10	Human Error	97	1%	7	0%	0.24	2%
11	Underground Dig In	66	1%	2	0%	0.01	0%
12	5-Year Total	10,108	100%	2,091	100%	9.60	100%

13 Data sorted by SAIDI.

UPPCO 2017-2021 Excluding MEDs and Transmission-caused

Cause Description	Events	%	SAIDI	%	SAIFI	%
Tree	2,356	27%	389	44%	2.60	37%
Weather	1,159	13%	150	17%	0.95	13%
Dist Equip Fail	1,955	22%	135	15%	1.27	18%
Unknown	848	10%	73	8%	0.55	8%
Vehicle Accident	174	2%	70	8%	0.49	7%
Animals	1,327	15%	26	3%	0.45	6%
Planned Outage	713	8%	12	1%	0.21	3%
Switching	46	1%	11	1%	0.32	4%
Human Error	96	1%	7	1%	0.24	3%
Underground Dig In	66	1%	2	0%	0.01	0%
5-Year Total	8,740	100%	876	100%	7.07	100%

Data sorted by SAIDI.

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO Pole Inspection History
2017 - 2021

Case No.: U-21286
Exhibit No.: A-34 (JRR-4)
Schedule:
Page: 1 of 1
Witness: Jay R. Ringler

UPPCO Pole Inspection History

Line			HOU	IR	ONT	ISH	MUN	DEL	UPPCO
1	**2017**	#Poles Inspected	2,393	396	258	2,891	779	1,154	7,871
2		#Danger/Reject	75	3	4	162	20	68	332
3		%	3.1%	0.8%	1.6%	5.6%	2.6%	5.9%	4.2%
4		#TREATED	430	66	55	704	73	242	1,570
5		%	18.0%	16.7%	21.3%	24.4%	9.4%	21.0%	19.9%
6		COST	$63,887.46	$8,569.94	$5,889.43	$71,855.88	$13,499.04	$15,536.89	$179,238.64
7									
8	**2018**	#Poles Inspected	2,278	463	296	1,542	575	1,081	6,235
9		#Danger/Reject	49	12	10	14	3	26	114
10		%	2.2%	2.6%	3.4%	0.9%	0.5%	2.4%	1.8%
11		#TREATED	393	61	49	103	52	149	807
12		%	17.3%	13.2%	16.6%	6.7%	9.0%	13.8%	12.9%
13		COST	$57,177.65	$9,538.97	$8,156.39	$36,765.87	$11,264.74	$23,561.68	$146,465.30
14									
15	**2019**	#Poles Inspected	2,339	381	399	1,360	649	990	6,118
16		#Danger/Reject	55	5	6	38	12	39	155
17		%	2.4%	1.3%	1.5%	2.8%	1.8%	3.9%	2.5%
18		#TREATED	195	27	32	225	109	160	748
19		%	8.3%	7.1%	8.0%	16.5%	16.8%	16.2%	12.2%
20		COST	$59,639.44	$11,454.35	$6,755.75	$37,845.76	$15,341.02	$26,775.62	$157,811.94
21									
22	**2020**	#Poles Inspected	2,001	397	252	1,433	642	1,141	5,866
23		#Danger/Reject	24	7	6	12	3	9	61
24		%	1.2%	1.8%	2.4%	0.8%	0.5%	0.8%	1.0%
25		#TREATED	385	114	94	230	90	290	1,203
26		%	19.2%	28.7%	37.3%	16.1%	14.0%	25.4%	20.5%
27		COST	$49,525.58	$15,812.24	$10,588.02	$35,973.92	$20,401.65	$32,092.01	$164,393.42
28									
29	**2021**	#Poles Inspected	2,179	359	267	1,368	634	1,042	5,849
30		#Danger/Reject	24	6	5	23	5	14	77
31		%	1.1%	1.7%	1.9%	1.7%	0.8%	1.3%	1.3%
32		#TREATED	323	32	77	276	48	136	892
33		%	14.8%	8.9%	28.8%	20.2%	7.6%	13.1%	15.3%
34		COST	$55,973.21	$13,411.42	$11,282.52	$39,714.18	$14,733.60	$24,147.97	$159,262.90
35									
36	**5-Yr Ave**	#Poles Inspected	2,238	399	294	1,719	656	1,082	6,388
37		#Danger/Reject	45	7	6	50	9	31	148
38		%	2.0%	1.7%	2.1%	2.9%	1.3%	2.9%	2.3%
39		#TREATED	345	60	61	308	74	195	1,044
40		%	15.4%	15.0%	20.9%	17.9%	11.3%	18.1%	16.3%
41		COST	$57,240.67	$13,411.42	$11,282.52	$39,714.18	$14,733.60	$24,147.97	$160,530.36

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO Underground Inspection History
2019 - 2021

Case No.: U-21286
Exhibit No.: A-35 (JRR-5)
Schedule:
Page: 1 of 1
Witness: Jay R. Ringler

UPPCO Underground Inspection History

Line			HOU	IR	ONT	ISH	DEL	MUN	UPPCO
1	2017	#Cabinets Inspected	1147	61	84	332	381	95	2,100
2		Cost	$33,454.25	$4,646.00	$1,760.00	$25,985.05	$15,221.10	$3,177.60	$84,244.00
3		Cabinets Refinished	59	8	0	19	0	36	122
4		Cost	$17,700.00	$3,163.00	$0.00	$11,633.00	$0.00	$8,979.00	$41,475.00
5									
6	2018	#Cabinets Inspected	571	58	32	194	136	128	1,119
7		Cost	$33,091.54	$3,456.75	$1,516.90	$8,992.60	$6,555.90	$6,012.36	$59,626.05
8		Cabinets Refinished	59	0	0	28	9	4	100
9		Cost	$0.00	$0.00	$0.00	$7,532.00	$3,098.00	$921.50	$11,551.50
10									
11	2019	#Cabinets Inspected	226	263	36	264	99	20	908
12		Cost	$15,978.13	$17,063.81	$2,192.68	$16,637.30	$6,543.62	$1,744.50	$60,160.04
13		Cabinets Refinished	40	9	7	9	14	37	116
14		Cost	$10,318.00	$2,427.00	$1,820.00	$2,427.00	$3,641.00	$9,407.00	$30,040.00
15									
16	2020	#Cabinets Inspected	654	54	84	363	190	100	1,445
17		Cost	$28,997.75	$4,953.15	$2,991.40	$22,381.75	$9,871.60	$4,601.40	$73,797.05
18		Cabinets Refinished	0	0	0	0	0	0	0
19		Cost	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
20									
21	2021	#Cabinets Inspected	1147	61	84	332	381	95	2,100
22		Cost	$50,438.55	$3,907.05	$2,991.40	$10,690.95	$15,025.95	$3,606.50	$86,660.40
23		Cabinets Refinished	59	0	0	5	0	40	104
24		Cost	$21,358.00	$0.00	$0.00	$1,810.00	$0.00	$14,480.00	$37,648.00
25									
26	5-Year	#Cabinets Inspected	749	99.4	64	297	237.4	87.6	1,534
27		Cost	$32,392.04	$6,805.35	$2,290.48	$16,937.53	$10,643.63	$3,828.47	$72,897.51
28	Ave.	Cabinets Refinished*	54	4	2	15	6	29	111
29		Cost*	$12,344.00	$1,397.50	$455.00	$5,850.50	$1,684.75	$8,446.88	$30,178.63

30 *The 5-year average does not include 2020 for the Refinished Cabinets, since none were completed that year.

Michigan Public Service Commission
Upper Peninsula Power Company
Underground Outage History Compared to All Outages
2019-2021

Case No.: U-21286
Exhibit No.: A-36 (JRR-6)
Schedule:
Page: 1 of 1
Witness: Jay R. Ringler

Underground Outage History Compared to All Outages
2019-2021

Line		Year	# Events	#CUST	SAIDI	SAIFI
2	**All Events (Exc Trans)**	2019	2,351	140,593	782.5	2.3874
3		2020	2,119	107,360	230.9	1.8328
4		2021	1,785	80,546	249.1	1.3756
5		Total	6,255	328,499	1262.5	5.5957
6						
7	**UG Equip Failure**	2019	25	59	0.38	0.0010
8		2020	19	50	0.11	0.0009
9		2021	23	166	0.68	0.0028
10		Total	67	275	1.17	0.0047
11						
12	**UG Dig-Ins**	2019	15	125	0.29	0.0021
13		2020	13	24	0.06	0.0004
14		2021	13	162	0.30	0.0028
		Total	41	311	0.65	0.0053
15						
16	**UG Total**	2019	40	184	0.67	0.0031
17		2020	32	74	0.17	0.0013
18		2021	36	328	0.98	0.0056
19		Total	108	586	1.82	0.0100
20						
21	**UG % of Total**	2019	1.7%	0.1%	0.1%	0.1%
22		2020	1.5%	0.1%	0.1%	0.1%
23		2021	2.0%	0.4%	0.4%	0.4%
24		Total	1.7%	0.2%	0.1%	0.2%

Michigan Public Service Commission
Upper Peninsula Power Company
System Hardening and Reliability Projects
2023 - 2024

Case No.: U-21286
Exhibit No.: A-37 (JRR-7)
Schedule:
Page: 1 of 1
Witness: Jay R. Ringler

System Hardening and Reliability Projects
2023 - 2024

Line						
	2023 Distribution SHARP CapEx Projects				**RASCL**	**Estimated Cost**
1	1	East	1000.04.02	BRM 1231 Reliability Part 1 North Basin Dr 1-ph OH to UG	R	$500,000
2	2	East	1000.04.02	DLT 589 Ford River Reliability Part 1 1-ph OH to UG	RAS	$250,000
3	3	East	1000.04.02	FRE 203 35kV system improvements Part 1	RAS	$650,000
4	4	East	1000.04.02	KI/LL Tie Part 2 3-ph OH to UG	RASL	$650,000
5	5	East	1000.04.02	FRY 2733 Shag/Charlie Lakes UG Part 2 1-ph/2-ph OH to UG	RA	$300,000
6	6	East	1000.04.02	PLK 401 Reliability Part 1 1-ph OH to UG Witch Lake	RA	$250,000
7	7	East	1000.04.02	PLK New 12kV Feeder & Tie Switches	R	$200,000
8	8	West	1000.04.02	M38 747 Copper replacement on M38 Part 2 3-ph OH to UG	RAL	$750,000
9	9	West	1000.04.02	KWN 927 Copper Harbor to Mtn. Lodge 3-ph Rebuild	RA	$300,000
10	10	West	1000.04.02	OSC 719 Jacobsville Rd 1-ph OH to UG conversion	RA	$700,000
11	11	West	1000.04.02	OSC 717 Relocate Mohawk to Highway 3-ph Part 2	RA	$250,000
12	12	West	1000.04.02	ELE 1121 Point Mills OH to UG 1-ph conversion	RA	$100,000
13	13	E/W	1000.04.02	System Hardening, OH TO UG Conversion, and Copper Replacement	RA	$250,000
14	14	E/W	1000.04.02	UG Unforeseen Replacement for End of Life Cable Failures	RA	$200,000
15						
16				**Total**		**$5,350,000**

17	**2024 Distribution SHARP CapEx Projects**				**RASCL**	**Estimated Cost**
18	1	East	1000.04.02	BRM 1231 Reliability Part 2, South Camp Rd	RA	$400,000
19	2	East	1000.04.02	DLT 589 Ford River Reliability Part 2	RL	$350,000
20	3	East	1000.04.02	FRE 203 35kV System Improvements Part 2	RA	$650,000
21	4	East	1000.04.02	FRY 2733 Shag/Charlie Lakes UG Part 3	RA	$400,000
22	5	East	1000.04.02	GWN 657 Bass/Johnson Lakes Reliability Part 1	RA	$450,000
23	6	East	1000.04.02	PLK 401 Reliability Part 2 1-ph OH to UG Squaw Lake	RA	$350,000
24	7	West	1000.04.02	M38 747 Copper Replacement on M38 Part 3	RAL	$500,000
25	8	West	1000.04.02	HEN 1017 Chassell Painesdale Tie Reconductor	AV	$550,000
26	9	West	1000.04.02	LIN 3063 Establish 2-ph Tie Around Sunset Lake	RA	$400,000
27	10	West	1000.04.02	ONN 863 Establish UG tie on M64 to Silver City	RA	$250,000
28	11	West	1000.04.02	ATL 895 Relocate to Highway from Fountain Rd to Painesdale	RA	$400,000
29	12	West	1000.04.02	LIN 3063 Lake Emily Iron River OH to UG conversion	A	$250,000
30	13	West	1000.04.02	M38 749 Mansfeldt Rd Rebuild	RA	$250,000
31	14	E/W	1000.04.02	System Hardening, OH TO UG Conversion, and Copper Replacement	RA	$500,000
32	15	E/W	1000.04.02	UG Unforseen Replacment for End of Life Cable Failures	RA	$200,000
33						
34				**Total**		**$5,900,000**

35 *RASCL: R – Reliability/Storm Hardening A – Age & Condition S – Safety C – Compliance/Voltage L – Load/Capacity*

Michigan Public Service Commission
Upper Peninsula Power Company
6-Year Cycle Distribution Line Clearance Program
2021 - 2027

Case No.: U-21286
Exhibit No.: A-38 (SSL-6)
Schedule:
Page: 1 of 1
Witness: Stephen S. Lillie

Line	Upper Peninsula Power Company (UPPCO)							
	6-Year Cycle Distribution Line Clearance Program							
		Historical	Projected					
1		2021	2022	2023	2024	2025	2026	2027
2	**MPSC Case No.**	U-17274						
3	**Cost**	$ 3,015,117	$ 2,855,709	$ 3,087,108	$ 3,211,964	$ 3,211,964	$ 3,211,964	$ 3,211,964
4	**Line Miles**	376.4	372	372	372	372	372	372
5	**Cost Variance From 2021**		$ (159,408)					

LINE NO.	DESCRIPTION		INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION
1								
2								
3								
4	Plant in Service: Production Demand Component		$ 119,368,898.23	$ 66,777,465.44	$ 407,075.56	$ 37,231,878.88	$ 1,217,965.49	$ 13,734,512.86
5	Depreciation Reserve: Production Demand Component		$ (59,534,363.55)	$ (33,304,771.70)	$ (203,025.95)	$ (18,569,126.85)	$ (607,451.37)	$ (6,849,987.68)
6	CWIP: Production Demand Related		$ 1,553,259.82	$ 868,926.12	$ 5,296.98	$ 484,471.10	$ 15,848.49	$ 178,717.13
7	Materials & Supplies: Demand Related		$ 135,579.42	$ 75,845.97	$ 462.36	$ 42,288.04	$ 1,383.37	$ 15,599.69
8	Property, Payroll, & Income Tax: Demand Related		$ (2,209,860.83)	$ (1,271,492.31)	$ (26,577.54)	$ (860,342.16)	$ (47,245.10)	$ (4,203.71)
9		**Total**	**$ 59,313,513.10**	**$ 33,145,973.52**	**$ 183,231.40**	**$ 18,329,169.01**	**$ 580,500.88**	**$ 7,074,638.29**
10								
11	Required Rate of Return		6.938%	6.938%	6.938%	6.938%	6.938%	6.938%
12								
13	O&M Non Fuel: Demand Related		$ 5,677,817.72	$ 2,849,751.96	$ 18,973.21	$ 1,854,520.25	$ 54,226.10	$ 900,346.21
14								
15	Depreciation Expense: Demand Related		$ 4,248,726.69	$ 2,376,826.83	$ 14,489.14	$ 1,325,203.46	$ 43,351.35	$ 488,855.91
16								
17	Amortization: Demand Related		$ -	$ -	$ -	$ -	$ -	$ -
18								
19	Real Estate and Property Tax: Demand Related		$ 2,132,823.35	$ 1,193,146.12	$ 7,273.42	$ 665,240.46	$ 21,761.99	$ 245,401.36
20								
21	Total Rate Base		$ 348,730,361.78	$ 212,181,073.18	$ 4,231,232.82	$ 105,851,693.83	$ 2,018,557.27	$ 24,447,804.67
22								
23	**Capacity Related Revenue Requirement:**		**$ 10,803,401.06**	**$ 5,784,500.62**	**$ 34,867.58**	**$ 3,424,959.10**	**$ 108,083.65**	**$ 1,463,295.87**
24								
25	**3(b) Adjustments**							
26	Capacity Revenue		$ -	$ -	$ -	$ -	$ -	$ -
27	Ancillary Services + Opp Sales		$ 1,083,078.07	$ 467,353.53	$ 3,528.31	$ 373,277.48	$ 9,478.34	$ 229,440.42
28	UPPCO Generation * LMP		$ 3,469,365.42					
29	Total		$ 4,552,443.49	$ 467,353.53	$ 3,528.31	$ 373,277.48	$ 9,478.34	$ 229,440.42
30								
31	**Net Capacity Related Revenue Requirement**		**$ 6,250,957.57**	**$ 5,317,147.09**	**$ 31,339.27**	**$ 3,051,681.62**	**$ 98,605.31**	**$ 1,233,855.46**
32								
33	**UPP 2022/23 PRMR**		**$ 119.70**					
34	**$/MW-Year**		**$ 52,221.87**					
35	**$/MW-Day**		**$ 143.07**					
36								
37								
38								
39								
40	**Firm 12CP Allocator**		826,390.65					
41	Firm 12 CP Allocator (%)							
42								

	Integrated Retail Residential A-1	Iron River Residential A-2	Res. Heating AH-1	General Service C-1	General Service C-2	Commercial Heating H-1	25kW-200kW Light & Power P-1
	$ 60,805,519.55	$ -	$ 5,971,945.89	$ 17,054,808.17	$ -	$ 1,580,120.50	$ 15,045,580.84
	$ (30,326,307.44)	$ -	$ (2,978,464.26)	$ (8,505,960.64)	$ -	$ (788,073.53)	$ (7,503,873.23)
	$ 791,217.58	$ -	$ 77,708.55	$ 221,921.70	$ -	$ 20,560.95	$ 195,777.10
	$ 69,063.03	$ -	$ 6,782.95	$ 19,370.88	$ -	$ 1,794.70	$ 17,088.80
	$ (1,201,406.94)	$ -	$ (70,085.37)	$ (212,650.83)	$ -	$ (14,346.63)	$ (608,981.86)
	$ 30,138,085.77	**$ -**	**$ 3,007,887.75**	**$ 8,577,489.28**	**$ -**	**$ 800,056.00**	**$ 7,145,591.66**
	6.938%	6.938%	6.938%	6.938%	6.938%	6.938%	6.938%
	$ 2,595,075.10	$ -	$ 254,676.85	$ 729,159.52	$ -	$ 70,754.35	$ 684,621.99
	$ 2,164,265.88	$ -	$ 212,560.95	$ 607,036.00	$ -	$ 56,241.62	$ 535,521.08
	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ 1,086,442.39	$ -	$ 106,703.72	$ 304,726.72	$ -	$ 28,232.80	$ 268,826.86
	$ 192,016,064.05	$ -	$ 20,165,009.13	$ 54,874,034.09	$ -	$ 4,843,941.14	$ 27,835,548.43
	$ 5,265,656.43	**#DIV/0!**	**$ 518,883.29**	**$ 1,484,207.14**	**#DIV/0!**	**$ 140,375.82**	**$ 1,338,690.90**
	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ 425,633.39	$ -	$ 41,720.14	$ 119,929.34	$ -	$ 12,468.26	$ 123,350.62
	$ 1,895,426.61	$ -	$ 186,245.48	$ 531,049.39	$ -	$ 47,757.63	$ 449,810.92
	$ 2,321,060.00	$ -	$ 227,965.62	$ 650,978.73	$ -	$ 60,225.89	$ 573,161.54
	$ 2,944,596.43		**$ 290,917.66**	**$ 833,228.42**		**$ 80,149.93**	**$ 765,529.36**
	451,483.96		44,363.02	126,494.10		11,375.70	107,143.38
	54.633%		5.368%	15.307%		1.377%	12.965%

Large Comm & Ind CP-U Total	Secondary CP-U Sec	Large Commerical & Industrial Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3
$ 16,261,442.27	$ 3,551,369.36	$ 1,217,965.49	$ 11,492,107.41	$ 0.00	$ 2,242,405.46
$ (8,110,275.21)	$ (1,771,219.45)	$ (607,451.37)	$ (5,731,604.38)	$ -	$ (1,118,383.29)
$ 211,598.21	$ 46,211.36	$ 15,848.49	$ 149,538.36	$ -	$ 29,178.78
$ 18,469.78	$ 4,033.65	$ 1,383.37	$ 13,052.76	$ -	$ 2,546.93
$ (63,073.15)	$ (24,362.85)	$ (47,245.10)	$ 8,534.81	$ (0.00)	$ (12,738.52)
$ 8,318,161.90	**$ 1,806,032.07**	**$ 580,500.88**	**$ 5,931,628.95**	**$ (0.00)**	**$ 1,143,009.35**
6.938%	6.938%	6.938%	6.938%	6.938%	6.938%
$ 1,074,031.58	$ 369,984.40	$ 54,226.10	$ 649,821.08	$ -	$ 250,525.12
$ 578,797.53	$ 126,404.77	$ 43,351.35	$ 409,041.42	$ -	$ 79,814.49
$ -	$ -	$ -	$ -	$ -	$ -
$ 290,551.26	$ 63,454.08	$ 21,761.99	$ 205,335.19	$ 0.00	$ 40,066.17
$ 37,882,308.61	$ 18,298,170.17	$ 2,018,557.27	$ 17,565,581.16	$ 112,884.87	$ 6,769,338.64
$ 1,720,312.86	**$ 470,967.30**	**$ 108,083.65**	**$ 1,154,807.56**	**$ (0.00)**	**$ 312,305.97**
$ -	$ -	$ -	$ -	$ -	$ -
$ -	$ -	$ -	$ -	$ -	$ -
$ 275,063.33	$ 117,529.26	$ 9,478.34	$ 148,055.73	$ -	$ 81,384.69
$ -	$ 12,090.86	$ 37,783.93	$ 297,233.60	$ -	$ -
$ 275,063.33	$ 129,620.12	$ 47,262.27	$ 445,289.33	$ -	$ 81,384.69
$ 1,445,249.53	**$ 341,347.18**	**$ 60,821.38**	**$ 709,518.23**	**$ (0.00)**	**$ 230,921.28**
	2,880.00	9,000.00	70,800.00		
	0.349%	1.089%	8.567%		

	Street Lighting SL-3	Street Light (Closed) SL-5	Street Lighting SL-6	Street Lighting Total	Integrated OSL Z-3	Iron River OSL Z-4
	$ 66,027.85	$ 3,465.46	$ 256,136.07	$ 325,629.38	$ 81,446.17	$ 0.00
	$ (32,930.91)	$ (1,728.37)	$ (127,745.99)	$ (162,405.27)	$ (40,620.68)	$ -
	$ 859.17	$ 45.09	$ 3,332.91	$ 4,237.18	$ 1,059.80	$ -
	$ 74.99	$ 3.94	$ 290.92	$ 369.85	$ 92.51	$ -
	$ (119.55)	$ (186.42)	$ (19,672.35)	$ (19,978.32)	$ (6,599.22)	$ (0.00)
	$ 33,911.56	**$ 1,599.70**	**$ 112,341.56**	**$ 147,852.82**	**$ 35,378.58**	**$ (0.00)**
	6.938%	6.938%	6.938%	6.938%	6.938%	6.938%
	$ 3,078.92	$ 161.60	$ 11,943.80	$ 15,184.32	$ 3,788.89	$ -
	$ 2,350.15	$ 123.35	$ 9,116.71	$ 11,590.21	$ 2,898.93	$ -
	$ -	$ -	$ -	$ -	$ -	$ -
	$ 1,179.75	$ 61.92	$ 4,576.51	$ 5,818.18	$ 1,455.24	$ 0.00
	$ 761,279.60	$ 37,196.60	$ 2,721,978.25	$ 3,520,454.46	$ 631,759.73	$ 79,018.63
	$ 5,875.83	**$ 298.95**	**$ 21,782.83**	**$ 27,957.79**	**$ 6,917.94**	**$ (0.00)**
	$ -	$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -	$ -	$ -
	$ 572.91	$ 30.07	$ 2,222.45	$ 2,825.43	$ 702.87	$ -
	$ 1,940.39	$ 101.84	$ 7,527.20	$ -	$ 2,397.56	$ -
	$ 2,513.31	$ 131.91	$ 9,749.65	$ 2,825.43	$ 3,100.44	$ -
	$ 3,362.52	**$ 167.04**	**$ 12,033.18**	**$ 25,132.36**	**$ 3,817.50**	**$ (0.00)**
	462.19	24.26	1,792.95		571.09	
	0.056%	0.003%	0.217%		0.069%	

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	DESCRIPTION	COS Without Minimum System	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	**PRESENT RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIREMENTS**									
2										
3	**RATE OF RETURN**		2.10%	2.31%	19.92%	2.35%	10.63%	-4.64%		
4										
5	**REVENUES REQUIRED**									
6	**DEMAND COMPONENTS**	62,672,385	62,672,385	36,974,886	434,277	21,058,009	608,914	3,596,299		
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		17,232,972	9,448,845	132,176	6,116,096	267,257	1,268,599		
9	PURCHASED CAPACITY COMPONENT		0	0	0	0	0	0		
10	TRANSMISSION DEMAND PSCR COMPONENT		9,753,770	4,811,189	41,718	3,383,821	86,394	1,430,648		
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		8,267,269	4,218,653	54,663	3,001,319	95,582	897,052		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		19,646,607	13,202,923	141,083	6,142,920	159,681	0		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		4,069,966	2,748,862	26,851	1,294,253	0	0		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		3,701,802	2,544,415	37,787	1,119,600	0	0		
19	**CUSTOMER COMPONENTS**	18,180,059	18,180,059	12,882,321	1,399,177	3,159,765	79,502	659,295		
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0	0	0	0		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0	0	0	0		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0	0	0	0		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		1,677,625	1,454,536	17,618	205,471	0	0		
25	METERING COMPONENT		4,305,983	3,282,873	1,131	900,015	37,300	84,664		
26	STREET AND AREA LIGHTING COMPONENT		1,326,286	0	1,326,286	0	0	0		
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		2,507,861	2,234,219	2,693	269,967	451	531		
29	CUST ACCT, SALES, & SERVICE COMPONENT		8,969,096	6,338,296	219,138	1,795,368	42,028	574,266		
30	CUSTOMER OTHER COMPONENT		(606,792)	(427,603)	(167,689)	(11,057)	(277)	(167)		
31	**ENERGY COMPONENTS**	19,250,549	19,250,549	8,235,425	62,547	6,578,718	167,514	4,206,343		
32	PRODUCTION ENERGY COMPONENT		19,250,549	8,235,425	62,547	6,578,718	167,514	4,206,343		
33	**TOTAL COMPANY**	100,102,992	100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
34										
35										
36										
37										
38	Annual kWh Sales @ Meter		592,847,764	252,908,738	1,909,346	201,999,407	5,331,038	130,699,234		
39	Annual kW - Billed		1,191,498	0	0	415,314	31,064	745,120		
40	Number of Customers (Average Annual)		52,752	45,127	1,706	5,902	7	10		
41										
42	Use per Month per Customer (kWh/Cust/12)		937	467	93	2,852	63,465	1,089,160		
43	NCP per Customer (NCP/Cust)		21.25	11.79	1.79	62.88	1,121.12	20,705.11		
44										
45										
46										
47										
48										
49										
50										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	COS Without Minimum System DESCRIPTION		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
	(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
1	**PRESENT RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIRE**									
2										
3	**RATE OF RETURN**		2.64%	0.00%	-0.75%		-0.43%	0.00%	-1.82%	11.30%
4										
5	**REVENUES REQUIRED**									
6	**DEMAND COMPONENTS**	62,672,385	33,936,237	0	3,038,649		8,524,313	0	702,745	8,666,910
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
9	PURCHASED CAPACITY COMPONENT		0	0	0		0	0	0	0
10	TRANSMISSION DEMAND PSCR COMPONENT		4,415,199	0	395,989		1,134,742	0	97,937	1,284,420
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		3,915,758	0	302,895		875,858	0	69,875	1,441,096
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		11,996,399	0	1,206,524		3,298,202	0	271,519	1,753,751
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		2,488,622	0	260,240		709,640	0	59,720	344,331
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		2,349,879	0	194,536		539,199	0	38,926	425,364
19	**CUSTOMER COMPONENTS**	18,180,059	12,103,674	0	778,646		1,655,831	0	91,028	1,072,090
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0		0	0	0	0
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0		0	0	0	0
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0		0	0	0	0
24	DISTRIBUTION SERVICE LATERALS COMPONENT		1,368,137	0	86,398		155,526	0	5,820	42,751
25	METERING COMPONENT		3,141,566	0	141,307		431,889	0	21,679	426,557
26	STREET AND AREA LIGHTING COMPONENT		0	0	0		0	0	0	0
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		2,098,478	0	135,740		228,711	0	9,130	30,596
29	CUST ACCT, SALES, & SERVICE COMPONENT		5,929,193	0	409,102		832,832	0	52,965	591,806
30	CUSTOMER OTHER COMPONENT		(433,701)	0	6,098		6,874	0	1,434	(19,621)
31	**ENERGY COMPONENTS**	19,250,549	7,500,954	0	734,471		2,111,437	0	219,415	2,179,663
32	PRODUCTION ENERGY COMPONENT		7,500,954	0	734,471		2,111,437	0	219,415	2,179,663
33	**TOTAL COMPANY**	100,102,992	53,540,865	0	4,551,767		12,291,582	0	1,013,188	11,918,663
34										
35										
36										
37										
38	Annual kWh Sales @ Meter		230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
39	Annual kW - Billed		0	0	0		0	0	0	270,640
40	Number of Customers (Average Annual)		42,031	0	3,096		5,180	0	220	466
41										
42	Use per Month per Customer (kWh/Cust/12)		457	0	608		1,044	0	2,561	11,943
43	NCP per Customer (NCP/Cust)		11.52	0.00	15.37		26.19	0.00	55.57	246.75
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	DESCRIPTION	COS Without Minimum System		Large Comm & Inc CP-U Total	S Secondary CP-U Sec	P Commerical & Ind Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
	(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
1	**PRESENT RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIRE**									
2										
3	**RATE OF RETURN**			-2.88%	-1.85%	10.63%	-5.50%	-25.31%	-2.04%	
4										
5	**REVENUES REQUIRED**									
6	**DEMAND COMPONENTS**	62,672,385		6,157,996	3,164,040	608,914	2,385,042	(92,889)	1,304,146	
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT			1,738,119	566,706	267,257	904,157	0	364,442	
9	PURCHASED CAPACITY COMPONENT			0	0	0	0	0	0	
10	TRANSMISSION DEMAND PSCR COMPONENT			1,922,157	866,722	86,394	969,041	(92,889)	554,496	
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT			1,221,917	614,490	95,582	511,845	(0)	385,207	
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT			979,130	819,449	159,681	0	(0)	0	
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT			180,562	180,562	0	0	(0)	0	
18	DISTRIBUTION DEM LINE TRANSF COMPONENT			116,111	116,111	0	0	0	0	
19	**CUSTOMER COMPONENTS**	18,180,059		774,868	340,816	79,502	354,549	67,986	236,759	
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT			0	0	0	0	0	0	
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT			0	0	0	0	0	0	
23	DISTRIBUTION CUST LINE TRANSF COMPONENT			0	0	0	0	0	0	
24	DISTRIBUTION SERVICE LATERALS COMPONENT			1,375	1,375	0	0	(0)	0	
25	METERING COMPONENT			62,972	19,890	37,300	5,782	67,841	11,042	
26	STREET AND AREA LIGHTING COMPONENT			0	0	0	0	0	0	
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT			2,190	1,531	451	207	201	122	
29	CUST ACCT, SALES, & SERVICE COMPONENT			708,228	317,764	42,028	348,435	260	225,571	
30	CUSTOMER OTHER COMPONENT			103	256	(277)	124	(316)	25	
31	**ENERGY COMPONENTS**	19,250,549		4,838,780	2,068,203	167,514	2,603,063	170,830	1,432,451	
32	PRODUCTION ENERGY COMPONENT			4,838,780	2,068,203	167,514	2,603,063	170,830	1,432,451	
33	**TOTAL COMPANY**	100,102,992		11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
34										
35										
36										
37										
38	Annual kWh Sales @ Meter			153,271,071	63,601,055	5,331,038	84,338,977	0	46,360,257	
39	Annual kW - Billed			366,622	144,674	31,064	190,884	413,118	141,118	
40	Number of Customers (Average Annual)			50	37	7	6	1	3	
41										
42	Use per Month per Customer (kWh/Cust/12)			255,452	143,246	63,465	1,171,375	0	1,287,785	
43	NCP per Customer (NCP/Cust)			5,058.08	2,927.44	1,121.12	22,790.21	0.00	23,436.60	
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	COS Without Minimum System DESCRIPTION		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
	(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
1	**PRESENT RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIRE**									
2										
3	**RATE OF RETURN**		-5.08%	16.40%	26.02%	19.19%	27.72%	-10.03%		
4										
5	**REVENUES REQUIRED**									
6	**DEMAND COMPONENTS**	62,672,385	18,906	3,068	300,661	322,635	111,642	0		
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		5,151	970	94,608	100,729	31,447	0		
9	PURCHASED CAPACITY COMPONENT		0	0	0	0	0	0		
10	TRANSMISSION DEMAND PSCR COMPONENT		3,622	325	28,444	32,391	9,327	0		
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		2,067	400	39,149	41,616	13,046	0		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		6,138	946	94,559	101,643	39,440	0		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		1,445	182	17,816	19,443	7,408	0		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		482	245	26,086	26,813	10,974	0		
19	**CUSTOMER COMPONENTS**	18,180,059	40,679	10,940	1,034,762	1,086,381	312,796	(0)		
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0	0	0	0		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0	0	0	0		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0	0	0	0		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		1,232	643	15,743	17,618	0	0		
25	METERING COMPONENT		1,131	0	0	1,131	0	0		
26	STREET AND AREA LIGHTING COMPONENT		27,333	9,839	1,002,177	1,039,349	286,937	(0)		
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		2,693	0	0	2,693	0	0		
29	CUST ACCT, SALES, & SERVICE COMPONENT		6,973	1,125	36,204	44,302	174,835	0		
30	CUSTOMER OTHER COMPONENT		1,318	(666)	(19,363)	(18,712)	(148,977)	0		
31	**ENERGY COMPONENTS**	19,250,549	10,073	532	39,457	50,062	12,486	0		
32	PRODUCTION ENERGY COMPONENT		10,073	532	39,457	50,062	12,486	0		
33	**TOTAL COMPANY**	100,102,992	69,658	14,541	1,374,879	1,459,078	436,923	0		
34										
35										
36										
37										
38	Annual kWh Sales @ Meter		310,032	16,272	1,202,681	1,528,985	380,361	0		
39	Annual kW - Billed		0	0	0	0	0	0		
40	Number of Customers (Average Annual)		75	11	198	283	1,423	0		
41										
42	Use per Month per Customer (kWh/Cust/12)		346	127	507	450	22	0		
43	NCP per Customer (NCP/Cust)		6.64	2.44	9.73	8.64	0.43	0.00		
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	DESCRIPTION	COS Without Minimum System	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	**PRESENT RATE OF RETURN SUMMARY SCHEDULE - UNIT COST**									
2										
3	**RATE OF RETURN**		2.10%	2.31%	19.92%	2.35%	10.63%	-4.64%		
4										
5	**$/KWH**									
6	**DEMAND COMPONENTS**	$0.1057	0.1057	0.1462	0.2274	0.1042	0.1142	0.0275		
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		0.0291	0.0374	0.0692	0.0303	0.0501	0.0097		
9	PURCHASED CAPACITY COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
10	TRANSMISSION DEMAND PSCR COMPONENT		0.0165	0.0190	0.0218	0.0168	0.0162	0.0109		
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		0.0139	0.0167	0.0286	0.0149	0.0179	0.0069		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		0.0331	0.0522	0.0739	0.0304	0.0300	0.0000		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		0.0069	0.0109	0.0141	0.0064	0.0000	0.0000		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		0.0062	0.0101	0.0198	0.0055	0.0000	0.0000		
19	**CUSTOMER COMPONENTS**	$0.0307	0.0307	0.0509	0.7328	0.0156	0.0149	0.0050		
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		0.0028	0.0058	0.0092	0.0010	0.0000	0.0000		
25	METERING COMPONENT		0.0073	0.0130	0.0006	0.0045	0.0070	0.0006		
26	STREET AND AREA LIGHTING COMPONENT		0.0022	0.0000	0.6946	0.0000	0.0000	0.0000		
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		0.0042	0.0088	0.0014	0.0013	0.0001	0.0000		
29	CUST ACCT, SALES, & SERVICE COMPONENT		0.0151	0.0251	0.1148	0.0089	0.0079	0.0044		
30	CUSTOMER OTHER COMPONENT		(0.0010)	(0.0017)	(0.0878)	(0.0001)	(0.0001)	(0.0000)		
31	**ENERGY COMPONENTS**	$0.0325	0.0325	0.0326	0.0328	0.0326	0.0314	0.0322		
32	PRODUCTION ENERGY COMPONENT		0.0325	0.0326	0.0328	0.0326	0.0314	0.0322		
33	**TOTAL COMPANY**	$0.1689	0.1689	0.2297	0.9930	0.1525	0.1606	0.0647		
34										
35										
36										
37	**$/MONTH/CUSTOMER**									
38	**CUSTOMER COMPONENTS**	$28.72	$28.72	$23.79	$68.34	$44.61	$946.45	$5,494.12		
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
42	DISTRIBUTION SERVICE LATERALS COMPONENT		$2.65	$2.69	$0.86	$2.90	$0.00	$0.00		
43	METERING COMPONENT		$6.80	$6.06	$0.06	$12.71	$444.04	$705.54		
44	STREET AND AREA LIGHTING COMPONENT		$2.10	$0.00	$64.78	$0.00	$0.00	$0.00		
45	METER READING COMPONENT		$3.96	$4.13	$0.13	$3.81	$5.37	$4.42		
46	CUST ACCT, SALES, & SERVICE COMPONENT		$14.17	$11.70	$10.70	$25.35	$500.34	$4,785.55		
47	CUSTOMER OTHER COMPONENT		($0.96)	($0.79)	($8.19)	($0.16)	($3.30)	($1.39)		
48										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	COS Without Minimum System DESCRIPTION		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
	(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
1	**PRESENT RATE OF RETURN SUMMARY SCHEDULE - UNIT COST**									
2										
3	**RATE OF RETURN**		2.64%	0.00%	-0.75%		-0.43%	0.00%	-1.82%	11.30%
4										
5	**$/KWH**									
6	**DEMAND COMPONENTS**	$0.1057	0.1473	0.0000	0.1346		0.1313	0.0000	0.1042	0.1298
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		0.0381	0.0000	0.0301		0.0303	0.0000	0.0244	0.0512
9	PURCHASED CAPACITY COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
10	TRANSMISSION DEMAND PSCR COMPONENT		0.0192	0.0000	0.0175		0.0175	0.0000	0.0145	0.0192
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		0.0170	0.0000	0.0134		0.0135	0.0000	0.0104	0.0216
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		0.0521	0.0000	0.0534		0.0508	0.0000	0.0402	0.0263
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		0.0108	0.0000	0.0115		0.0109	0.0000	0.0089	0.0052
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		0.0102	0.0000	0.0086		0.0083	0.0000	0.0058	0.0064
19	**CUSTOMER COMPONENTS**	$0.0307	0.0525	0.0000	0.0345		0.0255	0.0000	0.0135	0.0161
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
24	DISTRIBUTION SERVICE LATERALS COMPONENT		0.0059	0.0000	0.0038		0.0024	0.0000	0.0009	0.0006
25	METERING COMPONENT		0.0136	0.0000	0.0063		0.0067	0.0000	0.0032	0.0064
26	STREET AND AREA LIGHTING COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		0.0091	0.0000	0.0060		0.0035	0.0000	0.0014	0.0005
29	CUST ACCT, SALES, & SERVICE COMPONENT		0.0257	0.0000	0.0181		0.0128	0.0000	0.0078	0.0089
30	CUSTOMER OTHER COMPONENT		(0.0019)	0.0000	0.0003		0.0001	0.0000	0.0002	(0.0003)
31	**ENERGY COMPONENTS**	$0.0325	0.0326	0.0000	0.0325		0.0325	0.0000	0.0325	0.0327
32	PRODUCTION ENERGY COMPONENT		0.0326	0.0000	0.0325		0.0325	0.0000	0.0325	0.0327
33	**TOTAL COMPANY**	$0.1689	0.2325	0.0000	0.2016		0.1894	0.0000	0.1502	0.1786
34										
35										
36										
37	**$/MONTH/CUSTOMER**									
38	**CUSTOMER COMPONENTS**	$28.72	$24.00	$0.00	$20.96		$26.64	$0.00	$34.55	$191.82
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
42	DISTRIBUTION SERVICE LATERALS COMPONENT		$2.71	$0.00	$2.33		$2.50	$0.00	$2.21	$7.65
43	METERING COMPONENT		$6.23	$0.00	$3.80		$6.95	$0.00	$8.23	$76.32
44	STREET AND AREA LIGHTING COMPONENT		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
45	METER READING COMPONENT		$4.16	$0.00	$3.65		$3.68	$0.00	$3.46	$5.47
46	CUST ACCT, SALES, & SERVICE COMPONENT		$11.76	$0.00	$11.01		$13.40	$0.00	$20.10	$105.89
47	CUSTOMER OTHER COMPONENT		($0.86)	$0.00	$0.16		$0.11	$0.00	$0.54	($3.51)
48										
49										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	DESCRIPTION	COS Without Minimum System		Large Comm & Inc CP-U Total	S Secondary CP-U Sec	P Commerical & Ind Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
	(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
1	**PRESENT RATE OF RETURN SUMMARY SCHEDULE - UNIT COST**									
2										
3	**RATE OF RETURN**			-2.88%	-1.85%	10.63%	-5.50%	-25.31%	-2.04%	
4										
5	**$/KWH**									
6	**DEMAND COMPONENTS**	$0.1057		0.0402	0.0497	0.1142	0.0283	0.0000	0.0281	
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT			0.0113	0.0089	0.0501	0.0107	0.0000	0.0079	
9	PURCHASED CAPACITY COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
10	TRANSMISSION DEMAND PSCR COMPONENT			0.0125	0.0136	0.0162	0.0115	0.0000	0.0120	
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT			0.0080	0.0097	0.0179	0.0061	0.0000	0.0083	
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT			0.0064	0.0129	0.0300	0.0000	0.0000	0.0000	
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT			0.0012	0.0028	0.0000	0.0000	0.0000	0.0000	
18	DISTRIBUTION DEM LINE TRANSF COMPONENT			0.0008	0.0018	0.0000	0.0000	0.0000	0.0000	
19	**CUSTOMER COMPONENTS**	$0.0307		0.0051	0.0054	0.0149	0.0042	0.0000	0.0051	
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
23	DISTRIBUTION CUST LINE TRANSF COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
24	DISTRIBUTION SERVICE LATERALS COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
25	METERING COMPONENT			0.0004	0.0003	0.0070	0.0001	0.0000	0.0002	
26	STREET AND AREA LIGHTING COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT			0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	
29	CUST ACCT, SALES, & SERVICE COMPONENT			0.0046	0.0050	0.0079	0.0041	0.0000	0.0049	
30	CUSTOMER OTHER COMPONENT			0.0000	0.0000	(0.0001)	0.0000	0.0000	0.0000	
31	**ENERGY COMPONENTS**	$0.0325		0.0316	0.0325	0.0314	0.0309	0.0000	0.0309	
32	PRODUCTION ENERGY COMPONENT			0.0316	0.0325	0.0314	0.0309	0.0000	0.0309	
33	**TOTAL COMPANY**	$0.1689		0.0768	0.0876	0.1606	0.0633	0.0000	0.0641	
34										
35										
36										
37	**$/MONTH/CUSTOMER**									
38	**CUSTOMER COMPONENTS**	$28.72		$1,291.45	$767.60	$946.45	$4,924.29	$5,665.52	$6,576.64	
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
41	DISTRIBUTION CUST LINE TRANSF COMPONENT			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
42	DISTRIBUTION SERVICE LATERALS COMPONENT			$2.29	$3.10	$0.00	$0.00	($0.00)	$0.00	
43	METERING COMPONENT			$104.95	$44.80	$444.04	$80.31	$5,653.38	$306.71	
44	STREET AND AREA LIGHTING COMPONENT			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
45	METER READING COMPONENT			$3.65	$3.45	$5.37	$2.88	$16.77	$3.39	
46	CUST ACCT, SALES, & SERVICE COMPONENT			$1,180.38	$715.69	$500.34	$4,839.38	$21.68	$6,265.85	
47	CUSTOMER OTHER COMPONENT			$0.17	$0.58	($3.30)	$1.72	($26.30)	$0.69	
48										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	COS Without Minimum System DESCRIPTION		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
	(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
1	**PRESENT RATE OF RETURN SUMMARY SCHEDULE - UNIT COST**									
2										
3	**RATE OF RETURN**		-5.08%	16.40%	26.02%	19.19%	27.72%	-10.03%		
4										
5	**$/KWH**									
6	**DEMAND COMPONENTS**	$0.1057	0.0610	0.1886	0.2500	0.2110	0.2935	0.0000		
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		0.0166	0.0596	0.0787	0.0659	0.0827	0.0000		
9	PURCHASED CAPACITY COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
10	TRANSMISSION DEMAND PSCR COMPONENT		0.0117	0.0200	0.0237	0.0212	0.0245	0.0000		
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		0.0067	0.0246	0.0326	0.0272	0.0343	0.0000		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		0.0198	0.0581	0.0786	0.0665	0.1037	0.0000		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		0.0047	0.0112	0.0148	0.0127	0.0195	0.0000		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		0.0016	0.0150	0.0217	0.0175	0.0289	0.0000		
19	**CUSTOMER COMPONENTS**	$0.0307	0.1312	0.6723	0.8604	0.7105	0.8224	0.0000		
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		0.0040	0.0395	0.0131	0.0115	0.0000	0.0000		
25	METERING COMPONENT		0.0036	0.0000	0.0000	0.0007	0.0000	0.0000		
26	STREET AND AREA LIGHTING COMPONENT		0.0882	0.6046	0.8333	0.6798	0.7544	0.0000		
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		0.0087	0.0000	0.0000	0.0018	0.0000	0.0000		
29	CUST ACCT, SALES, & SERVICE COMPONENT		0.0225	0.0692	0.0301	0.0290	0.4597	0.0000		
30	CUSTOMER OTHER COMPONENT		0.0043	(0.0410)	(0.0161)	(0.0122)	(0.3917)	0.0000		
31	**ENERGY COMPONENTS**	$0.0325	0.0325	0.0327	0.0328	0.0327	0.0328	0.0000		
32	PRODUCTION ENERGY COMPONENT		0.0325	0.0327	0.0328	0.0327	0.0328	0.0000		
33	**TOTAL COMPANY**	$0.1689	0.2247	0.8936	1.1432	0.9543	1.1487	0.0000		
34										
35										
36										
37	**$/MONTH/CUSTOMER**									
38	**CUSTOMER COMPONENTS**	$28.72	$45.40	$85.47	$436.24	$319.90	$18.32	$0.00		
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
42	DISTRIBUTION SERVICE LATERALS COMPONENT		$1.37	$5.02	$6.64	$5.19	$0.00	$0.00		
43	METERING COMPONENT		$1.26	$0.00	$0.00	$0.33	$0.00	$0.00		
44	STREET AND AREA LIGHTING COMPONENT		$30.51	$76.87	$422.50	$306.05	$16.80	$0.00		
45	METER READING COMPONENT		$3.01	$0.00	$0.00	$0.79	$0.00	$0.00		
46	CUST ACCT, SALES, & SERVICE COMPONENT		$7.78	$8.79	$15.26	$13.05	$10.24	$0.00		
47	CUSTOMER OTHER COMPONENT		$1.47	($5.21)	($8.16)	($5.51)	($8.72)	$0.00		
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	DESCRIPTION	COS Without Minimum System	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	**CLAIMED RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIREMENTS**									
2										
3	**RATE OF RETURN**		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
4										
5	**REVENUES REQUIRED**									
6	**DEMAND COMPONENTS**	82,218,420	82,218,420	47,599,216	257,450	26,879,830	521,675	6,960,249		
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		22,791,830	12,386,797	77,117	7,194,245	227,634	2,906,038		
9	PURCHASED CAPACITY COMPONENT		0	0	0	0	0	0		
10	TRANSMISSION DEMAND PSCR COMPONENT		11,007,852	5,286,486	30,337	3,683,241	77,842	1,929,945		
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		11,527,022	5,479,476	31,385	3,811,379	80,517	2,124,267		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		25,901,082	17,135,464	83,156	8,546,780	135,682	0		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		5,179,730	3,444,302	16,722	1,718,706	0	0		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		5,810,903	3,866,691	18,733	1,925,479	0	0		
19	**CUSTOMER COMPONENTS**	21,276,402	21,276,402	15,458,633	836,672	3,873,338	66,510	1,041,249		
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0	0	0	0		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0	0	0	0		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0	0	0	0		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		2,324,082	1,998,935	12,117	313,030	0	0		
25	METERING COMPONENT		6,050,511	4,599,870	5,251	1,259,850	29,346	156,193		
26	STREET AND AREA LIGHTING COMPONENT		724,145	0	724,145	0	0	0		
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		2,900,893	2,561,351	4,227	334,150	396	770		
29	CUST ACCT, SALES, & SERVICE COMPONENT		10,489,591	7,337,303	129,954	2,100,484	36,927	884,923		
30	CUSTOMER OTHER COMPONENT		(1,212,820)	(1,038,826)	(39,022)	(134,175)	(159)	(638)		
31	**ENERGY COMPONENTS**	19,331,603	19,331,603	8,245,712	62,250	6,585,762	167,282	4,270,596		
32	PRODUCTION ENERGY COMPONENT		19,331,603	8,245,712	62,250	6,585,762	167,282	4,270,596		
33	**TOTAL COMPANY**	122,826,425	122,826,425	71,303,562	1,156,372	37,338,931	755,467	12,272,094		
34										
35										
36										
37										
38	Annual kWh Sales @ Meter		592,847,764	252,908,738	1,909,346	201,999,407	5,331,038	130,699,234		
39	Annual kW - Billed		1,191,498	0	0	415,314	31,064	745,120		
40	Number of Customers (Average Annual)		52,752	45,127	1,706	5,902	7	10		
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	COS Without Minimum System DESCRIPTION		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
	(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
1	**CLAIMED RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIRE**									
2										
3	**RATE OF RETURN**		6.94%	6.94%	6.94%		6.94%	6.94%	6.94%	6.94%
4										
5	**REVENUES REQUIRED**									
6	**DEMAND COMPONENTS**	82,218,420	42,772,017	0	4,827,200		13,260,481	0	1,221,553	7,219,667
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		11,276,128	0	1,110,669		3,152,608	0	295,791	2,831,529
9	PURCHASED CAPACITY COMPONENT		0	0	0		0	0	0	0
10	TRANSMISSION DEMAND PSCR COMPONENT		4,812,862	0	473,624		1,346,030	0	121,039	1,140,465
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		4,987,833	0	491,642		1,392,250	0	125,184	1,180,018
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		15,207,284	0	1,928,180		5,166,769	0	476,424	1,449,568
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		3,056,862	0	387,440		1,039,067	0	95,814	291,494
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		3,431,047	0	435,644		1,163,757	0	107,301	326,593
19	**CUSTOMER COMPONENTS**	21,276,402	14,383,359	0	1,075,274		2,356,311	0	142,941	886,510
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0		0	0	0	0
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0		0	0	0	0
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0		0	0	0	0
24	DISTRIBUTION SERVICE LATERALS COMPONENT		1,850,353	0	148,582		262,081	0	11,040	37,271
25	METERING COMPONENT		4,317,252	0	282,618		836,185	0	51,545	323,864
26	STREET AND AREA LIGHTING COMPONENT		0	0	0		0	0	0	0
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		2,385,272	0	176,078		293,242	0	12,430	26,379
29	CUST ACCT, SALES, & SERVICE COMPONENT		6,797,363	0	539,940		1,082,535	0	72,914	509,604
30	CUSTOMER OTHER COMPONENT		(966,882)	0	(71,945)		(117,732)	0	(4,988)	(10,608)
31	**ENERGY COMPONENTS**	19,331,603	7,509,614	0	736,099		2,115,910	0	219,977	2,176,281
32	PRODUCTION ENERGY COMPONENT		7,509,614	0	736,099		2,115,910	0	219,977	2,176,281
33	**TOTAL COMPANY**	122,826,425	64,664,989	0	6,638,573		17,732,703	0	1,584,471	10,282,457
34										
35										
36										
37										
38	Annual kWh Sales @ Meter		230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
39	Annual kW - Billed		0	0	0		0	0	0	270,640
40	Number of Customers (Average Annual)		42,031	0	3,096		5,180	0	220	466
41										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	DESCRIPTION	COS Without Minimum System		Large Comm & Inc CP-U Total	S Secondary CP-U Sec	P Commerical & Ind Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
	(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
1	**CLAIMED RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIREI**									
2										
3	**RATE OF RETURN**			6.94%	6.94%	6.94%	6.94%	6.94%	6.94%	
4										
5	**REVENUES REQUIRED**									
6	**DEMAND COMPONENTS**	82,218,420		10,764,842	5,178,129	521,675	5,065,039	(117,376)	2,012,586	
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT			3,451,978	914,316	227,634	2,310,029	0	596,009	
9	PURCHASED CAPACITY COMPONENT			0	0	0	0	0	0	
10	TRANSMISSION DEMAND PSCR COMPONENT			2,505,647	1,075,707	77,842	1,352,097	(117,376)	695,224	
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT			2,597,356	1,113,926	80,517	1,402,913	(0)	721,353	
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT			1,589,701	1,454,019	135,682	0	(0)	0	
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT			292,332	292,332	0	0	(0)	0	
18	DISTRIBUTION DEM LINE TRANSF COMPONENT			327,828	327,828	0	0	0	0	
19	**CUSTOMER COMPONENTS**	21,276,402		1,161,449	487,576	66,510	607,362	91,561	342,325	
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT			0	0	0	0	0	0	
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT			0	0	0	0	0	0	
23	DISTRIBUTION CUST LINE TRANSF COMPONENT			0	0	0	0	0	0	
24	DISTRIBUTION SERVICE LATERALS COMPONENT			2,638	2,638	0	0	(0)	0	
25	METERING COMPONENT			113,935	48,256	29,346	36,333	91,395	28,466	
26	STREET AND AREA LIGHTING COMPONENT			0	0	0	0	0	0	
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT			2,834	2,098	396	340	260	170	
29	CUST ACCT, SALES, & SERVICE COMPONENT			1,043,185	435,432	36,927	570,826	339	313,758	
30	CUSTOMER OTHER COMPONENT			(1,142)	(847)	(159)	(136)	(433)	(68)	
31	**ENERGY COMPONENTS**	19,331,603		4,854,193	2,073,594	167,282	2,613,317	220,767	1,436,513	
32	PRODUCTION ENERGY COMPONENT			4,854,193	2,073,594	167,282	2,613,317	220,767	1,436,513	
33	**TOTAL COMPANY**	122,826,425		16,780,484	7,739,299	755,467	8,285,718	194,951	3,791,425	
34										
35										
36										
37										
38	Annual kWh Sales @ Meter			153,271,071	63,601,055	5,331,038	84,338,977	0	46,360,257	
39	Annual kW - Billed			366,622	144,674	31,064	190,884	413,118	141,118	
40	Number of Customers (Average Annual)			50	37	7	6	1	3	
41										
42										
43										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	COS Without Minimum System DESCRIPTION		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
	(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
1	**CLAIMED RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIREI**									
2										
3	**RATE OF RETURN**		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
4										
5	**REVENUES REQUIRED**									
6	**DEMAND COMPONENTS**	82,218,420	43,184	2,094	156,619	201,896	55,554	0		
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		12,504	656	48,506	61,666	15,451	0		
9	PURCHASED CAPACITY COMPONENT		0	0	0	0	0	0		
10	TRANSMISSION DEMAND PSCR COMPONENT		4,918	258	19,077	24,253	6,084	0		
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		5,086	267	19,731	25,084	6,300	0		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		14,496	640	48,589	63,725	19,431	0		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		2,915	129	9,772	12,816	3,907	0		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		3,265	144	10,943	14,352	4,381	0		
19	**CUSTOMER COMPONENTS**	21,276,402	139,527	7,178	479,705	626,410	192,205	18,057		
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0	0	0	0		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0	0	0	0		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0	0	0	0		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		3,197	457	8,463	12,117	0	0		
25	METERING COMPONENT		5,251	0	0	5,251	0	0		
26	STREET AND AREA LIGHTING COMPONENT		117,176	6,150	454,563	577,889	128,200	18,057		
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		4,227	0	0	4,227	0	0		
29	CUST ACCT, SALES, & SERVICE COMPONENT		11,373	813	21,169	33,355	96,598	0		
30	CUSTOMER OTHER COMPONENT		(1,696)	(242)	(4,491)	(6,429)	(32,593)	0		
31	**ENERGY COMPONENTS**	19,331,603	10,108	531	39,211	49,849	12,401	0		
32	PRODUCTION ENERGY COMPONENT		10,108	531	39,211	49,849	12,401	0		
33	**TOTAL COMPANY**	122,826,425	192,819	9,802	675,534	878,155	260,160	18,057		
34										
35										
36										
37										
38	Annual kWh Sales @ Meter		310,032	16,272	1,202,681	1,528,985	380,361	0		
39	Annual kW - Billed		0	0	0	0	0	0		
40	Number of Customers (Average Annual)		75	11	198	283	1,423	0		
41										
42										
43										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	DESCRIPTION	COS Without Minimum System	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	**CLAIMED RATE OF RETURN SUMMARY SCHEDULE - UNIT COSTS**									
2										
3	**RATE OF RETURN**		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
4										
5	**$/KWH**									
6	**DEMAND COMPONENTS**	$0.1387	$0.1387	$0.1882	$0.1348	$0.1331	$0.0979	$0.0533		
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		$0.0384	$0.0490	$0.0404	$0.0356	$0.0427	$0.0222		
9	PURCHASED CAPACITY COMPONENT		$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000		
10	TRANSMISSION DEMAND PSCR COMPONENT		$0.0186	$0.0209	$0.0159	$0.0182	$0.0146	$0.0148		
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		$0.0194	$0.0217	$0.0164	$0.0189	$0.0151	$0.0163		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		$0.0437	$0.0678	$0.0436	$0.0423	$0.0255	$0.0000		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		$0.0087	$0.0136	$0.0088	$0.0085	$0.0000	$0.0000		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		$0.0098	$0.0153	$0.0098	$0.0095	$0.0000	$0.0000		
19	**CUSTOMER COMPONENTS**	$0.0359	$0.0359	$0.0611	$0.4382	$0.0192	$0.0125	$0.0080		
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		$0.0039	$0.0079	$0.0063	$0.0015	$0.0000	$0.0000		
25	METERING COMPONENT		$0.0102	$0.0182	$0.0028	$0.0062	$0.0055	$0.0012		
26	STREET AND AREA LIGHTING COMPONENT		$0.0012	$0.0000	$0.3793	$0.0000	$0.0000	$0.0000		
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		$0.0049	$0.0101	$0.0022	$0.0017	$0.0001	$0.0000		
29	CUST ACCT, SALES, & SERVICE COMPONENT		$0.0177	$0.0290	$0.0681	$0.0104	$0.0069	$0.0068		
30	CUSTOMER OTHER COMPONENT		-$0.0020	-$0.0041	-$0.0204	-$0.0007	$0.0000	$0.0000		
31	**ENERGY COMPONENTS**	$0.0326	$0.0326	$0.0326	$0.0326	$0.0326	$0.0314	$0.0327		
32	PRODUCTION ENERGY COMPONENT		$0.0326	$0.0326	$0.0326	$0.0326	$0.0314	$0.0327		
33	**TOTAL COMPANY**	$0.2072	$0.2072	$0.2819	$0.6056	$0.1848	$0.1417	$0.0939		
34										
35										
36										
37	**$/MONTH/CUSTOMER**									
38	**CUSTOMER COMPONENTS**	$33.61	$33.61	$28.55	$40.87	$54.69	$791.79	$8,677.07		
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
42	DISTRIBUTION SERVICE LATERALS COMPONENT		$3.67	$3.69	$0.59	$4.42	$0.00	$0.00		
43	METERING COMPONENT		$9.56	$8.49	$0.26	$17.79	$349.36	$1,301.61		
44	STREET AND AREA LIGHTING COMPONENT		$1.14	$0.00	$35.37	$0.00	$0.00	$0.00		
45	METER READING COMPONENT		$4.58	$4.73	$0.21	$4.72	$4.72	$6.41		
46	CUST ACCT, SALES, & SERVICE COMPONENT		$16.57	$13.55	$6.35	$29.66	$439.60	$7,374.36		
47	CUSTOMER OTHER COMPONENT		($1.92)	($1.92)	($1.91)	($1.89)	($1.89)	($5.31)		
48										
49										
50										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	DESCRIPTION	COS Without Minimum System	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
	(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
1	**CLAIMED RATE OF RETURN SUMMARY SCHEDULE - UNIT COSTS**									
2										
3	**RATE OF RETURN**		6.94%	6.94%	6.94%		6.94%	6.94%	6.94%	6.94%
4										
5	**$/KWH**									
6	**DEMAND COMPONENTS**	$0.1387	$0.1857	$0.0000	$0.2138		$0.2043	$0.0000	$0.1810	$0.1082
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		$0.0490	$0.0000	$0.0492		$0.0486	$0.0000	$0.0438	$0.0424
9	PURCHASED CAPACITY COMPONENT		$0.0000	$0.0000	$0.0000		$0.0000	$0.0000	$0.0000	$0.0000
10	TRANSMISSION DEMAND PSCR COMPONENT		$0.0209	$0.0000	$0.0210		$0.0207	$0.0000	$0.0179	$0.0171
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		$0.0217	$0.0000	$0.0218		$0.0215	$0.0000	$0.0186	$0.0177
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		$0.0660	$0.0000	$0.0854		$0.0796	$0.0000	$0.0706	$0.0217
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		$0.0133	$0.0000	$0.0172		$0.0160	$0.0000	$0.0142	$0.0044
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		$0.0149	$0.0000	$0.0193		$0.0179	$0.0000	$0.0159	$0.0049
19	**CUSTOMER COMPONENTS**	$0.0359	$0.0624	$0.0000	$0.0476		$0.0363	$0.0000	$0.0212	$0.0133
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		$0.0000	$0.0000	$0.0000		$0.0000	$0.0000	$0.0000	$0.0000
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		$0.0000	$0.0000	$0.0000		$0.0000	$0.0000	$0.0000	$0.0000
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		$0.0000	$0.0000	$0.0000		$0.0000	$0.0000	$0.0000	$0.0000
24	DISTRIBUTION SERVICE LATERALS COMPONENT		$0.0080	$0.0000	$0.0066		$0.0040	$0.0000	$0.0016	$0.0006
25	METERING COMPONENT		$0.0187	$0.0000	$0.0125		$0.0129	$0.0000	$0.0076	$0.0049
26	STREET AND AREA LIGHTING COMPONENT		$0.0000	$0.0000	$0.0000		$0.0000	$0.0000	$0.0000	$0.0000
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		$0.0104	$0.0000	$0.0078		$0.0045	$0.0000	$0.0018	$0.0004
29	CUST ACCT, SALES, & SERVICE COMPONENT		$0.0295	$0.0000	$0.0239		$0.0167	$0.0000	$0.0108	$0.0076
30	CUSTOMER OTHER COMPONENT		-$0.0042	$0.0000	-$0.0032		-$0.0018	$0.0000	-$0.0007	-$0.0002
31	**ENERGY COMPONENTS**	$0.0326	$0.0326	$0.0000	$0.0326		$0.0326	$0.0000	$0.0326	$0.0326
32	PRODUCTION ENERGY COMPONENT		$0.0326	$0.0000	$0.0326		$0.0326	$0.0000	$0.0326	$0.0326
33	**TOTAL COMPANY**	$0.2072	$0.2807	$0.0000	$0.2940		$0.2732	$0.0000	$0.2348	$0.1540
34										
35										
36										
37	**$/MONTH/CUSTOMER**									
38	**CUSTOMER COMPONENTS**	$33.61	$28.52	$0.00	$28.94		$37.91	$0.00	$54.25	$158.62
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
42	DISTRIBUTION SERVICE LATERALS COMPONENT		$3.67	$0.00	$4.00		$4.22	$0.00	$4.19	$6.67
43	METERING COMPONENT		$8.56	$0.00	$7.61		$13.45	$0.00	$19.56	$57.95
44	STREET AND AREA LIGHTING COMPONENT		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
45	METER READING COMPONENT		$4.73	$0.00	$4.74		$4.72	$0.00	$4.72	$4.72
46	CUST ACCT, SALES, & SERVICE COMPONENT		$13.48	$0.00	$14.53		$17.42	$0.00	$27.67	$91.18
47	CUSTOMER OTHER COMPONENT		($1.92)	$0.00	($1.94)		($1.89)	$0.00	($1.89)	($1.90)
48										
49										
50										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	DESCRIPTION	COS Without Minimum System		Large Comm & Inc CP-U Total	S Secondary CP-U Sec	P Commerical & Ind Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
	(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
1	**CLAIMED RATE OF RETURN SUMMARY SCHEDULE - UNIT COSTS**									
2										
3	**RATE OF RETURN**			6.94%	6.94%	6.94%	6.94%	6.94%	6.94%	
4										
5	**$/KWH**									
6	**DEMAND COMPONENTS**	$0.1387		$0.0702	$0.0814	$0.0979	$0.0601	$0.0000	$0.0434	
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT			$0.0225	$0.0144	$0.0427	$0.0274	$0.0000	$0.0129	
9	PURCHASED CAPACITY COMPONENT			$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	
10	TRANSMISSION DEMAND PSCR COMPONENT			$0.0163	$0.0169	$0.0146	$0.0160	$0.0000	$0.0150	
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT			$0.0169	$0.0175	$0.0151	$0.0166	$0.0000	$0.0156	
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT			$0.0104	$0.0229	$0.0255	$0.0000	$0.0000	$0.0000	
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT			$0.0019	$0.0046	$0.0000	$0.0000	$0.0000	$0.0000	
18	DISTRIBUTION DEM LINE TRANSF COMPONENT			$0.0021	$0.0052	$0.0000	$0.0000	$0.0000	$0.0000	
19	**CUSTOMER COMPONENTS**	$0.0359		$0.0076	$0.0077	$0.0125	$0.0072	$0.0000	$0.0074	
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT			$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT			$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	
23	DISTRIBUTION CUST LINE TRANSF COMPONENT			$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	
24	DISTRIBUTION SERVICE LATERALS COMPONENT			$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	
25	METERING COMPONENT			$0.0007	$0.0008	$0.0055	$0.0004	$0.0000	$0.0006	
26	STREET AND AREA LIGHTING COMPONENT			$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT			$0.0000	$0.0000	$0.0001	$0.0000	$0.0000	$0.0000	
29	CUST ACCT, SALES, & SERVICE COMPONENT			$0.0068	$0.0068	$0.0069	$0.0068	$0.0000	$0.0068	
30	CUSTOMER OTHER COMPONENT			$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	
31	**ENERGY COMPONENTS**	$0.0326		$0.0317	$0.0326	$0.0314	$0.0310	$0.0000	$0.0310	
32	PRODUCTION ENERGY COMPONENT			$0.0317	$0.0326	$0.0314	$0.0310	$0.0000	$0.0310	
33	**TOTAL COMPANY**	$0.2072		$0.1095	$0.1217	$0.1417	$0.0982	$0.0000	$0.0818	
34										
35										
36										
37	**$/MONTH/CUSTOMER**									
38	**CUSTOMER COMPONENTS**	$33.61		$1,935.75	$1,098.14	$791.79	$8,435.59	$7,630.05	$9,509.04	
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
41	DISTRIBUTION CUST LINE TRANSF COMPONENT			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
42	DISTRIBUTION SERVICE LATERALS COMPONENT			$4.40	$5.94	$0.00	$0.00	($0.00)	$0.00	
43	METERING COMPONENT			$189.89	$108.68	$349.36	$504.62	$7,616.23	$790.71	
44	STREET AND AREA LIGHTING COMPONENT			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
45	METER READING COMPONENT			$4.72	$4.72	$4.72	$4.72	$21.67	$4.72	
46	CUST ACCT, SALES, & SERVICE COMPONENT			$1,738.64	$980.70	$439.60	$7,928.14	$28.26	$8,715.50	
47	CUSTOMER OTHER COMPONENT			($1.90)	($1.91)	($1.89)	($1.89)	($36.10)	($1.89)	
48										
49										
50										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

LINE NO.	COS Without Minimum System DESCRIPTION		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
	(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
1	**CLAIMED RATE OF RETURN SUMMARY SCHEDULE - UNIT COSTS**									
2										
3	**RATE OF RETURN**		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
4										
5	**$/KWH**									
6	**DEMAND COMPONENTS**	$0.1387	$0.1393	$0.1287	$0.1302	$0.1320	$0.1461	$0.0000		
7	**PRODUCTION COSTS**									
8	PRODUCTION DEMAND COMPONENT		$0.0403	$0.0403	$0.0403	$0.0403	$0.0406	$0.0000		
9	PURCHASED CAPACITY COMPONENT		$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000		
10	TRANSMISSION DEMAND PSCR COMPONENT		$0.0159	$0.0159	$0.0159	$0.0159	$0.0160	$0.0000		
11	**TRANSMISSION COSTS**									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	**DISTRIBUTION COSTS**									
15	DISTRIBUTION SUBSTATIONS COMPONENT		$0.0164	$0.0164	$0.0164	$0.0164	$0.0166	$0.0000		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		$0.0468	$0.0393	$0.0404	$0.0417	$0.0511	$0.0000		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		$0.0094	$0.0079	$0.0081	$0.0084	$0.0103	$0.0000		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		$0.0105	$0.0089	$0.0091	$0.0094	$0.0115	$0.0000		
19	**CUSTOMER COMPONENTS**	$0.0359	$0.4500	$0.4411	$0.3989	$0.4097	$0.5053	$0.0000		
20	**CUSTOMER DISTRIBUTION COSTS**									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		$0.0103	$0.0281	$0.0070	$0.0079	$0.0000	$0.0000		
25	METERING COMPONENT		$0.0169	$0.0000	$0.0000	$0.0034	$0.0000	$0.0000		
26	STREET AND AREA LIGHTING COMPONENT		$0.3779	$0.3780	$0.3780	$0.3780	$0.3370	$0.0000		
27	**OTHER CUSTOMER COSTS**									
28	METER READING COMPONENT		$0.0136	$0.0000	$0.0000	$0.0028	$0.0000	$0.0000		
29	CUST ACCT, SALES, & SERVICE COMPONENT		$0.0367	$0.0500	$0.0176	$0.0218	$0.2540	$0.0000		
30	CUSTOMER OTHER COMPONENT		-$0.0055	-$0.0149	-$0.0037	-$0.0042	-$0.0857	$0.0000		
31	**ENERGY COMPONENTS**	$0.0326	$0.0326	$0.0326	$0.0326	$0.0326	$0.0326	$0.0000		
32	PRODUCTION ENERGY COMPONENT		$0.0326	$0.0326	$0.0326	$0.0326	$0.0326	$0.0000		
33	**TOTAL COMPANY**	$0.2072	$0.6219	$0.6024	$0.5617	$0.5743	$0.6840	$0.0000		
34										
35										
36										
37	**$/MONTH/CUSTOMER**									
38	**CUSTOMER COMPONENTS**	$33.61	$155.72	$56.08	$202.24	$184.46	$11.25	$0.00		
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
42	DISTRIBUTION SERVICE LATERALS COMPONENT		$3.57	$3.57	$3.57	$3.57	$0.00	$0.00		
43	METERING COMPONENT		$5.86	$0.00	$0.00	$1.55	$0.00	$0.00		
44	STREET AND AREA LIGHTING COMPONENT		$130.78	$48.05	$191.64	$170.17	$7.51	$0.00		
45	METER READING COMPONENT		$4.72	$0.00	$0.00	$1.24	$0.00	$0.00		
46	CUST ACCT, SALES, & SERVICE COMPONENT		$12.69	$6.36	$8.92	$9.82	$5.66	$0.00		
47	CUSTOMER OTHER COMPONENT		($1.89)	($1.89)	($1.89)	($1.89)	($1.91)	$0.00		
48										
49										
50										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
SUM	1	**SUMMARY AT PRESENT RATES**	**Reference**								
SUM	2										
SUM	3	**DEVELOPMENT OF RETURN**									
SUM	4										
SUM	5	**OPERATING REVENUE**									
SUM	6	Base Sales of Electricity	SCH , LN	17,232,972	9,448,845	132,176	6,116,096	267,257	1,268,599		
SUM	7	Other Operating Revenue	SCH , LN	0	0	0	0	0	0		
SUM	8	**TOTAL OPERATING REVENUE**		17,232,972	9,448,845	132,176	6,116,096	267,257	1,268,599		
SUM	9										
SUM	10	**OPERATING EXPENSES**									
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN	0	0	0	0	0	0		
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN	7,634,333	3,964,205	25,493	2,451,975	73,620	1,119,041		
SUM	13	Depreciation and Amortization Expense	SCH , LN	4,891,947	2,736,658	16,683	1,525,828	49,914	562,864		
SUM	14	Taxes Other Than Income Taxes	SCH , LN	2,290,787	1,281,267	7,812	714,574	23,371	263,764		
SUM	15	State and Federal Income Taxes	SCH , LN	(80,927)	(9,774)	18,766	145,768	23,874	(259,560)		
SUM	16	**TOTAL OPERATING EXPENSES**		14,736,141	7,972,355	68,753	4,838,145	170,779	1,686,109		
SUM	17										
SUM	18	**OPERATING INCOME (RETURN)**		2,496,831	1,476,490	63,423	1,277,950	96,478	(417,510)		
SUM	19										
SUM	20	**OPERATING INCOME ADJUSTMENTS**									
SUM	21	Interest	TOTPLT	(853,096)	(477,240)	(2,909)	(266,086)	(8,704)	(98,157)		
SUM	22	Income Tax Effect of Interest	RATEBASE	0	0	0	0	0	0		
SUM	23	Interest Synchronization Adjustment	RATEBASE	14	8	0	5	0	2		
SUM	24	**TOTAL OPERATING INCOME ADJUSTMENTS**		(853,082)	(477,232)	(2,909)	(266,081)	(8,704)	(98,155)		
SUM	25	**ADJUSTED OPERATING INCOME (RETURN)**		1,643,749	999,258	60,514	1,011,869	87,773	(515,665)		
SUM	26										
SUM	27										
SUM	28	**DEVELOPMENT OF RATE BASE**									
SUM	29	Electric Plant in Service	SCH , LN	119,368,898	66,777,465	407,076	37,231,879	1,217,965	13,734,513		
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN	61,180,111	34,225,437	208,638	19,082,445	624,244	7,039,346		
SUM	31	Plus: Plant Held for Future Use	SCH , LN	0	0	0	0	0	0		
SUM	32	Plus: Constuction Work In Progress	SCH , LN	7,392,144	4,135,321	25,209	2,305,654	75,425	850,536		
SUM	33	Plus: Fuel Stock	SCH , LN	0	0	0	0	0	0		
SUM	34	Plus: Cash Working Capital	SCH , LN	16,010,497	8,266,758	53,777	5,170,331	155,530	2,364,100		
SUM	35	Plus: Utility Materials and Supplies	SCH , LN	(186,597)	(104,386)	(636)	(58,201)	(1,904)	(21,470)		
SUM	36	Plus: Prepayments	SCH , LN	351,841	196,827	1,200	109,741	3,590	40,483		
SUM	37	Plus: Cash & Bank Balances	SCH , LN	1,952,700	1,092,381	6,659	609,059	19,924	224,676		
SUM	38	Less: Deductions to Rate Base	SCH , LN	519,188	290,445	1,771	161,938	5,297	59,737		
SUM	39	**TOTAL NET RATE BASE**	SCH , LN	83,190,183	45,848,484	282,875	26,124,081	840,990	10,093,754		
SUM	40										
SUM	41										
SUM	42	**RATE OF RETURN (PRESENT)**		1.98%	2.18%	21.39%	3.87%	10.44%	-5.11%		
SUM	43	**INDEX RATE OF RETURN (PRESENT)**		1.00	1.10	10.83	1.96	5.28	-2.59		
SUM	44										
SUM	45										
SUM	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION		ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)		(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
SUM	1	**SUMMARY AT PRESENT RATES**		**Reference**								
SUM	2											
SUM	3	**DEVELOPMENT OF RETURN**										
SUM	4											
SUM	5	**OPERATING REVENUE**										
SUM	6	Base Sales of Electricity	SCH , LN		8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
SUM	7	Other Operating Revenue	SCH , LN		0	0	0		0	0	0	0
SUM	8	**TOTAL OPERATING REVENUE**			8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
SUM	9											
SUM	10	**OPERATING EXPENSES**										
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN		0	0	0		0	0	0	0
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN		3,606,739	0	357,465		1,001,271	0	95,915	926,418
SUM	13	Depreciation and Amortization Expense	SCH , LN		2,491,917	0	244,741		698,936	0	64,756	616,594
SUM	14	Taxes Other Than Income Taxes	SCH , LN		1,166,683	0	114,584		327,234	0	30,320	288,714
SUM	15	State and Federal Income Taxes	SCH , LN		34,724	0	(44,499)		(114,583)	0	(15,974)	320,268
SUM	16	**TOTAL OPERATING EXPENSES**			7,300,064	0	672,292		1,912,858	0	175,017	2,151,994
SUM	17											
SUM	18	**OPERATING INCOME (RETURN)**			1,470,317	0	6,173		53,816	0	(10,249)	1,265,953
SUM	19											
SUM	20	**OPERATING INCOME ADJUSTMENTS**										
SUM	21	Interest	TOTPLT		(434,560)	0	(42,680)		(121,886)	0	(11,293)	(107,527)
SUM	22	Income Tax Effect of Interest	RATEBASE		0	0	0		0	0	0	0
SUM	23	Interest Synchronization Adjustment	RATEBASE		7	0	1		2	0	0	2
SUM	24	**TOTAL OPERATING INCOME ADJUSTMENTS**			(434,553)	0	(42,679)		(121,884)	0	(11,292)	(107,525)
SUM	25	**ADJUSTED OPERATING INCOME (RETURN)**			1,035,764	0	(36,506)		(68,068)	0	(21,541)	1,158,429
SUM	26											
SUM	27											
SUM	28	**DEVELOPMENT OF RATE BASE**										
SUM	29	Electric Plant in Service	SCH , LN		60,805,520	0	5,971,946		17,054,808	0	1,580,121	15,045,581
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN		31,164,638	0	3,060,800		8,741,097	0	809,859	7,711,308
SUM	31	Plus: Plant Held for Future Use	SCH , LN		0	0	0		0	0	0	0
SUM	32	Plus: Constuction Work In Progress	SCH , LN		3,765,496	0	369,824		1,056,151	0	97,852	931,726
SUM	33	Plus: Fuel Stock	SCH , LN		0	0	0		0	0	0	0
SUM	34	Plus: Cash Working Capital	SCH , LN		7,527,834	0	738,925		2,114,141	0	202,630	1,952,461
SUM	35	Plus: Utility Materials and Supplies	SCH , LN		(95,051)	0	(9,335)		(26,660)	0	(2,470)	(23,519)
SUM	36	Plus: Prepayments	SCH , LN		179,225	0	17,602		50,269	0	4,657	44,347
SUM	37	Plus: Cash & Bank Balances	SCH , LN		994,689	0	97,692		278,992	0	25,848	246,124
SUM	38	Less: Deductions to Rate Base	SCH , LN		264,470	0	25,975		74,179	0	6,873	65,440
SUM	39	**TOTAL NET RATE BASE**	SCH , LN		41,748,605	0	4,099,879		11,712,425	0	1,091,907	10,419,972
SUM	40											
SUM	41											
SUM	42	**RATE OF RETURN (PRESENT)**			2.64%	0.00%	-0.75%		-0.43%	0.00%	-1.82%	11.30%
SUM	43	**INDEX RATE OF RETURN (PRESENT)**			1.33	0.00	-0.38		-0.22	0.00	-0.92	5.72
SUM	44											
SUM	45											
SUM	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
SUM	1	**SUMMARY AT PRESENT RATES**	**Reference**								
SUM	2										
SUM	3	**DEVELOPMENT OF RETURN**									
SUM	4										
SUM	5	**OPERATING REVENUE**									
SUM	6	Base Sales of Electricity	SCH , LN		1,738,119	566,706	267,257	904,157	0	364,442	
SUM	7	Other Operating Revenue	SCH , LN		0	0	0	0	0	0	
SUM	8	**TOTAL OPERATING REVENUE**			1,738,119	566,706	267,257	904,157	0	364,442	
SUM	9										
SUM	10	**OPERATING EXPENSES**									
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN		0	0	0	0	0	0	
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN		1,334,801	428,372	73,620	832,810	0	286,231	
SUM	13	Depreciation and Amortization Expense	SCH , LN		666,423	145,541	49,914	470,967	0	91,898	
SUM	14	Taxes Other Than Income Taxes	SCH , LN		312,298	68,306	23,371	220,621	0	43,143	
SUM	15	State and Federal Income Taxes	SCH , LN		(249,225)	(43,943)	23,874	(229,156)	0	(30,404)	
SUM	16	**TOTAL OPERATING EXPENSES**			2,064,297	598,276	170,779	1,295,242	0	390,867	
SUM	17										
SUM	18	**OPERATING INCOME (RETURN)**			(326,177)	(31,570)	96,478	(391,085)	0	(26,425)	
SUM	19										
SUM	20	**OPERATING INCOME ADJUSTMENTS**									
SUM	21	Interest	TOTPLT		(116,216)	(25,381)	(8,704)	(82,131)	(0)	(16,026)	
SUM	22	Income Tax Effect of Interest	RATEBASE		0	0	0	0	0	0	
SUM	23	Interest Synchronization Adjustment	RATEBASE		2	1	0	1	0	0	
SUM	24	**TOTAL OPERATING INCOME ADJUSTMENTS**			(116,214)	(25,380)	(8,704)	(82,129)	(0)	(16,026)	
SUM	25	**ADJUSTED OPERATING INCOME (RETURN)**			(442,391)	(56,950)	87,773	(473,215)	0	(42,451)	
SUM	26										
SUM	27										
SUM	28	**DEVELOPMENT OF RATE BASE**									
SUM	29	Electric Plant in Service	SCH , LN		16,261,442	3,551,369	1,217,965	11,492,107	0	2,242,405	
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN		8,334,473	1,820,182	624,244	5,890,047	0	1,149,299	
SUM	31	Plus: Plant Held for Future Use	SCH , LN		0	0	0	0	0	0	
SUM	32	Plus: Constuction Work In Progress	SCH , LN		1,007,020	219,925	75,425	711,670	0	138,865	
SUM	33	Plus: Fuel Stock	SCH , LN		0	0	0	0	0	0	
SUM	34	Plus: Cash Working Capital	SCH , LN		2,816,034	901,099	155,530	1,759,405	0	604,695	
SUM	35	Plus: Utility Materials and Supplies	SCH , LN		(25,420)	(5,551)	(1,904)	(17,964)	(0)	(3,505)	
SUM	36	Plus: Prepayments	SCH , LN		47,931	10,468	3,590	33,873	0	6,610	
SUM	37	Plus: Cash & Bank Balances	SCH , LN		266,013	58,095	19,924	187,994	0	36,682	
SUM	38	Less: Deductions to Rate Base	SCH , LN		70,728	15,446	5,297	49,984	0	9,753	
SUM	39	**TOTAL NET RATE BASE**	SCH , LN		11,967,820	2,899,776	840,990	8,227,054	0	1,866,700	
SUM	40										
SUM	41										
SUM	42	**RATE OF RETURN (PRESENT)**			-3.70%	-1.85%	10.63%	-5.50%	-25.31%	-2.04%	
SUM	43	**INDEX RATE OF RETURN (PRESENT)**			-1.87	-0.94	5.38	-2.79	-12.81	-1.03	
SUM	44										
SUM	45										
SUM	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
SUM	1	**SUMMARY AT PRESENT RATES**	**Reference**								
SUM	2										
SUM	3	**DEVELOPMENT OF RETURN**									
SUM	4										
SUM	5	**OPERATING REVENUE**									
SUM	6	Base Sales of Electricity	SCH , LN	5,151	970	94,608	100,729	31,447	0		
SUM	7	Other Operating Revenue	SCH , LN	0	0	0	0	0	0		
SUM	8	**TOTAL OPERATING REVENUE**		5,151	970	94,608	100,729	31,447	0		
SUM	9										
SUM	10	**OPERATING EXPENSES**									
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN	0	0	0	0	0	0		
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN	4,130	217	16,022	20,369	5,123	0		
SUM	13	Depreciation and Amortization Expense	SCH , LN	2,706	142	10,497	13,345	3,338	0		
SUM	14	Taxes Other Than Income Taxes	SCH , LN	1,267	67	4,915	6,249	1,563	0		
SUM	15	State and Federal Income Taxes	SCH , LN	(1,148)	120	14,757	13,729	5,036	0		
SUM	16	**TOTAL OPERATING EXPENSES**		6,956	545	46,192	53,693	15,060	0		
SUM	17										
SUM	18	**OPERATING INCOME (RETURN)**		(1,805)	425	48,416	47,036	16,387	0		
SUM	19										
SUM	20	**OPERATING INCOME ADJUSTMENTS**									
SUM	21	Interest	TOTPLT	(472)	(25)	(1,831)	(2,327)	(582)	(0)		
SUM	22	Income Tax Effect of Interest	RATEBASE	0	0	0	0	0	0		
SUM	23	Interest Synchronization Adjustment	RATEBASE	0	0	0	0	0	0		
SUM	24	**TOTAL OPERATING INCOME ADJUSTMENTS**		(472)	(25)	(1,831)	(2,327)	(582)	(0)		
SUM	25	**ADJUSTED OPERATING INCOME (RETURN)**		(2,277)	400	46,586	44,709	15,805	0		
SUM	26										
SUM	27										
SUM	28	**DEVELOPMENT OF RATE BASE**									
SUM	29	Electric Plant in Service	SCH , LN	66,028	3,465	256,136	325,629	81,446	0		
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN	33,841	1,776	131,277	166,895	41,744	0		
SUM	31	Plus: Plant Held for Future Use	SCH , LN	0	0	0	0	0	0		
SUM	32	Plus: Constuction Work In Progress	SCH , LN	4,089	215	15,862	20,165	5,044	0		
SUM	33	Plus: Fuel Stock	SCH , LN	0	0	0	0	0	0		
SUM	34	Plus: Cash Working Capital	SCH , LN	8,726	458	33,849	43,032	10,744	0		
SUM	35	Plus: Utility Materials and Supplies	SCH , LN	(103)	(5)	(400)	(509)	(127)	(0)		
SUM	36	Plus: Prepayments	SCH , LN	195	10	755	960	240	0		
SUM	37	Plus: Cash & Bank Balances	SCH , LN	1,080	57	4,190	5,327	1,332	0		
SUM	38	Less: Deductions to Rate Base	SCH , LN	287	15	1,114	1,416	354	0		
SUM	39	**TOTAL NET RATE BASE**	SCH , LN	45,886	2,408	178,000	226,294	56,581	0		
SUM	40										
SUM	41										
SUM	42	**RATE OF RETURN (PRESENT)**		-5.08%	16.40%	26.02%	19.76%	27.72%	-10.03%		
SUM	43	**INDEX RATE OF RETURN (PRESENT)**		-2.57	8.30	13.17	10.00	14.03	-5.08		
SUM	44										
SUM	45										
SUM	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION		ALLOCATION BASIS		INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)		(b)		(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
SUM	47	**EQUALIZED RETURN AT PROPOSED ROR**		**Reference**									
SUM	48												
SUM	49	**DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)**											
SUM	50												
SUM	51	**RATE BASE**	SCH , LN			83,190,183	45,848,484	282,875	26,124,081	840,990	10,093,754		
SUM	52												
SUM	53	**RATE OF RETURN**				6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
SUM	54												
SUM	55	**RETURN (RATE BASE * ROR)**			6.9381%	5,771,818	3,181,014	19,626	1,812,515	58,349	700,315		
SUM	56												
SUM	57	**LESS:**											
SUM	58	**OPERATING EXPENSES**											
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN			7,634,333	3,964,205	25,493	2,451,975	73,620	1,119,041		
SUM	60	Depreciation and Amortization Expense	SCH , LN			4,891,947	2,736,658	16,683	1,525,828	49,914	562,864		
SUM	61	Taxes Other Than Income Taxes	SCH , LN			2,290,787	1,281,267	7,812	714,574	23,371	263,764		
SUM	62	State and Federal Income Taxes	Calculated			1,349,862	746,422	4,594	423,272	13,676	161,898		
SUM	63	**TOTAL OPERATING EXPENSES**				16,166,930	8,728,552	54,581	5,115,649	160,581	2,107,568		
SUM	64												
SUM	65	**EQUALS TOTAL COST OF SERVICE**				21,938,748	11,909,565	74,207	6,928,164	218,929	2,807,883		
SUM	66												
SUM	67	**LESS:**											
SUM	68	Other Operating Revenue	SCH , LN			0	0	0	0	0	0		
SUM	69												
SUM	70	**LESS:**											
SUM	71	Operating Income Adjustments (Present)	SCH , LN			(853,082)	(477,232)	(2,909)	(266,081)	(8,704)	(98,155)		
SUM	72												
SUM	73	**EQUALS:**											
SUM	74	**DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 6.94%**				22,791,830	12,386,797	77,117	7,194,245	227,634	2,906,038		
SUM	75												
SUM	76	**REVENUE DEFICIENCY (SUFFICIENCY)**				5,558,858	2,937,952	(55,059)	1,078,150	(39,623)	1,637,439		
SUM	77												
SUM	78												
SUM	79	**SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)**				32.26%	31.09%	-41.66%	17.63%	-14.83%	129.07%		
SUM	80					1.00	0.96	(1.29)	0.55	(0.46)	4.00		
SUM	81												
SUM	82												
SUM	83												
SUM	84												
SUM	85												
SUM	86												
SUM	87												
SUM	88												
SUM	89												
SUM	90												
SUM	91												
SUM	92												

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION		ALLOCATION BASIS		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)		(b)		(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
SUM	47	**EQUALIZED RETURN AT PROPOSED ROR**		**Reference**									
SUM	48												
SUM	49	**DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)**											
SUM	50												
SUM	51	**RATE BASE**	SCH , LN			41,748,605	0	4,099,879		11,712,425	0	1,091,907	10,419,972
SUM	52												
SUM	53	**RATE OF RETURN**				6.94%	6.94%	6.94%		6.94%	6.94%	6.94%	6.94%
SUM	54												
SUM	55	**RETURN (RATE BASE * ROR)**			6.9381%	2,896,560	0	284,454		812,620	0	75,758	722,948
SUM	56												
SUM	57	**LESS:**											
SUM	58	**OPERATING EXPENSES**											
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN			3,606,739	0	357,465		1,001,271	0	95,915	926,418
SUM	60	Depreciation and Amortization Expense	SCH , LN			2,491,917	0	244,741		698,936	0	64,756	616,594
SUM	61	Taxes Other Than Income Taxes	SCH , LN			1,166,683	0	114,584		327,234	0	30,320	288,714
SUM	62	State and Federal Income Taxes	Calculated			679,676	0	66,746		190,664	0	17,750	169,331
SUM	63	**TOTAL OPERATING EXPENSES**				7,945,016	0	783,536		2,218,105	0	208,741	2,001,057
SUM	64												
SUM	65	**EQUALS TOTAL COST OF SERVICE**				10,841,575	0	1,067,990		3,030,724	0	284,499	2,724,005
SUM	66												
SUM	67	**LESS:**											
SUM	68	Other Operating Revenue	SCH , LN			0	0	0		0	0	0	0
SUM	69												
SUM	70	**LESS:**											
SUM	71	Operating Income Adjustments (Present)	SCH , LN			(434,553)	0	(42,679)		(121,884)	0	(11,292)	(107,525)
SUM	72												
SUM	73	**EQUALS:**											
SUM	74	**DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 6.94%**				11,276,128	0	1,110,669		3,152,608	0	295,791	2,831,529
SUM	75												
SUM	76	**REVENUE DEFICIENCY (SUFFICIENCY)**				2,505,748	0	432,204		1,185,935	0	131,023	(586,418)
SUM	77												
SUM	78												
SUM	79	**SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)**				28.57%	0.00%	63.70%		60.30%	0.00%	79.52%	-17.16%
SUM	80					0.89	0.00	1.97		1.87	0.00	2.47	(0.53)
SUM	81												
SUM	82												
SUM	83												
SUM	84												
SUM	85												
SUM	86												
SUM	87												
SUM	88												
SUM	89												
SUM	90												
SUM	91												
SUM	92												

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
SUM	47	**EQUALIZED RETURN AT PROPOSED ROR**	**Reference**								
SUM	48										
SUM	49	**DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)**									
SUM	50										
SUM	51	**RATE BASE**	SCH , LN		11,967,820	2,899,776	840,990	8,227,054	0	1,866,700	
SUM	52										
SUM	53	**RATE OF RETURN**			6.94%	6.94%	6.94%	6.94%	6.94%	6.94%	
SUM	54										
SUM	55	**RETURN (RATE BASE * ROR)**		6.9381%	830,339	201,189	58,349	570,801	0	129,513	
SUM	56										
SUM	57	**LESS:**									
SUM	58	**OPERATING EXPENSES**									
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN		1,334,801	428,372	73,620	832,810	0	286,231	
SUM	60	Depreciation and Amortization Expense	SCH , LN		666,423	145,541	49,914	470,967	0	91,898	
SUM	61	Taxes Other Than Income Taxes	SCH , LN		312,298	68,306	23,371	220,621	0	43,143	
SUM	62	State and Federal Income Taxes	Calculated		191,903	45,528	13,676	132,700	0	29,199	
SUM	63	**TOTAL OPERATING EXPENSES**			2,505,425	687,747	160,581	1,657,098	0	450,470	
SUM	64										
SUM	65	**EQUALS TOTAL COST OF SERVICE**			3,335,765	888,936	218,929	2,227,899	0	579,983	
SUM	66										
SUM	67	**LESS:**									
SUM	68	Other Operating Revenue	SCH , LN		0	0	0	0	0	0	
SUM	69										
SUM	70	**LESS:**									
SUM	71	Operating Income Adjustments (Present)	SCH , LN		(116,214)	(25,380)	(8,704)	(82,129)	(0)	(16,026)	
SUM	72										
SUM	73	**EQUALS:**									
SUM	74	**DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 6.94%**			3,451,978	914,316	227,634	2,310,029	0	596,009	
SUM	75										
SUM	76	**REVENUE DEFICIENCY (SUFFICIENCY)**			1,713,859	347,610	(39,623)	1,405,872	(0)	231,567	
SUM	77										
SUM	78										
SUM	79	**SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)**			98.60%	61.34%	-14.83%	155.49%	0.00%	63.54%	
SUM	80				3.06	1.90	(0.46)	4.82	0.00	1.97	
SUM	81										
SUM	82										
SUM	83										
SUM	84										
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SUM	88										
SUM	89										
SUM	90										
SUM	91										
SUM	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)		(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
SUM	47	**EQUALIZED RETURN AT PROPOSED ROR**	**Reference**									
SUM	48											
SUM	49	**DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)**										
SUM	50											
SUM	51	**RATE BASE**	SCH , LN		45,886	2,408	178,000	226,294	56,581	0		
SUM	52											
SUM	53	**RATE OF RETURN**			6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
SUM	54											
SUM	55	**RETURN (RATE BASE * ROR)**		6.9381%	3,184	167	12,350	15,700	3,926	0		
SUM	56											
SUM	57	**LESS:**										
SUM	58	**OPERATING EXPENSES**										
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN		4,130	217	16,022	20,369	5,123	0		
SUM	60	Depreciation and Amortization Expense	SCH , LN		2,706	142	10,497	13,345	3,338	0		
SUM	61	Taxes Other Than Income Taxes	SCH , LN		1,267	67	4,915	6,249	1,563	0		
SUM	62	State and Federal Income Taxes	Calculated		745	39	2,891	3,675	919	0		
SUM	63	**TOTAL OPERATING EXPENSES**			8,848	464	34,325	43,638	10,943	0		
SUM	64											
SUM	65	**EQUALS TOTAL COST OF SERVICE**			12,032	631	46,675	59,339	14,869	0		
SUM	66											
SUM	67	**LESS:**										
SUM	68	Other Operating Revenue	SCH , LN		0	0	0	0	0	0		
SUM	69											
SUM	70	**LESS:**										
SUM	71	Operating Income Adjustments (Present)	SCH , LN		(472)	(25)	(1,831)	(2,327)	(582)	(0)		
SUM	72											
SUM	73	**EQUALS:**										
SUM	74	**DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 6.94%**			12,504	656	48,506	61,666	15,451	0		
SUM	75											
SUM	76	**REVENUE DEFICIENCY (SUFFICIENCY)**			7,353	(314)	(46,102)	(39,063)	(15,996)	(0)		
SUM	77											
SUM	78											
SUM	79	**SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)**			142.74%	-32.36%	-48.73%	-38.78%	-50.87%	0.00%		
SUM	80				4.43	(1.00)	(1.51)	(1.20)	(1.58)	0.00		
SUM	81											
SUM	82											
SUM	83											
SUM	84											
SUM	85											
SUM	86											
SUM	87											
SUM	88											
SUM	89											
SUM	90											
SUM	91											
SUM	92											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
PLT	1	**DEVELOPMENT OF RATE BASE - 13 Month Average**									
PLT	2										
PLT	3	**ELECTRIC PLANT IN SERVICE**									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG	0	0	0	0	0	0		
PLT	7	302-Franchises and Consents	PTDPLT	1,944,663	1,087,885	6,632	606,552	19,842	223,752		
PLT	8	303-Misc. Intangible Plant	PTDPLT	9,792,514	5,478,138	33,395	3,054,344	99,917	1,126,721		
PLT	9	TOTAL INTANGIBLE		11,737,177	6,566,023	40,026	3,660,896	119,759	1,350,472		
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD	141,425	79,116	482	44,111	1,443	16,272		
PLT	14	311-Structures & Improvements	DPROD	0	0	0	0	0	0		
PLT	15	312-Boiler Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	16	314-Turbo-Generator Units	DPROD	0	0	0	0	0	0		
PLT	17	315-Accessory Electric Equipment	DPROD	0	0	0	0	0	0		
PLT	18	316-Misc Power Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	19	Total Steam Production		141,425	79,116	482	44,111	1,443	16,272		
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD	622,327	348,143	2,122	194,108	6,350	71,605		
PLT	23	331-Structures & Improvements	DPROD	2,063,475	1,154,351	7,037	643,610	21,054	237,422		
PLT	24	332-Reservoirs, Dams and Waterways	DPROD	78,775,193	44,068,495	268,642	24,570,457	803,773	9,063,826		
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD	1,407,313	787,280	4,799	438,949	14,359	161,925		
PLT	26	334-Accessory Electric Equipment	DPROD	7,580,666	4,240,784	25,852	2,364,455	77,348	872,227		
PLT	27	335-Misc Power Plant Equipment	DPROD	906,387	507,052	3,091	282,708	9,248	104,288		
PLT	28	336-Roads, Railroads, and Bridges	DPROD	888,569	497,084	3,030	277,150	9,066	102,238		
PLT	29	Total Steam Production		92,243,930	51,603,189	314,573	28,771,438	941,199	10,613,530		
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD	54,922	30,724	187	17,130	560	6,319		
PLT	33	341-Structures & Improvements	DPROD	108,744	60,834	371	33,918	1,110	12,512		
PLT	34	342-Fuel Holders, Prod & Acc	DPROD	251,503	140,696	858	78,445	2,566	28,938		
PLT	35	343-Other Production Engine	DPROD	2,566,494	1,435,751	8,752	800,505	26,187	295,299		
PLT	36	344-Generators	DPROD	430,675	240,929	1,469	134,330	4,394	49,553		
PLT	37	345-Accessory Electric Equipment	DPROD	187,825	105,073	641	58,584	1,916	21,611		
PLT	38	346-Misc Power Plant Equipment	DPROD	106,676	59,677	364	33,273	1,088	12,274		
PLT	39	Total Other Production Combustion Equipment		3,706,838	2,073,683	12,641	1,156,185	37,822	426,507		
PLT	40										
PLT	41	Production - Energy	DPROD	0	0	0	0	0	0		
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT		96,092,193	53,755,988	327,697	29,971,734	980,465	11,056,309		
PLT	44										
PLT	45										
PLT	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
PLT	1	**DEVELOPMENT OF RATE BASE - 13 Month Average**									
PLT	2										
PLT	3	**ELECTRIC PLANT IN SERVICE**									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG	0	0	0		0	0	0	0
PLT	7	302-Franchises and Consents	PTDPLT	990,595	0	97,290		277,843	0	25,742	245,111
PLT	8	303-Misc. Intangible Plant	PTDPLT	4,988,225	0	489,913		1,399,104	0	129,626	1,234,275
PLT	9	TOTAL INTANGIBLE		5,978,820	0	587,203		1,676,947	0	155,368	1,479,386
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD	72,041	0	7,075		20,206	0	1,872	17,826
PLT	14	311-Structures & Improvements	DPROD	0	0	0		0	0	0	0
PLT	15	312-Boiler Plant Equipment	DPROD	0	0	0		0	0	0	0
PLT	16	314-Turbo-Generator Units	DPROD	0	0	0		0	0	0	0
PLT	17	315-Accessory Electric Equipment	DPROD	0	0	0		0	0	0	0
PLT	18	316-Misc Power Plant Equipment	DPROD	0	0	0		0	0	0	0
PLT	19	Total Steam Production		72,041	0	7,075		20,206	0	1,872	17,826
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD	317,008	0	31,135		88,915	0	8,238	78,440
PLT	23	331-Structures & Improvements	DPROD	1,051,117	0	103,234		294,819	0	27,315	260,086
PLT	24	332-Reservoirs, Dams and Waterways	DPROD	40,127,425	0	3,941,070		11,254,990	0	1,042,770	9,929,040
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD	716,873	0	70,407		201,070	0	18,629	177,382
PLT	26	334-Accessory Electric Equipment	DPROD	3,861,528	0	379,256		1,083,086	0	100,347	955,488
PLT	27	335-Misc Power Plant Equipment	DPROD	461,706	0	45,346		129,500	0	11,998	114,243
PLT	28	336-Roads, Railroads, and Bridges	DPROD	452,629	0	44,454		126,954	0	11,762	111,998
PLT	29	Total Steam Production		46,988,287	0	4,614,902		13,179,334	0	1,221,059	11,626,676
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD	27,977	0	2,748		7,847	0	727	6,922
PLT	33	341-Structures & Improvements	DPROD	55,393	0	5,440		15,537	0	1,439	13,706
PLT	34	342-Fuel Holders, Prod & Acc	DPROD	128,114	0	12,583		35,933	0	3,329	31,700
PLT	35	343-Other Production Engine	DPROD	1,307,351	0	128,400		366,687	0	33,973	323,488
PLT	36	344-Generators	DPROD	219,382	0	21,546		61,533	0	5,701	54,283
PLT	37	345-Accessory Electric Equipment	DPROD	95,677	0	9,397		26,835	0	2,486	23,674
PLT	38	346-Misc Power Plant Equipment	DPROD	54,340	0	5,337		15,241	0	1,412	13,446
PLT	39	Total Other Production Combustion Equipment		1,888,232	0	185,451		529,614	0	49,068	467,220
PLT	40										
PLT	41	Production - Energy	DPROD	0	0	0		0	0	0	0
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT		48,948,560	0	4,807,428		13,729,153	0	1,272,000	12,111,722
PLT	44										
PLT	45										
PLT	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
PLT	1	**DEVELOPMENT OF RATE BASE - 13 Month Average**									
PLT	2										
PLT	3	**ELECTRIC PLANT IN SERVICE**									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG		0	0	0	0	0	0	
PLT	7	302-Franchises and Consents	PTDPLT		264,918	57,856	19,842	187,220	0	36,531	
PLT	8	303-Misc. Intangible Plant	PTDPLT		1,334,019	291,339	99,917	942,763	0	183,957	
PLT	9	TOTAL INTANGIBLE			1,598,938	349,195	119,759	1,129,984	0	220,489	
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD		19,266	4,208	1,443	13,616	0	2,657	
PLT	14	311-Structures & Improvements	DPROD		0	0	0	0	0	0	
PLT	15	312-Boiler Plant Equipment	DPROD		0	0	0	0	0	0	
PLT	16	314-Turbo-Generator Units	DPROD		0	0	0	0	0	0	
PLT	17	315-Accessory Electric Equipment	DPROD		0	0	0	0	0	0	
PLT	18	316-Misc Power Plant Equipment	DPROD		0	0	0	0	0	0	
PLT	19	Total Steam Production			19,266	4,208	1,443	13,616	0	2,657	
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD		84,779	18,515	6,350	59,914	0	11,691	
PLT	23	331-Structures & Improvements	DPROD		281,104	61,391	21,054	198,659	0	38,763	
PLT	24	332-Reservoirs, Dams and Waterways	DPROD		10,731,424	2,343,657	803,773	7,583,994	0	1,479,832	
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD		191,716	41,869	14,359	135,487	0	26,437	
PLT	26	334-Accessory Electric Equipment	DPROD		1,032,703	225,534	77,348	729,820	0	142,407	
PLT	27	335-Misc Power Plant Equipment	DPROD		123,476	26,966	9,248	87,261	0	17,027	
PLT	28	336-Roads, Railroads, and Bridges	DPROD		121,048	26,436	9,066	85,546	0	16,692	
PLT	29	Total Steam Production			12,566,249	2,744,369	941,199	8,880,681	0	1,732,849	
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD		7,482	1,634	560	5,288	0	1,032	
PLT	33	341-Structures & Improvements	DPROD		14,814	3,235	1,110	10,469	0	2,043	
PLT	34	342-Fuel Holders, Prod & Acc	DPROD		34,262	7,483	2,566	24,213	0	4,725	
PLT	35	343-Other Production Engine	DPROD		349,630	76,356	26,187	247,086	0	48,213	
PLT	36	344-Generators	DPROD		58,670	12,813	4,394	41,463	0	8,090	
PLT	37	345-Accessory Electric Equipment	DPROD		25,587	5,588	1,916	18,083	0	3,528	
PLT	38	346-Misc Power Plant Equipment	DPROD		14,532	3,174	1,088	10,270	0	2,004	
PLT	39	Total Other Production Combustion Equipment			504,977	110,283	37,822	356,872	0	69,635	
PLT	40										
PLT	41	Production - Energy	DPROD		0	0	0	0	0	0	
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT			13,090,492	2,858,859	980,465	9,251,169	0	1,805,141	
PLT	44										
PLT	45										
PLT	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
PLT	1	**DEVELOPMENT OF RATE BASE - 13 Month Average**									
PLT	2										
PLT	3	**ELECTRIC PLANT IN SERVICE**									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG	0	0	0	0	0	0		
PLT	7	302-Franchises and Consents	PTDPLT	1,076	56	4,173	5,305	1,327	0		
PLT	8	303-Misc. Intangible Plant	PTDPLT	5,417	284	21,012	26,713	6,681	0		
PLT	9	TOTAL INTANGIBLE		6,492	341	25,185	32,018	8,008	0		
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD	78	4	303	386	96	0		
PLT	14	311-Structures & Improvements	DPROD	0	0	0	0	0	0		
PLT	15	312-Boiler Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	16	314-Turbo-Generator Units	DPROD	0	0	0	0	0	0		
PLT	17	315-Accessory Electric Equipment	DPROD	0	0	0	0	0	0		
PLT	18	316-Misc Power Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	19	Total Steam Production		78	4	303	386	96	0		
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD	344	18	1,335	1,698	425	0		
PLT	23	331-Structures & Improvements	DPROD	1,141	60	4,428	5,629	1,408	0		
PLT	24	332-Reservoirs, Dams and Waterways	DPROD	43,574	2,287	169,032	214,893	53,749	0		
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD	778	41	3,020	3,839	960	0		
PLT	26	334-Accessory Electric Equipment	DPROD	4,193	220	16,266	20,679	5,172	0		
PLT	27	335-Misc Power Plant Equipment	DPROD	501	26	1,945	2,473	618	0		
PLT	28	336-Roads, Railroads, and Bridges	DPROD	492	26	1,907	2,424	606	0		
PLT	29	Total Steam Production		51,024	2,678	197,933	251,635	62,939	0		
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD	30	2	118	150	37	0		
PLT	33	341-Structures & Improvements	DPROD	60	3	233	297	74	0		
PLT	34	342-Fuel Holders, Prod & Acc	DPROD	139	7	540	686	172	0		
PLT	35	343-Other Production Engine	DPROD	1,420	75	5,507	7,001	1,751	0		
PLT	36	344-Generators	DPROD	238	13	924	1,175	294	0		
PLT	37	345-Accessory Electric Equipment	DPROD	104	5	403	512	128	0		
PLT	38	346-Misc Power Plant Equipment	DPROD	59	3	229	291	73	0		
PLT	39	Total Other Production Combustion Equipment		2,050	108	7,954	10,112	2,529	0		
PLT	40										
PLT	41	Production - Energy	DPROD	0	0	0	0	0	0		
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT		53,153	2,790	206,190	262,132	65,564	0		
PLT	44										
PLT	45										
PLT	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
PLT	47	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN	0	0	0	0	0	0		
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB	0	0	0	0	0	0		
PLT	54	361-Structures & Improvements	DDISPSUB	0	0	0	0	0	0		
PLT	55	362-Station Equipment	DDISPSUB	0	0	0	0	0	0		
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI	0	0	0	0	0	0		
PLT	58	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	59	Secondary - Demand	DDISTSEC	0	0	0	0	0	0		
PLT	60	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	61	Total Account 364		0	0	0	0	0	0		
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI	0	0	0	0	0	0		
PLT	64	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	65	Secondary - Demand	DDISTSEC	0	0	0	0	0	0		
PLT	66	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	67	Total Account 365		0	0	0	0	0	0		
PLT	68	366-Underground Conduit	DDISTSEC	0	0	0	0	0	0		
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI	0	0	0	0	0	0		
PLT	71	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	72	Secondary - Demand	DDISTSEC	0	0	0	0	0	0		
PLT	73	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	74	Total Account 367		0	0	0	0	0	0		
PLT	75	368-Line Transformers - Demand	DDISTSLT	0	0	0	0	0	0		
PLT	76	368-Line Transformers - Customer	CDISTSLT	0	0	0	0	0	0		
PLT	77	369-Services	CSERVICE	0	0	0	0	0	0		
PLT	78	370-Meters	CMETERS	0	0	0	0	0	0		
PLT	79	371-Inst. on Customer Premises	CUSTPREM	0	0	0	0	0	0		
PLT	80	373-Street Lighting / Signal Systems	CLIGHT	0	0	0	0	0	0		
PLT	81	TOTAL DISTRIBUTION PLANT		0	0	0	0	0	0		
PLT	82				129,653,810	9,695,599					
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT		96,092,193	53,755,988	327,697	29,971,734	980,465	11,056,309		
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										
PLT	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
PLT	47	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN	0	0	0		0	0	0	0
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB	0	0	0		0	0	0	0
PLT	54	361-Structures & Improvements	DDISPSUB	0	0	0		0	0	0	0
PLT	55	362-Station Equipment	DDISPSUB	0	0	0		0	0	0	0
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI	0	0	0		0	0	0	0
PLT	58	Primary - Customer	CDISTPRI	0	0	0		0	0	0	0
PLT	59	Secondary - Demand	DDISTSEC	0	0	0		0	0	0	0
PLT	60	Secondary - Customer	CDISTSEC	0	0	0		0	0	0	0
PLT	61	Total Account 364		0	0	0		0	0	0	0
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI	0	0	0		0	0	0	0
PLT	64	Primary - Customer	CDISTPRI	0	0	0		0	0	0	0
PLT	65	Secondary - Demand	DDISTSEC	0	0	0		0	0	0	0
PLT	66	Secondary - Customer	CDISTSEC	0	0	0		0	0	0	0
PLT	67	Total Account 365		0	0	0		0	0	0	0
PLT	68	366-Underground Conduit	DDISTSEC	0	0	0		0	0	0	0
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI	0	0	0		0	0	0	0
PLT	71	Primary - Customer	CDISTPRI	0	0	0		0	0	0	0
PLT	72	Secondary - Demand	DDISTSEC	0	0	0		0	0	0	0
PLT	73	Secondary - Customer	CDISTSEC	0	0	0		0	0	0	0
PLT	74	Total Account 367		0	0	0		0	0	0	0
PLT	75	368-Line Transformers - Demand	DDISTSLT	0	0	0		0	0	0	0
PLT	76	368-Line Transformers - Customer	CDISTSLT	0	0	0		0	0	0	0
PLT	77	369-Services	CSERVICE	0	0	0		0	0	0	0
PLT	78	370-Meters	CMETERS	0	0	0		0	0	0	0
PLT	79	371-Inst. on Customer Premises	CUSTPREM	0	0	0		0	0	0	0
PLT	80	373-Street Lighting / Signal Systems	CLIGHT	0	0	0		0	0	0	0
PLT	81	TOTAL DISTRIBUTION PLANT		0	0	0		0	0	0	0
PLT	82										
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT		48,948,560	0	4,807,428		13,729,153	0	1,272,000	12,111,722
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										
PLT	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
PLT	47	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN		0	0	0	0	0	0	
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB		0	0	0	0	0	0	
PLT	54	361-Structures & Improvements	DDISPSUB		0	0	0	0	0	0	
PLT	55	362-Station Equipment	DDISPSUB		0	0	0	0	0	0	
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI		0	0	0	0	0	0	
PLT	58	Primary - Customer	CDISTPRI		0	0	0	0	0	0	
PLT	59	Secondary - Demand	DDISTSEC		0	0	0	0	0	0	
PLT	60	Secondary - Customer	CDISTSEC		0	0	0	0	0	0	
PLT	61	Total Account 364			0	0	0	0	0	0	
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI		0	0	0	0	0	0	
PLT	64	Primary - Customer	CDISTPRI		0	0	0	0	0	0	
PLT	65	Secondary - Demand	DDISTSEC		0	0	0	0	0	0	
PLT	66	Secondary - Customer	CDISTSEC		0	0	0	0	0	0	
PLT	67	Total Account 365			0	0	0	0	0	0	
PLT	68	366-Underground Conduit	DDISTSEC		0	0	0	0	0	0	
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI		0	0	0	0	0	0	
PLT	71	Primary - Customer	CDISTPRI		0	0	0	0	0	0	
PLT	72	Secondary - Demand	DDISTSEC		0	0	0	0	0	0	
PLT	73	Secondary - Customer	CDISTSEC		0	0	0	0	0	0	
PLT	74	Total Account 367			0	0	0	0	0	0	
PLT	75	368-Line Transformers - Demand	DDISTSLT		0	0	0	0	0	0	
PLT	76	368-Line Transformers - Customer	CDISTSLT		0	0	0	0	0	0	
PLT	77	369-Services	CSERVICE		0	0	0	0	0	0	
PLT	78	370-Meters	CMETERS		0	0	0	0	0	0	
PLT	79	371-Inst. on Customer Premises	CUSTPREM		0	0	0	0	0	0	
PLT	80	373-Street Lighting / Signal Systems	CLIGHT		0	0	0	0	0	0	
PLT	81	TOTAL DISTRIBUTION PLANT			0	0	0	0	0	0	
PLT	82										
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT			13,090,492	2,858,859	980,465	9,251,169	0	1,805,141	
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										
PLT	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
PLT	47	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN	0	0	0	0	0	0		
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB	0	0	0	0	0	0		
PLT	54	361-Structures & Improvements	DDISPSUB	0	0	0	0	0	0		
PLT	55	362-Station Equipment	DDISPSUB	0	0	0	0	0	0		
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI	0	0	0	0	0	0		
PLT	58	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	59	Secondary - Demand	DDISTSEC	0	0	0	0	0	0		
PLT	60	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	61	Total Account 364		0	0	0	0	0	0		
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI	0	0	0	0	0	0		
PLT	64	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	65	Secondary - Demand	DDISTSEC	0	0	0	0	0	0		
PLT	66	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	67	Total Account 365		0	0	0	0	0	0		
PLT	68	366-Underground Conduit	DDISTSEC	0	0	0	0	0	0		
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI	0	0	0	0	0	0		
PLT	71	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	72	Secondary - Demand	DDISTSEC	0	0	0	0	0	0		
PLT	73	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	74	Total Account 367		0	0	0	0	0	0		
PLT	75	368-Line Transformers - Demand	DDISTSLT	0	0	0	0	0	0		
PLT	76	368-Line Transformers - Customer	CDISTSLT	0	0	0	0	0	0		
PLT	77	369-Services	CSERVICE	0	0	0	0	0	0		
PLT	78	370-Meters	CMETERS	0	0	0	0	0	0		
PLT	79	371-Inst. on Customer Premises	CUSTPREM	0	0	0	0	0	0		
PLT	80	373-Street Lighting / Signal Systems	CLIGHT	0	0	0	0	0	0		
PLT	81	TOTAL DISTRIBUTION PLANT		0	0	0	0	0	0		
PLT	82										
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT		53,153	2,790	206,190	262,132	65,564	0		
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										
PLT	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
PLT	93	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG	102,508	57,345	350	31,973	1,046	11,794		
PLT	97	390-Structures & Improvements	SALWAGXAG	2,949,716	1,650,133	10,059	920,034	30,097	339,393		
PLT	98	391-Office Furniture & Equipment	SALWAGXAG	761,887	426,215	2,598	237,637	7,774	87,662		
PLT	99	392-Transportation Equipment	SALWAGXAG	2,450,369	1,370,788	8,356	764,285	25,002	281,938		
PLT	100	393-Stores Equipment	SALWAGXAG	8,144	4,556	28	2,540	83	937		
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG	389,764	218,042	1,329	121,570	3,977	44,846		
PLT	102	395-Laboratory Equipment	SALWAGXAG	537,015	300,417	1,831	167,498	5,479	61,789		
PLT	103	396-Power Operated Equipment	SALWAGXAG	364,713	204,028	1,244	113,756	3,721	41,964		
PLT	104	397-Communication Equipment	SALWAGXAG	685,626	383,554	2,338	213,851	6,996	78,888		
PLT	105	398-Miscellaneous Equipment	SALWAGXAG	48,040	26,875	164	14,984	490	5,527		
PLT	106	TOTAL GENERAL PLANT		8,297,782	4,641,953	28,297	2,588,128	84,665	954,738		
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT	3,241,746	1,813,501	11,055	1,011,120	33,077	372,993		
PLT	109										
PLT	110	**TOTAL ELECTRIC PLANT IN SERVICE**		119,368,898	66,777,465	407,076	37,231,879	1,217,965	13,734,513		
PLT	111										
PLT	112										
PLT	113										
PLT	114										
PLT	115										
PLT	116										
PLT	117										
PLT	118										
PLT	119										
PLT	120										
PLT	121										
PLT	122										
PLT	123										
PLT	124										
PLT	125										
PLT	126										
PLT	127										
PLT	128										
PLT	129										
PLT	130										
PLT	131										
PLT	132										
PLT	133										
PLT	134										
PLT	135										
PLT	136										
PLT	137										
PLT	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
PLT	93	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG	52,217	0	5,128		14,646	0	1,357	12,920
PLT	97	390-Structures & Improvements	SALWAGXAG	1,502,561	0	147,572		421,440	0	39,046	371,790
PLT	98	391-Office Furniture & Equipment	SALWAGXAG	388,099	0	38,117		108,854	0	10,085	96,030
PLT	99	392-Transportation Equipment	SALWAGXAG	1,248,198	0	122,590		350,096	0	32,436	308,851
PLT	100	393-Stores Equipment	SALWAGXAG	4,148	0	407		1,164	0	108	1,026
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG	198,543	0	19,500		55,687	0	5,159	49,127
PLT	102	395-Laboratory Equipment	SALWAGXAG	273,551	0	26,866		76,726	0	7,109	67,687
PLT	103	396-Power Operated Equipment	SALWAGXAG	185,782	0	18,246		52,108	0	4,828	45,969
PLT	104	397-Communication Equipment	SALWAGXAG	349,252	0	34,301		97,959	0	9,076	86,418
PLT	105	398-Miscellaneous Equipment	SALWAGXAG	24,471	0	2,403		6,864	0	636	6,055
PLT	106	TOTAL GENERAL PLANT		4,226,821	0	415,132		1,185,544	0	109,840	1,045,875
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT	1,651,319	0	162,182		463,164	0	42,912	408,599
PLT	109										
PLT	110	**TOTAL ELECTRIC PLANT IN SERVICE**		60,805,520	0	5,971,946		17,054,808	0	1,580,121	15,045,581
PLT	111										
PLT	112										
PLT	113										
PLT	114										
PLT	115										
PLT	116										
PLT	117										
PLT	118										
PLT	119										
PLT	120										
PLT	121										
PLT	122										
PLT	123										
PLT	124										
PLT	125										
PLT	126										
PLT	127										
PLT	128										
PLT	129										
PLT	130										
PLT	131										
PLT	132										
PLT	133										
PLT	134										
PLT	135										
PLT	136										
PLT	137										
PLT	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	S Large Comm & Ind CP-U Total (t)	P Large Commerical & Industrial Secondary CP-U Sec (u)	P Large Commerical & Industrial Primary CP-U Prim (v)	Q Large Commerical & Industrial Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)	(z)
		(a)	(b)								
PLT	93	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG		13,964	3,050	1,046	9,869	0	1,926	
PLT	97	390-Structures & Improvements	SALWAGXAG		401,835	87,758	30,097	283,981	0	55,412	
PLT	98	391-Office Furniture & Equipment	SALWAGXAG		103,791	22,667	7,774	73,350	0	14,312	
PLT	99	392-Transportation Equipment	SALWAGXAG		333,810	72,901	25,002	235,907	0	46,031	
PLT	100	393-Stores Equipment	SALWAGXAG		1,109	242	83	784	0	153	
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG		53,097	11,596	3,977	37,524	0	7,322	
PLT	102	395-Laboratory Equipment	SALWAGXAG		73,157	15,977	5,479	51,701	0	10,088	
PLT	103	396-Power Operated Equipment	SALWAGXAG		49,684	10,851	3,721	35,112	0	6,851	
PLT	104	397-Communication Equipment	SALWAGXAG		93,402	20,398	6,996	66,008	0	12,880	
PLT	105	398-Miscellaneous Equipment	SALWAGXAG		6,544	1,429	490	4,625	0	902	
PLT	106	TOTAL GENERAL PLANT			1,130,394	246,869	84,665	798,860	0	155,878	
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT		441,618	96,446	33,077	312,096	0	60,898	
PLT	109										
PLT	110	**TOTAL ELECTRIC PLANT IN SERVICE**			16,261,442	3,551,369	1,217,965	11,492,107	0	2,242,405	
PLT	111										
PLT	112										
PLT	113										
PLT	114										
PLT	115										
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PLT	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
PLT	93	**ELECTRIC PLANT IN SERVICE CONTINUED**									
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG	57	3	220	280	70	0		
PLT	97	390-Structures & Improvements	SALWAGXAG	1,632	86	6,329	8,047	2,013	0		
PLT	98	391-Office Furniture & Equipment	SALWAGXAG	421	22	1,635	2,078	520	0		
PLT	99	392-Transportation Equipment	SALWAGXAG	1,355	71	5,258	6,684	1,672	0		
PLT	100	393-Stores Equipment	SALWAGXAG	5	0	17	22	6	0		
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG	216	11	836	1,063	266	0		
PLT	102	395-Laboratory Equipment	SALWAGXAG	297	16	1,152	1,465	366	0		
PLT	103	396-Power Operated Equipment	SALWAGXAG	202	11	783	995	249	0		
PLT	104	397-Communication Equipment	SALWAGXAG	379	20	1,471	1,870	468	0		
PLT	105	398-Miscellaneous Equipment	SALWAGXAG	27	1	103	131	33	0		
PLT	106	TOTAL GENERAL PLANT		4,590	241	17,805	22,636	5,662	0		
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT	1,793	94	6,956	8,843	2,212	0		
PLT	109										
PLT	110	**TOTAL ELECTRIC PLANT IN SERVICE**		66,028	3,465	256,136	325,629	81,446	0		
PLT	111										
PLT	112										
PLT	113										
PLT	114										
PLT	115										
PLT	116										
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PLT	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
D&A	1	**DEPRECIATION & AMORTIZATION RESERVE:**									
D&A	2	PRODUCTION PLANT	PRODPLT	59,534,364	33,304,772	203,026	18,569,127	607,451	6,849,988		
D&A	3	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	4	**DISTRIBUTION PLANT**									
D&A	5	360-Land and Land Rights	PLT_360	0	0	0	0	0	0		
D&A	6	361-Structures & Improvements	PLT_361	0	0	0	0	0	0		
D&A	7	362-Station Equipment	PLT_362	0	0	0	0	0	0		
D&A	8	364-Towers and Fixtures	PLT_364	0	0	0	0	0	0		
D&A	9	365-Overhead Conductors & Devices	PLT_365	0	0	0	0	0	0		
D&A	10	366-Underground Conduit	PLT_366	0	0	0	0	0	0		
D&A	11	367-Underground Conductor	PLT_367	0	0	0	0	0	0		
D&A	12	368-Line Transformers	PLT_368	0	0	0	0	0	0		
D&A	13	369-Services	PLT_369	0	0	0	0	0	0		
D&A	14	370-Meters	PLT_370	0	0	0	0	0	0		
D&A	15	371-Inst. on Customer Premises	PLT_371	0	0	0	0	0	0		
D&A	16	373-Street Lighting / Signal Systems	PLT_373	0	0	0	0	0	0		
D&A	17	TOTAL DISTRIBUTION PLANT		0	0	0	0	0	0		
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT	1,645,748	920,666	5,612	513,319	16,792	189,359		
D&A	19	**TOTAL DEPRECIATION & AMORTIZATION RESERVE**		61,180,111	34,225,437	208,638	19,082,445	624,244	7,039,346		
D&A	20										
D&A	21	**NET ELECTRIC PLANT IN SERVICE**									
D&A	22	NET PRODUCTION PLANT		36,557,829	20,451,216	124,671	11,402,607	373,013	4,206,322		
D&A	23	NET TRANSMISSION PLANT		0	0	0	0	0	0		
D&A	24	NET DISTRIBUTION PLANT		0	0	0	0	0	0		
D&A	25	NET GENERAL & INTANGIBLE PLANT		18,389,211	10,287,311	62,711	5,735,706	187,632	2,115,851		
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED		3,241,746	1,813,501	11,055	1,011,120	33,077	372,993		
D&A	27	**TOTAL NET PLANT IN SERVICE**		58,188,787	32,552,028	198,437	18,149,433	593,722	6,695,166		
D&A	28										
D&A	29	**PLANT HELD FOR FUTURE USE**									
D&A	30	PRODUCTION PLANT	PRODPLT	0	0	0	0	0	0		
D&A	31	TRANSMISSION	TRANPLT	0	0	0	0	0	0		
D&A	32	DISTRIBUTION	DISTPLT	0	0	0	0	0	0		
D&A	33	GENERAL PLANT	INTGENLPLT	0	0	0	0	0	0		
D&A	34	**TOTAL PLANT HELD FOR FUTURE USE**		0	0	0	0	0	0		
D&A	35										
D&A	36	**CONSTRUCTION WORK IN PROGRESS**									
D&A	37	PRODUCTION PLANT	PRODPLT	1,553,260	868,926	5,297	484,471	15,848	178,717		
D&A	38	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	39	DISTRIBUTION PLANT	TOTPLT	5,649,358	3,160,369	19,266	1,762,069	57,643	650,012		
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT	189,527	106,025	646	59,115	1,934	21,807		
D&A	41	**TOTAL CONSTRUCTION WORK IN PROGRESS**		7,392,144	4,135,321	25,209	2,305,654	75,425	850,536		
D&A	42										
D&A	43	**TOTAL NET PLANT IN SERVICE**		65,580,931	36,687,349	223,646	20,455,088	669,147	7,545,702		
D&A	44										
D&A	45										
D&A	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
D&A	1	**DEPRECIATION & AMORTIZATION RESERVE:**									
D&A	2	PRODUCTION PLANT	PRODPLT	30,326,307	0	2,978,464		8,505,961	0	788,074	7,503,873
D&A	3	TRANSMISSION PLANT	TRANPLT	0	0	0		0	0	0	0
D&A	4	**DISTRIBUTION PLANT**									
D&A	5	360-Land and Land Rights	PLT_360	0	0	0		0	0	0	0
D&A	6	361-Structures & Improvements	PLT_361	0	0	0		0	0	0	0
D&A	7	362-Station Equipment	PLT_362	0	0	0		0	0	0	0
D&A	8	364-Towers and Fixtures	PLT_364	0	0	0		0	0	0	0
D&A	9	365-Overhead Conductors & Devices	PLT_365	0	0	0		0	0	0	0
D&A	10	366-Underground Conduit	PLT_366	0	0	0		0	0	0	0
D&A	11	367-Underground Conductor	PLT_367	0	0	0		0	0	0	0
D&A	12	368-Line Transformers	PLT_368	0	0	0		0	0	0	0
D&A	13	369-Services	PLT_369	0	0	0		0	0	0	0
D&A	14	370-Meters	PLT_370	0	0	0		0	0	0	0
D&A	15	371-Inst. on Customer Premises	PLT_371	0	0	0		0	0	0	0
D&A	16	373-Street Lighting / Signal Systems	PLT_373	0	0	0		0	0	0	0
D&A	17	TOTAL DISTRIBUTION PLANT		0	0	0		0	0	0	0
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT	838,330	0	82,336		235,136	0	21,785	207,435
D&A	19	**TOTAL DEPRECIATION & AMORTIZATION RESERVE**		31,164,638	0	3,060,800		8,741,097	0	809,859	7,711,308
D&A	20										
D&A	21	**NET ELECTRIC PLANT IN SERVICE**									
D&A	22	NET PRODUCTION PLANT		18,622,253	0	1,828,964		5,223,193	0	483,927	4,607,848
D&A	23	NET TRANSMISSION PLANT		0	0	0		0	0	0	0
D&A	24	NET DISTRIBUTION PLANT		0	0	0		0	0	0	0
D&A	25	NET GENERAL & INTANGIBLE PLANT		9,367,311	0	920,000		2,627,355	0	243,423	2,317,826
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED		1,651,319	0	162,182		463,164	0	42,912	408,599
D&A	27	**TOTAL NET PLANT IN SERVICE**		29,640,882	0	2,911,146		8,313,712	0	770,262	7,334,273
D&A	28										
D&A	29	**PLANT HELD FOR FUTURE USE**									
D&A	30	PRODUCTION PLANT	PRODPLT	0	0	0		0	0	0	0
D&A	31	TRANSMISSION	TRANPLT	0	0	0		0	0	0	0
D&A	32	DISTRIBUTION	DISTPLT	0	0	0		0	0	0	0
D&A	33	GENERAL PLANT	INTGENLPLT	0	0	0		0	0	0	0
D&A	34	**TOTAL PLANT HELD FOR FUTURE USE**		0	0	0		0	0	0	0
D&A	35										
D&A	36	**CONSTRUCTION WORK IN PROGRESS**									
D&A	37	PRODUCTION PLANT	PRODPLT	791,218	0	77,709		221,922	0	20,561	195,777
D&A	38	TRANSMISSION PLANT	TRANPLT	0	0	0		0	0	0	0
D&A	39	DISTRIBUTION PLANT	TOTPLT	2,877,736	0	282,634		807,151	0	74,782	712,060
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT	96,543	0	9,482		27,079	0	2,509	23,888
D&A	41	**TOTAL CONSTRUCTION WORK IN PROGRESS**		3,765,496	0	369,824		1,056,151	0	97,852	931,726
D&A	42										
D&A	43	**TOTAL NET PLANT IN SERVICE**		33,406,379	0	3,280,970		9,369,863	0	868,114	8,265,999
D&A	44										
D&A	45										
D&A	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
D&A	1	**DEPRECIATION & AMORTIZATION RESERVE:**									
D&A	2	PRODUCTION PLANT	PRODPLT		8,110,275	1,771,219	607,451	5,731,604	0	1,118,383	
D&A	3	TRANSMISSION PLANT	TRANPLT		0	0	0	0	0	0	
D&A	4	**DISTRIBUTION PLANT**									
D&A	5	360-Land and Land Rights	PLT_360		0	0	0	0	0	0	
D&A	6	361-Structures & Improvements	PLT_361		0	0	0	0	0	0	
D&A	7	362-Station Equipment	PLT_362		0	0	0	0	0	0	
D&A	8	364-Towers and Fixtures	PLT_364		0	0	0	0	0	0	
D&A	9	365-Overhead Conductors & Devices	PLT_365		0	0	0	0	0	0	
D&A	10	366-Underground Conduit	PLT_366		0	0	0	0	0	0	
D&A	11	367-Underground Conductor	PLT_367		0	0	0	0	0	0	
D&A	12	368-Line Transformers	PLT_368		0	0	0	0	0	0	
D&A	13	369-Services	PLT_369		0	0	0	0	0	0	
D&A	14	370-Meters	PLT_370		0	0	0	0	0	0	
D&A	15	371-Inst. on Customer Premises	PLT_371		0	0	0	0	0	0	
D&A	16	373-Street Lighting / Signal Systems	PLT_373		0	0	0	0	0	0	
D&A	17	TOTAL DISTRIBUTION PLANT			0	0	0	0	0	0	
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT		224,198	48,963	16,792	158,443	0	30,916	
D&A	19	**TOTAL DEPRECIATION & AMORTIZATION RESERVE**			8,334,473	1,820,182	624,244	5,890,047	0	1,149,299	
D&A	20										
D&A	21	**NET ELECTRIC PLANT IN SERVICE**									
D&A	22	NET PRODUCTION PLANT			4,980,217	1,087,640	373,013	3,519,564	0	686,757	
D&A	23	NET TRANSMISSION PLANT			0	0	0	0	0	0	
D&A	24	NET DISTRIBUTION PLANT			0	0	0	0	0	0	
D&A	25	NET GENERAL & INTANGIBLE PLANT			2,505,134	547,101	187,632	1,770,401	0	345,451	
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED			441,618	96,446	33,077	312,096	0	60,898	
D&A	27	**TOTAL NET PLANT IN SERVICE**			7,926,969	1,731,187	593,722	5,602,061	0	1,093,106	
D&A	28										
D&A	29	**PLANT HELD FOR FUTURE USE**									
D&A	30	PRODUCTION PLANT	PRODPLT		0	0	0	0	0	0	
D&A	31	TRANSMISSION	TRANPLT		0	0	0	0	0	0	
D&A	32	DISTRIBUTION	DISTPLT		0	0	0	0	0	0	
D&A	33	GENERAL PLANT	INTGENLPLT		0	0	0	0	0	0	
D&A	34	**TOTAL PLANT HELD FOR FUTURE USE**			0	0	0	0	0	0	
D&A	35										
D&A	36	**CONSTRUCTION WORK IN PROGRESS**									
D&A	37	PRODUCTION PLANT	PRODPLT		211,598	46,211	15,848	149,538	0	29,179	
D&A	38	TRANSMISSION PLANT	TRANPLT		0	0	0	0	0	0	
D&A	39	DISTRIBUTION PLANT	TOTPLT		769,603	168,075	57,643	543,886	0	106,126	
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT		25,819	5,639	1,934	18,246	0	3,560	
D&A	41	**TOTAL CONSTRUCTION WORK IN PROGRESS**			1,007,020	219,925	75,425	711,670	0	138,865	
D&A	42										
D&A	43	**TOTAL NET PLANT IN SERVICE**			8,933,990	1,951,112	669,147	6,313,731	0	1,231,971	
D&A	44										
D&A	45										
D&A	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
D&A	1	**DEPRECIATION & AMORTIZATION RESERVE:**									
D&A	2	PRODUCTION PLANT	PRODPLT	32,931	1,728	127,746	162,405	40,621	0		
D&A	3	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	4	**DISTRIBUTION PLANT**									
D&A	5	360-Land and Land Rights	PLT_360	0	0	0	0	0	0		
D&A	6	361-Structures & Improvements	PLT_361	0	0	0	0	0	0		
D&A	7	362-Station Equipment	PLT_362	0	0	0	0	0	0		
D&A	8	364-Towers and Fixtures	PLT_364	0	0	0	0	0	0		
D&A	9	365-Overhead Conductors & Devices	PLT_365	0	0	0	0	0	0		
D&A	10	366-Underground Conduit	PLT_366	0	0	0	0	0	0		
D&A	11	367-Underground Conductor	PLT_367	0	0	0	0	0	0		
D&A	12	368-Line Transformers	PLT_368	0	0	0	0	0	0		
D&A	13	369-Services	PLT_369	0	0	0	0	0	0		
D&A	14	370-Meters	PLT_370	0	0	0	0	0	0		
D&A	15	371-Inst. on Customer Premises	PLT_371	0	0	0	0	0	0		
D&A	16	373-Street Lighting / Signal Systems	PLT_373	0	0	0	0	0	0		
D&A	17	TOTAL DISTRIBUTION PLANT		0	0	0	0	0	0		
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT	910	48	3,531	4,489	1,123	0		
D&A	19	**TOTAL DEPRECIATION & AMORTIZATION RESERVE**		33,841	1,776	131,277	166,895	41,744	0		
D&A	20										
D&A	21	**NET ELECTRIC PLANT IN SERVICE**									
D&A	22	NET PRODUCTION PLANT		20,222	1,061	78,444	99,727	24,944	0		
D&A	23	NET TRANSMISSION PLANT		0	0	0	0	0	0		
D&A	24	NET DISTRIBUTION PLANT		0	0	0	0	0	0		
D&A	25	NET GENERAL & INTANGIBLE PLANT		10,172	534	39,459	50,164	12,547	0		
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED		1,793	94	6,956	8,843	2,212	0		
D&A	27	**TOTAL NET PLANT IN SERVICE**		32,187	1,689	124,859	158,735	39,703	0		
D&A	28										
D&A	29	**PLANT HELD FOR FUTURE USE**									
D&A	30	PRODUCTION PLANT	PRODPLT	0	0	0	0	0	0		
D&A	31	TRANSMISSION	TRANPLT	0	0	0	0	0	0		
D&A	32	DISTRIBUTION	DISTPLT	0	0	0	0	0	0		
D&A	33	GENERAL PLANT	INTGENLPLT	0	0	0	0	0	0		
D&A	34	**TOTAL PLANT HELD FOR FUTURE USE**		0	0	0	0	0	0		
D&A	35										
D&A	36	**CONSTRUCTION WORK IN PROGRESS**									
D&A	37	PRODUCTION PLANT	PRODPLT	859	45	3,333	4,237	1,060	0		
D&A	38	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	39	DISTRIBUTION PLANT	TOTPLT	3,125	164	12,122	15,411	3,855	0		
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT	105	6	407	517	129	0		
D&A	41	**TOTAL CONSTRUCTION WORK IN PROGRESS**		4,089	215	15,862	20,165	5,044	0		
D&A	42										
D&A	43	**TOTAL NET PLANT IN SERVICE**		36,276	1,904	140,720	178,900	44,746	0		
D&A	44										
D&A	45										
D&A	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
RBO	1	**ADDITIONS AND DEDUCTIONS TO RATE BASE**									
RBO	2										
RBO	3	**PLUS: ADDITIONS TO RATE BASE**									
RBO	4	Fuel Stock	ENEFUEL	0	0	0	0	0	0		
RBO	5	Cash Working Capital	OMXFPP	16,010,497	8,266,758	53,777	5,170,331	155,530	2,364,100		
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT	(135,579)	(75,846)	(462)	(42,288)	(1,383)	(15,600)		
RBO	8	Transmission	TRANPLT	0	0	0	0	0	0		
RBO	9	Distribution	DISTPLT	0	0	0	0	0	0		
RBO	10	General	GENLPLT	(51,018)	(28,540)	(174)	(15,913)	(521)	(5,870)		
RBO	11	Total Utility Material and Supplies		(186,597)	(104,386)	(636)	(58,201)	(1,904)	(21,470)		
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT	63,301	35,412	216	19,744	646	7,283		
RBO	14	Insurance - Other	SALWAGES	51,154	28,617	174	15,955	522	5,886		
RBO	15	IT Related	TOTPLT	237,385	132,798	810	74,042	2,422	27,313		
RBO	16	Other Prepaid	SALWAGXAG	0	0	0	0	0	0		
RBO	17	Total Prepayments		351,841	196,827	1,200	109,741	3,590	40,483		
RBO	18	Cash & Bank Balances	TOTPLT	1,952,700	1,092,381	6,659	609,059	19,924	224,676		
RBO	19	TOTAL ADDITIONS TO RATE BASE		18,128,440	9,451,581	60,999	5,830,931	177,140	2,607,789		
RBO	20										
RBO	21	**LESS: DEDUCTIONS TO RATE BASE**									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT	498,293	278,755	1,699	155,421	5,084	57,333		
RBO	24	Payroll	SALWAGES	20,895	11,689	71	6,517	213	2,404		
RBO	25	Taxes	TOTPLT	0	0	0	0	0	0		
RBO	26	Total Accumulated Deferred Income Taxes		519,188	290,445	1,771	161,938	5,297	59,737		
RBO	27	Customer Deposits	CUSTDEP	0	0	0	0	0	0		
RBO	28	Customer Advances for Construction	DISTPLT	0	0	0	0	0	0		
RBO	29	TOTAL DEDUCTIONS TO RATE BASE		519,188	290,445	1,771	161,938	5,297	59,737		
RBO	30										
RBO	31										
RBO	32	**TOTAL RATE BASE**		83,190,183	45,848,484	282,875	26,124,081	840,990	10,093,754		
RBO	33										
RBO	34										
RBO	35										
RBO	36										
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RBO	44										
RBO	45										
RBO	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
RBO	1	**ADDITIONS AND DEDUCTIONS TO RATE BASE**									
RBO	2										
RBO	3	**PLUS: ADDITIONS TO RATE BASE**									
RBO	4	Fuel Stock	ENEFUEL	0	0	0		0	0	0	0
RBO	5	Cash Working Capital	OMXFPP	7,527,834	0	738,925		2,114,141	0	202,630	1,952,461
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT	(69,063)	0	(6,783)		(19,371)	0	(1,795)	(17,089)
RBO	8	Transmission	TRANPLT	0	0	0		0	0	0	0
RBO	9	Distribution	DISTPLT	0	0	0		0	0	0	0
RBO	10	General	GENLPLT	(25,988)	0	(2,552)		(7,289)	0	(675)	(6,430)
RBO	11	Total Utility Material and Supplies		(95,051)	0	(9,335)		(26,660)	0	(2,470)	(23,519)
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT	32,245	0	3,167		9,044	0	838	7,979
RBO	14	Insurance - Other	SALWAGES	26,058	0	2,559		7,309	0	677	6,448
RBO	15	IT Related	TOTPLT	120,922	0	11,876		33,916	0	3,142	29,921
RBO	16	Other Prepaid	SALWAGXAG	0	0	0		0	0	0	0
RBO	17	Total Prepayments		179,225	0	17,602		50,269	0	4,657	44,347
RBO	18	Cash & Bank Balances	TOTPLT	994,689	0	97,692		278,992	0	25,848	246,124
RBO	19	TOTAL ADDITIONS TO RATE BASE		8,606,697	0	844,884		2,416,742	0	230,666	2,219,413
RBO	20										
RBO	21	**LESS: DEDUCTIONS TO RATE BASE**									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT	253,826	0	24,929		71,193	0	6,596	62,806
RBO	24	Payroll	SALWAGES	10,644	0	1,045		2,985	0	277	2,634
RBO	25	Taxes	TOTPLT	0	0	0		0	0	0	0
RBO	26	Total Accumulated Deferred Income Taxes		264,470	0	25,975		74,179	0	6,873	65,440
RBO	27	Customer Deposits	CUSTDEP	0	0	0		0	0	0	0
RBO	28	Customer Advances for Construction	DISTPLT	0	0	0		0	0	0	0
RBO	29	TOTAL DEDUCTIONS TO RATE BASE		264,470	0	25,975		74,179	0	6,873	65,440
RBO	30										
RBO	31										
RBO	32	**TOTAL RATE BASE**		41,748,605	0	4,099,879		11,712,425	0	1,091,907	10,419,972
RBO	33										
RBO	34										
RBO	35										
RBO	36										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
RBO	1	**ADDITIONS AND DEDUCTIONS TO RATE BASE**									
RBO	2										
RBO	3	**PLUS: ADDITIONS TO RATE BASE**									
RBO	4	Fuel Stock	ENEFUEL		0	0	0	0	0	0	
RBO	5	Cash Working Capital	OMXFPP		2,816,034	901,099	155,530	1,759,405	0	604,695	
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT		(18,470)	(4,034)	(1,383)	(13,053)	0	(2,547)	
RBO	8	Transmission	TRANPLT		0	0	0	0	0	0	
RBO	9	Distribution	DISTPLT		0	0	0	0	0	0	
RBO	10	General	GENLPLT		(6,950)	(1,518)	(521)	(4,912)	(0)	(958)	
RBO	11	Total Utility Material and Supplies			(25,420)	(5,551)	(1,904)	(17,964)	(0)	(3,505)	
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT		8,623	1,883	646	6,094	0	1,189	
RBO	14	Insurance - Other	SALWAGES		6,969	1,522	522	4,925	0	961	
RBO	15	IT Related	TOTPLT		32,339	7,062	2,422	22,854	0	4,459	
RBO	16	Other Prepaid	SALWAGXAG		0	0	0	0	0	0	
RBO	17	Total Prepayments			47,931	10,468	3,590	33,873	0	6,610	
RBO	18	Cash & Bank Balances	TOTPLT		266,013	58,095	19,924	187,994	0	36,682	
RBO	19	TOTAL ADDITIONS TO RATE BASE			3,104,558	964,110	177,140	1,963,308	0	644,482	
RBO	20										
RBO	21	**LESS: DEDUCTIONS TO RATE BASE**									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT		67,882	14,825	5,084	47,973	0	9,361	
RBO	24	Payroll	SALWAGES		2,847	622	213	2,012	0	393	
RBO	25	Taxes	TOTPLT		0	0	0	0	0	0	
RBO	26	Total Accumulated Deferred Income Taxes			70,728	15,446	5,297	49,984	0	9,753	
RBO	27	Customer Deposits	CUSTDEP		0	0	0	0	0	0	
RBO	28	Customer Advances for Construction	DISTPLT		0	0	0	0	0	0	
RBO	29	TOTAL DEDUCTIONS TO RATE BASE			70,728	15,446	5,297	49,984	0	9,753	
RBO	30										
RBO	31										
RBO	32	**TOTAL RATE BASE**			11,967,820	2,899,776	840,990	8,227,054	0	1,866,700	
RBO	33										
RBO	34										
RBO	35										
RBO	36										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
RBO	1	**ADDITIONS AND DEDUCTIONS TO RATE BASE**									
RBO	2										
RBO	3	**PLUS: ADDITIONS TO RATE BASE**									
RBO	4	Fuel Stock	ENEFUEL	0	0	0	0	0	0		
RBO	5	Cash Working Capital	OMXFPP	8,726	458	33,849	43,032	10,744	0		
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT	(75)	(4)	(291)	(370)	(93)	0		
RBO	8	Transmission	TRANPLT	0	0	0	0	0	0		
RBO	9	Distribution	DISTPLT	0	0	0	0	0	0		
RBO	10	General	GENLPLT	(28)	(1)	(109)	(139)	(35)	(0)		
RBO	11	Total Utility Material and Supplies		(103)	(5)	(400)	(509)	(127)	(0)		
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT	35	2	136	173	43	0		
RBO	14	Insurance - Other	SALWAGES	28	1	110	140	35	0		
RBO	15	IT Related	TOTPLT	131	7	509	648	162	0		
RBO	16	Other Prepaid	SALWAGXAG	0	0	0	0	0	0		
RBO	17	Total Prepayments		195	10	755	960	240	0		
RBO	18	Cash & Bank Balances	TOTPLT	1,080	57	4,190	5,327	1,332	0		
RBO	19	TOTAL ADDITIONS TO RATE BASE		9,897	519	38,393	48,810	12,189	0		
RBO	20										
RBO	21	**LESS: DEDUCTIONS TO RATE BASE**									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT	276	14	1,069	1,359	340	0		
RBO	24	Payroll	SALWAGES	12	1	45	57	14	0		
RBO	25	Taxes	TOTPLT	0	0	0	0	0	0		
RBO	26	Total Accumulated Deferred Income Taxes		287	15	1,114	1,416	354	0		
RBO	27	Customer Deposits	CUSTDEP	0	0	0	0	0	0		
RBO	28	Customer Advances for Construction	DISTPLT	0	0	0	0	0	0		
RBO	29	TOTAL DEDUCTIONS TO RATE BASE		287	15	1,114	1,416	354	0		
RBO	30										
RBO	31										
RBO	32	**TOTAL RATE BASE**		45,886	2,408	178,000	226,294	56,581	0		
RBO	33										
RBO	34										
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RBO	36										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
REV	1	**OPERATING REVENUES**									
REV	2										
REV	3	**SALES REVENUES**									
REV	4	Sales of Electricity Revenues		17,232,972	9,448,845	132,176	6,116,096	267,257	1,268,599		
REV	5	TOTAL SALES OF ELECTRICITY		17,232,972	9,448,845	132,176	6,116,096	267,257	1,268,599		
REV	6										
REV	7	**Revenue Credits:**									
REV	8	450-Late Payment Revenues	CUST	0	0	0	0	0	0		
REV	9	451-Misc Service Revenue	CUST	0	0	0	0	0	0		
REV	10	453-Sales of Water and Water Power	ENERGY1	0	0	0	0	0	0		
REV	11	454-Rent from Electric Property	DISTPLT	0	0	0	0	0	0		
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT	0	0	0	0	0	0		
REV	14	Capacity Revenue - EN447	ENERGY1	0	0	0	0	0	0		
REV	15	RTMP - Opportunity Sales	ENERGY1	0	0	0	0	0	0		
REV	16	Electric True-up	ENERGY1	0	0	0	0	0	0		
REV	17	Naturewise	ENERGY1	0	0	0	0	0	0		
REV	18	Ancillary Services - Non-Firm	ENERGY1	0	0	0	0	0	0		
REV	19	Total Revenue Credits		0	0	0	0	0	0		
REV	20										
REV	21	**Total Revenue Requirements**		17,232,972	9,448,845	132,176	6,116,096	267,257	1,268,599		
REV	22										
REV	23										
REV	24										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
REV	1	**OPERATING REVENUES**									
REV	2										
REV	3	**SALES REVENUES**									
REV	4	Sales of Electricity Revenues		8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
REV	5	TOTAL SALES OF ELECTRICITY		8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
REV	6										
REV	7	**Revenue Credits:**									
REV	8	450-Late Payment Revenues	CUST	0	0	0		0	0	0	0
REV	9	451-Misc Service Revenue	CUST	0	0	0		0	0	0	0
REV	10	453-Sales of Water and Water Power	ENERGY1	0	0	0		0	0	0	0
REV	11	454-Rent from Electric Property	DISTPLT	0	0	0		0	0	0	0
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT	0	0	0		0	0	0	0
REV	14	Capacity Revenue - EN447	ENERGY1	0	0	0		0	0	0	0
REV	15	RTMP - Opportunity Sales	ENERGY1	0	0	0		0	0	0	0
REV	16	Electric True-up	ENERGY1	0	0	0		0	0	0	0
REV	17	Naturewise	ENERGY1	0	0	0		0	0	0	0
REV	18	Ancillary Services - Non-Firm	ENERGY1	0	0	0		0	0	0	0
REV	19	Total Revenue Credits		0	0	0		0	0	0	0
REV	20										
REV	21	**Total Revenue Requirements**		8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
REV	22										
REV	23										
REV	24										
REV	25										
REV	26										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
REV	1	**OPERATING REVENUES**									
REV	2										
REV	3	**SALES REVENUES**									
REV	4	Sales of Electricity Revenues			1,738,119	566,706	267,257	904,157	0	364,442	
REV	5	TOTAL SALES OF ELECTRICITY			1,738,119	566,706	267,257	904,157	0	364,442	
REV	6										
REV	7	**Revenue Credits:**									
REV	8	450-Late Payment Revenues	CUST		0	0	0	0	0	0	
REV	9	451-Misc Service Revenue	CUST		0	0	0	0	0	0	
REV	10	453-Sales of Water and Water Power	ENERGY1		0	0	0	0	0	0	
REV	11	454-Rent from Electric Property	DISTPLT		0	0	0	0	0	0	
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT		0	0	0	0	0	0	
REV	14	Capacity Revenue - EN447	ENERGY1		0	0	0	0	0	0	
REV	15	RTMP - Opportunity Sales	ENERGY1		0	0	0	0	0	0	
REV	16	Electric True-up	ENERGY1		0	0	0	0	0	0	
REV	17	Naturewise	ENERGY1		0	0	0	0	0	0	
REV	18	Ancillary Services - Non-Firm	ENERGY1		0	0	0	0	0	0	
REV	19	Total Revenue Credits			0	0	0	0	0	0	
REV	20										
REV	21	**Total Revenue Requirements**			1,738,119	566,706	267,257	904,157	0	364,442	
REV	22										
REV	23										
REV	24										
REV	25										
REV	26										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
REV	1	**OPERATING REVENUES**									
REV	2										
REV	3	**SALES REVENUES**									
REV	4	Sales of Electricity Revenues		5,151	970	94,608	100,729	31,447	0		
REV	5	TOTAL SALES OF ELECTRICITY		5,151	970	94,608	100,729	31,447	0		
REV	6										
REV	7	**Revenue Credits:**									
REV	8	450-Late Payment Revenues	CUST	0	0	0	0	0	0		
REV	9	451-Misc Service Revenue	CUST	0	0	0	0	0	0		
REV	10	453-Sales of Water and Water Power	ENERGY1	0	0	0	0	0	0		
REV	11	454-Rent from Electric Property	DISTPLT	0	0	0	0	0	0		
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT	0	0	0	0	0	0		
REV	14	Capacity Revenue - EN447	ENERGY1	0	0	0	0	0	0		
REV	15	RTMP - Opportunity Sales	ENERGY1	0	0	0	0	0	0		
REV	16	Electric True-up	ENERGY1	0	0	0	0	0	0		
REV	17	Naturewise	ENERGY1	0	0	0	0	0	0		
REV	18	Ancillary Services - Non-Firm	ENERGY1	0	0	0	0	0	0		
REV	19	Total Revenue Credits		0	0	0	0	0	0		
REV	20										
REV	21	**Total Revenue Requirements**		5,151	970	94,608	100,729	31,447	0		
REV	22										
REV	23										
REV	24										
REV	25										
REV	26										
REV	27										
REV	28										
REV	29										
REV	30										
REV	31										
REV	32										
REV	33										
REV	34										
REV	35										
REV	36										
REV	37										
REV	38										
REV	39										
REV	40										
REV	41										
REV	42										
REV	43										
REV	44										
REV	45										
REV	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	1	**OPERATION & MAINTENANCE EXPENSE**									
O&M	2										
O&M	3	**FUEL AND PURCHASED POWER**									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1	0	0	0	0	0	0		
O&M	7	555 - Purchased Power - Demand	DPURCH	0	0	0	0	0	0		
O&M	8	Total Purchased Power		0	0	0	0	0	0		
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL	0	0	0	0	0	0		
O&M	12	547-Fuel Handling	ENEFUEL	0	0	0	0	0	0		
O&M	13	Total Fuel and Fuel Handling (501 & 547)		0	0	0	0	0	0		
O&M	14										
O&M	15	**TOTAL FUEL AND PURCHASED POWER**		0	0	0	0	0	0		
O&M	16										
O&M	17										
O&M	18	**PRODUCTION EXPENSE**									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	22	502-Steam Expense	DPROD	0	0	0	0	0	0		
O&M	23	505-Electric Expense	DPROD	0	0	0	0	0	0		
O&M	24	506-Miscellaneous	DPROD	0	0	0	0	0	0		
O&M	25	507-Rent	DPROD	0	0	0	0	0	0		
O&M	26	508-Supplies and Expenses	DPROD	0	0	0	0	0	0		
O&M	27	509-Allowances	DPROD	0	0	0	0	0	0		
O&M	28	Total Steam Production Operation		0	0	0	0	0	0		
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	32	511-Structures	DPROD	19,700	11,021	67	6,145	201	2,267		
O&M	33	512-Boilers	ENERGY1	0	0	0	0	0	0		
O&M	34	513-Electric Plant	ENERGY1	0	0	0	0	0	0		
O&M	35	514-Miscellaneous Plant	DPROD	0	0	0	0	0	0		
O&M	36	Total Steam Production Maintenance		19,700	11,021	67	6,145	201	2,267		
O&M	37										
O&M	38	Total Steam Production O&M		19,700	11,021	67	6,145	201	2,267		
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	1	**OPERATION & MAINTENANCE EXPENSE**									
O&M	2										
O&M	3	**FUEL AND PURCHASED POWER**									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1	0	0	0		0	0	0	0
O&M	7	555 - Purchased Power - Demand	DPURCH	0	0	0		0	0	0	0
O&M	8	Total Purchased Power		0	0	0		0	0	0	0
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL	0	0	0		0	0	0	0
O&M	12	547-Fuel Handling	ENEFUEL	0	0	0		0	0	0	0
O&M	13	Total Fuel and Fuel Handling (501 & 547)		0	0	0		0	0	0	0
O&M	14										
O&M	15	**TOTAL FUEL AND PURCHASED POWER**		0	0	0		0	0	0	0
O&M	16										
O&M	17										
O&M	18	**PRODUCTION EXPENSE**									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO	0	0	0		0	0	0	0
O&M	22	502-Steam Expense	DPROD	0	0	0		0	0	0	0
O&M	23	505-Electric Expense	DPROD	0	0	0		0	0	0	0
O&M	24	506-Miscellaneous	DPROD	0	0	0		0	0	0	0
O&M	25	507-Rent	DPROD	0	0	0		0	0	0	0
O&M	26	508-Supplies and Expenses	DPROD	0	0	0		0	0	0	0
O&M	27	509-Allowances	DPROD	0	0	0		0	0	0	0
O&M	28	Total Steam Production Operation		0	0	0		0	0	0	0
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM	0	0	0		0	0	0	0
O&M	32	511-Structures	DPROD	10,035	0	986		2,815	0	261	2,483
O&M	33	512-Boilers	ENERGY1	0	0	0		0	0	0	0
O&M	34	513-Electric Plant	ENERGY1	0	0	0		0	0	0	0
O&M	35	514-Miscellaneous Plant	DPROD	0	0	0		0	0	0	0
O&M	36	Total Steam Production Maintenance		10,035	0	986		2,815	0	261	2,483
O&M	37										
O&M	38	Total Steam Production O&M		10,035	0	986		2,815	0	261	2,483
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
O&M	1	**OPERATION & MAINTENANCE EXPENSE**									
O&M	2										
O&M	3	**FUEL AND PURCHASED POWER**									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1		0	0	0	0	0	0	
O&M	7	555 - Purchased Power - Demand	DPURCH		0	0	0	0	0	0	
O&M	8	Total Purchased Power			0	0	0	0	0	0	
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL		0	0	0	0	0	0	
O&M	12	547-Fuel Handling	ENEFUEL		0	0	0	0	0	0	
O&M	13	Total Fuel and Fuel Handling (501 & 547)			0	0	0	0	0	0	
O&M	14										
O&M	15	**TOTAL FUEL AND PURCHASED POWER**			0	0	0	0	0	0	
O&M	16										
O&M	17										
O&M	18	**PRODUCTION EXPENSE**									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO		0	0	0	0	0	0	
O&M	22	502-Steam Expense	DPROD		0	0	0	0	0	0	
O&M	23	505-Electric Expense	DPROD		0	0	0	0	0	0	
O&M	24	506-Miscellaneous	DPROD		0	0	0	0	0	0	
O&M	25	507-Rent	DPROD		0	0	0	0	0	0	
O&M	26	508-Supplies and Expenses	DPROD		0	0	0	0	0	0	
O&M	27	509-Allowances	DPROD		0	0	0	0	0	0	
O&M	28	Total Steam Production Operation			0	0	0	0	0	0	
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM		0	0	0	0	0	0	
O&M	32	511-Structures	DPROD		2,684	586	201	1,897	0	370	
O&M	33	512-Boilers	ENERGY1		0	0	0	0	0	0	
O&M	34	513-Electric Plant	ENERGY1		0	0	0	0	0	0	
O&M	35	514-Miscellaneous Plant	DPROD		0	0	0	0	0	0	
O&M	36	Total Steam Production Maintenance			2,684	586	201	1,897	0	370	
O&M	37										
O&M	38	Total Steam Production O&M			2,684	586	201	1,897	0	370	
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
O&M	1	**OPERATION & MAINTENANCE EXPENSE**									
O&M	2										
O&M	3	**FUEL AND PURCHASED POWER**									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1	0	0	0	0	0	0		
O&M	7	555 - Purchased Power - Demand	DPURCH	0	0	0	0	0	0		
O&M	8	Total Purchased Power		0	0	0	0	0	0		
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL	0	0	0	0	0	0		
O&M	12	547-Fuel Handling	ENEFUEL	0	0	0	0	0	0		
O&M	13	Total Fuel and Fuel Handling (501 & 547)		0	0	0	0	0	0		
O&M	14										
O&M	15	**TOTAL FUEL AND PURCHASED POWER**		0	0	0	0	0	0		
O&M	16										
O&M	17										
O&M	18	**PRODUCTION EXPENSE**									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	22	502-Steam Expense	DPROD	0	0	0	0	0	0		
O&M	23	505-Electric Expense	DPROD	0	0	0	0	0	0		
O&M	24	506-Miscellaneous	DPROD	0	0	0	0	0	0		
O&M	25	507-Rent	DPROD	0	0	0	0	0	0		
O&M	26	508-Supplies and Expenses	DPROD	0	0	0	0	0	0		
O&M	27	509-Allowances	DPROD	0	0	0	0	0	0		
O&M	28	Total Steam Production Operation		0	0	0	0	0	0		
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	32	511-Structures	DPROD	11	1	42	54	13	0		
O&M	33	512-Boilers	ENERGY1	0	0	0	0	0	0		
O&M	34	513-Electric Plant	ENERGY1	0	0	0	0	0	0		
O&M	35	514-Miscellaneous Plant	DPROD	0	0	0	0	0	0		
O&M	36	Total Steam Production Maintenance		11	1	42	54	13	0		
O&M	37										
O&M	38	Total Steam Production O&M		11	1	42	54	13	0		
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	47	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	48	**PRODUCTION EXPENSE CONTINUED**									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO	1,265,434	707,910	4,315	394,696	12,912	145,600		
O&M	52	537-Hydraulic Expenses	DPROD	29,785	16,662	102	9,290	304	3,427		
O&M	53	538-Electric Expense	DPROD	270,954	151,577	924	84,512	2,765	31,176		
O&M	54	539-Miscellaneous	DPROD	23,332	13,052	80	7,277	238	2,685		
O&M	55	540-Rents	DPROD	99,631	55,736	340	31,076	1,017	11,464		
O&M	56	Total Hydraulic Power Generation Operation		1,689,136	944,938	5,760	526,852	17,235	194,351		
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM	455,291	254,699	1,553	142,008	4,646	52,385		
O&M	60	542-Structures	DPROD	46,901	26,238	160	14,629	479	5,396		
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD	130,781	73,162	446	40,791	1,334	15,048		
O&M	62	544-Electric Plant	DPROD	735,318	411,352	2,508	229,350	7,503	84,605		
O&M	63	545-Miscellaneous Plant	DPROD	4,470	2,500	15	1,394	46	514		
O&M	64	Total Hydraulic Power Generation Maintenance		1,372,761	767,951	4,681	428,172	14,007	157,949		
O&M	65										
O&M	66	Total Hydraulic Power Production O&M		3,061,897	1,712,889	10,442	955,024	31,242	352,300		
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	70	548-Generation Expense	DPROD	2,878	1,610	10	898	29	331		
O&M	71	549-Miscellaneous	DPROD	19,226	10,755	66	5,997	196	2,212		
O&M	72	550-Rents	DPROD	0	0	0	0	0	0		
O&M	73	Total Combustion Turbine Production Operation		22,103	12,365	75	6,894	226	2,543		
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	77	552-Structures	DPROD	11,015	6,162	38	3,435	112	1,267		
O&M	78	553-Electric Plant	DPROD	3,152	1,763	11	983	32	363		
O&M	79	554-Miscellaneous Plant	DPROD	7,196	4,025	25	2,244	73	828		
O&M	80	Total Combustion Turbine Production Maintenance		21,362	11,951	73	6,663	218	2,458		
O&M	81										
O&M	82	Total Combustion Turbine Production O&M		43,466	24,316	148	13,557	443	5,001		
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD	2,552,755	1,101,527	8,316	879,794	22,340	540,778		
O&M	86	557-Other Expenses	DPROD	0	0	0	0	0	0		
O&M	87	Total System Control and Dispatch		2,552,755	1,101,527	8,316	879,794	22,340	540,778		
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE		5,677,818	2,849,752	18,973	1,854,520	54,226	900,346		
O&M	90	TOTAL PRODUCTION O&M EXPENSE		5,677,818	2,849,752	18,973	1,854,520	54,226	900,346		
O&M	91										
O&M	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	47	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	48	**PRODUCTION EXPENSE CONTINUED**									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO	644,601	0	63,309		180,799	0	16,751	159,499
O&M	52	537-Hydraulic Expenses	DPROD	15,172	0	1,490		4,255	0	394	3,754
O&M	53	538-Electric Expense	DPROD	138,022	0	13,556		38,713	0	3,587	34,152
O&M	54	539-Miscellaneous	DPROD	11,885	0	1,167		3,334	0	309	2,941
O&M	55	540-Rents	DPROD	50,751	0	4,984		14,235	0	1,319	12,558
O&M	56	Total Hydraulic Power Generation Operation		860,432	0	84,506		241,335	0	22,360	212,903
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM	231,921	0	22,778		65,050	0	6,027	57,386
O&M	60	542-Structures	DPROD	23,891	0	2,346		6,701	0	621	5,912
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD	66,619	0	6,543		18,685	0	1,731	16,484
O&M	62	544-Electric Plant	DPROD	374,565	0	36,787		105,058	0	9,734	92,681
O&M	63	545-Miscellaneous Plant	DPROD	2,277	0	224		639	0	59	563
O&M	64	Total Hydraulic Power Generation Maintenance		699,273	0	68,678		196,133	0	18,172	173,026
O&M	65										
O&M	66	Total Hydraulic Power Production O&M		1,559,705	0	153,185		437,468	0	40,531	385,930
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO	0	0	0		0	0	0	0
O&M	70	548-Generation Expense	DPROD	1,466	0	144		411	0	38	363
O&M	71	549-Miscellaneous	DPROD	9,793	0	962		2,747	0	254	2,423
O&M	72	550-Rents	DPROD	0	0	0		0	0	0	0
O&M	73	Total Combustion Turbine Production Operation		11,259	0	1,106		3,158	0	293	2,786
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM	0	0	0		0	0	0	0
O&M	77	552-Structures	DPROD	5,611	0	551		1,574	0	146	1,388
O&M	78	553-Electric Plant	DPROD	1,606	0	158		450	0	42	397
O&M	79	554-Miscellaneous Plant	DPROD	3,665	0	360		1,028	0	95	907
O&M	80	Total Combustion Turbine Production Maintenance		10,882	0	1,069		3,052	0	283	2,693
O&M	81										
O&M	82	Total Combustion Turbine Production O&M		22,141	0	2,175		6,210	0	575	5,479
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD	1,003,194	0	98,332		282,667	0	29,387	290,731
O&M	86	557-Other Expenses	DPROD	0	0	0		0	0	0	0
O&M	87	Total System Control and Dispatch		1,003,194	0	98,332		282,667	0	29,387	290,731
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE		2,595,075	0	254,677		729,160	0	70,754	684,622
O&M	90	TOTAL PRODUCTION O&M EXPENSE		2,595,075	0	254,677		729,160	0	70,754	684,622
O&M	91										
O&M	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
O&M	47	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	48	**PRODUCTION EXPENSE CONTINUED**									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO		172,388	37,648	12,912	121,828	0	23,772	
O&M	52	537-Hydraulic Expenses	DPROD		4,058	886	304	2,867	0	560	
O&M	53	538-Electric Expense	DPROD		36,912	8,061	2,765	26,086	0	5,090	
O&M	54	539-Miscellaneous	DPROD		3,178	694	238	2,246	0	438	
O&M	55	540-Rents	DPROD		13,573	2,964	1,017	9,592	0	1,872	
O&M	56	Total Hydraulic Power Generation Operation			230,108	50,254	17,235	162,620	0	31,731	
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM		62,024	13,545	4,646	43,833	0	8,553	
O&M	60	542-Structures	DPROD		6,389	1,395	479	4,515	0	881	
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD		17,816	3,891	1,334	12,591	0	2,457	
O&M	62	544-Electric Plant	DPROD		100,171	21,877	7,503	70,792	0	13,813	
O&M	63	545-Miscellaneous Plant	DPROD		609	133	46	430	0	84	
O&M	64	Total Hydraulic Power Generation Maintenance			187,009	40,841	14,007	132,161	0	25,788	
O&M	65										
O&M	66	Total Hydraulic Power Production O&M			417,117	91,095	31,242	294,781	0	57,519	
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO		0	0	0	0	0	0	
O&M	70	548-Generation Expense	DPROD		392	86	29	277	0	54	
O&M	71	549-Miscellaneous	DPROD		2,619	572	196	1,851	0	361	
O&M	72	550-Rents	DPROD		0	0	0	0	0	0	
O&M	73	Total Combustion Turbine Production Operation			3,011	658	226	2,128	0	415	
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM		0	0	0	0	0	0	
O&M	77	552-Structures	DPROD		1,500	328	112	1,060	0	207	
O&M	78	553-Electric Plant	DPROD		429	94	32	303	0	59	
O&M	79	554-Miscellaneous Plant	DPROD		980	214	73	693	0	135	
O&M	80	Total Combustion Turbine Production Maintenance			2,910	636	218	2,057	0	401	
O&M	81										
O&M	82	Total Combustion Turbine Production O&M			5,921	1,293	443	4,185	0	817	
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD		648,309	277,010	22,340	348,959	0	191,819	
O&M	86	557-Other Expenses	DPROD		0	0	0	0	0	0	
O&M	87	Total System Control and Dispatch			648,309	277,010	22,340	348,959	0	191,819	
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE			1,074,032	369,984	54,226	649,821	0	250,525	
O&M	90	TOTAL PRODUCTION O&M EXPENSE			1,074,032	369,984	54,226	649,821	0	250,525	
O&M	91										
O&M	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
O&M	47	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	48	**PRODUCTION EXPENSE CONTINUED**									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO	700	37	2,715	3,452	863	0		
O&M	52	537-Hydraulic Expenses	DPROD	16	1	64	81	20	0		
O&M	53	538-Electric Expense	DPROD	150	8	581	739	185	0		
O&M	54	539-Miscellaneous	DPROD	13	1	50	64	16	0		
O&M	55	540-Rents	DPROD	55	3	214	272	68	0		
O&M	56	Total Hydraulic Power Generation Operation		934	49	3,624	4,608	1,153	0		
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM	252	13	977	1,242	311	0		
O&M	60	542-Structures	DPROD	26	1	101	128	32	0		
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD	72	4	281	357	89	0		
O&M	62	544-Electric Plant	DPROD	407	21	1,578	2,006	502	0		
O&M	63	545-Miscellaneous Plant	DPROD	2	0	10	12	3	0		
O&M	64	Total Hydraulic Power Generation Maintenance		759	40	2,946	3,745	937	0		
O&M	65										
O&M	66	Total Hydraulic Power Production O&M		1,694	89	6,570	8,353	2,089	0		
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	70	548-Generation Expense	DPROD	2	0	6	8	2	0		
O&M	71	549-Miscellaneous	DPROD	11	1	41	52	13	0		
O&M	72	550-Rents	DPROD	0	0	0	0	0	0		
O&M	73	Total Combustion Turbine Production Operation		12	1	47	60	15	0		
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	77	552-Structures	DPROD	6	0	24	30	8	0		
O&M	78	553-Electric Plant	DPROD	2	0	7	9	2	0		
O&M	79	554-Miscellaneous Plant	DPROD	4	0	15	20	5	0		
O&M	80	Total Combustion Turbine Production Maintenance		12	1	46	58	15	0		
O&M	81										
O&M	82	Total Combustion Turbine Production O&M		24	1	93	119	30	0		
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD	1,350	71	5,238	6,659	1,657	0		
O&M	86	557-Other Expenses	DPROD	0	0	0	0	0	0		
O&M	87	Total System Control and Dispatch		1,350	71	5,238	6,659	1,657	0		
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE		3,079	162	11,944	15,184	3,789	0		
O&M	90	TOTAL PRODUCTION O&M EXPENSE		3,079	162	11,944	15,184	3,789	0		
O&M	91										
O&M	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	93	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	94										
O&M	95	**TRANSMISSION EXPENSE**									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO	0	0	0	0	0	0		
O&M	98	561.000-Load Dispatching	DTRANLD	0	0	0	0	0	0		
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN3	0	0	0	0	0	0		
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN3	0	0	0	0	0	0		
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN3	0	0	0	0	0	0		
O&M	102	562-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	103	563-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	104	564-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	105	566-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	106	567-Rents	TRANPLT	0	0	0	0	0	0		
O&M	107	Total Transmission Operations		0	0	0	0	0	0		
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN	0	0	0	0	0	0		
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN	0	0	0	0	0	0		
O&M	112	565-Wheeling - Point to Point	DTRAN	0	0	0	0	0	0		
O&M	113	Total Wheeling		0	0	0	0	0	0		
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM	0	0	0	0	0	0		
O&M	117	569-Structures	PLT_352	0	0	0	0	0	0		
O&M	118	570-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	119	571-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	120	572-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	121	573-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	122	Total Transmission Maintenance		0	0	0	0	0	0		
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE		0	0	0	0	0	0		
O&M	125										
O&M	126										
O&M	127	**REGIONAL MARKET EXPENSE**									
O&M	128	575.1-Operation Supervision	ENERGY3	0	0	0	0	0	0		
O&M	129	575.4-Capacity Market Administration	ENERGY3	0	0	0	0	0	0		
O&M	130	575.5-Ancillary Services Market Administration	ENERGY3	0	0	0	0	0	0		
O&M	131	575.6-Market Monitoring and Compliance	ENERGY3	0	0	0	0	0	0		
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY3	0	0	0	0	0	0		
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY3	0	0	0	0	0	0		
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY3	0	0	0	0	0	0		
O&M	135	575.8-Rents	ENERGY3	0	0	0	0	0	0		
O&M	136	TOTAL REGIONAL MARKET EXPENSE		0	0	0	0	0	0		
O&M	137										
O&M	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	93	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	94										
O&M	95	**TRANSMISSION EXPENSE**									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO	0	0	0		0	0	0	0
O&M	98	561.000-Load Dispatching	DTRANLD	0	0	0		0	0	0	0
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN3	0	0	0		0	0	0	0
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN3	0	0	0		0	0	0	0
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN3	0	0	0		0	0	0	0
O&M	102	562-Station Equipment	PLT_353	0	0	0		0	0	0	0
O&M	103	563-Overhead Lines	OHTRAN	0	0	0		0	0	0	0
O&M	104	564-Underground Lines	UGTRAN	0	0	0		0	0	0	0
O&M	105	566-Miscellaneous	TRANPLT	0	0	0		0	0	0	0
O&M	106	567-Rents	TRANPLT	0	0	0		0	0	0	0
O&M	107	Total Transmission Operations		0	0	0		0	0	0	0
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN	0	0	0		0	0	0	0
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN	0	0	0		0	0	0	0
O&M	112	565-Wheeling - Point to Point	DTRAN	0	0	0		0	0	0	0
O&M	113	Total Wheeling		0	0	0		0	0	0	0
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM	0	0	0		0	0	0	0
O&M	117	569-Structures	PLT_352	0	0	0		0	0	0	0
O&M	118	570-Station Equipment	PLT_353	0	0	0		0	0	0	0
O&M	119	571-Overhead Lines	OHTRAN	0	0	0		0	0	0	0
O&M	120	572-Underground Lines	UGTRAN	0	0	0		0	0	0	0
O&M	121	573-Miscellaneous	TRANPLT	0	0	0		0	0	0	0
O&M	122	Total Transmission Maintenance		0	0	0		0	0	0	0
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE		0	0	0		0	0	0	0
O&M	125										
O&M	126										
O&M	127	**REGIONAL MARKET EXPENSE**									
O&M	128	575.1-Operation Supervision	ENERGY3	0	0	0		0	0	0	0
O&M	129	575.4-Capacity Market Administration	ENERGY3	0	0	0		0	0	0	0
O&M	130	575.5-Ancillary Services Market Administration	ENERGY3	0	0	0		0	0	0	0
O&M	131	575.6-Market Monitoring and Compliance	ENERGY3	0	0	0		0	0	0	0
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY3	0	0	0		0	0	0	0
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY3	0	0	0		0	0	0	0
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY3	0	0	0		0	0	0	0
O&M	135	575.8-Rents	ENERGY3	0	0	0		0	0	0	0
O&M	136	TOTAL REGIONAL MARKET EXPENSE		0	0	0		0	0	0	0
O&M	137										
O&M	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
O&M	93	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	94										
O&M	95	**TRANSMISSION EXPENSE**									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO		0	0	0	0	0	0	
O&M	98	561.000-Load Dispatching	DTRANLD		0	0	0	0	0	0	
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN3		0	0	0	0	0	0	
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN3		0	0	0	0	0	0	
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN3		0	0	0	0	0	0	
O&M	102	562-Station Equipment	PLT_353		0	0	0	0	0	0	
O&M	103	563-Overhead Lines	OHTRAN		0	0	0	0	0	0	
O&M	104	564-Underground Lines	UGTRAN		0	0	0	0	0	0	
O&M	105	566-Miscellaneous	TRANPLT		0	0	0	0	0	0	
O&M	106	567-Rents	TRANPLT		0	0	0	0	0	0	
O&M	107	Total Transmission Operations			0	0	0	0	0	0	
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN		0	0	0	0	0	0	
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN		0	0	0	0	0	0	
O&M	112	565-Wheeling - Point to Point	DTRAN		0	0	0	0	0	0	
O&M	113	Total Wheeling			0	0	0	0	0	0	
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM		0	0	0	0	0	0	
O&M	117	569-Structures	PLT_352		0	0	0	0	0	0	
O&M	118	570-Station Equipment	PLT_353		0	0	0	0	0	0	
O&M	119	571-Overhead Lines	OHTRAN		0	0	0	0	0	0	
O&M	120	572-Underground Lines	UGTRAN		0	0	0	0	0	0	
O&M	121	573-Miscellaneous	TRANPLT		0	0	0	0	0	0	
O&M	122	Total Transmission Maintenance			0	0	0	0	0	0	
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE			0	0	0	0	0	0	
O&M	125										
O&M	126										
O&M	127	**REGIONAL MARKET EXPENSE**									
O&M	128	575.1-Operation Supervision	ENERGY3		0	0	0	0	0	0	
O&M	129	575.4-Capacity Market Administration	ENERGY3		0	0	0	0	0	0	
O&M	130	575.5-Ancillary Services Market Administration	ENERGY3		0	0	0	0	0	0	
O&M	131	575.6-Market Monitoring and Compliance	ENERGY3		0	0	0	0	0	0	
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY3		0	0	0	0	0	0	
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY3		0	0	0	0	0	0	
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY3		0	0	0	0	0	0	
O&M	135	575.8-Rents	ENERGY3		0	0	0	0	0	0	
O&M	136	TOTAL REGIONAL MARKET EXPENSE			0	0	0	0	0	0	
O&M	137										
O&M	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
O&M	93	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	94										
O&M	95	**TRANSMISSION EXPENSE**									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO	0	0	0	0	0	0		
O&M	98	561.000-Load Dispatching	DTRANLD	0	0	0	0	0	0		
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN3	0	0	0	0	0	0		
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN3	0	0	0	0	0	0		
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN3	0	0	0	0	0	0		
O&M	102	562-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	103	563-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	104	564-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	105	566-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	106	567-Rents	TRANPLT	0	0	0	0	0	0		
O&M	107	Total Transmission Operations		0	0	0	0	0	0		
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN	0	0	0	0	0	0		
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN	0	0	0	0	0	0		
O&M	112	565-Wheeling - Point to Point	DTRAN	0	0	0	0	0	0		
O&M	113	Total Wheeling		0	0	0	0	0	0		
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM	0	0	0	0	0	0		
O&M	117	569-Structures	PLT_352	0	0	0	0	0	0		
O&M	118	570-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	119	571-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	120	572-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	121	573-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	122	Total Transmission Maintenance		0	0	0	0	0	0		
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE		0	0	0	0	0	0		
O&M	125										
O&M	126										
O&M	127	**REGIONAL MARKET EXPENSE**									
O&M	128	575.1-Operation Supervision	ENERGY3	0	0	0	0	0	0		
O&M	129	575.4-Capacity Market Administration	ENERGY3	0	0	0	0	0	0		
O&M	130	575.5-Ancillary Services Market Administration	ENERGY3	0	0	0	0	0	0		
O&M	131	575.6-Market Monitoring and Compliance	ENERGY3	0	0	0	0	0	0		
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY3	0	0	0	0	0	0		
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY3	0	0	0	0	0	0		
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY3	0	0	0	0	0	0		
O&M	135	575.8-Rents	ENERGY3	0	0	0	0	0	0		
O&M	136	TOTAL REGIONAL MARKET EXPENSE		0	0	0	0	0	0		
O&M	137										
O&M	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
O&M	139	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	140										
O&M	141	**DISTRIBUTION EXPENSES**									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO	0	0	0	0	0	0		
O&M	145	581-Load Dispatch	DDISPSUB	0	0	0	0	0	0		
O&M	146	582-Station Equipment	PLT_362	0	0	0	0	0	0		
O&M	147	583-Overhead Lines	OHDIST	0	0	0	0	0	0		
O&M	148	584-Underground Lines	UGDIST	0	0	0	0	0	0		
O&M	149	585-Street Lighting	PLT_373	0	0	0	0	0	0		
O&M	150	586-Metering	CMETERS	0	0	0	0	0	0		
O&M	151	587-Customer Installations	PLT_371	0	0	0	0	0	0		
O&M	152	588-Miscellaneous	DISTPLT	0	0	0	0	0	0		
O&M	153	589-Rents	DISTPLT	0	0	0	0	0	0		
O&M	154	Total Distribution Operation		0	0	0	0	0	0		
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM	(0)	(0)	0	(0)	(0)	(0)		
O&M	158	591-Structures	PLT_361	0	0	0	0	0	0		
O&M	159	592-Station Equipment	PLT_362	0	0	0	0	0	0		
O&M	160	593-Overhead Lines	OHDIST	0	0	0	0	0	0		
O&M	161	594-Underground Lines	UGDIST	0	0	0	0	0	0		
O&M	162	595-Transformers	PLT_368	0	0	0	0	0	0		
O&M	163	596-Street Lighting	PLT_373	0	0	0	0	0	0		
O&M	164	597-Metering	CMETERS	0	0	0	0	0	0		
O&M	165	598-Miscellaneous	DISTPLT	0	0	0	0	0	0		
O&M	166	Total Distribution Maintenance		(0)	(0)	0	(0)	(0)	(0)		
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES		0	0	0	0	0	0		
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP		5,677,818	2,849,752	18,973	1,854,520	54,226	900,346		
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA	0	0	0	0	0	0		
O&M	175	902-Meter Reading	CMETRDG	0	0	0	0	0	0		
O&M	176	903-Customer Records and Collection Expense	CUSTREC	0	0	0	0	0	0		
O&M	177	904-Uncollectible Accounts	EXP_904	55,804	51,155	38	4,612	0	0		
O&M	178	905-Miscellaneous CA	CUSTCSS	0	0	0	0	0	0		
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE		55,804	51,155	38	4,612	0	0		
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	139	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	140										
O&M	141	**DISTRIBUTION EXPENSES**									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO	0	0	0		0	0	0	0
O&M	145	581-Load Dispatch	DDISPSUB	0	0	0		0	0	0	0
O&M	146	582-Station Equipment	PLT_362	0	0	0		0	0	0	0
O&M	147	583-Overhead Lines	OHDIST	0	0	0		0	0	0	0
O&M	148	584-Underground Lines	UGDIST	0	0	0		0	0	0	0
O&M	149	585-Street Lighting	PLT_373	0	0	0		0	0	0	0
O&M	150	586-Metering	CMETERS	0	0	0		0	0	0	0
O&M	151	587-Customer Installations	PLT_371	0	0	0		0	0	0	0
O&M	152	588-Miscellaneous	DISTPLT	0	0	0		0	0	0	0
O&M	153	589-Rents	DISTPLT	0	0	0		0	0	0	0
O&M	154	Total Distribution Operation		0	0	0		0	0	0	0
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM	(0)	0	(0)		(0)	0	(0)	(0)
O&M	158	591-Structures	PLT_361	0	0	0		0	0	0	0
O&M	159	592-Station Equipment	PLT_362	0	0	0		0	0	0	0
O&M	160	593-Overhead Lines	OHDIST	0	0	0		0	0	0	0
O&M	161	594-Underground Lines	UGDIST	0	0	0		0	0	0	0
O&M	162	595-Transformers	PLT_368	0	0	0		0	0	0	0
O&M	163	596-Street Lighting	PLT_373	0	0	0		0	0	0	0
O&M	164	597-Metering	CMETERS	0	0	0		0	0	0	0
O&M	165	598-Miscellaneous	DISTPLT	0	0	0		0	0	0	0
O&M	166	Total Distribution Maintenance		(0)	0	(0)		(0)	0	(0)	(0)
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES		0	0	0		0	0	0	0
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP		2,595,075	0	254,677		729,160	0	70,754	684,622
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA	0	0	0		0	0	0	0
O&M	175	902-Meter Reading	CMETRDG	0	0	0		0	0	0	0
O&M	176	903-Customer Records and Collection Expense	CUSTREC	0	0	0		0	0	0	0
O&M	177	904-Uncollectible Accounts	EXP_904	43,458	0	7,697		548	0	0	2,225
O&M	178	905-Miscellaneous CA	CUSTCSS	0	0	0		0	0	0	0
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE		43,458	0	7,697		548	0	0	2,225
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
O&M	139	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	140										
O&M	141	**DISTRIBUTION EXPENSES**									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO		0	0	0	0	0	0	
O&M	145	581-Load Dispatch	DDISPSUB		0	0	0	0	0	0	
O&M	146	582-Station Equipment	PLT_362		0	0	0	0	0	0	
O&M	147	583-Overhead Lines	OHDIST		0	0	0	0	0	0	
O&M	148	584-Underground Lines	UGDIST		0	0	0	0	0	0	
O&M	149	585-Street Lighting	PLT_373		0	0	0	0	0	0	
O&M	150	586-Metering	CMETERS		0	0	0	0	0	0	
O&M	151	587-Customer Installations	PLT_371		0	0	0	0	0	0	
O&M	152	588-Miscellaneous	DISTPLT		0	0	0	0	0	0	
O&M	153	589-Rents	DISTPLT		0	0	0	0	0	0	
O&M	154	Total Distribution Operation			0	0	0	0	0	0	
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM		(0)	(0)	(0)	(0)	(0)	(0)	
O&M	158	591-Structures	PLT_361		0	0	0	0	0	0	
O&M	159	592-Station Equipment	PLT_362		0	0	0	0	0	0	
O&M	160	593-Overhead Lines	OHDIST		0	0	0	0	0	0	
O&M	161	594-Underground Lines	UGDIST		0	0	0	0	0	0	
O&M	162	595-Transformers	PLT_368		0	0	0	0	0	0	
O&M	163	596-Street Lighting	PLT_373		0	0	0	0	0	0	
O&M	164	597-Metering	CMETERS		0	0	0	0	0	0	
O&M	165	598-Miscellaneous	DISTPLT		0	0	0	0	0	0	
O&M	166	Total Distribution Maintenance			(0)	(0)	(0)	(0)	(0)	(0)	
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES			0	0	0	0	0	0	
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP			1,074,032	369,984	54,226	649,821	0	250,525	
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA		0	0	0	0	0	0	
O&M	175	902-Meter Reading	CMETRDG		0	0	0	0	0	0	
O&M	176	903-Customer Records and Collection Expense	CUSTREC		0	0	0	0	0	0	
O&M	177	904-Uncollectible Accounts	EXP_904		1,839	1,839	0	0	0	0	
O&M	178	905-Miscellaneous CA	CUSTCSS		0	0	0	0	0	0	
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE			1,839	1,839	0	0	0	0	
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
O&M	139	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	140										
O&M	141	**DISTRIBUTION EXPENSES**									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO	0	0	0	0	0	0		
O&M	145	581-Load Dispatch	DDISPSUB	0	0	0	0	0	0		
O&M	146	582-Station Equipment	PLT_362	0	0	0	0	0	0		
O&M	147	583-Overhead Lines	OHDIST	0	0	0	0	0	0		
O&M	148	584-Underground Lines	UGDIST	0	0	0	0	0	0		
O&M	149	585-Street Lighting	PLT_373	0	0	0	0	0	0		
O&M	150	586-Metering	CMETERS	0	0	0	0	0	0		
O&M	151	587-Customer Installations	PLT_371	0	0	0	0	0	0		
O&M	152	588-Miscellaneous	DISTPLT	0	0	0	0	0	0		
O&M	153	589-Rents	DISTPLT	0	0	0	0	0	0		
O&M	154	Total Distribution Operation		0	0	0	0	0	0		
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM	0	0	0	0	0	0		
O&M	158	591-Structures	PLT_361	0	0	0	0	0	0		
O&M	159	592-Station Equipment	PLT_362	0	0	0	0	0	0		
O&M	160	593-Overhead Lines	OHDIST	0	0	0	0	0	0		
O&M	161	594-Underground Lines	UGDIST	0	0	0	0	0	0		
O&M	162	595-Transformers	PLT_368	0	0	0	0	0	0		
O&M	163	596-Street Lighting	PLT_373	0	0	0	0	0	0		
O&M	164	597-Metering	CMETERS	0	0	0	0	0	0		
O&M	165	598-Miscellaneous	DISTPLT	0	0	0	0	0	0		
O&M	166	Total Distribution Maintenance		0	0	0	0	0	0		
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES		0	0	0	0	0	0		
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP		3,079	162	11,944	15,184	3,789	0		
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA	0	0	0	0	0	0		
O&M	175	902-Meter Reading	CMETRDG	0	0	0	0	0	0		
O&M	176	903-Customer Records and Collection Expense	CUSTREC	0	0	0	0	0	0		
O&M	177	904-Uncollectible Accounts	EXP_904	0	0	0	0	38	0		
O&M	178	905-Miscellaneous CA	CUSTCSS	0	0	0	0	0	0		
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE		0	0	0	0	38	0		
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	185	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS	0	0	0	0	0	0		
O&M	189	908-Customer Assistance	CUSTCSS	0	0	0	0	0	0		
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS	0	0	0	0	0	0		
O&M	191	909-Informational and Instructional Expenses	CUSTCSS	0	0	0	0	0	0		
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS	0	0	0	0	0	0		
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE		0	0	0	0	0	0		
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS	0	0	0	0	0	0		
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS	0	0	0	0	0	0		
O&M	198	SALES EXPENSES TOTAL		0	0	0	0	0	0		
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE		55,804	51,155	38	4,612	0	0		
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP		5,733,622	2,900,907	19,011	1,859,132	54,226	900,346		
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG	577,686	323,170	1,970	180,184	5,894	66,468		
O&M	206	921-Office Supplies & Expense	SALWAGXAG	246,522	137,909	841	76,892	2,515	28,365		
O&M	207	922-A&G Expense Transferred	SALWAGXAG	0	0	0	0	0	0		
O&M	208	923-Outside Services - Legal	SALWAGXAG	64,809	36,255	221	20,214	661	7,457		
O&M	209	924-Property Insurance	TOTPLT	227,377	127,199	775	70,920	2,320	26,162		
O&M	210	925-Injuries and Damages	SALWAGXAG	154,556	86,462	527	48,207	1,577	17,783		
O&M	211	926-Pensions & Benefits	SALWAGES	520,544	291,203	1,775	162,361	5,311	59,894		
O&M	212	928-Regulatory Commission	SALWAGES	105,912	59,249	361	33,034	1,081	12,186		
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG	0	0	0	0	0	0		
O&M	214	930-Miscellaneous	SALWAGXAG	2,229	1,247	8	695	23	256		
O&M	215	931-Rents	GENLPLT	1,077	603	4	336	11	124		
O&M	216	935-Maintenance of General Plant	GENLPLT	0	0	0	0	0	0		
O&M	217	TOTAL A&G EXPENSE		1,900,711	1,063,298	6,482	592,843	19,394	218,695		
O&M	218										
O&M	219	**TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)**		7,634,333	3,964,205	25,493	2,451,975	73,620	1,119,041		
O&M	220										
O&M	221	**TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)**		7,634,333	3,964,205	25,493	2,451,975	73,620	1,119,041		
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
O&M	185	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS	0	0	0		0	0	0	0
O&M	189	908-Customer Assistance	CUSTCSS	0	0	0		0	0	0	0
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS	0	0	0		0	0	0	0
O&M	191	909-Informational and Instructional Expenses	CUSTCSS	0	0	0		0	0	0	0
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS	0	0	0		0	0	0	0
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE		0	0	0		0	0	0	0
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS	0	0	0		0	0	0	0
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS	0	0	0		0	0	0	0
O&M	198	SALES EXPENSES TOTAL		0	0	0		0	0	0	0
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE		43,458	0	7,697		548	0	0	2,225
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP		2,638,533	0	262,374		729,707	0	70,754	686,847
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG	294,268	0	28,901		82,537	0	7,647	72,813
O&M	206	921-Office Supplies & Expense	SALWAGXAG	125,576	0	12,333		35,222	0	3,263	31,072
O&M	207	922-A&G Expense Transferred	SALWAGXAG	0	0	0		0	0	0	0
O&M	208	923-Outside Services - Legal	SALWAGXAG	33,013	0	3,242		9,260	0	858	8,169
O&M	209	924-Property Insurance	TOTPLT	115,824	0	11,376		32,486	0	3,010	28,659
O&M	210	925-Injuries and Damages	SALWAGXAG	78,730	0	7,732		22,082	0	2,046	19,481
O&M	211	926-Pensions & Benefits	SALWAGES	265,161	0	26,042		74,373	0	6,891	65,611
O&M	212	928-Regulatory Commission	SALWAGES	53,950	0	5,299		15,132	0	1,402	13,349
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG	0	0	0		0	0	0	0
O&M	214	930-Miscellaneous	SALWAGXAG	1,135	0	112		318	0	30	281
O&M	215	931-Rents	GENLPLT	549	0	54		154	0	14	136
O&M	216	935-Maintenance of General Plant	GENLPLT	0	0	0		0	0	0	0
O&M	217	TOTAL A&G EXPENSE		968,206	0	95,091		271,564	0	25,160	239,571
O&M	218										
O&M	219	**TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)**		3,606,739	0	357,465		1,001,271	0	95,915	926,418
O&M	220										
O&M	221	**TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)**		3,606,739	0	357,465		1,001,271	0	95,915	926,418
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
O&M	185	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS		0	0	0	0	0	0	
O&M	189	908-Customer Assistance	CUSTCSS		0	0	0	0	0	0	
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS		0	0	0	0	0	0	
O&M	191	909-Informational and Instructional Expenses	CUSTCSS		0	0	0	0	0	0	
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS		0	0	0	0	0	0	
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE			0	0	0	0	0	0	
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS		0	0	0	0	0	0	
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS		0	0	0	0	0	0	
O&M	198	SALES EXPENSES TOTAL			0	0	0	0	0	0	
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE			1,839	1,839	0	0	0	0	
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP			1,075,870	371,823	54,226	649,821	0	250,525	
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG		78,697	17,187	5,894	55,616	0	10,852	
O&M	206	921-Office Supplies & Expense	SALWAGXAG		33,583	7,334	2,515	23,734	0	4,631	
O&M	207	922-A&G Expense Transferred	SALWAGXAG		0	0	0	0	0	0	
O&M	208	923-Outside Services - Legal	SALWAGXAG		8,829	1,928	661	6,239	0	1,217	
O&M	209	924-Property Insurance	TOTPLT		30,975	6,765	2,320	21,890	0	4,271	
O&M	210	925-Injuries and Damages	SALWAGXAG		21,055	4,598	1,577	14,880	0	2,903	
O&M	211	926-Pensions & Benefits	SALWAGES		70,913	15,487	5,311	50,115	0	9,779	
O&M	212	928-Regulatory Commission	SALWAGES		14,428	3,151	1,081	10,197	0	1,990	
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG		0	0	0	0	0	0	
O&M	214	930-Miscellaneous	SALWAGXAG		304	66	23	215	0	42	
O&M	215	931-Rents	GENLPLT		147	32	11	104	0	20	
O&M	216	935-Maintenance of General Plant	GENLPLT		0	0	0	0	0	0	
O&M	217	TOTAL A&G EXPENSE			258,931	56,548	19,394	182,989	0	35,706	
O&M	218										
O&M	219	**TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)**			1,334,801	428,372	73,620	832,810	0	286,231	
O&M	220										
O&M	221	**TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)**			1,334,801	428,372	73,620	832,810	0	286,231	
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
O&M	185	**OPERATION & MAINTENANCE EXPENSE CONTINUED**									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS	0	0	0	0	0	0		
O&M	189	908-Customer Assistance	CUSTCSS	0	0	0	0	0	0		
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS	0	0	0	0	0	0		
O&M	191	909-Informational and Instructional Expenses	CUSTCSS	0	0	0	0	0	0		
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS	0	0	0	0	0	0		
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE		0	0	0	0	0	0		
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS	0	0	0	0	0	0		
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS	0	0	0	0	0	0		
O&M	198	SALES EXPENSES TOTAL		0	0	0	0	0	0		
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE		0	0	0	0	38	0		
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP		3,079	162	11,944	15,184	3,826	0		
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG	320	17	1,240	1,576	394	0		
O&M	206	921-Office Supplies & Expense	SALWAGXAG	136	7	529	672	168	0		
O&M	207	922-A&G Expense Transferred	SALWAGXAG	0	0	0	0	0	0		
O&M	208	923-Outside Services - Legal	SALWAGXAG	36	2	139	177	44	0		
O&M	209	924-Property Insurance	TOTPLT	126	7	488	620	155	0		
O&M	210	925-Injuries and Damages	SALWAGXAG	85	4	332	422	105	0		
O&M	211	926-Pensions & Benefits	SALWAGES	288	15	1,117	1,420	355	0		
O&M	212	928-Regulatory Commission	SALWAGES	59	3	227	289	72	0		
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG	0	0	0	0	0	0		
O&M	214	930-Miscellaneous	SALWAGXAG	1	0	5	6	2	0		
O&M	215	931-Rents	GENLPLT	1	0	2	3	1	0		
O&M	216	935-Maintenance of General Plant	GENLPLT	0	0	0	0	0	0		
O&M	217	TOTAL A&G EXPENSE		1,051	55	4,078	5,185	1,297	0		
O&M	218										
O&M	219	**TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)**		4,130	217	16,022	20,369	5,123	0		
O&M	220										
O&M	221	**TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)**		4,130	217	16,022	20,369	5,123	0		
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
DAX	1	**DEPRECIATION AND AMORTIZATION EXPENSE**									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENLPLT	0	0	0	0	0	0		
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT	4,248,727	2,376,827	14,489	1,325,203	43,351	488,856		
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT	0	0	0	0	0	0		
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT	0	0	0	0	0	0		
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT	0	0	0	0	0	0		
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT	643,221	359,831	2,194	200,624	6,563	74,009		
DAX	13										
DAX	14	**TOTAL DEPRECIATION EXPENSE**		4,891,947	2,736,658	16,683	1,525,828	49,914	562,864		
DAX	15										
DAX	16	**TOTAL AMORTIZATION EXPENSE**		0	0	0	0	0	0		
DAX	17										
DAX	18	**TOTAL DEPRECIATION & AMORTIZATION EXPENSE**		4,891,947	2,736,658	16,683	1,525,828	49,914	562,864		
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
DAX	24										
DAX	25										
DAX	26										
DAX	27										
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DAX	44										
DAX	45										
DAX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
DAX	1	**DEPRECIATION AND AMORTIZATION EXPENSE**									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENLPLT	0	0	0		0	0	0	0
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT	2,164,266	0	212,561		607,036	0	56,242	535,521
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT	0	0	0		0	0	0	0
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT	0	0	0		0	0	0	0
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT	0	0	0		0	0	0	0
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT	327,651	0	32,180		91,900	0	8,514	81,073
DAX	13										
DAX	14	**TOTAL DEPRECIATION EXPENSE**		2,491,917	0	244,741		698,936	0	64,756	616,594
DAX	15										
DAX	16	**TOTAL AMORTIZATION EXPENSE**		0	0	0		0	0	0	0
DAX	17										
DAX	18	**TOTAL DEPRECIATION & AMORTIZATION EXPENSE**		2,491,917	0	244,741		698,936	0	64,756	616,594
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
DAX	24										
DAX	25										
DAX	26										
DAX	27										
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DAX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
DAX	1	**DEPRECIATION AND AMORTIZATION EXPENSE**									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENLPLT		0	0	0	0	0	0	
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT		578,798	126,405	43,351	409,041	0	79,814	
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT		0	0	0	0	0	0	
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT		0	0	0	0	0	0	
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT		0	0	0	0	0	0	
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT		87,625	19,137	6,563	61,925	0	12,083	
DAX	13										
DAX	14	**TOTAL DEPRECIATION EXPENSE**			666,423	145,541	49,914	470,967	0	91,898	
DAX	15										
DAX	16	**TOTAL AMORTIZATION EXPENSE**			0	0	0	0	0	0	
DAX	17										
DAX	18	**TOTAL DEPRECIATION & AMORTIZATION EXPENSE**			666,423	145,541	49,914	470,967	0	91,898	
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
DAX	24										
DAX	25										
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DAX	27										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
DAX	1	**DEPRECIATION AND AMORTIZATION EXPENSE**									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENLPLT	0	0	0	0	0	0		
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT	2,350	123	9,117	11,590	2,899	0		
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT	0	0	0	0	0	0		
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT	0	0	0	0	0	0		
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT	0	0	0	0	0	0		
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT	356	19	1,380	1,755	439	0		
DAX	13										
DAX	14	**TOTAL DEPRECIATION EXPENSE**		2,706	142	10,497	13,345	3,338	0		
DAX	15										
DAX	16	**TOTAL AMORTIZATION EXPENSE**		0	0	0	0	0	0		
DAX	17										
DAX	18	**TOTAL DEPRECIATION & AMORTIZATION EXPENSE**		2,706	142	10,497	13,345	3,338	0		
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
DAX	24										
DAX	25										
DAX	26										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
OTX	1	**OTHER OPERATING EXPENSES**									
OTX	2										
OTX	3	**TAXES OTHER THAN INCOME TAXES**									
OTX	4										
OTX	5	**Payroll Related**									
OTX	6	FICA	SALWAGES	125,134	70,003	427	39,030	1,277	14,398		
OTX	7	FUTA	SALWAGES	707	395	2	220	7	81		
OTX	8	SUTA	SALWAGES	2,247	1,257	8	701	23	259		
OTX	9	IBS Payroll Taxes	SALWAGES	0	0	0	0	0	0		
OTX	10	Unemployment Compensation	SALWAGES	0	0	0	0	0	0		
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT	2,132,823	1,193,146	7,273	665,240	21,762	245,401		
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT	0	0	0	0	0	0		
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE	0	0	0	0	0	0		
OTX	18	Other	RATEBASE	29,876	16,465	102	9,382	302	3,625		
OTX	19	Total Other		29,876	16,465	102	9,382	302	3,625		
OTX	20										
OTX	21										
OTX	22	**TOTAL TAXES OTHER THAN INCOME**		2,290,787	1,281,267	7,812	714,574	23,371	263,764		
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
OTX	29										
OTX	30										
OTX	31										
OTX	32										
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OTX	41										
OTX	42										
OTX	43										
OTX	44										
OTX	45										
OTX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
OTX	1	**OTHER OPERATING EXPENSES**									
OTX	2										
OTX	3	**TAXES OTHER THAN INCOME TAXES**									
OTX	4										
OTX	5	**Payroll Related**									
OTX	6	FICA	SALWAGES	63,742	0	6,260		17,879	0	1,656	15,772
OTX	7	FUTA	SALWAGES	360	0	35		101	0	9	89
OTX	8	SUTA	SALWAGES	1,145	0	112		321	0	30	283
OTX	9	IBS Payroll Taxes	SALWAGES	0	0	0		0	0	0	0
OTX	10	Unemployment Compensation	SALWAGES	0	0	0		0	0	0	0
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT	1,086,442	0	106,704		304,727	0	28,233	268,827
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT	0	0	0		0	0	0	0
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE	0	0	0		0	0	0	0
OTX	18	Other	RATEBASE	14,993	0	1,472		4,206	0	392	3,742
OTX	19	Total Other		14,993	0	1,472		4,206	0	392	3,742
OTX	20										
OTX	21										
OTX	22	**TOTAL TAXES OTHER THAN INCOME**		1,166,683	0	114,584		327,234	0	30,320	288,714
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
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OTX	42										
OTX	43										
OTX	44										
OTX	45										
OTX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
OTX	1	**OTHER OPERATING EXPENSES**									
OTX	2										
OTX	3	**TAXES OTHER THAN INCOME TAXES**									
OTX	4										
OTX	5	**Payroll Related**									
OTX	6	FICA	SALWAGES		17,047	3,723	1,277	12,047	0	2,351	
OTX	7	FUTA	SALWAGES		96	21	7	68	0	13	
OTX	8	SUTA	SALWAGES		306	67	23	216	0	42	
OTX	9	IBS Payroll Taxes	SALWAGES		0	0	0	0	0	0	
OTX	10	Unemployment Compensation	SALWAGES		0	0	0	0	0	0	
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT		290,551	63,454	21,762	205,335	0	40,066	
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT		0	0	0	0	0	0	
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE		0	0	0	0	0	0	
OTX	18	Other	RATEBASE		4,298	1,041	302	2,955	0	670	
OTX	19	Total Other			4,298	1,041	302	2,955	0	670	
OTX	20										
OTX	21										
OTX	22	**TOTAL TAXES OTHER THAN INCOME**			312,298	68,306	23,371	220,621	0	43,143	
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
OTX	29										
OTX	30										
OTX	31										
OTX	32										
OTX	33										
OTX	34										
OTX	35										
OTX	36										
OTX	37										
OTX	38										
OTX	39										
OTX	40										
OTX	41										
OTX	42										
OTX	43										
OTX	44										
OTX	45										
OTX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
OTX	1	**OTHER OPERATING EXPENSES**									
OTX	2										
OTX	3	**TAXES OTHER THAN INCOME TAXES**									
OTX	4										
OTX	5	**Payroll Related**									
OTX	6	FICA	SALWAGES	69	4	269	341	85	0		
OTX	7	FUTA	SALWAGES	0	0	2	2	0	0		
OTX	8	SUTA	SALWAGES	1	0	5	6	2	0		
OTX	9	IBS Payroll Taxes	SALWAGES	0	0	0	0	0	0		
OTX	10	Unemployment Compensation	SALWAGES	0	0	0	0	0	0		
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT	1,180	62	4,577	5,818	1,455	0		
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT	0	0	0	0	0	0		
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE	0	0	0	0	0	0		
OTX	18	Other	RATEBASE	16	1	64	81	20	0		
OTX	19	Total Other		16	1	64	81	20	0		
OTX	20										
OTX	21										
OTX	22	**TOTAL TAXES OTHER THAN INCOME**		1,267	67	4,915	6,249	1,563	0		
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
OTX	29										
OTX	30										
OTX	31										
OTX	32										
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OTX	38										
OTX	39										
OTX	40										
OTX	41										
OTX	42										
OTX	43										
OTX	44										
OTX	45										
OTX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ITX	1	**DEVELOPMENT OF PRESENT INCOME TAX EXPENSE**									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN	17,232,972	9,448,845	132,176	6,116,096	267,257	1,268,599		
ITX	4	OTHER OPERATING REVENUE	SCH , LN	0	0	0	0	0	0		
ITX	5	TOTAL OPERATING REVENUES	SCH , LN	17,232,972	9,448,845	132,176	6,116,096	267,257	1,268,599		
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN	7,634,333	3,964,205	25,493	2,451,975	73,620	1,119,041		
ITX	8	DEPRECIATION EXPENSE	SCH , LN	4,891,947	2,736,658	16,683	1,525,828	49,914	562,864		
ITX	9	AMORTIZATION EXPENSE	SCH , LN	0	0	0	0	0	0		
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN	2,290,787	1,281,267	7,812	714,574	23,371	263,764		
ITX	11	**NET OPERATING INCOME BEFORE TAXES & INTEREST**		2,415,904	1,466,715	82,189	1,423,719	120,352	(677,071)		
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 2.42%)		2,012,047	1,108,897	6,842	631,840	20,340	244,129		
ITX	14										
ITX	15	**SUBTOTAL BOOK INCOME BEFORE TAXES**		403,857	357,819	75,347	791,879	100,012	(921,200)		
ITX	16										
ITX	17	**STATE INCOME TAXES**									
ITX	18										
ITX	19	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(35,225)	(19,706)	(120)	(10,987)	(359)	(4,053)		
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT	0	0	0	0	0	0		
ITX	23	Goodwill	RATEBASE	5,096	2,809	17	1,600	52	618		
ITX	24	Interest	RATEBASE	168,624	92,933	573	52,953	1,705	20,460		
ITX	25										
ITX	26	Environmental Remediation	PRODPLT	71,700	40,110	245	22,364	732	8,250		
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT	0	0	0	0	0	0		
ITX	29	Net Operating Loss	DISTPLT	0	0	0	0	0	0		
ITX	30	Plant Depreciation - Distribution	DISTPLT	0	0	0	0	0	0		
ITX	31	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	32	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	33	Regulatory Liabilities	DISTPLT	0	0	0	0	0	0		
ITX	34	Regulatory Asset - Non-Current	DISTPLT	0	0	0	0	0	0		
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES	(670,605)	(375,151)	(2,287)	(209,166)	(6,842)	(77,159)		
ITX	37	Plant Depreciation - General & Common	SALWAGES	2,306	1,290	8	719	24	265		
ITX	38	Retirement - Medical	SALWAGES	(192,930)	(107,929)	(658)	(60,176)	(1,969)	(22,198)		
ITX	39	Pension	SALWAGES	69,209	38,717	236	21,587	706	7,963		
ITX	40	Post Retirement - Life Insurance	SALWAGES	11,947	6,683	41	3,726	122	1,375		
ITX	41	SERP	SALWAGES	70,894	39,660	242	22,112	723	8,157		
ITX	42	Pension Restoration	SALWAGES	2,176	1,217	7	679	22	250		
ITX	43	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**		(496,807)	(279,365)	(1,696)	(154,588)	(5,085)	(56,072)		
ITX	44										
ITX	45	**STATE TAXABLE INCOME**		(92,950)	78,454	73,651	637,290	94,926	(977,272)		
ITX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ITX	1	**DEVELOPMENT OF PRESENT INCOME TAX EXPENSE**									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN	8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
ITX	4	OTHER OPERATING REVENUE	SCH , LN	0	0	0		0	0	0	0
ITX	5	TOTAL OPERATING REVENUES	SCH , LN	8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN	3,606,739	0	357,465		1,001,271	0	95,915	926,418
ITX	8	DEPRECIATION EXPENSE	SCH , LN	2,491,917	0	244,741		698,936	0	64,756	616,594
ITX	9	AMORTIZATION EXPENSE	SCH , LN	0	0	0		0	0	0	0
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN	1,166,683	0	114,584		327,234	0	30,320	288,714
ITX	11	**NET OPERATING INCOME BEFORE TAXES & INTEREST**		1,505,041	0	(38,326)		(60,767)	0	(26,223)	1,586,222
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 2.42%)		1,009,737	0	99,160		283,278	0	26,409	252,019
ITX	14										
ITX	15	**SUBTOTAL BOOK INCOME BEFORE TAXES**		495,304	0	(137,486)		(344,045)	0	(52,632)	1,334,203
ITX	16										
ITX	17	**STATE INCOME TAXES**									
ITX	18										
ITX	19	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(17,943)	0	(1,762)		(5,033)	0	(466)	(4,440)
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT	0	0	0		0	0	0	0
ITX	23	Goodwill	RATEBASE	2,558	0	251		718	0	67	638
ITX	24	Interest	RATEBASE	84,623	0	8,310		23,741	0	2,213	21,121
ITX	25										
ITX	26	Environmental Remediation	PRODPLT	36,523	0	3,587		10,244	0	949	9,037
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT	0	0	0		0	0	0	0
ITX	29	Net Operating Loss	DISTPLT	0	0	0		0	0	0	0
ITX	30	Plant Depreciation - Distribution	DISTPLT	0	0	0		0	0	0	0
ITX	31	Contribution in Aid of Construction	DISTPLT	0	0	0		0	0	0	0
ITX	32	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	33	Regulatory Liabilities	DISTPLT	0	0	0		0	0	0	0
ITX	34	Regulatory Asset - Non-Current	DISTPLT	0	0	0		0	0	0	0
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES	(341,601)	0	(33,550)		(95,813)	0	(8,877)	(84,525)
ITX	37	Plant Depreciation - General & Common	SALWAGES	1,175	0	115		330	0	31	291
ITX	38	Retirement - Medical	SALWAGES	(98,277)	0	(9,652)		(27,565)	0	(2,554)	(24,317)
ITX	39	Pension	SALWAGES	35,255	0	3,463		9,888	0	916	8,723
ITX	40	Post Retirement - Life Insurance	SALWAGES	6,086	0	598		1,707	0	158	1,506
ITX	41	SERP	SALWAGES	36,113	0	3,547		10,129	0	938	8,936
ITX	42	Pension Restoration	SALWAGES	1,108	0	109		311	0	29	274
ITX	43	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**		(254,380)	0	(24,985)		(71,343)	0	(6,596)	(62,756)
ITX	44										
ITX	45	**STATE TAXABLE INCOME**		240,924	0	(162,470)		(415,388)	0	(59,228)	1,271,447
ITX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ITX	1	**DEVELOPMENT OF PRESENT INCOME TAX EXPENSE**									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN		1,738,119	566,706	267,257	904,157	0	364,442	
ITX	4	OTHER OPERATING REVENUE	SCH , LN		0	0	0	0	0	0	
ITX	5	TOTAL OPERATING REVENUES	SCH , LN		1,738,119	566,706	267,257	904,157	0	364,442	
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN		1,334,801	428,372	73,620	832,810	0	286,231	
ITX	8	DEPRECIATION EXPENSE	SCH , LN		666,423	145,541	49,914	470,967	0	91,898	
ITX	9	AMORTIZATION EXPENSE	SCH , LN		0	0	0	0	0	0	
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN		312,298	68,306	23,371	220,621	0	43,143	
ITX	11	**NET OPERATING INCOME BEFORE TAXES & INTEREST**			(575,403)	(75,513)	120,352	(620,241)	0	(56,829)	
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 2.42%)			289,455	70,134	20,340	198,980	0	45,148	
ITX	14										
ITX	15	**SUBTOTAL BOOK INCOME BEFORE TAXES**			(864,858)	(145,647)	100,012	(819,222)	0	(101,978)	
ITX	16										
ITX	17	**STATE INCOME TAXES**									
ITX	18										
ITX	19	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(4,799)	(1,048)	(359)	(3,391)	0	(662)	
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT		0	0	0	0	0	0	
ITX	23	Goodwill	RATEBASE		733	178	52	504	0	114	
ITX	24	Interest	RATEBASE		24,258	5,878	1,705	16,676	0	3,784	
ITX	25										
ITX	26	Environmental Remediation	PRODPLT		9,768	2,133	732	6,903	0	1,347	
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT		0	0	0	0	0	0	
ITX	29	Net Operating Loss	DISTPLT		0	0	0	0	0	0	
ITX	30	Plant Depreciation - Distribution	DISTPLT		0	0	0	0	0	0	
ITX	31	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0	
ITX	32	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0	
ITX	33	Regulatory Liabilities	DISTPLT		0	0	0	0	0	0	
ITX	34	Regulatory Asset - Non-Current	DISTPLT		0	0	0	0	0	0	
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES		(91,356)	(19,951)	(6,842)	(64,562)	(0)	(12,598)	
ITX	37	Plant Depreciation - General & Common	SALWAGES		314	69	24	222	0	43	
ITX	38	Retirement - Medical	SALWAGES		(26,282)	(5,740)	(1,969)	(18,574)	(0)	(3,624)	
ITX	39	Pension	SALWAGES		9,428	2,059	706	6,663	0	1,300	
ITX	40	Post Retirement - Life Insurance	SALWAGES		1,628	355	122	1,150	0	224	
ITX	41	SERP	SALWAGES		9,658	2,109	723	6,825	0	1,332	
ITX	42	Pension Restoration	SALWAGES		296	65	22	209	0	41	
ITX	43	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**			(66,353)	(13,894)	(5,085)	(47,374)	(0)	(8,698)	
ITX	44										
ITX	45	**STATE TAXABLE INCOME**			(931,211)	(159,541)	94,926	(866,596)	0	(110,676)	
ITX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
ITX	1	**DEVELOPMENT OF PRESENT INCOME TAX EXPENSE**									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN	5,151	970	94,608	100,729	31,447	0		
ITX	4	OTHER OPERATING REVENUE	SCH , LN	0	0	0	0	0	0		
ITX	5	TOTAL OPERATING REVENUES	SCH , LN	5,151	970	94,608	100,729	31,447	0		
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN	4,130	217	16,022	20,369	5,123	0		
ITX	8	DEPRECIATION EXPENSE	SCH , LN	2,706	142	10,497	13,345	3,338	0		
ITX	9	AMORTIZATION EXPENSE	SCH , LN	0	0	0	0	0	0		
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN	1,267	67	4,915	6,249	1,563	0		
ITX	11	**NET OPERATING INCOME BEFORE TAXES & INTEREST**		(2,952)	545	63,173	60,766	21,423	0		
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 2.42%)		1,110	58	4,305	5,473	1,368	0		
ITX	14										
ITX	15	**SUBTOTAL BOOK INCOME BEFORE TAXES**		(4,062)	487	58,868	55,293	20,054	0		
ITX	16										
ITX	17	**STATE INCOME TAXES**									
ITX	18										
ITX	19	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(19)	(1)	(76)	(96)	(24)	0		
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT	0	0	0	0	0	0		
ITX	23	Goodwill	RATEBASE	3	0	11	14	3	0		
ITX	24	Interest	RATEBASE	93	5	361	459	115	0		
ITX	25										
ITX	26	Environmental Remediation	PRODPLT	40	2	154	196	49	0		
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT	0	0	0	0	0	0		
ITX	29	Net Operating Loss	DISTPLT	0	0	0	0	0	0		
ITX	30	Plant Depreciation - Distribution	DISTPLT	0	0	0	0	0	0		
ITX	31	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	32	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	33	Regulatory Liabilities	DISTPLT	0	0	0	0	0	0		
ITX	34	Regulatory Asset - Non-Current	DISTPLT	0	0	0	0	0	0		
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES	(371)	(19)	(1,439)	(1,829)	(458)	(0)		
ITX	37	Plant Depreciation - General & Common	SALWAGES	1	0	5	6	2	0		
ITX	38	Retirement - Medical	SALWAGES	(107)	(6)	(414)	(526)	(132)	(0)		
ITX	39	Pension	SALWAGES	38	2	149	189	47	0		
ITX	40	Post Retirement - Life Insurance	SALWAGES	7	0	26	33	8	0		
ITX	41	SERP	SALWAGES	39	2	152	193	48	0		
ITX	42	Pension Restoration	SALWAGES	1	0	5	6	1	0		
ITX	43	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**		(275)	(14)	(1,067)	(1,357)	(339)	(0)		
ITX	44										
ITX	45	**STATE TAXABLE INCOME**		(4,337)	472	57,801	53,936	19,715	0		
ITX	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ITX	47	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	48										
ITX	49	**STATE TAXABLE INCOME**		(92,950)	78,454	73,651	637,290	94,926	(977,272)		
ITX	50										
ITX	51	**STATE INCOME TAX @ 6.00%**		(5,577)	4,707	4,419	38,237	5,696	(58,636)		
ITX	52										
ITX	53	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(1,899)	(1,062)	(6)	(592)	(19)	(218)		
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT	0	0	0	0	0	0		
ITX	57	Goodwill	RATEBASE	242	133	1	76	2	29		
ITX	58	Interest	RATEBASE	7,993	4,405	27	2,510	81	970		
ITX	59										
ITX	60	Environmental Remediation	PRODPLT	3,399	1,901	12	1,060	35	391		
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT	0	0	0	0	0	0		
ITX	63	Net Operating Loss	DISTPLT	0	0	0	0	0	0		
ITX	64	Plant Depreciation - Distribution	DISTPLT	0	0	0	0	0	0		
ITX	65	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	66	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	67	Regulatory Asset - Current	DISTPLT	0	0	0	0	0	0		
ITX	68	Regulatory Asset - Non-Current	DISTPLT	0	0	0	0	0	0		
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES	(31,787)	(17,782)	(108)	(9,914)	(324)	(3,657)		
ITX	71	Plant Depreciation - General & Common	SALWAGES	0	0	0	0	0	0		
ITX	72	Retirement - Medical	SALWAGES	(9,145)	(5,116)	(31)	(2,852)	(93)	(1,052)		
ITX	73	Pension	SALWAGES	3,281	1,835	11	1,023	33	377		
ITX	74	Post Retirement - Life Insurance	SALWAGES	566	317	2	177	6	65		
ITX	75	SERP	SALWAGES	3,360	1,880	11	1,048	34	387		
ITX	76	Pension Restoration	SALWAGES	103	58	0	32	1	12		
ITX	77	**SUBTOTAL DEFERRED EXPENSE ADJUSTMENT**		(23,887)	(13,431)	(82)	(7,433)	(245)	(2,697)		
ITX	78										
ITX	169	**STATE INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	0	0	0	0	0	0		
ITX											
ITX	79	**STATE INCOME TAX EXPENSE**		18,310	18,139	4,501	45,671	5,940	(55,940)		
ITX	80										
ITX	81										
ITX	82										
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
ITX	89										
ITX	90										
ITX	91										
ITX	92										

Page 66 of 148

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ITX	47	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	48										
ITX	49	**STATE TAXABLE INCOME**		240,924	0	(162,470)		(415,388)	0	(59,228)	1,271,447
ITX	50										
ITX	51	**STATE INCOME TAX @ 6.00%**		14,455	0	(9,748)		(24,923)	0	(3,554)	76,287
ITX	52										
ITX	53	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(967)	0	(95)		(271)	0	(25)	(239)
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT	0	0	0		0	0	0	0
ITX	57	Goodwill	RATEBASE	121	0	12		34	0	3	30
ITX	58	Interest	RATEBASE	4,011	0	394		1,125	0	105	1,001
ITX	59										
ITX	60	Environmental Remediation	PRODPLT	1,731	0	170		486	0	45	428
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT	0	0	0		0	0	0	0
ITX	63	Net Operating Loss	DISTPLT	0	0	0		0	0	0	0
ITX	64	Plant Depreciation - Distribution	DISTPLT	0	0	0		0	0	0	0
ITX	65	Contribution in Aid of Construction	DISTPLT	0	0	0		0	0	0	0
ITX	66	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	67	Regulatory Asset - Current	DISTPLT	0	0	0		0	0	0	0
ITX	68	Regulatory Asset - Non-Current	DISTPLT	0	0	0		0	0	0	0
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES	(16,192)	0	(1,590)		(4,542)	0	(421)	(4,006)
ITX	71	Plant Depreciation - General & Common	SALWAGES	0	0	0		0	0	0	0
ITX	72	Retirement - Medical	SALWAGES	(4,658)	0	(458)		(1,307)	0	(121)	(1,153)
ITX	73	Pension	SALWAGES	1,671	0	164		469	0	43	413
ITX	74	Post Retirement - Life Insurance	SALWAGES	288	0	28		81	0	7	71
ITX	75	SERP	SALWAGES	1,712	0	168		480	0	44	424
ITX	76	Pension Restoration	SALWAGES	53	0	5		15	0	1	13
ITX	77	**SUBTOTAL DEFERRED EXPENSE ADJUSTMENT**		(12,230)	0	(1,201)		(3,430)	0	(317)	(3,017)
ITX	78										
ITX	169	**STATE INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	0	0	0		0	0	0	0
ITX											
ITX	79	**STATE INCOME TAX EXPENSE**		26,686	0	(8,547)		(21,493)	0	(3,237)	79,304
ITX	80										
ITX	81										
ITX	82										
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
ITX	89										
ITX	90										
ITX	91										
ITX	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ITX	47	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	48										
ITX	49	**STATE TAXABLE INCOME**			(931,211)	(159,541)	94,926	(866,596)	0	(110,676)	
ITX	50										
ITX	51	**STATE INCOME TAX @ 6.00%**			(55,873)	(9,572)	5,696	(51,996)	0	(6,641)	
ITX	52										
ITX	53	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(259)	(56)	(19)	(183)	0	(36)	
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT		0	0	0	0	0	0	
ITX	57	Goodwill	RATEBASE		35	8	2	24	0	5	
ITX	58	Interest	RATEBASE		1,150	279	81	790	0	179	
ITX	59										
ITX	60	Environmental Remediation	PRODPLT		463	101	35	327	0	64	
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT		0	0	0	0	0	0	
ITX	63	Net Operating Loss	DISTPLT		0	0	0	0	0	0	
ITX	64	Plant Depreciation - Distribution	DISTPLT		0	0	0	0	0	0	
ITX	65	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0	
ITX	66	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0	
ITX	67	Regulatory Asset - Current	DISTPLT		0	0	0	0	0	0	
ITX	68	Regulatory Asset - Non-Current	DISTPLT		0	0	0	0	0	0	
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES		(4,330)	(946)	(324)	(3,060)	(0)	(597)	
ITX	71	Plant Depreciation - General & Common	SALWAGES		0	0	0	0	0	0	
ITX	72	Retirement - Medical	SALWAGES		(1,246)	(272)	(93)	(880)	(0)	(172)	
ITX	73	Pension	SALWAGES		447	98	33	316	0	62	
ITX	74	Post Retirement - Life Insurance	SALWAGES		77	17	6	55	0	11	
ITX	75	SERP	SALWAGES		458	100	34	324	0	63	
ITX	76	Pension Restoration	SALWAGES		14	3	1	10	0	2	
ITX	77	**SUBTOTAL DEFERRED EXPENSE ADJUSTMENT**			(3,191)	(669)	(245)	(2,278)	(0)	(419)	
ITX	78										
ITX	169	**STATE INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE		0	0	0	0	0	0	
ITX											
ITX	79	**STATE INCOME TAX EXPENSE**			(52,681)	(8,904)	5,940	(49,718)	0	(6,222)	
ITX	80										
ITX	81										
ITX	82										
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
ITX	89										
ITX	90										
ITX	91										
ITX	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
ITX	47	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	48										
ITX	49	**STATE TAXABLE INCOME**		(4,337)	472	57,801	53,936	19,715	0		
ITX	50										
ITX	51	**STATE INCOME TAX @ 6.00%**		(260)	28	3,468	3,236	1,183	0		
ITX	52										
ITX	53	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(1)	(0)	(4)	(5)	(1)	0		
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT	0	0	0	0	0	0		
ITX	57	Goodwill	RATEBASE	0	0	1	1	0	0		
ITX	58	Interest	RATEBASE	4	0	17	22	5	0		
ITX	59										
ITX	60	Environmental Remediation	PRODPLT	2	0	7	9	2	0		
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT	0	0	0	0	0	0		
ITX	63	Net Operating Loss	DISTPLT	0	0	0	0	0	0		
ITX	64	Plant Depreciation - Distribution	DISTPLT	0	0	0	0	0	0		
ITX	65	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	66	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	67	Regulatory Asset - Current	DISTPLT	0	0	0	0	0	0		
ITX	68	Regulatory Asset - Non-Current	DISTPLT	0	0	0	0	0	0		
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES	(18)	(1)	(68)	(87)	(22)	(0)		
ITX	71	Plant Depreciation - General & Common	SALWAGES	0	0	0	0	0	0		
ITX	72	Retirement - Medical	SALWAGES	(5)	(0)	(20)	(25)	(6)	(0)		
ITX	73	Pension	SALWAGES	2	0	7	9	2	0		
ITX	74	Post Retirement - Life Insurance	SALWAGES	0	0	1	2	0	0		
ITX	75	SERP	SALWAGES	2	0	7	9	2	0		
ITX	76	Pension Restoration	SALWAGES	0	0	0	0	0	0		
ITX	77	**SUBTOTAL DEFERRED EXPENSE ADJUSTMENT**		(13)	(1)	(51)	(65)	(16)	(0)		
ITX	78										
ITX	169	**STATE INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	0	0	0	0	0	0		
ITX											
ITX	79	**STATE INCOME TAX EXPENSE**		(247)	29	3,519	3,301	1,199	0		
ITX	80										
ITX	81										
ITX	82										
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
ITX	89										
ITX	90										
ITX	91										
ITX	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION		ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
ITX	93	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**										
ITX	94											
ITX	95	**FEDERAL INCOME TAXES**										
ITX	96											
ITX	97	**SUBTOTAL BOOK INCOME BEFORE TAXES**	SCH , LN		403,857	357,819	75,347	791,879	100,012	(921,200)		
ITX	98											
ITX	99	**NET INCOME ADDITIONS/DEDUCTIONS**										
ITX	100	State Income Taxes		#VALUE!	5,577	(4,707)	(4,419)	(38,237)	(5,696)	58,636		
ITX	101											
ITX	102	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(35,225)	(19,706)	(120)	(10,987)	(359)	(4,053)		
ITX	103											
ITX	104	Customer Advances for Construction	DISTPLT		0	0	0	0	0	0		
ITX	105	Goodwill	RATEBASE		5,096	2,809	17	1,600	52	618		
ITX	106	Interest	RATEBASE		168,624	92,933	573	52,953	1,705	20,460		
ITX	107											
ITX	108	Environmental Remediation	PRODPLT		71,700	40,110	245	22,364	732	8,250		
ITX	109											
ITX	110	Deferred Income and Deductions	DISTPLT		0	0	0	0	0	0		
ITX	111	Net Operating Loss	DISTPLT		0	0	0	0	0	0		
ITX	112	Plant Depreciation - Distribution	DISTPLT		0	0	0	0	0	0		
ITX	113	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0		
ITX	114	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0		
ITX	115	Regulatory Liabilities	DISTPLT		0	0	0	0	0	0		
ITX	116	Regulatory Asset - Non-Current	DISTPLT		0	0	0	0	0	0		
ITX	117											
ITX	118	Goodwill - General Plant Related	SALWAGES		(670,605)	(375,151)	(2,287)	(209,166)	(6,842)	(77,159)		
ITX	119	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0		
ITX	120	Plant Depreciation - General & Common	SALWAGES		2,306	1,290	8	719	24	265		
ITX	121	Retirement - Medical	SALWAGES		(192,930)	(107,929)	(658)	(60,176)	(1,969)	(22,198)		
ITX	122	Pension	SALWAGES		116,517	65,182	397	36,342	1,189	13,406		
ITX	123	Post Retirement - Life Insurance	SALWAGES		11,947	6,683	41	3,726	122	1,375		
ITX	124	SERP	SALWAGES		23,586	13,195	80	7,357	241	2,714		
ITX	125	Pension Restoration	SALWAGES		2,176	1,217	7	679	22	250		
ITX	126	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**			(491,230)	(284,072)	(6,115)	(192,826)	(10,781)	2,564		
ITX	127											
ITX	128	**FEDERAL TAXABLE INCOME**			(87,373)	73,747	69,232	599,053	89,231	(918,636)		
ITX	129	Federal Income Tax @ 21%			(18,348)	15,487	14,539	125,801	18,738	(192,913)		
ITX	130											
ITX	131											
ITX	132											
ITX	133											
ITX	134											
ITX	135											
ITX	136											
ITX	137											
ITX	138											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ITX	93	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	94										
ITX	95	**FEDERAL INCOME TAXES**									
ITX	96										
ITX	97	**SUBTOTAL BOOK INCOME BEFORE TAXES**	SCH , LN	495,304	0	(137,486)		(344,045)	0	(52,632)	1,334,203
ITX	98										
ITX	99	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	100	State Income Taxes	#VALUE!	(14,455)	0	9,748		24,923	0	3,554	(76,287)
ITX	101										
ITX	102	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(17,943)	0	(1,762)		(5,033)	0	(466)	(4,440)
ITX	103										
ITX	104	Customer Advances for Construction	DISTPLT	0	0	0		0	0	0	0
ITX	105	Goodwill	RATEBASE	2,558	0	251		718	0	67	638
ITX	106	Interest	RATEBASE	84,623	0	8,310		23,741	0	2,213	21,121
ITX	107										
ITX	108	Environmental Remediation	PRODPLT	36,523	0	3,587		10,244	0	949	9,037
ITX	109										
ITX	110	Deferred Income and Deductions	DISTPLT	0	0	0		0	0	0	0
ITX	111	Net Operating Loss	DISTPLT	0	0	0		0	0	0	0
ITX	112	Plant Depreciation - Distribution	DISTPLT	0	0	0		0	0	0	0
ITX	113	Contribution in Aid of Construction	DISTPLT	0	0	0		0	0	0	0
ITX	114	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	115	Regulatory Liabilities	DISTPLT	0	0	0		0	0	0	0
ITX	116	Regulatory Asset - Non-Current	DISTPLT	0	0	0		0	0	0	0
ITX	117										
ITX	118	Goodwill - General Plant Related	SALWAGES	(341,601)	0	(33,550)		(95,813)	0	(8,877)	(84,525)
ITX	119	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0		0	0	0	0
ITX	120	Plant Depreciation - General & Common	SALWAGES	1,175	0	115		330	0	31	291
ITX	121	Retirement - Medical	SALWAGES	(98,277)	0	(9,652)		(27,565)	0	(2,554)	(24,317)
ITX	122	Pension	SALWAGES	59,353	0	5,829		16,647	0	1,542	14,686
ITX	123	Post Retirement - Life Insurance	SALWAGES	6,086	0	598		1,707	0	158	1,506
ITX	124	SERP	SALWAGES	12,015	0	1,180		3,370	0	312	2,973
ITX	125	Pension Restoration	SALWAGES	1,108	0	109		311	0	29	274
ITX	126	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**		(268,836)	0	(15,236)		(46,420)	0	(3,042)	(139,043)
ITX	127										
ITX	128	**FEDERAL TAXABLE INCOME**		226,469	0	(152,722)		(390,465)	0	(55,674)	1,195,161
ITX	129	Federal Income Tax @ 21%		47,558	0	(32,072)		(81,998)	0	(11,692)	250,984
ITX	130										
ITX	131										
ITX	132										
ITX	133										
ITX	134										
ITX	135										
ITX	136										
ITX	137										
ITX	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ITX	93	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	94										
ITX	95	**FEDERAL INCOME TAXES**									
ITX	96										
ITX	97	**SUBTOTAL BOOK INCOME BEFORE TAXES**	SCH , LN		(864,858)	(145,647)	100,012	(819,222)	0	(101,978)	
ITX	98										
ITX	99	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	100	State Income Taxes	#VALUE!		55,873	9,572	(5,696)	51,996	(0)	6,641	
ITX	101										
ITX	102	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(4,799)	(1,048)	(359)	(3,391)	0	(662)	
ITX	103										
ITX	104	Customer Advances for Construction	DISTPLT		0	0	0	0	0	0	
ITX	105	Goodwill	RATEBASE		733	178	52	504	0	114	
ITX	106	Interest	RATEBASE		24,258	5,878	1,705	16,676	0	3,784	
ITX	107										
ITX	108	Environmental Remediation	PRODPLT		9,768	2,133	732	6,903	0	1,347	
ITX	109										
ITX	110	Deferred Income and Deductions	DISTPLT		0	0	0	0	0	0	
ITX	111	Net Operating Loss	DISTPLT		0	0	0	0	0	0	
ITX	112	Plant Depreciation - Distribution	DISTPLT		0	0	0	0	0	0	
ITX	113	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0	
ITX	114	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0	
ITX	115	Regulatory Liabilities	DISTPLT		0	0	0	0	0	0	
ITX	116	Regulatory Asset - Non-Current	DISTPLT		0	0	0	0	0	0	
ITX	117										
ITX	118	Goodwill - General Plant Related	SALWAGES		(91,356)	(19,951)	(6,842)	(64,562)	(0)	(12,598)	
ITX	119	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0	
ITX	120	Plant Depreciation - General & Common	SALWAGES		314	69	24	222	0	43	
ITX	121	Retirement - Medical	SALWAGES		(26,282)	(5,740)	(1,969)	(18,574)	(0)	(3,624)	
ITX	122	Pension	SALWAGES		15,873	3,467	1,189	11,218	0	2,189	
ITX	123	Post Retirement - Life Insurance	SALWAGES		1,628	355	122	1,150	0	224	
ITX	124	SERP	SALWAGES		3,213	702	241	2,271	0	443	
ITX	125	Pension Restoration	SALWAGES		296	65	22	209	0	41	
ITX	126	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**			(10,481)	(4,321)	(10,781)	4,621	(0)	(2,058)	
ITX	127										
ITX	128	**FEDERAL TAXABLE INCOME**			(875,338)	(149,969)	89,231	(814,600)	0	(104,035)	
ITX	129	Federal Income Tax @ 21%			(183,821)	(31,493)	18,738	(171,066)	0	(21,847)	
ITX	130										
ITX	131										
ITX	132										
ITX	133										
ITX	134										
ITX	135										
ITX	136										
ITX	137										
ITX	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
ITX	93	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	94										
ITX	95	**FEDERAL INCOME TAXES**									
ITX	96										
ITX	97	**SUBTOTAL BOOK INCOME BEFORE TAXES**	SCH , LN	(4,062)	487	58,868	55,293	20,054	0		
ITX	98										
ITX	99	**NET INCOME ADDITIONS/DEDUCTIONS**									
ITX	100	State Income Taxes	#VALUE!	260	(28)	(3,468)	(3,236)	(1,183)	(0)		
ITX	101										
ITX	102	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(19)	(1)	(76)	(96)	(24)	0		
ITX	103										
ITX	104	Customer Advances for Construction	DISTPLT	0	0	0	0	0	0		
ITX	105	Goodwill	RATEBASE	3	0	11	14	3	0		
ITX	106	Interest	RATEBASE	93	5	361	459	115	0		
ITX	107										
ITX	108	Environmental Remediation	PRODPLT	40	2	154	196	49	0		
ITX	109										
ITX	110	Deferred Income and Deductions	DISTPLT	0	0	0	0	0	0		
ITX	111	Net Operating Loss	DISTPLT	0	0	0	0	0	0		
ITX	112	Plant Depreciation - Distribution	DISTPLT	0	0	0	0	0	0		
ITX	113	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	114	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	115	Regulatory Liabilities	DISTPLT	0	0	0	0	0	0		
ITX	116	Regulatory Asset - Non-Current	DISTPLT	0	0	0	0	0	0		
ITX	117										
ITX	118	Goodwill - General Plant Related	SALWAGES	(371)	(19)	(1,439)	(1,829)	(458)	(0)		
ITX	119	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0	0	0	0		
ITX	120	Plant Depreciation - General & Common	SALWAGES	1	0	5	6	2	0		
ITX	121	Retirement - Medical	SALWAGES	(107)	(6)	(414)	(526)	(132)	(0)		
ITX	122	Pension	SALWAGES	64	3	250	318	80	0		
ITX	123	Post Retirement - Life Insurance	SALWAGES	7	0	26	33	8	0		
ITX	124	SERP	SALWAGES	13	1	51	64	16	0		
ITX	125	Pension Restoration	SALWAGES	1	0	5	6	1	0		
ITX	126	**SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS**		(15)	(43)	(4,535)	(4,593)	(1,522)	(0)		
ITX	127										
ITX	128	**FEDERAL TAXABLE INCOME**		(4,077)	444	54,333	50,700	18,532	0		
ITX	129	Federal Income Tax @ 21%		(856)	93	11,410	10,647	3,892	0		
ITX	130										
ITX	131								ES to update rate class formulas*		
ITX	132										
ITX	133										
ITX	134										
ITX	135										
ITX	136										
ITX	137										
ITX	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ITX	139	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	140	**FEDERAL INCOME TAXES CONTINUED**									
ITX	141										
ITX	142	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	143	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(8,413)	(4,706)	(29)	(2,624)	(86)	(968)		
ITX	144										
ITX	145	Customer Advances for Construction	DISTPLT	0	0	0	0	0	0		
ITX	146	Goodwill	RATEBASE	1,070	590	4	336	11	130		
ITX	147	Interest	RATEBASE	35,411	19,516	120	11,120	358	4,297		
ITX	148										
ITX	149	Environmental Remediation	PRODPLT	15,057	8,423	51	4,696	154	1,732		
ITX	150										
ITX	151	Deferred Income and Deductions	DISTPLT	0	0	0	0	0	0		
ITX	152	Net Operating Loss	DISTPLT	0	0	0	0	0	0		
ITX	153	Plant Depreciation - Distribution	DISTPLT	0	0	0	0	0	0		
ITX	154	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	155	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	156	Regulatory Asset - Current	DISTPLT	0	0	0	0	0	0		
ITX	157	Regulatory Asset - Non-Current	DISTPLT	0	0	0	0	0	0		
ITX	158										
ITX	159	Goodwill - General Plant Related	SALWAGES	(140,827)	(78,782)	(480)	(43,925)	(1,437)	(16,203)		
ITX	160	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0	0	0	0		
ITX	161	Plant Depreciation - General & Common	SALWAGES	0	0	0	0	0	0		
ITX	162	Retirement - Medical	SALWAGES	(40,515)	(22,665)	(138)	(12,637)	(413)	(4,662)		
ITX	163	Pension	SALWAGES	24,469	13,688	83	7,632	250	2,815		
ITX	164	Post Retirement - Life Insurance	SALWAGES	2,509	1,404	9	783	26	289		
ITX	165	SERP	SALWAGES	4,953	2,771	17	1,545	51	570		
ITX	166	Pension Restoration	SALWAGES	457	256	2	142	5	53		
ITX	167	**TOTAL DEFERRED INCOME TAX EXPENSE**		(105,830)	(59,506)	(361)	(32,931)	(1,083)	(11,948)		
ITX	168										
ITX	169	**FEDERAL INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	(186,718)	(102,906)	(635)	(58,635)	(1,888)	(22,655)		
ITX	171										
ITX	172	**FEDERAL INCOME TAX EXPENSE**		(99,237)	(27,913)	14,265	100,098	17,934	(203,621)		
ITX	173										
ITX	174	**TOTAL STATE & FEDERAL INCOME TAX EXPENSE**		(80,927)	(9,774)	18,766	145,768	23,874	(259,560)		
ITX	175										
ITX	176	**TOTAL OPERATING DEDUCTIONS**		14,736,141	7,972,355	68,753	4,838,145	170,779	1,686,109		
ITX	177										
ITX	178										
ITX	179	**TAX RATES**									
ITX	180	STATE TAX RATE		6.00%							
ITX	181	FEDERAL TAX RATE - CURRENT		0.21							
ITX	182	INCREMENTAL TAX RATE		0.257400							
ITX	183	1-INCREMENTAL TAX RATE		0.742600							
ITX	184	TAX GROSS-UP FACTOR		1.34660000							
ITX	185	STATE TAX RATE		4.74%							
ITX	186	WEIGHTED COST OF DEBT		2.4186%							
ITX	187										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ITX	139	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	140	**FEDERAL INCOME TAXES CONTINUED**									
ITX	141										
ITX	142	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	143	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(4,286)	0	(421)		(1,202)	0	(111)	(1,060)
ITX	144										
ITX	145	Customer Advances for Construction	DISTPLT	0	0	0		0	0	0	0
ITX	146	Goodwill	RATEBASE	537	0	53		151	0	14	134
ITX	147	Interest	RATEBASE	17,771	0	1,745		4,986	0	465	4,435
ITX	148										
ITX	149	Environmental Remediation	PRODPLT	7,670	0	753		2,151	0	199	1,898
ITX	150										
ITX	151	Deferred Income and Deductions	DISTPLT	0	0	0		0	0	0	0
ITX	152	Net Operating Loss	DISTPLT	0	0	0		0	0	0	0
ITX	153	Plant Depreciation - Distribution	DISTPLT	0	0	0		0	0	0	0
ITX	154	Contribution in Aid of Construction	DISTPLT	0	0	0		0	0	0	0
ITX	155	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	156	Regulatory Asset - Current	DISTPLT	0	0	0		0	0	0	0
ITX	157	Regulatory Asset - Non-Current	DISTPLT	0	0	0		0	0	0	0
ITX	158										
ITX	159	Goodwill - General Plant Related	SALWAGES	(71,736)	0	(7,045)		(20,121)	0	(1,864)	(17,750)
ITX	160	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0		0	0	0	0
ITX	161	Plant Depreciation - General & Common	SALWAGES	0	0	0		0	0	0	0
ITX	162	Retirement - Medical	SALWAGES	(20,638)	0	(2,027)		(5,789)	0	(536)	(5,107)
ITX	163	Pension	SALWAGES	12,464	0	1,224		3,496	0	324	3,084
ITX	164	Post Retirement - Life Insurance	SALWAGES	1,278	0	126		358	0	33	316
ITX	165	SERP	SALWAGES	2,523	0	248		708	0	66	624
ITX	166	Pension Restoration	SALWAGES	233	0	23		65	0	6	58
ITX	167	**TOTAL DEFERRED INCOME TAX EXPENSE**		(54,184)	0	(5,322)		(15,196)	0	(1,405)	(13,368)
ITX	168										
ITX	169	**FEDERAL INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	(93,704)	0	(9,202)		(26,288)	0	(2,451)	(23,387)
ITX	171										
ITX	172	**FEDERAL INCOME TAX EXPENSE**		8,039	0	(35,952)		(93,089)	0	(12,737)	240,964
ITX	173										
ITX	174	**TOTAL STATE & FEDERAL INCOME TAX EXPENSE**		34,724	0	(44,499)		(114,583)	0	(15,974)	320,268
ITX	175										
ITX	176	**TOTAL OPERATING DEDUCTIONS**		7,300,064	0	672,292		1,912,858	0	175,017	2,151,994
ITX	177										
ITX	178										
ITX	179	**TAX RATES**									
ITX	180	STATE TAX RATE									
ITX	181	FEDERAL TAX RATE - CURRENT									
ITX	182	INCREMENTAL TAX RATE									
ITX	183	1-INCREMENTAL TAX RATE									
ITX	184	TAX GROSS-UP FACTOR									
ITX	185	STATE TAX RATE									
ITX	186	WEIGHTED COST OF DEBT									
ITX	187										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ITX	139	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	140	**FEDERAL INCOME TAXES CONTINUED**									
ITX	141										
ITX	142	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	143	Plant Depreciation - NERCO/Soo Energy	PRODPLT		(1,146)	(250)	(86)	(810)	0	(158)	
ITX	144										
ITX	145	Customer Advances for Construction	DISTPLT		0	0	0	0	0	0	
ITX	146	Goodwill	RATEBASE		154	37	11	106	0	24	
ITX	147	Interest	RATEBASE		5,094	1,234	358	3,502	0	795	
ITX	148										
ITX	149	Environmental Remediation	PRODPLT		2,051	448	154	1,450	0	283	
ITX	150										
ITX	151	Deferred Income and Deductions	DISTPLT		0	0	0	0	0	0	
ITX	152	Net Operating Loss	DISTPLT		0	0	0	0	0	0	
ITX	153	Plant Depreciation - Distribution	DISTPLT		0	0	0	0	0	0	
ITX	154	Contribution in Aid of Construction	DISTPLT		0	0	0	0	0	0	
ITX	155	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0	
ITX	156	Regulatory Asset - Current	DISTPLT		0	0	0	0	0	0	
ITX	157	Regulatory Asset - Non-Current	DISTPLT		0	0	0	0	0	0	
ITX	158										
ITX	159	Goodwill - General Plant Related	SALWAGES		(19,185)	(4,190)	(1,437)	(13,558)	(0)	(2,646)	
ITX	160	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0	
ITX	161	Plant Depreciation - General & Common	SALWAGES		0	0	0	0	0	0	
ITX	162	Retirement - Medical	SALWAGES		(5,519)	(1,205)	(413)	(3,901)	(0)	(761)	
ITX	163	Pension	SALWAGES		3,333	728	250	2,356	0	460	
ITX	164	Post Retirement - Life Insurance	SALWAGES		342	75	26	242	0	47	
ITX	165	SERP	SALWAGES		675	147	51	477	0	93	
ITX	166	Pension Restoration	SALWAGES		62	14	5	44	0	9	
ITX	167	**TOTAL DEFERRED INCOME TAX EXPENSE**			(14,139)	(2,962)	(1,083)	(10,093)	(0)	(1,855)	
ITX	168										
ITX	169	**FEDERAL INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE		(26,861)	(6,508)	(1,888)	(18,465)	(0)	(4,190)	
ITX	171										
ITX	172	**FEDERAL INCOME TAX EXPENSE**			(196,544)	(35,040)	17,934	(179,438)	0	(24,182)	
ITX	173										
ITX	174	**TOTAL STATE & FEDERAL INCOME TAX EXPENSE**			(249,225)	(43,943)	23,874	(229,156)	0	(30,404)	
ITX	175										
ITX	176	**TOTAL OPERATING DEDUCTIONS**			2,064,297	598,276	170,779	1,295,242	0	390,867	
ITX	177										
ITX	178										
ITX	179	**TAX RATES**									
ITX	180	STATE TAX RATE									
ITX	181	FEDERAL TAX RATE - CURRENT									
ITX	182	INCREMENTAL TAX RATE									
ITX	183	1-INCREMENTAL TAX RATE									
ITX	184	TAX GROSS-UP FACTOR									
ITX	185	STATE TAX RATE									
ITX	186	WEIGHTED COST OF DEBT									
ITX	187										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
ITX	139	**DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED**									
ITX	140	**FEDERAL INCOME TAXES CONTINUED**									
ITX	141										
ITX	142	**LESS: DEFERRED TAX EXPENSE ADJUSTMENT**									
ITX	143	Plant Depreciation - NERCO/Soo Energy	PRODPLT	(5)	(0)	(18)	(23)	(6)	0		
ITX	144										
ITX	145	Customer Advances for Construction	DISTPLT	0	0	0	0	0	0		
ITX	146	Goodwill	RATEBASE	1	0	2	3	1	0		
ITX	147	Interest	RATEBASE	20	1	76	96	24	0		
ITX	148										
ITX	149	Environmental Remediation	PRODPLT	8	0	32	41	10	0		
ITX	150										
ITX	151	Deferred Income and Deductions	DISTPLT	0	0	0	0	0	0		
ITX	152	Net Operating Loss	DISTPLT	0	0	0	0	0	0		
ITX	153	Plant Depreciation - Distribution	DISTPLT	0	0	0	0	0	0		
ITX	154	Contribution in Aid of Construction	DISTPLT	0	0	0	0	0	0		
ITX	155	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	156	Regulatory Asset - Current	DISTPLT	0	0	0	0	0	0		
ITX	157	Regulatory Asset - Non-Current	DISTPLT	0	0	0	0	0	0		
ITX	158										
ITX	159	Goodwill - General Plant Related	SALWAGES	(78)	(4)	(302)	(384)	(96)	(0)		
ITX	160	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0	0	0	0		
ITX	161	Plant Depreciation - General & Common	SALWAGES	0	0	0	0	0	0		
ITX	162	Retirement - Medical	SALWAGES	(22)	(1)	(87)	(111)	(28)	(0)		
ITX	163	Pension	SALWAGES	14	1	53	67	17	0		
ITX	164	Post Retirement - Life Insurance	SALWAGES	1	0	5	7	2	0		
ITX	165	SERP	SALWAGES	3	0	11	14	3	0		
ITX	166	Pension Restoration	SALWAGES	0	0	1	1	0	0		
ITX	167	**TOTAL DEFERRED INCOME TAX EXPENSE**		(59)	(3)	(227)	(289)	(72)	(0)		
ITX	168										
ITX	169	**FEDERAL INCOME TAX ADJUSTMENTS**									
ITX	21	TCJA Calculation C	RATEBASE	(103)	(5)	(400)	(508)	(127)	(0)		
ITX	171										
ITX	172	**FEDERAL INCOME TAX EXPENSE**		(901)	91	11,238	10,428	3,837	0		
ITX	173										
ITX	174	**TOTAL STATE & FEDERAL INCOME TAX EXPENSE**		(1,148)	120	14,757	13,729	5,036	0		
ITX	175										
ITX	176	**TOTAL OPERATING DEDUCTIONS**		6,956	545	46,192	53,693	15,060	0		
ITX	177										
ITX	178										
ITX	179	**TAX RATES**									
ITX	180	STATE TAX RATE									
ITX	181	FEDERAL TAX RATE - CURRENT									
ITX	182	INCREMENTAL TAX RATE									
ITX	183	1-INCREMENTAL TAX RATE									
ITX	184	TAX GROSS-UP FACTOR									
ITX	185	STATE TAX RATE									
ITX	186	WEIGHTED COST OF DEBT									
ITX	187										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
S&W	1	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	2										
S&W	3	**PRODUCTION SALARIES & WAGES EXPENSE**									
S&W	4	Operation	OX_PROD	731,315	409,113	2,494	228,102	7,462	84,145		
S&W	5	Maintenance	MX_PROD	771,992	431,869	2,633	240,789	7,877	88,825		
S&W	6	TOTAL PRODUCTION S&W EXPENSE		1,503,307	840,981	5,127	468,891	15,339	172,970		
S&W	7										
S&W	8	**SYSTEM CONTROL AND DISPATCH S&W EXPENSE**									
S&W	9	556-Supervision & Engineering	OX_PROD	2,552,755	1,428,065	8,705	796,220	26,047	293,718		
S&W	10	557-Other Expenditures	MX_PROD	0	0	0	0	0	0		
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH		2,552,755	1,428,065	8,705	796,220	26,047	293,718		
S&W	12										
S&W	13	**TRANSMISSION SALARIES & WAGES EXPENSE**									
S&W	14	Operation	OX_TRAN	0	0	0	0	0	0		
S&W	15	Maintenance	MX_TRAN	0	0	0	0	0	0		
S&W	16	TOTAL TRANSMISSION EXPENSE		0	0	0	0	0	0		
S&W	17										
S&W	18	**REGIONAL MARKET EXPENSE**									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM	0	0	0	0	0	0		
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM	0	0	0	0	0	0		
S&W	21	TOTAL REGIONAL MARKET EXPENSE		0	0	0	0	0	0		
S&W	22										
S&W	23										
S&W	24										
S&W	25										
S&W	26										
S&W	27										
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S&W	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
S&W	1	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	2										
S&W	3	**PRODUCTION SALARIES & WAGES EXPENSE**									
S&W	4	Operation	OX_PROD	372,526	0	36,587		104,486	0	9,681	92,177
S&W	5	Maintenance	MX_PROD	393,246	0	38,622		110,298	0	10,219	97,304
S&W	6	TOTAL PRODUCTION S&W EXPENSE		765,772	0	75,209		214,785	0	19,900	189,481
S&W	7										
S&W	8	**SYSTEM CONTROL AND DISPATCH S&W EXPENSE**									
S&W	9	556-Supervision & Engineering	OX_PROD	1,300,352	0	127,713		364,724	0	33,792	321,756
S&W	10	557-Other Expenditures	MX_PROD	0	0	0		0	0	0	0
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH		1,300,352	0	127,713		364,724	0	33,792	321,756
S&W	12										
S&W	13	**TRANSMISSION SALARIES & WAGES EXPENSE**									
S&W	14	Operation	OX_TRAN	0	0	0		0	0	0	0
S&W	15	Maintenance	MX_TRAN	0	0	0		0	0	0	0
S&W	16	TOTAL TRANSMISSION EXPENSE		0	0	0		0	0	0	0
S&W	17										
S&W	18	**REGIONAL MARKET EXPENSE**									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM	0	0	0		0	0	0	0
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM	0	0	0		0	0	0	0
S&W	21	TOTAL REGIONAL MARKET EXPENSE		0	0	0		0	0	0	0
S&W	22										
S&W	23										
S&W	24										
S&W	25										
S&W	26										
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S&W	44										
S&W	45										
S&W	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
S&W	1	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	2										
S&W	3	**PRODUCTION SALARIES & WAGES EXPENSE**									
S&W	4	Operation	OX_PROD		99,626	21,758	7,462	70,407	0	13,738	
S&W	5	Maintenance	MX_PROD		105,167	22,968	7,877	74,323	0	14,502	
S&W	6	TOTAL PRODUCTION S&W EXPENSE			204,793	44,725	15,339	144,729	0	28,240	
S&W	7										
S&W	8	**SYSTEM CONTROL AND DISPATCH S&W EXPENSE**									
S&W	9	556-Supervision & Engineering	OX_PROD		347,758	75,948	26,047	245,764	0	47,955	
S&W	10	557-Other Expenditures	MX_PROD		0	0	0	0	0	0	
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH			347,758	75,948	26,047	245,764	0	47,955	
S&W	12										
S&W	13	**TRANSMISSION SALARIES & WAGES EXPENSE**									
S&W	14	Operation	OX_TRAN		0	0	0	0	0	0	
S&W	15	Maintenance	MX_TRAN		0	0	0	0	0	0	
S&W	16	TOTAL TRANSMISSION EXPENSE			0	0	0	0	0	0	
S&W	17										
S&W	18	**REGIONAL MARKET EXPENSE**									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM		0	0	0	0	0	0	
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM		0	0	0	0	0	0	
S&W	21	TOTAL REGIONAL MARKET EXPENSE			0	0	0	0	0	0	
S&W	22										
S&W	23										
S&W	24										
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S&W	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
S&W	1	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	2										
S&W	3	**PRODUCTION SALARIES & WAGES EXPENSE**									
S&W	4	Operation	OX_PROD	405	21	1,569	1,995	499	0		
S&W	5	Maintenance	MX_PROD	427	22	1,657	2,106	527	0		
S&W	6	TOTAL PRODUCTION S&W EXPENSE		832	44	3,226	4,101	1,026	0		
S&W	7										
S&W	8	**SYSTEM CONTROL AND DISPATCH S&W EXPENSE**									
S&W	9	556-Supervision & Engineering	OX_PROD	1,412	74	5,478	6,964	1,742	0		
S&W	10	557-Other Expenditures	MX_PROD	0	0	0	0	0	0		
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH		1,412	74	5,478	6,964	1,742	0		
S&W	12										
S&W	13	**TRANSMISSION SALARIES & WAGES EXPENSE**									
S&W	14	Operation	OX_TRAN	0	0	0	0	0	0		
S&W	15	Maintenance	MX_TRAN	0	0	0	0	0	0		
S&W	16	TOTAL TRANSMISSION EXPENSE		0	0	0	0	0	0		
S&W	17										
S&W	18	**REGIONAL MARKET EXPENSE**									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM	0	0	0	0	0	0		
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM	0	0	0	0	0	0		
S&W	21	TOTAL REGIONAL MARKET EXPENSE		0	0	0	0	0	0		
S&W	22										
S&W	23										
S&W	24										
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S&W	26										
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S&W	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
S&W	47	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	48										
S&W	49										
S&W	50	**DISTRIBUTION SALARIES & WAGES EXPENSE**									
S&W	51	Distribution Operations:									
S&W	52	580-Supervision	SALWAGDO	0	0	0	0	0	0		
S&W	53	581-Load Dispatch	DDISPSUB	0	0	0	0	0	0		
S&W	54	582-Station Equipment	PLT_362	0	0	0	0	0	0		
S&W	55	583-Overhead Lines	OHDIST	0	0	0	0	0	0		
S&W	56	584-Underground Lines	UGDIST	0	0	0	0	0	0		
S&W	57	585-Street Lighting	PLT_371	0	0	0	0	0	0		
S&W	58	586-Metering	CMETERS	0	0	0	0	0	0		
S&W	59	587-Customer Installations	PLT_3713	0	0	0	0	0	0		
S&W	60	588-Miscellaneous	DISTPLT	0	0	0	0	0	0		
S&W	61	589-Rents	DISTPLT	0	0	0	0	0	0		
S&W	62	Total Distribution Operation		0	0	0	0	0	0		
S&W	63										
S&W	64	Distribution Maintenance									
S&W	65	590-Supervision	SALWAGDM	(0)	(0)	0	(0)	(0)	(0)		
S&W	66	591-Structures	PLT_362	0	0	0	0	0	0		
S&W	67	592-Station Equipment	PLT_362	0	0	0	0	0	0		
S&W	68	593-Overhead Lines	OHDIST	0	0	0	0	0	0		
S&W	69	594-Underground Lines	UGDIST	0	0	0	0	0	0		
S&W	70	595-Transformers	PLT_368	0	0	0	0	0	0		
S&W	71	596-Street Lighting	PLT_373	0	0	0	0	0	0		
S&W	72	597-Metering	CMETERS	0	0	0	0	0	0		
S&W	73	598-Miscellaneous	DISTPLT	0	0	0	0	0	0		
S&W	74	Total Distribution Maintenance	MX_DIST	(0)	(0)	0	(0)	(0)	(0)		
S&W	75										
S&W	76	TOTAL DISTRIBUTION		0	0	0	0	0	0		
S&W	77										
S&W	78										
S&W	79										
S&W	80										
S&W	81										
S&W	82										
S&W	83										
S&W	84										
S&W	85										
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S&W	88										
S&W	89										
S&W	90										
S&W	91										
S&W	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
S&W	47	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	48										
S&W	49										
S&W	50	**DISTRIBUTION SALARIES & WAGES EXPENSE**									
S&W	51	Distribution Operations:									
S&W	52	580-Supervision	SALWAGDO	0	0	0		0	0	0	0
S&W	53	581-Load Dispatch	DDISPSUB	0	0	0		0	0	0	0
S&W	54	582-Station Equipment	PLT_362	0	0	0		0	0	0	0
S&W	55	583-Overhead Lines	OHDIST	0	0	0		0	0	0	0
S&W	56	584-Underground Lines	UGDIST	0	0	0		0	0	0	0
S&W	57	585-Street Lighting	PLT_371	0	0	0		0	0	0	0
S&W	58	586-Metering	CMETERS	0	0	0		0	0	0	0
S&W	59	587-Customer Installations	PLT_3713	0	0	0		0	0	0	0
S&W	60	588-Miscellaneous	DISTPLT	0	0	0		0	0	0	0
S&W	61	589-Rents	DISTPLT	0	0	0		0	0	0	0
S&W	62	Total Distribution Operation		0	0	0		0	0	0	0
S&W	63										
S&W	64	Distribution Maintenance									
S&W	65	590-Supervision	SALWAGDM	(0)	0	(0)		(0)	0	(0)	(0)
S&W	66	591-Structures	PLT_362	0	0	0		0	0	0	0
S&W	67	592-Station Equipment	PLT_362	0	0	0		0	0	0	0
S&W	68	593-Overhead Lines	OHDIST	0	0	0		0	0	0	0
S&W	69	594-Underground Lines	UGDIST	0	0	0		0	0	0	0
S&W	70	595-Transformers	PLT_368	0	0	0		0	0	0	0
S&W	71	596-Street Lighting	PLT_373	0	0	0		0	0	0	0
S&W	72	597-Metering	CMETERS	0	0	0		0	0	0	0
S&W	73	598-Miscellaneous	DISTPLT	0	0	0		0	0	0	0
S&W	74	Total Distribution Maintenance	MX_DIST	(0)	0	(0)		(0)	0	(0)	(0)
S&W	75										
S&W	76	TOTAL DISTRIBUTION		0	0	0		0	0	0	0
S&W	77										
S&W	78										
S&W	79										
S&W	80										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
S&W	47	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	48										
S&W	49										
S&W	50	**DISTRIBUTION SALARIES & WAGES EXPENSE**									
S&W	51	Distribution Operations:									
S&W	52	580-Supervision	SALWAGDO		0	0	0	0	0	0	
S&W	53	581-Load Dispatch	DDISPSUB		0	0	0	0	0	0	
S&W	54	582-Station Equipment	PLT_362		0	0	0	0	0	0	
S&W	55	583-Overhead Lines	OHDIST		0	0	0	0	0	0	
S&W	56	584-Underground Lines	UGDIST		0	0	0	0	0	0	
S&W	57	585-Street Lighting	PLT_371		0	0	0	0	0	0	
S&W	58	586-Metering	CMETERS		0	0	0	0	0	0	
S&W	59	587-Customer Installations	PLT_3713		0	0	0	0	0	0	
S&W	60	588-Miscellaneous	DISTPLT		0	0	0	0	0	0	
S&W	61	589-Rents	DISTPLT		0	0	0	0	0	0	
S&W	62	Total Distribution Operation			0	0	0	0	0	0	
S&W	63										
S&W	64	Distribution Maintenance									
S&W	65	590-Supervision	SALWAGDM		(0)	(0)	(0)	(0)	(0)	(0)	
S&W	66	591-Structures	PLT_362		0	0	0	0	0	0	
S&W	67	592-Station Equipment	PLT_362		0	0	0	0	0	0	
S&W	68	593-Overhead Lines	OHDIST		0	0	0	0	0	0	
S&W	69	594-Underground Lines	UGDIST		0	0	0	0	0	0	
S&W	70	595-Transformers	PLT_368		0	0	0	0	0	0	
S&W	71	596-Street Lighting	PLT_373		0	0	0	0	0	0	
S&W	72	597-Metering	CMETERS		0	0	0	0	0	0	
S&W	73	598-Miscellaneous	DISTPLT		0	0	0	0	0	0	
S&W	74	Total Distribution Maintenance	MX_DIST		(0)	(0)	(0)	(0)	(0)	(0)	
S&W	75										
S&W	76	TOTAL DISTRIBUTION			0	0	0	0	0	0	
S&W	77										
S&W	78										
S&W	79										
S&W	80										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
S&W	47	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	48										
S&W	49										
S&W	50	**DISTRIBUTION SALARIES & WAGES EXPENSE**									
S&W	51	Distribution Operations:									
S&W	52	580-Supervision	SALWAGDO	0	0	0	0	0	0		
S&W	53	581-Load Dispatch	DDISPSUB	0	0	0	0	0	0		
S&W	54	582-Station Equipment	PLT_362	0	0	0	0	0	0		
S&W	55	583-Overhead Lines	OHDIST	0	0	0	0	0	0		
S&W	56	584-Underground Lines	UGDIST	0	0	0	0	0	0		
S&W	57	585-Street Lighting	PLT_371	0	0	0	0	0	0		
S&W	58	586-Metering	CMETERS	0	0	0	0	0	0		
S&W	59	587-Customer Installations	PLT_3713	0	0	0	0	0	0		
S&W	60	588-Miscellaneous	DISTPLT	0	0	0	0	0	0		
S&W	61	589-Rents	DISTPLT	0	0	0	0	0	0		
S&W	62	Total Distribution Operation		0	0	0	0	0	0		
S&W	63										
S&W	64	Distribution Maintenance									
S&W	65	590-Supervision	SALWAGDM	0	0	0	0	0	0		
S&W	66	591-Structures	PLT_362	0	0	0	0	0	0		
S&W	67	592-Station Equipment	PLT_362	0	0	0	0	0	0		
S&W	68	593-Overhead Lines	OHDIST	0	0	0	0	0	0		
S&W	69	594-Underground Lines	UGDIST	0	0	0	0	0	0		
S&W	70	595-Transformers	PLT_368	0	0	0	0	0	0		
S&W	71	596-Street Lighting	PLT_373	0	0	0	0	0	0		
S&W	72	597-Metering	CMETERS	0	0	0	0	0	0		
S&W	73	598-Miscellaneous	DISTPLT	0	0	0	0	0	0		
S&W	74	Total Distribution Maintenance	MX_DIST	0	0	0	0	0	0		
S&W	75										
S&W	76	TOTAL DISTRIBUTION		0	0	0	0	0	0		
S&W	77										
S&W	78										
S&W	79										
S&W	80										
S&W	81										
S&W	82										
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S&W	84										
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S&W	88										
S&W	89										
S&W	90										
S&W	91										
S&W	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
S&W	93	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	94										
S&W	95	**Customer Accounting Expense**									
S&W	96	901-Supervision	SALWAGCA	0	0	0	0	0	0		
S&W	97	902-Meter Reading	CMETRDG	0	0	0	0	0	0		
S&W	98	903-Billing & Cashiering	CUSTREC	0	0	0	0	0	0		
S&W	99	905-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE		0	0	0	0	0	0		
S&W	101										
S&W	102	**CUSTOMER SERVICE EXPENSES**									
S&W	103	907-Supervision	SALWAGCS	0	0	0	0	0	0		
S&W	104	908-Customer Assistance	CUSTCSS	0	0	0	0	0	0		
S&W	105	909-Advertisement	CUSTCSS	0	0	0	0	0	0		
S&W	106	910-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE		0	0	0	0	0	0		
S&W	108										
S&W	109	**SALES EXPENSES**									
S&W	110	912-Demonstrations & Selling	OX_902_3	0	0	0	0	0	0		
S&W	111	916-Miscellaneous Sales Expense	OX_902_3	0	0	0	0	0	0		
S&W	112	TOTAL SALES EXPENSES		0	0	0	0	0	0		
S&W	113										
S&W	114	**TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE**		4,056,062	2,269,046	13,832	1,265,110	41,386	466,688		
S&W	115										
S&W	116	**ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP**									
S&W	117	Operation	SALWAGXAG	585,649	327,625	1,997	182,668	5,976	67,384		
S&W	118	Maintenance	SALWAGXAG	0	0	0	0	0	0		
S&W	119	TOTAL ADMINISTRATIVE & GENERAL		585,649	327,625	1,997	182,668	5,976	67,384		
S&W	120										
S&W	121	**TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE**		4,641,712	2,596,671	15,829	1,447,778	47,361	534,073		
S&W	122										
S&W	123										
S&W	124										
S&W	125										
S&W	126										
S&W	127										
S&W	128										
S&W	129										
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S&W	134										
S&W	135										
S&W	136										
S&W	137										
S&W	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
S&W	93	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	94										
S&W	95	**Customer Accounting Expense**									
S&W	96	901-Supervision	SALWAGCA	0	0	0		0	0	0	0
S&W	97	902-Meter Reading	CMETRDG	0	0	0		0	0	0	0
S&W	98	903-Billing & Cashiering	CUSTREC	0	0	0		0	0	0	0
S&W	99	905-Miscellaneous	CUSTCSS	0	0	0		0	0	0	0
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE		0	0	0		0	0	0	0
S&W	101										
S&W	102	**CUSTOMER SERVICE EXPENSES**									
S&W	103	907-Supervision	SALWAGCS	0	0	0		0	0	0	0
S&W	104	908-Customer Assistance	CUSTCSS	0	0	0		0	0	0	0
S&W	105	909-Advertisement	CUSTCSS	0	0	0		0	0	0	0
S&W	106	910-Miscellaneous	CUSTCSS	0	0	0		0	0	0	0
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE		0	0	0		0	0	0	0
S&W	108										
S&W	109	**SALES EXPENSES**									
S&W	110	912-Demonstrations & Selling	OX_902_3	0	0	0		0	0	0	0
S&W	111	916-Miscellaneous Sales Expense	OX_902_3	0	0	0		0	0	0	0
S&W	112	TOTAL SALES EXPENSES		0	0	0		0	0	0	0
S&W	113										
S&W	114	**TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE**		2,066,124	0	202,922		579,509	0	53,691	511,237
S&W	115										
S&W	116	**ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP**									
S&W	117	Operation	SALWAGXAG	298,325	0	29,300		83,675	0	7,752	73,817
S&W	118	Maintenance	SALWAGXAG	0	0	0		0	0	0	0
S&W	119	TOTAL ADMINISTRATIVE & GENERAL		298,325	0	29,300		83,675	0	7,752	73,817
S&W	120										
S&W	121	**TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE**		2,364,449	0	232,222		663,184	0	61,444	585,054
S&W	122										
S&W	123										
S&W	124										
S&W	125										
S&W	126										
S&W	127										
S&W	128										
S&W	129										
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S&W	136										
S&W	137										
S&W	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	S Large Comm & Ind CP-U Total (t)	P Large Commerical & Industrial Secondary CP-U Sec (u)	P Large Commerical & Industrial Primary CP-U Prim (v)	Q Large Commerical & Industrial Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)	(z)
		(a)	(b)								
S&W	93	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	94										
S&W	95	**Customer Accounting Expense**									
S&W	96	901-Supervision	SALWAGCA		0	0	0	0	0	0	
S&W	97	902-Meter Reading	CMETRDG		0	0	0	0	0	0	
S&W	98	903-Billing & Cashiering	CUSTREC		0	0	0	0	0	0	
S&W	99	905-Miscellaneous	CUSTCSS		0	0	0	0	0	0	
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE			0	0	0	0	0	0	
S&W	101										
S&W	102	**CUSTOMER SERVICE EXPENSES**									
S&W	103	907-Supervision	SALWAGCS		0	0	0	0	0	0	
S&W	104	908-Customer Assistance	CUSTCSS		0	0	0	0	0	0	
S&W	105	909-Advertisement	CUSTCSS		0	0	0	0	0	0	
S&W	106	910-Miscellaneous	CUSTCSS		0	0	0	0	0	0	
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE			0	0	0	0	0	0	
S&W	108										
S&W	109	**SALES EXPENSES**									
S&W	110	912-Demonstrations & Selling	OX_902_3		0	0	0	0	0	0	
S&W	111	916-Miscellaneous Sales Expense	OX_902_3		0	0	0	0	0	0	
S&W	112	TOTAL SALES EXPENSES			0	0	0	0	0	0	
S&W	113										
S&W	114	**TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE**			552,551	120,673	41,386	390,493	0	76,195	
S&W	115										
S&W	116	**ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP**									
S&W	117	Operation	SALWAGXAG		79,782	17,424	5,976	56,383	0	11,002	
S&W	118	Maintenance	SALWAGXAG		0	0	0	0	0	0	
S&W	119	TOTAL ADMINISTRATIVE & GENERAL			79,782	17,424	5,976	56,383	0	11,002	
S&W	120										
S&W	121	**TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE**			632,333	138,097	47,361	446,876	0	87,197	
S&W	122										
S&W	123										
S&W	124										
S&W	125										
S&W	126										
S&W	127										
S&W	128										
S&W	129										
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S&W	136										
S&W	137										
S&W	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
S&W	93	**DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR**									
S&W	94										
S&W	95	**Customer Accounting Expense**									
S&W	96	901-Supervision	SALWAGCA	0	0	0	0	0	0		
S&W	97	902-Meter Reading	CMETRDG	0	0	0	0	0	0		
S&W	98	903-Billing & Cashiering	CUSTREC	0	0	0	0	0	0		
S&W	99	905-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE		0	0	0	0	0	0		
S&W	101										
S&W	102	**CUSTOMER SERVICE EXPENSES**									
S&W	103	907-Supervision	SALWAGCS	0	0	0	0	0	0		
S&W	104	908-Customer Assistance	CUSTCSS	0	0	0	0	0	0		
S&W	105	909-Advertisement	CUSTCSS	0	0	0	0	0	0		
S&W	106	910-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE		0	0	0	0	0	0		
S&W	108										
S&W	109	**SALES EXPENSES**									
S&W	110	912-Demonstrations & Selling	OX_902_3	0	0	0	0	0	0		
S&W	111	916-Miscellaneous Sales Expense	OX_902_3	0	0	0	0	0	0		
S&W	112	TOTAL SALES EXPENSES		0	0	0	0	0	0		
S&W	113										
S&W	114	**TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE**		2,244	118	8,703	11,065	2,767	0		
S&W	115										
S&W	116	**ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP**									
S&W	117	Operation	SALWAGXAG	324	17	1,257	1,598	400	0		
S&W	118	Maintenance	SALWAGXAG	0	0	0	0	0	0		
S&W	119	TOTAL ADMINISTRATIVE & GENERAL		324	17	1,257	1,598	400	0		
S&W	120										
S&W	121	**TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE**		2,568	135	9,960	12,662	3,167	0		
S&W	122										
S&W	123										
S&W	124										
S&W	125										
S&W	126										
S&W	127										
S&W	128										
S&W	129										
S&W	130										
S&W	131										
S&W	132										
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S&W	134										
S&W	135										
S&W	136										
S&W	137										
S&W	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION		ALLOCATION BASIS		INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)		(b)		(c)	(d)	(e)	(f)	(g)	(h)		
AF	1	**ALLOCATION FACTOR TABLE**											
AF	2												
AF	3	**ENERGY - PRODUCTION RELATED**											
AF	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3			765,237,842	252,908,738	1,909,346	201,999,407	5,331,038	303,089,312		
AF	5	Energy @ Meter (kWh Sales)	ENERGY2			592,847,764	252,908,738	1,909,346	201,999,407	5,331,038	130,699,234		
AF	6	Energy @ Generation with losses(kWh)	ENERGY1			636,279,458	274,557,726	2,072,786	219,290,556	5,568,270	134,790,120		
AF	7	Energy @ Generation with losses (kWh)	ENEFUEL			636,279,458	274,557,726	2,072,786	219,290,556	5,568,270	134,790,120		
AF	8												
AF	9	Energy - RTMP	ERTMP			1	0	0	0	0	1		
AF	10												
AF	11												
AF	12	**DEMAND**											
AF	13	DEMAND - PRODUCTION RELATED											
AF	14	Demand Production (12CP 75% & Energy 25%)	DPROD			1.0000	0.5594	0.0034	0.3119	0.0102	0.1151		
AF	15												
AF	16												
AF	17	Production Load Dispatching (Average Demand)	DPRODLD			72,635	31,342	237	25,033	636	15,387		
AF	18	Purchased Capacity (1CP Firm Load Only)	DPURCH			86,014	53,077	778	31,227	931	0		
AF	19												
AF	20	DEMAND - TRANSMISSION RELATED											
AF	21	Demand Transmission (12CP no AES or RTMP)	DTRAN			1,119,734	531,598	3,056	370,943	7,843	206,294		
AF	22	Demand Transmission (12CP no AES)	DTRAN3			1,471,812	531,845	3,057	371,116	7,848	557,945		
AF	23	Transmission Load Dispatching (Average Demand)	DTRANLD			72,635	31,342	237	25,033	636	15,387		
AF	24												
AF	25	DEMAND - DISTRIBUTION RELATED											
AF	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB			1,120,918	531,845	3,057	371,116	7,848	207,051		
AF	27												
AF	28	Demand Distribution Primary Lines (NCP)	DDISTPRI			214,836	141,961	691	71,055	1,129	0		
AF	29												
AF	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC			213,707	141,961	691	71,055	0	0		
AF	31												
AF	32	Demand Distribution Line Transformers (NCP)	DDISTSLT			213,707	141,961	691	71,055	0	0		
AF	33	Distribution Load Dispatching	DDISTLD			67,677	28,871	218	23,059	609	14,920		
AF	34												
AF	35	**Minimum System - Demand Allocation Factors**											
AF	36	**Primary**											
AF	37	kW Capability of Minimum		64.00%									
AF	38	NCP * kW Capability Minimum			137,495								
AF	39	Dist Pri Min kW Allocated on Number of Primary Customers				137,495	117,643	4,448	15,386	18	0		
AF	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS			77,415	24,318	(3,682)	55,669	1,110	0		
AF	41	**Secondary**											
AF	42	Demand Distribution Secondary Lines (NCP)				213,707	141,961	691	71,055	0	0		
AF	43	Demand Adjustment											
AF	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS			71,709	35,490	691	35,527	0	0		
AF	45												
AF	46												

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION		ALLOCATION BASIS		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)		(b)		(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	1	**ALLOCATION FACTOR TABLE**											
AF	2												
AF	3	**ENERGY - PRODUCTION RELATED**											
AF	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3			230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
AF	5	Energy @ Meter (kWh Sales)	ENERGY2			230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
AF	6	Energy @ Generation with losses(kWh)	ENERGY1			250,048,255	0	24,509,471		70,455,285	0	7,324,768	72,465,198
AF	7	Energy @ Generation with losses (kWh)	ENEFUEL			250,048,255	0	24,509,471		70,455,285	0	7,324,768	72,465,198
AF	8												
AF	9	Energy - RTMP	ERTMP			0	0	0		0	0	0	0
AF	10												
AF	11												
AF	12	**DEMAND**											
AF	13	DEMAND - PRODUCTION RELATED											
AF	14	Demand Production (12CP 75% & Energy 25%)	DPROD			0.5094	0.0000	0.0500		0.1429	0.0000	0.0132	0.1260
AF	15												
AF	16												
AF	17	Production Load Dispatching (Average Demand)	DPRODLD			28,544	0	2,798		8,043	0	836	8,272
AF	18	Purchased Capacity (1CP Firm Load Only)	DPURCH			47,121	0	5,956		8,959	0	1,473	10,536
AF	19												
AF	20	DEMAND - TRANSMISSION RELATED											
AF	21	Demand Transmission (12CP no AES or RTMP)	DTRAN			484,036	0	47,562		135,614	0	12,196	114,868
AF	22	Demand Transmission (12CP no AES)	DTRAN3			484,262	0	47,584		135,678	0	12,202	114,922
AF	23	Transmission Load Dispatching (Average Demand)	DTRANLD			28,544	0	2,798		8,043	0	836	8,272
AF	24												
AF	25	DEMAND - DISTRIBUTION RELATED											
AF	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB			484,262	0	47,584		135,678	0	12,202	114,922
AF	27												
AF	28	Demand Distribution Primary Lines (NCP)	DDISTPRI			126,030	0	15,932		42,974	0	3,963	12,049
AF	29												
AF	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC			126,030	0	15,932		42,974	0	3,963	12,049
AF	31												
AF	32	Demand Distribution Line Transformers (NCP)	DDISTSLT			126,030	0	15,932		42,974	0	3,963	12,049
AF	33	Distribution Load Dispatching	DDISTLD			26,294	0	2,577		7,409	0	770	7,620
AF	34												
AF	35	**Minimum System - Demand Allocation Factors**											
AF	36	**Primary**											
AF	37	kW Capability of Minimum		64.00%									
AF	38	NCP * kW Capability Minimum			137,495								
AF	39	Dist Pri Min kW Allocated on Number of Primary Customers				109,571	0	8,072		13,503	0	572	1,214
AF	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS			16,459	0	7,859		29,471	0	3,391	10,835
AF	41	**Secondary**											
AF	42	Demand Distribution Secondary Lines (NCP)				126,030	0	15,932		42,974	0	3,963	12,049
AF	43	Demand Adjustment				0.2500	0.2500	0.2500		0.5000	0.5000	0.5000	0.5000
AF	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS			31,507	0	3,983		21,487	0	1,982	6,025
AF	45												
AF	46												

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		(s)	S Large Comm & Ind CP-U Total (t)	P Large Commerical & Industrial Secondary CP-U Sec (u)	P Primary CP-U Prim (v)	Q Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)	(z)
		(a)	(b)									
AF	1	**ALLOCATION FACTOR TABLE**										
AF	2											
AF	3	**ENERGY - PRODUCTION RELATED**										
AF	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3			153,271,071	63,601,055	5,331,038	84,338,977	172,390,078	46,360,257	
AF	5	Energy @ Meter (kWh Sales)	ENERGY2			153,271,071	63,601,055	5,331,038	84,338,977	0	46,360,257	
AF	6	Energy @ Generation with losses(kWh)	ENERGY1			161,592,362	69,045,305	5,568,270	86,978,787	0	47,811,333	
AF	7	Energy @ Generation with losses (kWh)	ENEFUEL			161,592,362	69,045,305	5,568,270	86,978,787	0	47,811,333	
AF	8											
AF	9	Energy - RTMP	ERTMP			0	0	0	0	1	0	
AF	10											
AF	11											
AF	12	**DEMAND**										
AF	13	DEMAND - PRODUCTION RELATED										
AF	14	Demand Production (12CP 75% & Energy 25%)	DPROD			0.1362	0.0298	0.0102	0.0963	0.0000	0.0188	
AF	15											
AF	16											
AF	17	Production Load Dispatching (Average Demand)	DPRODLD			18,447	7,882	636	9,929	0	5,458	
AF	18	Purchased Capacity (1CP Firm Load Only)	DPURCH			11,191	10,260	931	0	0	0	
AF	19											
AF	20	DEMAND - TRANSMISSION RELATED										
AF	21	Demand Transmission (12CP no AES or RTMP)	DTRAN			252,349	108,265	7,843	136,241	0	70,053	
AF	22	Demand Transmission (12CP no AES)	DTRAN3			252,904	108,315	7,848	136,741	350,894	70,310	
AF	23	Transmission Load Dispatching (Average Demand)	DTRANLD			18,447	7,882	636	9,929	0	5,458	
AF	24											
AF	25	DEMAND - DISTRIBUTION RELATED										
AF	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB			252,904	108,315	7,848	136,741	0	70,310	
AF	27											
AF	28	Demand Distribution Primary Lines (NCP)	DDISTPRI			13,197	12,068	1,129	0	0	0	
AF	29											
AF	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC			13,197	12,068	0	0	0	0	
AF	31											
AF	32	Demand Distribution Line Transformers (NCP)	DDISTSLT			12,068	12,068	0	0	0	0	
AF	33	Distribution Load Dispatching	DDISTLD			17,497	7,260	609	9,628	0	5,292	
AF	34											
AF	35	**Minimum System - Demand Allocation Factors**										
AF	36	**Primary**										
AF	37	kW Capability of Minimum		64.00%								
AF	38	NCP * kW Capability Minimum			137,495							
AF	39	Dist Pri Min kW Allocated on Number of Primary Customers				115	96	18	0	0	0	
AF	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS			13,082	11,971	1,110	0	0	0	
AF	41	**Secondary**										
AF	42	Demand Distribution Secondary Lines (NCP)				12,068	12,068	0	0	0	0	
AF	43	Demand Adjustment					0.5000					
AF	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS			6,034	6,034	0	0	0	0	
AF	45											
AF	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)		(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AF	1	**ALLOCATION FACTOR TABLE**										
AF	2											
AF	3	**ENERGY - PRODUCTION RELATED**										
AF	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		310,032	16,272	1,202,681	1,528,985	380,361	0		
AF	5	Energy @ Meter (kWh Sales)	ENERGY2		310,032	16,272	1,202,681	1,528,985	380,361	0		
AF	6	Energy @ Generation with losses(kWh)	ENERGY1		336,571	17,665	1,305,630	1,659,866	412,920	0		
AF	7	Energy @ Generation with losses (kWh)	ENEFUEL		336,571	17,665	1,305,630	1,659,866	412,920	0		
AF	8											
AF	9	Energy - RTMP	ERTMP		0	0	0	0	0	0		
AF	10											
AF	11											
AF	12	**DEMAND**										
AF	13	DEMAND - PRODUCTION RELATED										
AF	14	Demand Production (12CP 75% & Energy 25%)	DPROD		0.0006	0.0000	0.0021	0.0027	0.0007	0.0000		
AF	15											
AF	16											
AF	17	Production Load Dispatching (Average Demand)	DPRODLD		38	2	149	189	47	0		
AF	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		121	5	404	530	247	0		
AF	19											
AF	20	DEMAND - TRANSMISSION RELATED										
AF	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		496	26	1,922	2,444	612	0		
AF	22	Demand Transmission (12CP no AES)	DTRAN3		496	26	1,923	2,445	613	0		
AF	23	Transmission Load Dispatching (Average Demand)	DTRANLD		38	2	149	189	47	0		
AF	24											
AF	25	DEMAND - DISTRIBUTION RELATED										
AF	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		496	26	1,923	2,445	613	0		
AF	27											
AF	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		121	5	404	530	161	0		
AF	29											
AF	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		121	5	404	530	161	0		
AF	31											
AF	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		121	5	404	530	161	0		
AF	33	Distribution Load Dispatching	DDISTLD		35	2	137	175	43	0		
AF	34											
AF	35	**Minimum System - Demand Allocation Factors**										
AF	36	**Primary**										
AF	37	kW Capability of Minimum		64.00%								
AF	38	NCP * kW Capability Minimum		137,495								
AF	39	Dist Pri Min kW Allocated on Number of Primary Customers			195	28	515	738	3,710	0		
AF	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0	(22)	(111)	(134)	(3,549)	0		
AF	41	**Secondary**										
AF	42	Demand Distribution Secondary Lines (NCP)			121	5	404	530	161	0		
AF	43	Demand Adjustment			1.0000	1.0000	1.0000		1.0000	1.0000		
AF	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		121	5	404	530	161	0		
AF	45											
AF	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	47	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	48										
AF	49	**CUSTOMER**									
AF	50										
AF	51	**Minimum System - Customer Allocation Factors**									
AF	52	**Primary**									
AF	53	Number of Primary Customers - MS	CDISTPRI	52,742	45,127	1,706	5,902	7	0		
AF	54	**Secondary**									
AF	55	Number of Secondary Customers		52,452	45,127	1,423	5,902	-	0		
AF	56	Residential Customer Adjustment									
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	29,889	22,563	1,423	5,902	0	0		
AF	58	**Line Transformers**									
AF	59	Number of Line Transformer Customers		52,456	45,127	1,423	5,902	-	4		
AF	60	Line Transformer Adjustment									
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	28,093	22,563	1,423	4,102	0	4		
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE	41,928,122	36,043,861	219,330	5,664,931	0	0		
AF	65	370-Meters (New Meter Cost)	CMETERS	8,086,138	6,223,388	7,144	1,713,025	39,925	102,657		
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM	1,860	0	1,860	0	0	0		
AF	68	373-Street Lighting & Signal Systems	CLIGHT	1,528,985	0	1,528,985	0	0	0		
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP	52,752	45,127	1,706	5,902	7	10		
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG	51,121	45,127	75	5,902	7	10		
AF	73	903-Customer Records & Collections (Bills)	CUSTREC	613,326	541,523	896	70,823	84	0		
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter		0.5000	0.2133	0.0016	0.1704	0.0045	0.1102		
AF	77	50% Number of Customers		0.5000	0.4277	0.0162	0.0559	0.0001	0.0001		
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS	1.0000	0.6410	0.0178	0.2263	0.0046	0.1103		
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS	613,326	541,523	896	70,823	84	0		
AF	83	Number of Customers (Average Annual)	CUST	52,752	45,127	1,706	5,902	7	10		
AF	84	Number of Services (Customers)	CSERV	51,312	45,127	283	5,902	0	0		
AF	85	Number of Lamps	CLAMP	8,731	0	8,731	0	0	0		
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	47	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	48										
AF	49	**CUSTOMER**									
AF	50										
AF	51	**Minimum System - Customer Allocation Factors**									
AF	52	**Primary**									
AF	53	Number of Primary Customers - MS	CDISTPRI	42,031	0	3,096		5,180	0	220	466
AF	54	**Secondary**									
AF	55	Number of Secondary Customers		42,031	0	3,096		5,180	0	220	466
AF	56	Residential Customer Adjustment		0.5000	0.5000	0.5000		1.00	1.00	1.00	1.00
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	21,015	0	1,548		5,180	0	220	466
AF	58	**Line Transformers**									
AF	59	Number of Line Transformer Customers		42,031	0	3,096		5,180	0	220	466
AF	60	Line Transformer Adjustment		2.00	2.00	2.00		1.50	1.50	1.50	1.00
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	21,015	0	1,548		3,453	0	146	466
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE	33,371,950	0	2,671,911		4,743,296	0	199,849	674,143
AF	65	370-Meters (New Meter Cost)	CMETERS	5,842,532	0	380,856		1,137,335	0	70,126	440,124
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM	0	0	0		0	0	0	0
AF	68	373-Street Lighting & Signal Systems	CLIGHT	0	0	0		0	0	0	0
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP	42,031	0	3,096		5,180	0	220	466
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG	42,031	0	3,096		5,180	0	220	466
AF	73	903-Customer Records & Collections (Bills)	CUSTREC	504,366	0	37,157		62,155	0	2,635	5,589
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter		0.1943	0.0000	0.0190		0.0547	0.0000	0.0057	0.0563
AF	77	50% Number of Customers		0.3984	0.0000	0.0293		0.0491	0.0000	0.0021	0.0044
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.5926	0.0000	0.0484		0.1038	0.0000	0.0078	0.0607
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS	504,366	0	37,157		62,155	0	2,635	5,589
AF	83	Number of Customers (Average Annual)	CUST	42,031	0	3,096		5,180	0	220	466
AF	84	Number of Services (Customers)	CSERV	42,031	0	3,096		5,180	0	220	466
AF	85	Number of Lamps	CLAMP	0	0	0		0	0	0	0
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AF	47	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	48										
AF	49	**CUSTOMER**									
AF	50										
AF	51	**Minimum System - Customer Allocation Factors**									
AF	52	**Primary**									
AF	53	Number of Primary Customers - MS	CDISTPRI		44	37	7	0	0	0	
AF	54	**Secondary**									
AF	55	Number of Secondary Customers			37	37	0	0	0	0	
AF	56	Residential Customer Adjustment				1.00	1.00	1.00	1.00	1.00	
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC		37	37	0	0	0	0	
AF	58	**Line Transformers**									
AF	59	Number of Line Transformer Customers			37	37	0	0	1	3	
AF	60	Line Transformer Adjustment				1.00	1.00	1.00	1.00	1.00	
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT		37	37	0	0	1	3	
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE		47,643	47,643	0	0	0	0	
AF	65	370-Meters (New Meter Cost)	CMETERS		154,794	65,439	39,925	49,430	14,500	38,727	
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM		0	0	0	0	0	0	
AF	68	373-Street Lighting & Signal Systems	CLIGHT		0	0	0	0	0	0	
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP		50	37	7	6	1	3	
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG		50	37	7	6	1	3	
AF	73	903-Customer Records & Collections (Bills)	CUSTREC		528	444	84	0	0	0	
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter			0.1293	0.0536	0.0045	0.0711	0.0000	0.0391	
AF	77	50% Number of Customers			0.0005	0.0004	0.0001	0.0001	0.0000	0.0000	
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS		0.1297	0.0540	0.0046	0.0712	0.0000	0.0391	
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS		528	444	84	0	0	0	
AF	83	Number of Customers (Average Annual)	CUST		50	37	7	6	1	3	
AF	84	Number of Services (Customers)	CSERV		37	37	0	0	0	0	
AF	85	Number of Lamps	CLAMP		0	0	0	0	0	0	
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AF	47	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	48										
AF	49	**CUSTOMER**									
AF	50										
AF	51	**Minimum System - Customer Allocation Factors**									
AF	52	**Primary**									
AF	53	Number of Primary Customers - MS	CDISTPRI	75	11	198	283	1,423	0		
AF	54	**Secondary**									
AF	55	Number of Secondary Customers		0	0	0	0	1,423	0		
AF	56	Residential Customer Adjustment		1.00	1.00	1.00		1.00	1.00		
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	0	0	0	0	1,423	0		
AF	58	**Line Transformers**									
AF	59	Number of Line Transformer Customers		0	0	0	0	1,423	0		
AF	60	Line Transformer Adjustment		1.00	1.00	1.00		1.00	1.00		
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	0	0	0	0	1,423	0		
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE	57,868	8,267	153,195	219,330	0	0		
AF	65	370-Meters (New Meter Cost)	CMETERS	7,144	0	0	7,144	0	0		
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM	0	0	0	0	1,630	230		
AF	68	373-Street Lighting & Signal Systems	CLIGHT	310,032	16,272	1,202,681	1,528,985	0	0		
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP	75	11	198	283	1,423	0		
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG	75	0	0	75	0	0		
AF	73	903-Customer Records & Collections (Bills)	CUSTREC	896	0	0	896	0	0		
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter		0.0003	0.0000	0.0010	0.0013	0.0003	0.0000		
AF	77	50% Number of Customers		0.0007	0.0001	0.0019	0.0027	0.0135	0.0000		
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.0010	0.0001	0.0029	0.0040	0.0138	0.0000		
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS	896	0	0	896	0	0		
AF	83	Number of Customers (Average Annual)	CUST	75	11	198	283	1,423	0		
AF	84	Number of Services (Customers)	CSERV	75	11	198	283	0	0		
AF	85	Number of Lamps	CLAMP	0	123	6,748	6,871	1,630	230		
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	93	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	95										
AF	96	**Plant**									
AF	97	Intangible Plant In Service	INTPLT	39,142,212	6,566,023	40,026	3,660,896	119,759	1,350,472		
AF	98	Production Plant In Service	PRODPLT	96,092,193	53,755,988	327,697	29,971,734	980,465	11,056,309		
AF	99	Transmission Plant in Service	TRANPLT	0	0	0	0	0	0		
AF	100	Distribution Plant in Service	DISTPLT	224,364,833	0	0	0	0	0		
AF	101	General Plant in Service	GENLPLT	53,169,380	4,641,953	28,297	2,588,128	84,665	954,738		
AF	102	Intangible and General Plant in Service	INTGENLPLT	92,311,592	11,207,976	68,324	6,249,024	204,424	2,305,210		
AF	103	Total Transmission and Distribution Plant	TDPLT	224,364,833	0	0	0	0	0		
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT	320,457,026	53,755,988	327,697	29,971,734	980,465	11,056,309		
AF	105	Total Electric Plant In Service	TOTPLT	423,579,490	66,777,465	407,076	37,231,879	1,217,965	13,734,513		
AF	106	Net Electric Plant In Service	NETPLT	234,730,315	32,552,028	198,437	18,149,433	593,722	6,695,166		
AF	107	Rate Base	RATEBASE	348,730,362	45,848,484	282,875	26,124,081	840,990	10,093,754		
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	**Distribution Plant in Service**									
AF	116	Acct 360-Land and Land Rights	PLT_360	735,881	0	0	0	0	0		
AF	117	Acct 361-Structures & Improvements	PLT_361	1,540,549	0	0	0	0	0		
AF	118	Acct 362-Station Equipment	PLT_362	35,811,349	0	0	0	0	0		
AF	119	Acct 364-Towers and Fixtures	PLT_364	43,498,385	0	0	0	0	0		
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365	22,387,317	0	0	0	0	0		
AF	121	Acct 366-Underground Conduit	PLT_366	0	0	0	0	0	0		
AF	122	Acct 367 - Underground Conductor	PLT_367	40,704,285	0	0	0	0	0		
AF	123	Acct 368-Line Transformers	PLT_368	36,039,726	0	0	0	0	0		
AF	124	Acct 369-Services	PLT_369	20,309,909	0	0	0	0	0		
AF	125	Acct 370-Meters	PLT_370	18,715,358	0	0	0	0	0		
AF	126	Acct 371-Inst. on Customer Premises	PLT_371	647,117	0	0	0	0	0		
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373	3,974,958	0	0	0	0	0		
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	65,885,702	0	0	0	0	0		
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	40,704,285	0	0	0	0	0		
AF	130	Accounts 371&373	PLT_3713	4,622,075	0	0	0	0	0		
AF	131										
AF	132	Accts 360-362-Distibution Substation	PLT_SUB	38,087,779	0	0	0	0	0		
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	90,675,660	0	0	0	0	0		
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0	0	0	0	0	0		
AF	135										
AF	136										
AF	137										
AF	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	93	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	95										
AF	96	**Plant**									
AF	97	Intangible Plant In Service	INTPLT	5,978,820	0	587,203		1,676,947	0	155,368	1,479,386
AF	98	Production Plant In Service	PRODPLT	48,948,560	0	4,807,428		13,729,153	0	1,272,000	12,111,722
AF	99	Transmission Plant in Service	TRANPLT	0	0	0		0	0	0	0
AF	100	Distribution Plant in Service	DISTPLT	0	0	0		0	0	0	0
AF	101	General Plant in Service	GENLPLT	4,226,821	0	415,132		1,185,544	0	109,840	1,045,875
AF	102	Intangible and General Plant in Service	INTGENLPLT	10,205,641	0	1,002,336		2,862,491	0	265,209	2,525,261
AF	103	Total Transmission and Distribution Plant	TDPLT	0	0	0		0	0	0	0
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT	48,948,560	0	4,807,428		13,729,153	0	1,272,000	12,111,722
AF	105	Total Electric Plant In Service	TOTPLT	60,805,520	0	5,971,946		17,054,808	0	1,580,121	15,045,581
AF	106	Net Electric Plant In Service	NETPLT	29,640,882	0	2,911,146		8,313,712	0	770,262	7,334,273
AF	107	Rate Base	RATEBASE	41,748,605	0	4,099,879		11,712,425	0	1,091,907	10,419,972
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	**Distribution Plant in Service**									
AF	116	Acct 360-Land and Land Rights	PLT_360	0	0	0		0	0	0	0
AF	117	Acct 361-Structures & Improvements	PLT_361	0	0	0		0	0	0	0
AF	118	Acct 362-Station Equipment	PLT_362	0	0	0		0	0	0	0
AF	119	Acct 364-Towers and Fixtures	PLT_364	0	0	0		0	0	0	0
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365	0	0	0		0	0	0	0
AF	121	Acct 366-Underground Conduit	PLT_366	0	0	0		0	0	0	0
AF	122	Acct 367 - Underground Conductor	PLT_367	0	0	0		0	0	0	0
AF	123	Acct 368-Line Transformers	PLT_368	0	0	0		0	0	0	0
AF	124	Acct 369-Services	PLT_369	0	0	0		0	0	0	0
AF	125	Acct 370-Meters	PLT_370	0	0	0		0	0	0	0
AF	126	Acct 371-Inst. on Customer Premises	PLT_371	0	0	0		0	0	0	0
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0	0	0		0	0	0	0
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	0	0	0		0	0	0	0
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	0	0	0		0	0	0	0
AF	130	Accounts 371&373	PLT_3713	0	0	0		0	0	0	0
AF	131										
AF	132	Accts 360-362-Distibution Substation	PLT_SUB	0	0	0		0	0	0	0
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	0	0	0		0	0	0	0
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0	0	0		0	0	0	0
AF	135										
AF	136										
AF	137										
AF	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AF	93	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	95										
AF	96	**Plant**									
AF	97	Intangible Plant In Service	INTPLT		1,598,938	349,195	119,759	1,129,984	0	220,489	
AF	98	Production Plant In Service	PRODPLT		13,090,492	2,858,859	980,465	9,251,169	0	1,805,141	
AF	99	Transmission Plant in Service	TRANPLT		0	0	0	0	0	0	
AF	100	Distribution Plant in Service	DISTPLT		0	0	0	0	0	0	
AF	101	General Plant in Service	GENLPLT		1,130,394	246,869	84,665	798,860	0	155,878	
AF	102	Intangible and General Plant in Service	INTGENLPLT		2,729,332	596,064	204,424	1,928,843	0	376,367	
AF	103	Total Transmission and Distribution Plant	TDPLT		0	0	0	0	0	0	
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT		13,090,492	2,858,859	980,465	9,251,169	0	1,805,141	
AF	105	Total Electric Plant In Service	TOTPLT		16,261,442	3,551,369	1,217,965	11,492,107	0	2,242,405	
AF	106	Net Electric Plant In Service	NETPLT		7,926,969	1,731,187	593,722	5,602,061	0	1,093,106	
AF	107	Rate Base	RATEBASE		11,967,820	2,899,776	840,990	8,227,054	0	1,866,700	
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	**Distribution Plant in Service**									
AF	116	Acct 360-Land and Land Rights	PLT_360		0	0	0	0	0	0	
AF	117	Acct 361-Structures & Improvements	PLT_361		0	0	0	0	0	0	
AF	118	Acct 362-Station Equipment	PLT_362		0	0	0	0	0	0	
AF	119	Acct 364-Towers and Fixtures	PLT_364		0	0	0	0	0	0	
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365		0	0	0	0	0	0	
AF	121	Acct 366-Underground Conduit	PLT_366		0	0	0	0	0	0	
AF	122	Acct 367 - Underground Conductor	PLT_367		0	0	0	0	0	0	
AF	123	Acct 368-Line Transformers	PLT_368		0	0	0	0	0	0	
AF	124	Acct 369-Services	PLT_369		0	0	0	0	0	0	
AF	125	Acct 370-Meters	PLT_370		0	0	0	0	0	0	
AF	126	Acct 371-Inst. on Customer Premises	PLT_371		0	0	0	0	0	0	
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373		0	0	0	0	0	0	
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST		0	0	0	0	0	0	
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST		0	0	0	0	0	0	
AF	130	Accounts 371&373	PLT_3713		0	0	0	0	0	0	
AF	131										
AF	132	Accts 360-362-Distibution Substation	PLT_SUB		0	0	0	0	0	0	
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI		0	0	0	0	0	0	
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC		0	0	0	0	0	0	
AF	135										
AF	136										
AF	137										
AF	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AF	93	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	95										
AF	96	**Plant**									
AF	97	Intangible Plant In Service	INTPLT	6,492	341	25,185	32,018	8,008	0		
AF	98	Production Plant In Service	PRODPLT	53,153	2,790	206,190	262,132	65,564	0		
AF	99	Transmission Plant in Service	TRANPLT	0	0	0	0	0	0		
AF	100	Distribution Plant in Service	DISTPLT	0	0	0	0	0	0		
AF	101	General Plant in Service	GENLPLT	4,590	241	17,805	22,636	5,662	0		
AF	102	Intangible and General Plant in Service	INTGENLPLT	11,082	582	42,990	54,654	13,670	0		
AF	103	Total Transmission and Distribution Plant	TDPLT	0	0	0	0	0	0		
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT	53,153	2,790	206,190	262,132	65,564	0		
AF	105	Total Electric Plant In Service	TOTPLT	66,028	3,465	256,136	325,629	81,446	0		
AF	106	Net Electric Plant In Service	NETPLT	32,187	1,689	124,859	158,735	39,703	0		
AF	107	Rate Base	RATEBASE	45,886	2,408	178,000	226,294	56,581	0		
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	**Distribution Plant in Service**									
AF	116	Acct 360-Land and Land Rights	PLT_360	0	0	0	0	0	0		
AF	117	Acct 361-Structures & Improvements	PLT_361	0	0	0	0	0	0		
AF	118	Acct 362-Station Equipment	PLT_362	0	0	0	0	0	0		
AF	119	Acct 364-Towers and Fixtures	PLT_364	0	0	0	0	0	0		
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365	0	0	0	0	0	0		
AF	121	Acct 366-Underground Conduit	PLT_366	0	0	0	0	0	0		
AF	122	Acct 367 - Underground Conductor	PLT_367	0	0	0	0	0	0		
AF	123	Acct 368-Line Transformers	PLT_368	0	0	0	0	0	0		
AF	124	Acct 369-Services	PLT_369	0	0	0	0	0	0		
AF	125	Acct 370-Meters	PLT_370	0	0	0	0	0	0		
AF	126	Acct 371-Inst. on Customer Premises	PLT_371	0	0	0	0	0	0		
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0	0	0	0	0	0		
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	0	0	0	0	0	0		
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	0	0	0	0	0	0		
AF	130	Accounts 371&373	PLT_3713	0	0	0	0	0	0		
AF	131										
AF	132	Accts 360-362-Distibution Substation	PLT_SUB	0	0	0	0	0	0		
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	0	0	0	0	0	0		
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0	0	0	0	0	0		
AF	135										
AF	136										
AF	137										
AF	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	139	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	141										
AF	142	**Production Expense**									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	416,021	232,731	1,419	129,759	4,245	47,867		
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	958,532	536,223	3,269	298,972	9,780	110,288		
AF	145	Salaries and Wages Production Operation	SALWAGPO	731,315	409,113	2,494	228,102	7,462	84,145		
AF	146	Salaries and Wages Production Maintenance	SALWAGPM	771,992	431,869	2,633	240,789	7,877	88,825		
AF	147										
AF	148	**Transmission Expense**									
AF	149	O&M Accounts 561-567	OX_TRAN	(113,995)	0	0	0	0	0		
AF	150	O&M Accounts 569-573	MX_TRAN	0	0	0	0	0	0		
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO	0	0	0	0	0	0		
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM	0	0	0	0	0	0		
AF	153										
AF	154	**Regional Market Expens**									
AF	155	O&M Accounts 575	OX_RM	102,770	0	0	0	0	0		
AF	156										
AF	157	**Distribution Expense**									
AF	158	Acct 580-Supervision	OX_580	2,041,489	0	0	0	0	0		
AF	159	Acct 581-Load Dispatch	OX_581	0	0	0	0	0	0		
AF	160	Acct 582-Station Equipment	OX_582	1,253,535	0	0	0	0	0		
AF	161	Acct 583-Overhead Lines	OX_583	28,781	0	0	0	0	0		
AF	162	Acct 584-Underground Lines	OX_584	2,551	0	0	0	0	0		
AF	163	Acct 585-Street Lighting	OX_585	26,672	0	0	0	0	0		
AF	164	Acct 586-Metering	OX_586	782,075	0	0	0	0	0		
AF	165	Acct 587-Customer Installations	OX_587	0	0	0	0	0	0		
AF	166	Acct 588-Miscellaneous	OX_588	1,663,561	0	0	0	0	0		
AF	167	Acct 589-Rents	OX_589	146,893	0	0	0	0	0		
AF	168	Acct 590-Supervision	MX_590	220,857	(0)	0	(0)	(0)	(0)		
AF	169	Acct 592-Station Equipment	MX_592	983,130	0	0	0	0	0		
AF	170	Acct 593-Overhead Lines	MX_593	7,035,816	0	0	0	0	0		
AF	171	Acct 594-Underground Lines	MX_594	713,426	0	0	0	0	0		
AF	172	Acct 595-Transformers	MX_595	190,533	0	0	0	0	0		
AF	173	Acct 596-Street Lighting	MX_596	3,165	0	0	0	0	0		
AF	174	Acct 597-Metering	MX_597	(26,186)	0	0	0	0	0		
AF	175	Acct 598-Miscellaneous	MX_598	72,450	0	0	0	0	0		
AF	176	O&M Accounts 581-589	OX_DIST	3,904,069	0	0	0	0	0		
AF	177	O&M Accounts 591-598	MX_DIST	8,972,335	0	0	0	0	0		
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO	5,945,558	0	0	0	0	0		
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM	9,193,191	(0)	0	(0)	(0)	(0)		
AF	180										
AF	181										
AF	182										
AF	183										
AF	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	139	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	141										
AF	142	**Production Expense**									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	211,917	0	20,813		59,439	0	5,507	52,436
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	488,268	0	47,955		136,950	0	12,688	120,816
AF	145	Salaries and Wages Production Operation	SALWAGPO	372,526	0	36,587		104,486	0	9,681	92,177
AF	146	Salaries and Wages Production Maintenance	SALWAGPM	393,246	0	38,622		110,298	0	10,219	97,304
AF	147										
AF	148	**Transmission Expense**									
AF	149	O&M Accounts 561-567	OX_TRAN	0	0	0		0	0	0	0
AF	150	O&M Accounts 569-573	MX_TRAN	0	0	0		0	0	0	0
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO	0	0	0		0	0	0	0
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM	0	0	0		0	0	0	0
AF	153										
AF	154	**Regional Market Expens**									
AF	155	O&M Accounts 575	OX_RM	0	0	0		0	0	0	0
AF	156										
AF	157	**Distribution Expense**									
AF	158	Acct 580-Supervision	OX_580	0	0	0		0	0	0	0
AF	159	Acct 581-Load Dispatch	OX_581	0	0	0		0	0	0	0
AF	160	Acct 582-Station Equipment	OX_582	0	0	0		0	0	0	0
AF	161	Acct 583-Overhead Lines	OX_583	0	0	0		0	0	0	0
AF	162	Acct 584-Underground Lines	OX_584	0	0	0		0	0	0	0
AF	163	Acct 585-Street Lighting	OX_585	0	0	0		0	0	0	0
AF	164	Acct 586-Metering	OX_586	0	0	0		0	0	0	0
AF	165	Acct 587-Customer Installations	OX_587	0	0	0		0	0	0	0
AF	166	Acct 588-Miscellaneous	OX_588	0	0	0		0	0	0	0
AF	167	Acct 589-Rents	OX_589	0	0	0		0	0	0	0
AF	168	Acct 590-Supervision	MX_590	(0)	0	(0)		(0)	0	(0)	(0)
AF	169	Acct 592-Station Equipment	MX_592	0	0	0		0	0	0	0
AF	170	Acct 593-Overhead Lines	MX_593	0	0	0		0	0	0	0
AF	171	Acct 594-Underground Lines	MX_594	0	0	0		0	0	0	0
AF	172	Acct 595-Transformers	MX_595	0	0	0		0	0	0	0
AF	173	Acct 596-Street Lighting	MX_596	0	0	0		0	0	0	0
AF	174	Acct 597-Metering	MX_597	0	0	0		0	0	0	0
AF	175	Acct 598-Miscellaneous	MX_598	0	0	0		0	0	0	0
AF	176	O&M Accounts 581-589	OX_DIST	0	0	0		0	0	0	0
AF	177	O&M Accounts 591-598	MX_DIST	0	0	0		0	0	0	0
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO	0	0	0		0	0	0	0
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM	(0)	0	(0)		(0)	0	(0)	(0)
AF	180										
AF	181										
AF	182										
AF	183										
AF	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AF	139	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	141										
AF	142	**Production Expense**									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD		56,674	12,377	4,245	40,052	0	7,815	
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD		130,579	28,517	9,780	92,282	0	18,007	
AF	145	Salaries and Wages Production Operation	SALWAGPO		99,626	21,758	7,462	70,407	0	13,738	
AF	146	Salaries and Wages Production Maintenance	SALWAGPM		105,167	22,968	7,877	74,323	0	14,502	
AF	147										
AF	148	**Transmission Expense**									
AF	149	O&M Accounts 561-567	OX_TRAN		0	0	0	0	0	0	
AF	150	O&M Accounts 569-573	MX_TRAN		0	0	0	0	0	0	
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO		0	0	0	0	0	0	
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM		0	0	0	0	0	0	
AF	153										
AF	154	**Regional Market Expens**									
AF	155	O&M Accounts 575	OX_RM		0	0	0	0	0	0	
AF	156										
AF	157	**Distribution Expense**									
AF	158	Acct 580-Supervision	OX_580		0	0	0	0	0	0	
AF	159	Acct 581-Load Dispatch	OX_581		0	0	0	0	0	0	
AF	160	Acct 582-Station Equipment	OX_582		0	0	0	0	0	0	
AF	161	Acct 583-Overhead Lines	OX_583		0	0	0	0	0	0	
AF	162	Acct 584-Underground Lines	OX_584		0	0	0	0	0	0	
AF	163	Acct 585-Street Lighting	OX_585		0	0	0	0	0	0	
AF	164	Acct 586-Metering	OX_586		0	0	0	0	0	0	
AF	165	Acct 587-Customer Installations	OX_587		0	0	0	0	0	0	
AF	166	Acct 588-Miscellaneous	OX_588		0	0	0	0	0	0	
AF	167	Acct 589-Rents	OX_589		0	0	0	0	0	0	
AF	168	Acct 590-Supervision	MX_590		(0)	(0)	(0)	(0)	(0)	(0)	
AF	169	Acct 592-Station Equipment	MX_592		0	0	0	0	0	0	
AF	170	Acct 593-Overhead Lines	MX_593		0	0	0	0	0	0	
AF	171	Acct 594-Underground Lines	MX_594		0	0	0	0	0	0	
AF	172	Acct 595-Transformers	MX_595		0	0	0	0	0	0	
AF	173	Acct 596-Street Lighting	MX_596		0	0	0	0	0	0	
AF	174	Acct 597-Metering	MX_597		0	0	0	0	0	0	
AF	175	Acct 598-Miscellaneous	MX_598		0	0	0	0	0	0	
AF	176	O&M Accounts 581-589	OX_DIST		0	0	0	0	0	0	
AF	177	O&M Accounts 591-598	MX_DIST		0	0	0	0	0	0	
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO		0	0	0	0	0	0	
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM		(0)	(0)	(0)	(0)	(0)	(0)	
AF	180										
AF	181										
AF	182										
AF	183										
AF	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AF	139	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	141										
AF	142	**Production Expense**									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	230	12	893	1,135	284	0		
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	530	28	2,057	2,615	654	0		
AF	145	Salaries and Wages Production Operation	SALWAGPO	405	21	1,569	1,995	499	0		
AF	146	Salaries and Wages Production Maintenance	SALWAGPM	427	22	1,657	2,106	527	0		
AF	147										
AF	148	**Transmission Expense**									
AF	149	O&M Accounts 561-567	OX_TRAN	0	0	0	0	0	0		
AF	150	O&M Accounts 569-573	MX_TRAN	0	0	0	0	0	0		
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO	0	0	0	0	0	0		
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM	0	0	0	0	0	0		
AF	153										
AF	154	**Regional Market Expens**									
AF	155	O&M Accounts 575	OX_RM	0	0	0	0	0	0		
AF	156										
AF	157	**Distribution Expense**									
AF	158	Acct 580-Supervision	OX_580	0	0	0	0	0	0		
AF	159	Acct 581-Load Dispatch	OX_581	0	0	0	0	0	0		
AF	160	Acct 582-Station Equipment	OX_582	0	0	0	0	0	0		
AF	161	Acct 583-Overhead Lines	OX_583	0	0	0	0	0	0		
AF	162	Acct 584-Underground Lines	OX_584	0	0	0	0	0	0		
AF	163	Acct 585-Street Lighting	OX_585	0	0	0	0	0	0		
AF	164	Acct 586-Metering	OX_586	0	0	0	0	0	0		
AF	165	Acct 587-Customer Installations	OX_587	0	0	0	0	0	0		
AF	166	Acct 588-Miscellaneous	OX_588	0	0	0	0	0	0		
AF	167	Acct 589-Rents	OX_589	0	0	0	0	0	0		
AF	168	Acct 590-Supervision	MX_590	0	0	0	0	0	0		
AF	169	Acct 592-Station Equipment	MX_592	0	0	0	0	0	0		
AF	170	Acct 593-Overhead Lines	MX_593	0	0	0	0	0	0		
AF	171	Acct 594-Underground Lines	MX_594	0	0	0	0	0	0		
AF	172	Acct 595-Transformers	MX_595	0	0	0	0	0	0		
AF	173	Acct 596-Street Lighting	MX_596	0	0	0	0	0	0		
AF	174	Acct 597-Metering	MX_597	0	0	0	0	0	0		
AF	175	Acct 598-Miscellaneous	MX_598	0	0	0	0	0	0		
AF	176	O&M Accounts 581-589	OX_DIST	0	0	0	0	0	0		
AF	177	O&M Accounts 591-598	MX_DIST	0	0	0	0	0	0		
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO	0	0	0	0	0	0		
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM	0	0	0	0	0	0		
AF	180										
AF	181										
AF	182										
AF	183										
AF	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
AF	185	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	187										
AF	188	**Customer Accounting Expense**									
AF	189	Account 902	OX_902	1,131,759	0	0	0	0	0		
AF	190	Account 903	OX_903	1,165,071	0	0	0	0	0		
AF	191	Account 904	OX_904	426,310	51,155	38	4,612	0	0		
AF	192	Accounts 902 & 903	OX_902_3	2,296,829	0	0	0	0	0		
AF	193	O&M Accounts 902-905	OX_CA	2,723,140	51,155	38	4,612	0	0		
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA	2,296,829	0	0	0	0	0		
AF	195										
AF	196	**Customer Service Expense**									
AF	197	Account908	OX_908	0	0	0	0	0	0		
AF	198	Account909	OX_909	198,075	0	0	0	0	0		
AF	199	Account910	OX_910	0	0	0	0	0	0		
AF	200	O&M Accounts 908-910	OX_CS	3,503,364	0	0	0	0	0		
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS	3,863,186	0	0	0	0	0		
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST	7,118,605	51,155	38	4,612	0	0		
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	25,989,877	2,269,046	13,832	1,265,110	41,386	466,688		
AF	206	Total Salaries and Wages Expense	SALWAGES	29,742,521	2,596,671	15,829	1,447,778	47,361	534,073		
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	48,578,930	3,913,050	25,455	2,447,364	73,620	1,119,041		
AF	209										
AF	210										
AF	211										
AF	212										
AF	213										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	185	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	187										
AF	188	**Customer Accounting Expense**									
AF	189	Account 902	OX_902	0	0	0		0	0	0	0
AF	190	Account 903	OX_903	0	0	0		0	0	0	0
AF	191	Account 904	OX_904	43,458	0	7,697		548	0	0	2,225
AF	192	Accounts 902 & 903	OX_902_3	0	0	0		0	0	0	0
AF	193	O&M Accounts 902-905	OX_CA	43,458	0	7,697		548	0	0	2,225
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA	0	0	0		0	0	0	0
AF	195										
AF	196	**Customer Service Expense**									
AF	197	Account908	OX_908								
AF	198	Account909	OX_909	0	0	0		0	0	0	0
AF	199	Account910	OX_910	0	0	0		0	0	0	0
AF	200	O&M Accounts 908-910	OX_CS	0	0	0		0	0	0	0
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS	0	0	0		0	0	0	0
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST	43,458	0	7,697		548	0	0	2,225
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	2,066,124	0	202,922		579,509	0	53,691	511,237
AF	206	Total Salaries and Wages Expense	SALWAGES	2,364,449	0	232,222		663,184	0	61,444	585,054
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	3,563,281	0	349,768		1,000,723	0	95,915	924,193
AF	209										
AF	210										
AF	211										
AF	212										
AF	213										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AF	185	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	187										
AF	188	**Customer Accounting Expense**									
AF	189	Account 902	OX_902		0	0	0	0	0	0	
AF	190	Account 903	OX_903		0	0	0	0	0	0	
AF	191	Account 904	OX_904		1,839	1,839	0	0	0	0	
AF	192	Accounts 902 & 903	OX_902_3		0	0	0	0	0	0	
AF	193	O&M Accounts 902-905	OX_CA		1,839	1,839	0	0	0	0	
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA		0	0	0	0	0	0	
AF	195										
AF	196	**Customer Service Expense**									
AF	197	Account908	OX_908		0						
AF	198	Account909	OX_909		0	0	0	0	0	0	
AF	199	Account910	OX_910		0	0	0	0	0	0	
AF	200	O&M Accounts 908-910	OX_CS		0	0	0	0	0	0	
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS		0	0	0	0	0	0	
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST		1,839	1,839	0	0	0	0	
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG		552,551	120,673	41,386	390,493	0	76,195	
AF	206	Total Salaries and Wages Expense	SALWAGES		632,333	138,097	47,361	446,876	0	87,197	
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP		1,332,963	426,533	73,620	832,810	0	286,231	
AF	209										
AF	210										
AF	211										
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AF	213										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AF	185	**ALLOCATION FACTOR TABLE CONTINUED**									
AF	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AF	187										
AF	188	**Customer Accounting Expense**									
AF	189	Account 902	OX_902	0	0	0	0	0	0		
AF	190	Account 903	OX_903	0	0	0	0	0	0		
AF	191	Account 904	OX_904	0	0	0	0	38	0		
AF	192	Accounts 902 & 903	OX_902_3	0	0	0	0	0	0		
AF	193	O&M Accounts 902-905	OX_CA	0	0	0	0	38	0		
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA	0	0	0	0	0	0		
AF	195										
AF	196	**Customer Service Expense**									
AF	197	Account908	OX_908				0				
AF	198	Account909	OX_909	0	0	0	0	0	0		
AF	199	Account910	OX_910	0	0	0	0	0	0		
AF	200	O&M Accounts 908-910	OX_CS	0	0	0	0	0	0		
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS	0	0	0	0	0	0		
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST	0	0	0	0	38	0		
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	2,244	118	8,703	11,065	2,767	0		
AF	206	Total Salaries and Wages Expense	SALWAGES	2,568	135	9,960	12,662	3,167	0		
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	4,130	217	16,022	20,369	5,086	0		
AF	209										
AF	210										
AF	211										
AF	212										
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AF	214										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	231	**REVENUES AND BILLING DETERMINANTS**									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV	100,102,992	9,448,845	132,176	6,116,096	267,257	1,268,599		
AF	234	Present Rate Sales Revenue	CLAIMREV	122,826,425	12,386,797	77,117	7,194,245	227,634	2,906,038		
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1	192,016,064	41,748,605	0	0	0	0		
AF	238	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
AF	239	Residential AH-1 Sales Revenue	SREVRAH1	20,165,009	4,099,879	0	0	0	0		
AF	240	General Service C1 Sales Revenue	SREVGSC1	54,874,034	0	0	11,712,425	0	0		
AF	241	General Service C2 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1	4,843,941	0	0	1,091,907	0	0		
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1	27,835,548	0	0	10,419,972	0	0		
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	18,298,170	0	0	2,899,776	0	0		
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	2,018,557	0	0	0	840,990	0		
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	17,565,581	0	0	0	0	8,227,054		
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP	112,885	0	0	0	0	0		
AF	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	6,769,339	0	0	0	0	1,866,700		
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	761,280	0	45,886	0	0	0		
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	37,197	0	2,408	0	0	0		
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	2,721,978	0	178,000	0	0	0		
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	631,760	0	56,581	0	0	0		
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	79,019	0	0	0	0	0		
AF	254	Total Rate Base		348,730,362	45,848,484	282,875	0	840,990	10,093,754		
AF	255										
AF	256										
AF	257	**PRESENT REVENUES FROM SALES INPUT**									
AF	258										
AF	259	Total Sales of Electricity Revenues		100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		100,102,992	58,092,632	1,896,001	30,796,492	855,930	8,461,937		
AF	261										
AF	262										
AF	263	**BILLING DETERMINANT INPUTS**									
AF	264	Number of Customer Bills	SCH , LN	613,326	541,523	896	70,823	84	0		
AF	265	Annual kWh Sales @ Meter	SCH , LN	592,847,764	252,908,738	1,909,346	201,999,407	5,331,038	130,699,234		
AF	266	Annual kW - Billed		1,191,498	0	0	415,314	31,064	745,120		
AF	267										
AF	268										
AF	269	**RATE OF RETURN**									
AF	270	Rate of Return (Equalized)	SCH , LN	6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AF	231	**REVENUES AND BILLING DETERMINANTS**									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV	8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
AF	234	Present Rate Sales Revenue	CLAIMREV	11,276,128	0	1,110,669		3,152,608	0	295,791	2,831,529
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1	41,748,605	0	0		0	0	0	0
AF	238	Residential A-2 Sales Revenue	SREVRA2	0	0	0		0	0	0	0
AF	239	Residential AH-1 Sales Revenue	SREVRAH1	0	0	4,099,879		0	0	0	0
AF	240	General Service C1 Sales Revenue	SREVGSC1	0	0	0		11,712,425	0	0	0
AF	241	General Service C2 Sales Revenue	SREVGSC2	0	0	0		0	0	0	0
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0		0	0	1,091,907	0
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0		0	0	0	10,419,972
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0		0	0	0	0
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0		0	0	0	0
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0		0	0	0	0
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0		0	0	0	0
AF	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0		0	0	0	0
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0		0	0	0	0
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0		0	0	0	0
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0		0	0	0	0
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0		0	0	0	0
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0		0	0	0	0
AF	254	Total Rate Base									
AF	255										
AF	256										
AF	257	**PRESENT REVENUES FROM SALES INPUT**									
AF	258										
AF	259	Total Sales of Electricity Revenues		53,540,865	0	4,551,767		12,291,582	0	1,013,188	11,918,663
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		53,540,865	0	4,551,767		12,291,582		1,013,188	11,918,663
AF	261										
AF	262										
AF	263	**BILLING DETERMINANT INPUTS**									
AF	264	Number of Customer Bills	SCH , LN	504,366	-	37,157		62,155	-	2,635	5,589
AF	265	Annual kWh Sales @ Meter	SCH , LN	230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
AF	266	Annual kW - Billed		0	0	0		0	0	0	270,640
AF	267										
AF	268										
AF	269	**RATE OF RETURN**									
AF	270	Rate of Return (Equalized)	SCH , LN	6.94%	6.94%	6.94%		6.94%	6.94%	6.94%	6.94%
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AF	231	**REVENUES AND BILLING DETERMINANTS**									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV		1,738,119	566,706	267,257	904,157	0	364,442	
AF	234	Present Rate Sales Revenue	CLAIMREV		3,451,978	914,316	227,634	2,310,029	0	596,009	
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0	
AF	238	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0	
AF	239	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0	
AF	240	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0	
AF	241	General Service C2 Sales Revenue	SREVGSC2		0	0	0	0	0	0	
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0	
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0	
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		2,899,776	2,899,776	0	0	0	0	
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		840,990	0	840,990	0	0	0	
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		8,227,054	0	0	8,227,054	0	0	
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	0	0	
AF	248	Light and Power WP-3 Sales Revenue	SREVLPWP3		0	0	0	0	0	1,866,700	
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0	
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0	
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0	
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0	
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0	
AF	254	Total Rate Base			11,967,820						
AF	255										
AF	256										
AF	257	**PRESENT REVENUES FROM SALES INPUT**									
AF	258										
AF	259	Total Sales of Electricity Revenues			11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)			11,771,644	5,573,060	855,930	5,342,654	145,927	2,973,356	
AF	261										
AF	262				11,763,943						
AF	263	**BILLING DETERMINANT INPUTS**									
AF	264	Number of Customer Bills	SCH , LN		528	444	84	-	-	-	
AF	265	Annual kWh Sales @ Meter	SCH , LN		153,271,071	63,601,055	5,331,038	84,338,977	0	46,360,257	
AF	266	Annual kW - Billed			366,622	144,674	31,064	190,884	413,118	141,118	
AF	267										
AF	268										
AF	269	**RATE OF RETURN**									
AF	270	Rate of Return (Equalized)	SCH , LN		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%	
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AF	231	**REVENUES AND BILLING DETERMINANTS**									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV	5,151	970	94,608	100,729	31,447	0		
AF	234	Present Rate Sales Revenue	CLAIMREV	12,504	656	48,506	61,666	15,451	0		
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1	0	0	0	0	0	0		
AF	238	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
AF	239	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0	0	0	0		
AF	240	General Service C1 Sales Revenue	SREVGSC1	0	0	0	0	0	0		
AF	241	General Service C2 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0	0	0	0		
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0	0	0	0		
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0	0	0	0		
AF	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	45,886	0	0	45,886	0	0		
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	2,408	0	2,408	0	0		
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	178,000	178,000	0	0		
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0	0	56,581	0		
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
AF	254	Total Rate Base					226,294				
AF	255										
AF	256										
AF	257	**PRESENT REVENUES FROM SALES INPUT**									
AF	258										
AF	259	Total Sales of Electricity Revenues		69,658	14,541	1,374,879	1,459,078	436,923	0		
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		69,658	14,541	1,374,879	1,459,078	436,923	0		
AF	261										
AF	262										
AF	263	**BILLING DETERMINANT INPUTS**									
AF	264	Number of Customer Bills	SCH , LN	896	-	-	896	-	-		
AF	265	Annual kWh Sales @ Meter	SCH , LN	310,032	16,272	1,202,681	1,528,985	380,361	0		
AF	266	Annual kW - Billed		0	0	0	0	0	0		
AF	267										
AF	268										
AF	269	**RATE OF RETURN**									
AF	270	Rate of Return (Equalized)	SCH , LN	6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
AP	1	**ALLOCATION FACTOR PROPORTIONS TABLE**										
AP	2											
AP	3	**ENERGY - PRODUCTION RELATED**										
AP	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	5	Energy @ Meter (kWh Sales)	ENERGY2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	6	Energy @ Generation with losses(kWh)	ENERGY1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	7	Energy @ Generation with losses (kWh)	ENEFUEL		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	8											
AP	9	Energy - RTMP	ERTMP		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	10											
AP	11											
AP	12	**DEMAND**										
AP	13	DEMAND - PRODUCTION RELATED										
AP	14	Demand Production (12CP 75% & Energy 25%)	DPROD		1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	15											
AP	16											
AP	17	Production Load Dispatching (Average Demand)	DPRODLD		1.00000	0.43150	0.00326	0.34465	0.00875	0.21184		
AP	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	19											
AP	20	DEMAND - TRANSMISSION RELATED										
AP	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	22	Demand Transmission (12CP no AES)	DTRAN3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	23	Transmission Load Dispatching (Average Demand)	DTRANLD		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	24											
AP	25	DEMAND - DISTRIBUTION RELATED										
AP	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	27											
AP	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	29											
AP	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	31											
AP	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	33	Distribution Load Dispatching	DDISTLD		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	34											
AP	35	**Minimum System - Demand Allocation Factors**										
AP	36	**Primary**										
AP	37	kW Capability of Minimum		64.00%								
AP	38	NCP * kW Capability Minimum		137,495								
AP	39	Dist Pri Min kW Allocated on Number of Primary Custome										
AP	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	41	**Secondary**										
AP	42	Demand Distribution Secondary Lines (NCP)										
AP	43	Demand Adjustment										
AP	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	#REF!	#REF!	#REF!									
AP	#REF!	#REF!	#REF!									
AP	45											
AP	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)		(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	1	**ALLOCATION FACTOR PROPORTIONS TABLE**										
AP	2											
AP	3	**ENERGY - PRODUCTION RELATED**										
AP	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	5	Energy @ Meter (kWh Sales)	ENERGY2		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	6	Energy @ Generation with losses(kWh)	ENERGY1		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	7	Energy @ Generation with losses (kWh)	ENEFUEL		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	8											
AP	9	Energy - RTMP	ERTMP		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	10											
AP	11											
AP	12	**DEMAND**										
AP	13	DEMAND - PRODUCTION RELATED										
AP	14	Demand Production (12CP 75% & Energy 25%)	DPROD		0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	15											
AP	16											
AP	17	Production Load Dispatching (Average Demand)	DPRODLD		0.39298	0.00000	0.03852		0.11073	0.00000	0.01151	0.11389
AP	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	19											
AP	20	DEMAND - TRANSMISSION RELATED										
AP	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	22	Demand Transmission (12CP no AES)	DTRAN3		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	23	Transmission Load Dispatching (Average Demand)	DTRANLD		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	24											
AP	25	DEMAND - DISTRIBUTION RELATED										
AP	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	27											
AP	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	29											
AP	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	31											
AP	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	33	Distribution Load Dispatching	DDISTLD		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	34											
AP	35	**Minimum System - Demand Allocation Factors**										
AP	36	**Primary**										
AP	37	kW Capability of Minimum		64.00%								
AP	38	NCP * kW Capability Minimum		137,495								
AP	39	Dist Pri Min kW Allocated on Number of Primary Custome										
AP	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	41	**Secondary**										
AP	42	Demand Distribution Secondary Lines (NCP)										
AP	43	Demand Adjustment										
AP	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	#REF!	#REF!	#REF!									
AP	#REF!	#REF!	#REF!									
AP	45											
AP	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	1	**ALLOCATION FACTOR PROPORTIONS TABLE**									
AP	2										
AP	3	**ENERGY - PRODUCTION RELATED**									
AP	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	5	Energy @ Meter (kWh Sales)	ENERGY2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	6	Energy @ Generation with losses(kWh)	ENERGY1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	7	Energy @ Generation with losses (kWh)	ENEFUEL		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	8										
AP	9	Energy - RTMP	ERTMP		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	10										
AP	11										
AP	12	**DEMAND**									
AP	13	DEMAND - PRODUCTION RELATED									
AP	14	Demand Production (12CP 75% & Energy 25%)	DPROD		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	15										
AP	16										
AP	17	Production Load Dispatching (Average Demand)	DPRODLD		0.25396	0.10851	0.00875	0.13670	0.00000	0.07514	
AP	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	19										
AP	20	DEMAND - TRANSMISSION RELATED									
AP	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	22	Demand Transmission (12CP no AES)	DTRAN3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	23	Transmission Load Dispatching (Average Demand)	DTRANLD		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	24										
AP	25	DEMAND - DISTRIBUTION RELATED									
AP	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	27										
AP	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	29										
AP	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	31										
AP	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	33	Distribution Load Dispatching	DDISTLD		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	34										
AP	35	**Minimum System - Demand Allocation Factors**									
AP	36	**Primary**									
AP	37	kW Capability of Minimum		64.00%							
AP	38	NCP * kW Capability Minimum		137,495							
AP	39	Dist Pri Min kW Allocated on Number of Primary Custome									
AP	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	41	**Secondary**									
AP	42	Demand Distribution Secondary Lines (NCP)									
AP	43	Demand Adjustment									
AP	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	#REF!	#REF!	#REF!								
AP	#REF!	#REF!	#REF!								
AP	45										
AP	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)		(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	1	**ALLOCATION FACTOR PROPORTIONS TABLE**										
AP	2											
AP	3	**ENERGY - PRODUCTION RELATED**										
AP	4	Energy @ Meter (kWh Sales with RTMP)	ENERGY3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	5	Energy @ Meter (kWh Sales)	ENERGY2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	6	Energy @ Generation with losses(kWh)	ENERGY1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	7	Energy @ Generation with losses (kWh)	ENEFUEL		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	8											
AP	9	Energy - RTMP	ERTMP		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	10											
AP	11											
AP	12	**DEMAND**										
AP	13	DEMAND - PRODUCTION RELATED										
AP	14	Demand Production (12CP 75% & Energy 25%)	DPROD		0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	15											
AP	16											
AP	17	Production Load Dispatching (Average Demand)	DPRODLD		0.00053	0.00003	0.00205	0.00261	0.00065	0.00000		
AP	18	Purchased Capacity (1CP Firm Load Only)	DPURCH		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	19											
AP	20	DEMAND - TRANSMISSION RELATED										
AP	21	Demand Transmission (12CP no AES or RTMP)	DTRAN		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	22	Demand Transmission (12CP no AES)	DTRAN3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	23	Transmission Load Dispatching (Average Demand)	DTRANLD		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	24											
AP	25	DEMAND - DISTRIBUTION RELATED										
AP	26	Demand Distribution Primary Substation (12 CP)	DDISPSUB		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	27											
AP	28	Demand Distribution Primary Lines (NCP)	DDISTPRI		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	29											
AP	30	Demand Distribution Secondary Lines (NCP)	DDISTSEC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	31											
AP	32	Demand Distribution Line Transformers (NCP)	DDISTSLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	33	Distribution Load Dispatching	DDISTLD		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	34											
AP	35	**Minimum System - Demand Allocation Factors**										
AP	36	**Primary**										
AP	37	kW Capability of Minimum		64.00%								
AP	38	NCP * kW Capability Minimum		137,495								
AP	39	Dist Pri Min kW Allocated on Number of Primary Custome										
AP	40	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	41	**Secondary**										
AP	42	Demand Distribution Secondary Lines (NCP)										
AP	43	Demand Adjustment										
AP	44	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	#REF!	#REF!	#REF!									
AP	#REF!	#REF!	#REF!									
AP	45											
AP	46											

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
AP	47	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	48										
AP	49	**CUSTOMER**									
AP	50										
AP	51	**Minimum System - Customer Allocation Factors**									
AP	52	**Primary**									
AP	53	Number of Primary Customers - MS	CDISTPRI	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	54	**Secondary**									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	58	**Line Transformers**									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	65	370-Meters (New Meter Cost)	CMETERS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	68	373-Street Lighting & Signal Systems	CLIGHT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	73	903-Customer Records & Collections (Bills)	CUSTREC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	77	50% Number of Customers		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	83	Number of Customers (Average Annual)	CUST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	84	Number of Services (Customers)	CSERV	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										
AP	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	47	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	48										
AP	49	**CUSTOMER**									
AP	50										
AP	51	**Minimum System - Customer Allocation Factors**									
AP	52	**Primary**									
AP	53	Number of Primary Customers - MS	CDISTPRI	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	54	**Secondary**									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	58	**Line Transformers**									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	65	370-Meters (New Meter Cost)	CMETERS	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	68	373-Street Lighting & Signal Systems	CLIGHT	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	73	903-Customer Records & Collections (Bills)	CUSTREC	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	77	50% Number of Customers		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	83	Number of Customers (Average Annual)	CUST	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	84	Number of Services (Customers)	CSERV	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										
AP	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	47	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	48										
AP	49	**CUSTOMER**									
AP	50										
AP	51	**Minimum System - Customer Allocation Factors**									
AP	52	**Primary**									
AP	53	Number of Primary Customers - MS	CDISTPRI		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	54	**Secondary**									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	58	**Line Transformers**									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	65	370-Meters (New Meter Cost)	CMETERS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	68	373-Street Lighting & Signal Systems	CLIGHT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	73	903-Customer Records & Collections (Bills)	CUSTREC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	77	50% Number of Customers			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	83	Number of Customers (Average Annual)	CUST		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	84	Number of Services (Customers)	CSERV		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										
AP	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	47	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	48										
AP	49	**CUSTOMER**									
AP	50										
AP	51	**Minimum System - Customer Allocation Factors**									
AP	52	**Primary**									
AP	53	Number of Primary Customers - MS	CDISTPRI	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	54	**Secondary**									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	58	**Line Transformers**									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	65	370-Meters (New Meter Cost)	CMETERS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	68	373-Street Lighting & Signal Systems	CLIGHT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	73	903-Customer Records & Collections (Bills)	CUSTREC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	77	50% Number of Customers		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	83	Number of Customers (Average Annual)	CUST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	84	Number of Services (Customers)	CSERV	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										
AP	92										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	93	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	95										
AP	96	**Plant**									
AP	97	Intangible Plant In Service	INTPLT	0.29986	0.16775	0.00102	0.09353	0.00306	0.03450		
AP	98	Production Plant In Service	PRODPLT	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	99	Transmission Plant in Service	TRANPLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	100	Distribution Plant in Service	DISTPLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	101	General Plant in Service	GENLPLT	0.15606	0.08731	0.00053	0.04868	0.00159	0.01796		
AP	102	Intangible and General Plant in Service	INTGENLPLT	0.21704	0.12141	0.00074	0.06769	0.00221	0.02497		
AP	103	Total Transmission and Distribution Plant	TDPLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT	0.29986	0.16775	0.00102	0.09353	0.00306	0.03450		
AP	105	Total Electric Plant In Service	TOTPLT	0.28181	0.15765	0.00096	0.08790	0.00288	0.03242		
AP	106	Net Electric Plant In Service	NETPLT	0.24790	0.13868	0.00085	0.07732	0.00253	0.02852		
AP	107	Rate Base	RATEBASE	0.23855	0.13147	0.00081	0.07491	0.00241	0.02894		
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	**Distribution Plant in Service**									
AP	116	Acct 360-Land and Land Rights	PLT_360	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	117	Acct 361-Structures & Improvements	PLT_361	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	118	Acct 362-Station Equipment	PLT_362	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	119	Acct 364-Towers and Fixtures	PLT_364	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	121	Acct 366-Underground Conduit	PLT_366	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	122	Acct 367 - Underground Conductor	PLT_367	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	123	Acct 368-Line Transformers	PLT_368	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	124	Acct 369-Services	PLT_369	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	125	Acct 370-Meters	PLT_370	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	126	Acct 371-Inst. on Customer Premises	PLT_371	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	130	Accounts 371&373	PLT_3713	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	131										
AP	132	Accts 360-362-Distibution Substation	PLT_SUB	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	135										
AP	136										
AP	137										
AP	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	93	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	95										
AP	96	**Plant**									
AP	97	Intangible Plant In Service	INTPLT	0.15275	0.00000	0.01500		0.04284	0.00000	0.00397	0.03780
AP	98	Production Plant In Service	PRODPLT	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	99	Transmission Plant in Service	TRANPLT	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	100	Distribution Plant in Service	DISTPLT	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	101	General Plant in Service	GENLPLT	0.07950	0.00000	0.00781		0.02230	0.00000	0.00207	0.01967
AP	102	Intangible and General Plant in Service	INTGENLPLT	0.11056	0.00000	0.01086		0.03101	0.00000	0.00287	0.02736
AP	103	Total Transmission and Distribution Plant	TDPLT	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT	0.15275	0.00000	0.01500		0.04284	0.00000	0.00397	0.03780
AP	105	Total Electric Plant In Service	TOTPLT	0.14355	0.00000	0.01410		0.04026	0.00000	0.00373	0.03552
AP	106	Net Electric Plant In Service	NETPLT	0.12628	0.00000	0.01240		0.03542	0.00000	0.00328	0.03125
AP	107	Rate Base	RATEBASE	0.11972	0.00000	0.01176		0.03359	0.00000	0.00313	0.02988
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	**Distribution Plant in Service**									
AP	116	Acct 360-Land and Land Rights	PLT_360	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	117	Acct 361-Structures & Improvements	PLT_361	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	118	Acct 362-Station Equipment	PLT_362	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	119	Acct 364-Towers and Fixtures	PLT_364	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	121	Acct 366-Underground Conduit	PLT_366	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	122	Acct 367 - Underground Conductor	PLT_367	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	123	Acct 368-Line Transformers	PLT_368	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	124	Acct 369-Services	PLT_369	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	125	Acct 370-Meters	PLT_370	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	126	Acct 371-Inst. on Customer Premises	PLT_371	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	130	Accounts 371&373	PLT_3713	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	131										
AP	132	Accts 360-362-Distibution Substation	PLT_SUB	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	135										
AP	136										
AP	137										
AP	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	93	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	95										
AP	96	**Plant**									
AP	97	Intangible Plant In Service	INTPLT		0.04085	0.00892	0.00306	0.02887	0.00000	0.00563	
AP	98	Production Plant In Service	PRODPLT		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	99	Transmission Plant in Service	TRANPLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	100	Distribution Plant in Service	DISTPLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	101	General Plant in Service	GENLPLT		0.02126	0.00464	0.00159	0.01502	0.00000	0.00293	
AP	102	Intangible and General Plant in Service	INTGENLPLT		0.02957	0.00646	0.00221	0.02089	0.00000	0.00408	
AP	103	Total Transmission and Distribution Plant	TDPLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT		0.04085	0.00892	0.00306	0.02887	0.00000	0.00563	
AP	105	Total Electric Plant In Service	TOTPLT		0.03839	0.00838	0.00288	0.02713	0.00000	0.00529	
AP	106	Net Electric Plant In Service	NETPLT		0.03377	0.00738	0.00253	0.02387	0.00000	0.00466	
AP	107	Rate Base	RATEBASE		0.03432	0.00832	0.00241	0.02359	0.00000	0.00535	
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	**Distribution Plant in Service**									
AP	116	Acct 360-Land and Land Rights	PLT_360		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	117	Acct 361-Structures & Improvements	PLT_361		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	118	Acct 362-Station Equipment	PLT_362		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	119	Acct 364-Towers and Fixtures	PLT_364		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	121	Acct 366-Underground Conduit	PLT_366		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	122	Acct 367 - Underground Conductor	PLT_367		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	123	Acct 368-Line Transformers	PLT_368		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	124	Acct 369-Services	PLT_369		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	125	Acct 370-Meters	PLT_370		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	126	Acct 371-Inst. on Customer Premises	PLT_371		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	130	Accounts 371&373	PLT_3713		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	131										
AP	132	Accts 360-362-Distibution Substation	PLT_SUB		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	135										
AP	136										
AP	137										
AP	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	93	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	94	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	95										
AP	96	**Plant**									
AP	97	Intangible Plant In Service	INTPLT	0.00017	0.00001	0.00064	0.00082	0.00020	0.00000		
AP	98	Production Plant In Service	PRODPLT	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	99	Transmission Plant in Service	TRANPLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	100	Distribution Plant in Service	DISTPLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	101	General Plant in Service	GENLPLT	0.00009	0.00000	0.00033	0.00043	0.00011	0.00000		
AP	102	Intangible and General Plant in Service	INTGENLPLT	0.00012	0.00001	0.00047	0.00059	0.00015	0.00000		
AP	103	Total Transmission and Distribution Plant	TDPLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT	0.00017	0.00001	0.00064	0.00082	0.00020	0.00000		
AP	105	Total Electric Plant In Service	TOTPLT	0.00016	0.00001	0.00060	0.00077	0.00019	0.00000		
AP	106	Net Electric Plant In Service	NETPLT	0.00014	0.00001	0.00053	0.00068	0.00017	0.00000		
AP	107	Rate Base	RATEBASE	0.00013	0.00001	0.00051	0.00065	0.00016	0.00000		
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	**Distribution Plant in Service**									
AP	116	Acct 360-Land and Land Rights	PLT_360	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	117	Acct 361-Structures & Improvements	PLT_361	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	118	Acct 362-Station Equipment	PLT_362	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	119	Acct 364-Towers and Fixtures	PLT_364	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	121	Acct 366-Underground Conduit	PLT_366	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	122	Acct 367 - Underground Conductor	PLT_367	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	123	Acct 368-Line Transformers	PLT_368	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	124	Acct 369-Services	PLT_369	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	125	Acct 370-Meters	PLT_370	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	126	Acct 371-Inst. on Customer Premises	PLT_371	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	130	Accounts 371&373	PLT_3713	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	131										
AP	132	Accts 360-362-Distibution Substation	PLT_SUB	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	135										
AP	136										
AP	137										
AP	138										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	139	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	141										
AP	142	**Production Expense**									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	145	Salaries and Wages Production Operation	SALWAGPO	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	146	Salaries and Wages Production Maintenance	SALWAGPM	1.00000	0.55942	0.00341	0.31191	0.01020	0.11506		
AP	147										
AP	148	**Transmission Expense**									
AP	149	O&M Accounts 561-567	OX_TRAN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	150	O&M Accounts 569-573	MX_TRAN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	153										
AP	154	**Regional Market Expens**									
AP	155	O&M Accounts 575	OX_RM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	156										
AP	157	**Distribution Expense**									
AP	158	Acct 580-Supervision	OX_580	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	159	Acct 581-Load Dispatch	OX_581	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	160	Acct 582-Station Equipment	OX_582	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	161	Acct 583-Overhead Lines	OX_583	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	162	Acct 584-Underground Lines	OX_584	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	163	Acct 585-Street Lighting	OX_585	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	164	Acct 586-Metering	OX_586	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	165	Acct 587-Customer Installations	OX_587	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	166	Acct 588-Miscellaneous	OX_588	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	167	Acct 589-Rents	OX_589	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	168	Acct 590-Supervision	MX_590	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	(0.00000)		
AP	169	Acct 592-Station Equipment	MX_592	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	170	Acct 593-Overhead Lines	MX_593	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	171	Acct 594-Underground Lines	MX_594	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	172	Acct 595-Transformers	MX_595	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	173	Acct 596-Street Lighting	MX_596	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	174	Acct 597-Metering	MX_597	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	175	Acct 598-Miscellaneous	MX_598	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	176	O&M Accounts 581-589	OX_DIST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	177	O&M Accounts 591-598	MX_DIST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	(0.00000)		
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	139	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	141										
AP	142	**Production Expense**									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	145	Salaries and Wages Production Operation	SALWAGPO	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	146	Salaries and Wages Production Maintenance	SALWAGPM	0.50939	0.00000	0.05003		0.14287	0.00000	0.01324	0.12604
AP	147										
AP	148	**Transmission Expense**									
AP	149	O&M Accounts 561-567	OX_TRAN	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	150	O&M Accounts 569-573	MX_TRAN	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	153										
AP	154	**Regional Market Expens**									
AP	155	O&M Accounts 575	OX_RM	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	156										
AP	157	**Distribution Expense**									
AP	158	Acct 580-Supervision	OX_580	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	159	Acct 581-Load Dispatch	OX_581	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	160	Acct 582-Station Equipment	OX_582	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	161	Acct 583-Overhead Lines	OX_583	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	162	Acct 584-Underground Lines	OX_584	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	163	Acct 585-Street Lighting	OX_585	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	164	Acct 586-Metering	OX_586	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	165	Acct 587-Customer Installations	OX_587	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	166	Acct 588-Miscellaneous	OX_588	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	167	Acct 589-Rents	OX_589	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	168	Acct 590-Supervision	MX_590	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	169	Acct 592-Station Equipment	MX_592	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	170	Acct 593-Overhead Lines	MX_593	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	171	Acct 594-Underground Lines	MX_594	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	172	Acct 595-Transformers	MX_595	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	173	Acct 596-Street Lighting	MX_596	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	174	Acct 597-Metering	MX_597	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	175	Acct 598-Miscellaneous	MX_598	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	176	O&M Accounts 581-589	OX_DIST	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	177	O&M Accounts 591-598	MX_DIST	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	139	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	141										
AP	142	**Production Expense**									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	145	Salaries and Wages Production Operation	SALWAGPO		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	146	Salaries and Wages Production Maintenance	SALWAGPM		0.13623	0.02975	0.01020	0.09627	0.00000	0.01879	
AP	147										
AP	148	**Transmission Expense**									
AP	149	O&M Accounts 561-567	OX_TRAN		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	150	O&M Accounts 569-573	MX_TRAN		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	153										
AP	154	**Regional Market Expens**									
AP	155	O&M Accounts 575	OX_RM		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	156										
AP	157	**Distribution Expense**									
AP	158	Acct 580-Supervision	OX_580		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	159	Acct 581-Load Dispatch	OX_581		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	160	Acct 582-Station Equipment	OX_582		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	161	Acct 583-Overhead Lines	OX_583		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	162	Acct 584-Underground Lines	OX_584		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	163	Acct 585-Street Lighting	OX_585		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	164	Acct 586-Metering	OX_586		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	165	Acct 587-Customer Installations	OX_587		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	166	Acct 588-Miscellaneous	OX_588		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	167	Acct 589-Rents	OX_589		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	168	Acct 590-Supervision	MX_590		(0.00000)	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	169	Acct 592-Station Equipment	MX_592		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	170	Acct 593-Overhead Lines	MX_593		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	171	Acct 594-Underground Lines	MX_594		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	172	Acct 595-Transformers	MX_595		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	173	Acct 596-Street Lighting	MX_596		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	174	Acct 597-Metering	MX_597		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	175	Acct 598-Miscellaneous	MX_598		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	176	O&M Accounts 581-589	OX_DIST		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	177	O&M Accounts 591-598	MX_DIST		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM		(0.00000)	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	139	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	140	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	141										
AP	142	**Production Expense**									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	145	Salaries and Wages Production Operation	SALWAGPO	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	146	Salaries and Wages Production Maintenance	SALWAGPM	0.00055	0.00003	0.00215	0.00273	0.00068	0.00000		
AP	147										
AP	148	**Transmission Expense**									
AP	149	O&M Accounts 561-567	OX_TRAN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	150	O&M Accounts 569-573	MX_TRAN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	153										
AP	154	**Regional Market Expens**									
AP	155	O&M Accounts 575	OX_RM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	156										
AP	157	**Distribution Expense**									
AP	158	Acct 580-Supervision	OX_580	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	159	Acct 581-Load Dispatch	OX_581	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	160	Acct 582-Station Equipment	OX_582	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	161	Acct 583-Overhead Lines	OX_583	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	162	Acct 584-Underground Lines	OX_584	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	163	Acct 585-Street Lighting	OX_585	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	164	Acct 586-Metering	OX_586	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	165	Acct 587-Customer Installations	OX_587	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	166	Acct 588-Miscellaneous	OX_588	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	167	Acct 589-Rents	OX_589	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	168	Acct 590-Supervision	MX_590	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	169	Acct 592-Station Equipment	MX_592	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	170	Acct 593-Overhead Lines	MX_593	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	171	Acct 594-Underground Lines	MX_594	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	172	Acct 595-Transformers	MX_595	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	173	Acct 596-Street Lighting	MX_596	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	174	Acct 597-Metering	MX_597	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	175	Acct 598-Miscellaneous	MX_598	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	176	O&M Accounts 581-589	OX_DIST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	177	O&M Accounts 591-598	MX_DIST	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
AP	185	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	187										
AP	188	**Customer Accounting Expense**									
AP	189	Account 902	OX_902	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	190	Account 903	OX_903	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	191	Account 904	OX_904	0.13090	0.12000	0.00009	0.01082	0.00000	0.00000		
AP	192	Accounts 902 & 903	OX_902_3	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	193	O&M Accounts 902-905	OX_CA	0.02049	0.01879	0.00001	0.00169	0.00000	0.00000		
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	195										
AP	196	**Customer Service Expense**									
AP	197	Account908	OX_908	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	198	Account909	OX_909	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	199	Account910	OX_910	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	200	O&M Accounts 908-910	OX_CS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	202										
AP	203	Total Customer Operations Expense	OMXCUST	0.00784	0.00719	0.00001	0.00065	0.00000	0.00000		
AP	204										
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	0.15606	0.08731	0.00053	0.04868	0.00159	0.01796		
AP	206	Total Salaries and Wages Expense	SALWAGES	0.15606	0.08731	0.00053	0.04868	0.00159	0.01796		
AP	207										
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	0.15600	0.08055	0.00052	0.05038	0.00152	0.02304		
AP	209										
AP	210										
AP	211										
AP	212										
AP	213										
AP	214										
AP	215										
AP	216										
AP	217										
AP	218										
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AP	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	185	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	187										
AP	188	**Customer Accounting Expense**									
AP	189	Account 902	OX_902	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	190	Account 903	OX_903	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	191	Account 904	OX_904	0.10194	0.00000	0.01806		0.00129	0.00000	0.00000	0.00522
AP	192	Accounts 902 & 903	OX_902_3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	193	O&M Accounts 902-905	OX_CA	0.01596	0.00000	0.00283		0.00020	0.00000	0.00000	0.00082
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	195										
AP	196	**Customer Service Expense**									
AP	197	Account908	OX_908	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	198	Account909	OX_909	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	199	Account910	OX_910	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	200	O&M Accounts 908-910	OX_CS	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	202										
AP	203	Total Customer Operations Expense	OMXCUST	0.00610	0.00000	0.00108		0.00008	0.00000	0.00000	0.00031
AP	204										
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	0.07950	0.00000	0.00781		0.02230	0.00000	0.00207	0.01967
AP	206	Total Salaries and Wages Expense	SALWAGES	0.07950	0.00000	0.00781		0.02230	0.00000	0.00207	0.01967
AP	207										
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	0.07335	0.00000	0.00720		0.02060	0.00000	0.00197	0.01902
AP	209										
AP	210										
AP	211										
AP	212										
AP	213										
AP	214										
AP	215										
AP	216										
AP	217										
AP	218										
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AP	228										
AP	229										
AP	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	185	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	187										
AP	188	**Customer Accounting Expense**									
AP	189	Account 902	OX_902		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	190	Account 903	OX_903		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	191	Account 904	OX_904		0.00431	0.00431	0.00000	0.00000	0.00000	0.00000	
AP	192	Accounts 902 & 903	OX_902_3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	193	O&M Accounts 902-905	OX_CA		0.00068	0.00068	0.00000	0.00000	0.00000	0.00000	
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	195										
AP	196	**Customer Service Expense**									
AP	197	Account908	OX_908		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	198	Account909	OX_909		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	199	Account910	OX_910		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	200	O&M Accounts 908-910	OX_CS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	202										
AP	203	Total Customer Operations Expense	OMXCUST		0.00026	0.00026	0.00000	0.00000	0.00000	0.00000	
AP	204										
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG		0.02126	0.00464	0.00159	0.01502	0.00000	0.00293	
AP	206	Total Salaries and Wages Expense	SALWAGES		0.02126	0.00464	0.00159	0.01502	0.00000	0.00293	
AP	207										
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP		0.02744	0.00878	0.00152	0.01714	0.00000	0.00589	
AP	209										
AP	210										
AP	211										
AP	212										
AP	213										
AP	214										
AP	215										
AP	216										
AP	217										
AP	218										
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AP	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	185	**ALLOCATION PROPORTIONS TABLE CONTINUED**									
AP	186	**INTERNALLY DEVELOPED ALLOCATION FACTORS**									
AP	187										
AP	188	**Customer Accounting Expense**									
AP	189	Account 902	OX_902	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	190	Account 903	OX_903	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	191	Account 904	OX_904	0.00000	0.00000	0.00000	0.00000	0.00009	0.00000		
AP	192	Accounts 902 & 903	OX_902_3	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	193	O&M Accounts 902-905	OX_CA	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000		
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	195										
AP	196	**Customer Service Expense**									
AP	197	Account908	OX_908	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	198	Account909	OX_909	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	199	Account910	OX_910	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	200	O&M Accounts 908-910	OX_CS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	202										
AP	203	Total Customer Operations Expense	OMXCUST	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000		
AP	204										
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	0.00009	0.00000	0.00033	0.00043	0.00011	0.00000		
AP	206	Total Salaries and Wages Expense	SALWAGES	0.00009	0.00000	0.00033	0.00043	0.00011	0.00000		
AP	207										
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	0.00009	0.00000	0.00033	0.00042	0.00010	0.00000		
AP	209										
AP	210										
AP	211										
AP	212										
AP	213										
AP	214										
AP	215										
AP	216										
AP	217										
AP	218										
AP	219										
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AP	226										
AP	227										
AP	228										
AP	229										
AP	230										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	231	**REVENUES AND BILLING DETERMINANTS**									
AP	232										
AP	233	Sales of Electricity Revenue - Present	SALESREV	0.17215	0.09439	0.00132	0.06110	0.00267	0.01267		
AP	234	Present Rate Sales Revenue	CLAIMREV	0.18556	0.10085	0.00063	0.05857	0.00185	0.02366		
AP	235										
AP	236										
AP	237	Residential A-1 Sales Revenue	SREVRA1	0.21742	0.21742	0.00000	0.00000	0.00000	0.00000		
AP	238	Residential A-2 Sales Revenue	SREVRA2	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	239	Residential AH-1 Sales Revenue	SREVRAH1	0.20332	0.20332	0.00000	0.00000	0.00000	0.00000		
AP	240	General Service C1 Sales Revenue	SREVGSC1	0.21344	0.00000	0.00000	0.21344	0.00000	0.00000		
AP	241	General Service C2 Sales Revenue	SREVGSC2	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0.22542	0.00000	0.00000	0.22542	0.00000	0.00000		
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1	0.37434	0.00000	0.00000	0.37434	0.00000	0.00000		
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0.15847	0.00000	0.00000	0.15847	0.00000	0.00000		
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0.41663	0.00000	0.00000	0.00000	0.41663	0.00000		
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0.46836	0.00000	0.00000	0.00000	0.00000	0.46836		
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	0.27576	0.00000	0.00000	0.00000	0.00000	0.27576		
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0.06027	0.00000	0.06027	0.00000	0.00000	0.00000		
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0.06474	0.00000	0.06474	0.00000	0.00000	0.00000		
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0.06539	0.00000	0.06539	0.00000	0.00000	0.00000		
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0.08956	0.00000	0.08956	0.00000	0.00000	0.00000		
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	254	Total Rate Base					0.00000				
AP	255										
AP	256										
AP	257	**PRESENT REVENUES FROM SALES INPUT**									
AP	258										
AP	259	Total Sales of Electricity Revenues		1.00000	0.58033	0.01894	0.30765	0.00855	0.08453		
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		1.00000	0.58033	0.01894	0.30765	0.00855	0.08453		
AP	261										
AP	262										
AP	263										
AP	264										
AP	265										
AP	266										
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AP	274										
AP	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
AP	231	**REVENUES AND BILLING DETERMINANTS**									
AP	232										
AP	233	Sales of Electricity Revenue - Present	SALESREV	0.08761	0.00000	0.00678		0.01965	0.00000	0.00165	0.03414
AP	234	Present Rate Sales Revenue	CLAIMREV	0.09181	0.00000	0.00904		0.02567	0.00000	0.00241	0.02305
AP	235										
AP	236										
AP	237	Residential A-1 Sales Revenue	SREVRA1	0.21742	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	238	Residential A-2 Sales Revenue	SREVRA2	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	239	Residential AH-1 Sales Revenue	SREVRAH1	0.00000	0.00000	0.20332		0.00000	0.00000	0.00000	0.00000
AP	240	General Service C1 Sales Revenue	SREVGSC1	0.00000	0.00000	0.00000		0.21344	0.00000	0.00000	0.00000
AP	241	General Service C2 Sales Revenue	SREVGSC2	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0.00000	0.00000	0.00000		0.00000	0.00000	0.22542	0.00000
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.37434
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	254	Total Rate Base									
AP	255										
AP	256										
AP	257	**PRESENT REVENUES FROM SALES INPUT**									
AP	258										
AP	259	Total Sales of Electricity Revenues		0.53486	0.00000	0.04547		0.12279	0.00000	0.01012	0.11906
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		0.53486	0.00000	0.04547		0.12279	0.00000	0.01012	0.11906
AP	261										
AP	262										
AP	263										
AP	264										
AP	265										
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AP	272										
AP	273										
AP	274										
AP	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
AP	231	**REVENUES AND BILLING DETERMINANTS**									
AP	232										
AP	233	Sales of Electricity Revenue - Present	SALESREV		0.01736	0.00566	0.00267	0.00903	0.00000	0.00364	
AP	234	Present Rate Sales Revenue	CLAIMREV		0.02810	0.00744	0.00185	0.01881	0.00000	0.00485	
AP	235										
AP	236										
AP	237	Residential A-1 Sales Revenue	SREVRA1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	238	Residential A-2 Sales Revenue	SREVRA2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	239	Residential AH-1 Sales Revenue	SREVRAH1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	240	General Service C1 Sales Revenue	SREVGSC1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	241	General Service C2 Sales Revenue	SREVGSC2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		0.15847	0.15847	0.00000	0.00000	0.00000	0.00000	
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		0.41663	0.00000	0.41663	0.00000	0.00000	0.00000	
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		0.46836	0.00000	0.00000	0.46836	0.00000	0.00000	
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	248	Light and Power WP-3 Sales Revenue	SREVLPWP3		0.00000	0.00000	0.00000	0.00000	0.00000	0.27576	
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
AP	254	Total Rate Base									
AP	255										
AP	256										
AP	257	**PRESENT REVENUES FROM SALES INPUT**									
AP	258										
AP	259	Total Sales of Electricity Revenues			0.11760	0.05567	0.00855	0.05337	0.00146	0.02970	
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)			0.11760	0.05567	0.00855	0.05337	0.00146	0.02970	
AP	261										
AP	262										
AP	263										
AP	264										
AP	265										
AP	266										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
AP	231	**REVENUES AND BILLING DETERMINANTS**									
AP	232										
AP	233	Sales of Electricity Revenue - Present	SALESREV	0.00005	0.00001	0.00095	0.00101	0.00031	0.00000		
AP	234	Present Rate Sales Revenue	CLAIMREV	0.00010	0.00001	0.00039	0.00050	0.00013	0.00000		
AP	235										
AP	236										
AP	237	Residential A-1 Sales Revenue	SREVRA1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	238	Residential A-2 Sales Revenue	SREVRA2	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	239	Residential AH-1 Sales Revenue	SREVRAH1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	240	General Service C1 Sales Revenue	SREVGSC1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	241	General Service C2 Sales Revenue	SREVGSC2	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	248	Light and Power WP-3 Sales Revenue	SREVLPWP3	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0.06027	0.00000	0.00000	0.06027	0.00000	0.00000		
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0.00000	0.06474	0.00000	0.06474	0.00000	0.00000		
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0.00000	0.00000	0.06539	0.06539	0.00000	0.00000		
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0.00000	0.00000	0.00000	0.00000	0.08956	0.00000		
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	254	Total Rate Base									
AP	255										
AP	256										
AP	257	**PRESENT REVENUES FROM SALES INPUT**									
AP	258										
AP	259	Total Sales of Electricity Revenues		0.00070	0.00015	0.01373	0.01458	0.00436	0.00000		
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		0.00070	0.00015	0.01373	0.01458	0.00436	0.00000		
AP	261										
AP	262										
AP	263										
AP	264										
AP	265										
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AP	276										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**904 Uncollectible Accounts (Write-Offs)**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	467,513	101,648	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	88,550	18,004	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	6,005	0	0	1,282	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	13,903	0	0	5,204	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	27,138	0	0	4,301	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	393,047	0	0	0	0	0		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	980	0	88	0	0	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
ADA	23										
ADA	24	Total Account 904	EXP_904	997,136	119,652	88	10,787	0	0		
ADA	25										
ADA	26	Total Account 904	EXP_904	0.13090	0.12000	0.00009	0.01082	0.00000	0.00000		
ADA	27										
ADA	28										
ADA	29										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**904 Uncollectible Accounts (Write-Offs)**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	101,648	0	0		0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0		0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	18,004		0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0		1,282	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0		0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0		0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0		0	0	0	5,204
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0		0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0		0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0		0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0		0	0	0	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0		0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0		0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0		0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0		0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0		0	0	0	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0		0	0	0	0
ADA	23										
ADA	24	Total Account 904	EXP_904	101,648	0	18,004		1,282	0	0	5,204
ADA	25										
ADA	26	Total Account 904	EXP_904	0.10194	0.00000	0.01806		0.00129	0.00000	0.00000	0.00522
ADA	27										
ADA	28										
ADA	29										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**904 Uncollectible Accounts (Write-Offs)**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0	
ADA	7	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0	
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0	
ADA	9	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0	
ADA	10	General Service C1 Sales Revenue	SREVGSC2		0	0	0	0	0	0	
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0	
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0	
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		4,301	4,301	0	0	0	0	
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		0	0	0	0	0	0	
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		0	0	0	0	0	0	
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	0	0	
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3		0	0	0	0	0	0	
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0	
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0	
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0	
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0	
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0	
ADA	23										
ADA	24	Total Account 904	EXP_904		4,301	4,301	0	0	0	0	
ADA	25										
ADA	26	Total Account 904	EXP_904		0.00431	0.00431	0.00000	0.00000	0.00000	0.00000	
ADA	27										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**904 Uncollectible Accounts (Write-Offs)**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0	0	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0	0	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0	0	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0	0	0	0		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0	0	88	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
ADA	23										
ADA	24	Total Account 904	EXP_904	0	0	0	0	88	0		
ADA	25										
ADA	26	Total Account 904	EXP_904	0.00000	0.00000	0.00000	0.00000	0.00009	0.00000		
ADA	27										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**AVAILABLE**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0	0	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0	0	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0	0	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0	0	0	0		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0	0	0	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
ADA	23										
ADA	24	Total Available	SREVAVAIL	0	0	0	0	0	0		
ADA	25										
ADA	26	Total Available	SREVAVAIL	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
ADA	27										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**AVAILABLE**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0		0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0		0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0		0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0		0	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0		0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0		0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0		0	0	0	0
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0		0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0		0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0		0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0		0	0	0	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0		0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0		0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0		0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0		0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0		0	0	0	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0		0	0	0	0
ADA	23										
ADA	24	Total Available	SREVAVAIL	0	0	0		0	0	0	0
ADA	25										
ADA	26	Total Available	SREVAVAIL	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
ADA	27										
ADA	28										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**AVAILABLE**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0	
ADA	7	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0	
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0	
ADA	9	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0	
ADA	10	General Service C1 Sales Revenue	SREVGSC2		0	0	0	0	0	0	
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0	
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0	
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		0	0	0	0	0	0	
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		0	0	0	0	0	0	
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		0	0	0	0	0	0	
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	0	0	
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3		0	0	0	0	0	0	
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0	
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0	
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0	
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0	
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0	
ADA	23										
ADA	24	Total Available	SREVAVAIL		0	0	0	0	0	0	
ADA	25										
ADA	26	Total Available	SREVAVAIL		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
ADA	27										
ADA	28										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
ADA	1	**ALLOCATED DIRECT ASSIGNMENTS**									
ADA	2	**DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS**									
ADA	3										
ADA	4	**AVAILABLE**									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0	0	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0	0	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0	0	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0	0	0	0		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0	0	0	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
ADA	23										
ADA	24	Total Available	SREVAVAIL	0	0	0	0	0	0		
ADA	25										
ADA	26	Total Available	SREVAVAIL	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
ADA	27										
ADA	28										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
RRW	1	**REVENUE REQUIREMENTS**									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	----------									
RRW	5	RATE BASE		83,190,183	45,848,484	282,875	26,124,081	840,990	10,093,754		
RRW	6	NET OPER INC (PRESENT RATES)		1,643,749	999,258	60,514	1,011,869	87,773	(515,665)		
RRW	7	RATE OF RETURN (PRES RATES)		1.98%	2.18%	21.39%	3.87%	10.44%	-5.11%		
RRW	8	RELATIVE RATE OF RETURN		1.00	1.10	10.83	1.96	5.28	-2.59		
RRW	9	SALES REVENUE (PRE RATES)		17,232,972	9,448,845	132,176	6,116,096	267,257	1,268,599		
RRW	10	REVENUE PRES RATES $/KWH		$0.0291	$0.0374	$0.0692	$0.0303	$0.0501	$0.0097		
RRW	11	REVENUE REQUIRED - $/MO/CUST		$337.17	$209.38	$1,770.21	$1,036.29	$38,179.56	$0.00		
RRW	12	SALES REV REQUIRED $/KW		$14.46	$0.00	$0.00	$14.73	$8.60	$1.70		
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	----------									
RRW	16	CLAIMED RATE OF RETURN		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
RRW	17	RETURN REQ FOR CLAIMED ROR		5,771,818	3,181,014	19,626	1,812,515	58,349	700,315		
RRW	18	SALES REVENUE REQ CLAIMED ROR		22,791,830	12,386,797	77,117	7,194,245	227,634	2,906,038		
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV		5,558,858	2,937,952	(55,059)	1,078,150	(39,623)	1,637,439		
RRW	20	PERCENT INCREASE/DECREASE REQUIRED		24.39%	23.72%	-71.40%	14.99%	-17.41%	56.35%		
RRW	21	ANNUAL BOOKED KWH SALES		592,847,764	252,908,738	1,909,346	201,999,407	5,331,038	130,699,234		
RRW	22	SALES REV REQUIRED $/KWH		$0.0384	$0.0490	$0.0404	$0.0356	$0.0427	$0.0222		
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) $/KWH		$0.0094	$0.0116	($0.0288)	$0.0053	($0.0074)	$0.0125		
RRW	24										
RRW	25										
RRW	26										
RRW	27										
RRW	28										
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Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1		S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
RRW	1	**REVENUE REQUIREMENTS**									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	----------									
RRW	5	RATE BASE		41,748,605	0	4,099,879		11,712,425	0	1,091,907	10,419,972
RRW	6	NET OPER INC (PRESENT RATES)		1,035,764	0	(36,506)		(68,068)	0	(21,541)	1,158,429
RRW	7	RATE OF RETURN (PRES RATES)		2.48%	0.00%	-0.89%		-0.58%	0.00%	-1.97%	11.12%
RRW	8	RELATIVE RATE OF RETURN		1.26	0.00	-0.45		-0.29	0.00	-1.00	5.63
RRW	9	SALES REVENUE (PRE RATES)		8,770,380	0	678,465		1,966,674	0	164,768	3,417,948
RRW	10	REVENUE PRES RATES $/KWH		$0.0381	$0.0000	$0.0301		$0.0303	$0.0000	$0.0244	$0.0512
RRW	11	REVENUE REQUIRED - $/MO/CUST		$208.67	$0.00	$219.11		$379.70	$0.00	$750.37	$7,338.59
RRW	12	SALES REV REQUIRED $/KW		$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$12.63
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	----------									
RRW	16	CLAIMED RATE OF RETURN		6.94%	6.94%	6.94%		6.94%	6.94%	6.94%	6.94%
RRW	17	RETURN REQ FOR CLAIMED ROR		2,896,560	0	284,454		812,620	0	75,758	722,948
RRW	18	SALES REVENUE REQ CLAIMED ROR		11,276,128	0	1,110,669		3,152,608	0	295,791	2,831,529
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV		2,505,748	0	432,204		1,185,935	0	131,023	(586,418)
RRW	20	PERCENT INCREASE/DECREASE REQUIRED		22.22%	0.00%	38.91%		37.62%	0.00%	44.30%	-20.71%
RRW	21	ANNUAL BOOKED KWH SALES		230,331,849	0	22,576,890		64,899,857	0	6,747,207	66,751,288
RRW	22	SALES REV REQUIRED $/KWH		$0.0490	$0.0000	$0.0492		$0.0486	$0.0000	$0.0438	$0.0424
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) $/KWH		$0.0109	$0.0000	$0.0191		$0.0183	$0.0000	$0.0194	($0.0088)
RRW	24										
RRW	25										
RRW	26										
RRW	27										
RRW	28										
RRW	29										
RRW	30										
RRW	31										
RRW	32										
RRW	33										
RRW	34										
RRW	35										
RRW	36										
RRW	37										
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RRW	39										
RRW	40										
RRW	41										
RRW	42										
RRW	43										
RRW	44										
RRW	45										
RRW	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Large Comm & Ind CP-U Total	P Large Commerical & Industrial Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Large Commerical & Industrial Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
RRW	1	**REVENUE REQUIREMENTS**									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	----------									
RRW	5	RATE BASE			11,967,820	2,899,776	840,990	8,227,054	0	1,866,700	
RRW	6	NET OPER INC (PRESENT RATES)			(442,391)	(56,950)	87,773	(473,215)	0	(42,451)	
RRW	7	RATE OF RETURN (PRES RATES)			-3.70%	-1.96%	10.44%	-5.75%	0.00%	-2.27%	
RRW	8	RELATIVE RATE OF RETURN			-1.87	-0.99	5.28	-2.91	0.00	-1.15	
RRW	9	SALES REVENUE (PRE RATES)			1,738,119	566,706	267,257	904,157	0	364,442	
RRW	10	REVENUE PRES RATES $/KWH			$0.0113	$0.0089	$0.0501	$0.0107	$0.0000	$0.0079	
RRW	11	REVENUE REQUIRED - $/MO/CUST			$39,502.71	$15,316.38	$38,179.56	$0.00	$0.00	$0.00	
RRW	12	SALES REV REQUIRED $/KW			$4.74	$3.92	$8.60	$4.74	$0.00	$2.58	
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	----------									
RRW	16	CLAIMED RATE OF RETURN			6.94%	6.94%	6.94%	6.94%	6.94%	6.94%	
RRW	17	RETURN REQ FOR CLAIMED ROR			830,339	201,189	58,349	570,801	0	129,513	
RRW	18	SALES REVENUE REQ CLAIMED ROR			3,451,978	914,316	227,634	2,310,029	0	596,009	
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV			1,713,859	347,610	(39,623)	1,405,872	(0)	231,567	
RRW	20	PERCENT INCREASE/DECREASE REQUIRED			49.65%	38.02%	-17.41%	60.86%	0.00%	38.85%	
RRW	21	ANNUAL BOOKED KWH SALES			153,271,071	63,601,055	5,331,038	84,338,977	0	46,360,257	
RRW	22	SALES REV REQUIRED $/KWH			$0.0225	$0.0144	$0.0427	$0.0274	$0.0000	$0.0129	
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) $/KWH			$0.0112	$0.0055	($0.0074)	$0.0167	$0.0000	$0.0050	
RRW	24										
RRW	25										
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RRW	45										
RRW	46										

Upper Peninsula Power Company
Forecasted Cost of Service Allocation Study
Forecast 12 Month Period ending June 30, 2024
RETAIL SYSTEM

PRODUCTION DEMAND COMPONENT

COS Without Minimum System

SCH ID	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4		
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
RRW	1	**REVENUE REQUIREMENTS**									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	----------									
RRW	5	RATE BASE		45,886	2,408	178,000	226,294	56,581	0		
RRW	6	NET OPER INC (PRESENT RATES)		(2,277)	400	46,586	44,709	15,805	0		
RRW	7	RATE OF RETURN (PRES RATES)		-4.96%	16.62%	26.17%	19.76%	27.93%	0.00%		
RRW	8	RELATIVE RATE OF RETURN		-2.51	8.41	13.25	10.00	14.14	0.00		
RRW	9	SALES REVENUE (PRE RATES)		5,151	970	94,608	100,729	31,447	0		
RRW	10	REVENUE PRES RATES $/KWH		$0.0166	$0.0596	$0.0787	$0.0659	$0.0827	$0.0000		
RRW	11	REVENUE REQUIRED - $/MO/CUST		$68.99	$0.00	$0.00	$1,349.05	$0.00	$0.00		
RRW	12	SALES REV REQUIRED $/KW		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	----------									
RRW	16	CLAIMED RATE OF RETURN		6.94%	6.94%	6.94%	6.94%	6.94%	6.94%		
RRW	17	RETURN REQ FOR CLAIMED ROR		3,184	167	12,350	15,700	3,926	0		
RRW	18	SALES REVENUE REQ CLAIMED ROR		12,504	656	48,506	61,666	15,451	0		
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV		7,353	(314)	(46,102)	(39,063)	(15,996)	(0)		
RRW	20	PERCENT INCREASE/DECREASE REQUIRED		58.80%	-47.84%	-95.04%	-63.35%	0.00%	0.00%		
RRW	21	ANNUAL BOOKED KWH SALES		310,032	16,272	1,202,681	1,528,985	380,361	0		
RRW	22	SALES REV REQUIRED $/KWH		$0.0403	$0.0403	$0.0403	$0.0403	$0.0406	$0.0000		
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) $/KWH		$0.0237	($0.0193)	($0.0383)	($0.0255)	($0.0421)	$0.0000		
RRW	24										
RRW	25										
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RRW	46										

Case No.: U-21286
Exhibit: A-42 (EWS-5)
Page: 1 of 1
Witness Eric W. Stocking

State Reliability Mechanism: 3(b) Offset Calculation

Line No.	Month	Victoria	Hoist	McClure	Gladstone	Prickett	UPPCO Generation Total	Market Value of UPPCO Generation
1	*(Unit)*	*(MWh)*	*(MWh)*	*(MWh)*	*(MWh)*	*(MWh)*	*(MWh)*	*($)*
2								
3	January	4,345.88	1,239.44	3,427.41	-	504.82	9,517.55	$ 248,622.13
4	February	3,014.42	577.60	1,640.37	0.01	484.36	5,716.76	$ 303,709.69
5	March	5,992.83	938.51	2,579.36	29.91	1,032.84	10,573.43	$ 275,760.13
6	April	7,250.96	1,583.89	4,312.87	-	1,353.84	14,501.56	$ 453,208.16
7	May	3,808.05	1,098.96	2,633.63	-	658.09	8,198.74	$ 236,719.95
8	June	2,910.22	465.29	1,431.24	-	476.27	5,283.02	$ 221,440.61
9	July	2,452.81	604.53	1,610.17	-	230.72	4,898.23	$ 199,735.58
10	August	2,236.78	299.80	1,603.97	-	141.01	4,281.56	$ 199,315.34
11	September	2,264.99	540.64	1,627.70	-	281.01	4,714.34	$ 270,159.04
12	October	2,931.79	635.80	1,609.47	-	284.28	5,461.34	$ 329,553.69
13	November	4,204.16	614.78	1,571.86	-	512.46	6,903.26	$ 392,209.21
14	December	5,378.55	571.97	1,620.94	-	681.74	8,253.21	$ 338,931.89
15								
16	**Total**	**46,791.43**	**9,171.20**	**25,668.99**	**29.92**	**6,641.46**	**88,303.00**	**$ 3,469,365.42**

Upper Peninsula Power Company

INCOME SELF ATTESTATION

CUSTOMER INFORMATION

UPPCO Account Holder's Name

First Last

UPPCO Account Number

Property Address

Street Address

City

Street Address Line 2

Zip Code

Household annual income:

Number of individuals in household:

Please check all that apply:

- ☐ I have received a Home Heating Credit within the last 12 months
- ☐ I currently receive Medicaid
- ☐ I currently receive Supplemental Nutrition Assistance Program (SNAP) benefits
- My household income is under 150% of the Federal Poverty Level

CUSTOMER SIGNATURE

By signing this document, I attest that the above information is correct.

Customer Signature

Date

Federal Poverty Guidelines - 2022

Number of Exemptions (# of people in household)	150% of Federal Poverty Guidelines Maximum Annual Income
0-1	$20, 385
2	$27, 465
3	$34 ,545
4	$41, 625
5	$48, 705
6	$55, 785
7	$62, 865
8	$69, 945

* Add $7,080 for each additional person in your household

RETURN THIS FORM TO UPPCO

MAIL

Upper Peninsula Power Company
500 N Washington St
Ishpeming MI 49849

FAX

(906) 485-2431

MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING

Ontonagon, Michigan

ONTONAGON VILLAGE HOUSING

CHALLENGE

Local housing commission needed an all-electric heating and cooling solution to provide year-round comfort in a climate subject to extreme cold

SOLUTION

Mitsubishi Electric M-Series Cold-climate Heat Pump Systems

RESULT

Housing commission saves $30,000 per year and offers residents energy-efficient comfort in all seasons

Nestled in a remote part of Michigan, Ontonagon is a village sitting on the edge of Lake Superior. With a population of about 1,500, Ontonagon residents are used to beautiful but humid summers on the lake and bitter cold winters. After years of enduring expensive and uncomfortable electric-resistance heat, Ontonagon Village Housing, a subsidized housing facility, decided to consider alternative HVAC options.

"The electric bills kept getting higher, and we decided to price out bringing in natural gas lines," explained Karen Jackson, executive director, Ontonagon Village Housing. With a projected cost of nearly a million dollars, local utility provider Upper Peninsula Power Company (UPPCO) swiftly proposed a solution.

"I looked at them and said, 'Why would you want to introduce that infrastructure? That cost?'" said Andrew McNeally, energy-efficiency program administrator, UPPCO. "My experience being from New England says cold-climate heat pumps will take care of your problem without negatively impacting your tenants." UPPCO's heating and cooling selection for Ontonagon Village Housing: M-Series mini-split heat pumps from Mitsubishi Electric.

A MODERN-DAY ALTERNATIVE TO BASEBOARD HEAT

UPPCO has been working on energy-efficiency programs since 2009, when Michigan law went into effect, incentivizing utilities to help customers move beyond fossil fuels. A 60-unit, all-electric, 15-building property, Ontonagon Village Housing had always used electric resistance for heating. Unfortunately, the electric-resistance systems struggled to keep up with the freezing temperatures. "Electric resistance can be quite expensive, especially now, and heat pumps do a phenomenal job," noted Mike Duquaine, warehouse manager, Stop's Heating and Cooling. Additionally, heat pumps solve comfort challenges year-round. With no central air conditioning in the summers, Ontonagon residents depended on box fans and inefficient

Project Completed: June 2021 |

window AC units. Heat pumps provide gas-free heating and energy-efficient air conditioning.

Working with Stop's, Mitsubishi Electric M-Series systems featuring hyper-heating capability were installed on the property in phases. "During these cold winter periods, these systems can be two to four hundred percent more efficient during the course of the "heating season," noted Kevin DeMaster, senior manager, utilities and electrification. "Phase three of this project included our Deluxe Wall-mounted Indoor Unit. This new unit provides 100% heating to -5° F.

Each residence was outfitted with one compact, wall-mounted indoor unit and one outdoor unit. Installation was efficient with Stop's completing each phase in four days total. Being a Mitsubishi Electric Elite Diamond Contractor®, Stop's technicians have completed comprehensive manufacturer-led training to ensure the heat pumps are installed and sized correctly for each project. "We pride ourselves in knowing our product and providing the best experience possible for our customers," said Duquaine. "When it comes to ductless mini-splits, Mitsubishi Electric is the only brand we trust to install."

EXCEPTIONAL AIR QUALITY + COMFORT

Since receiving their new heating and cooling systems, residents have been vocal about their positive experiences. "Residents say the air seems to be cleaner. With our baseboard heat, it was just radiant heat — you didn't get any circulation or filtration," said Jackson. From a maintenance standpoint, Ontonagon Village Housing also avoided worry about the pilot lights and carbon monoxide associated with natural gas. "Think of the air quality benefits of not having to combust natural gas or any other deliverable fuel. They don't have that here." said McNeally. The Deluxe Wall-mounted Indoor Units also feature Dual Barrier Coating to enhance indoor air quality. Applied to the internal parts of the indoor unit, the coating prevents dust, particles and grease build-up on the system, enhancing overall performance.

Beyond the filtration benefits, the residents were delighted when the systems stood up to Michigan's harsh winter season. "In spring of 2021, there was a polar vortex that made national news because power plants in Texas were freezing," explained McNeally. "The units here at Ontonagon Village experienced 25° F below zero temperatures and not a single tenant had any issue or even needed to turn on their electric resistance as backup."

"We've had below zero weather up here — it handles it," said Carlene, a resident at Ontonagon Village Housing. "I've lived so much better since we've had this new unit."

THE COST BENEFITS OF DECARBONIZATION

Ontonagon Village Housing also reaped the benefits of a more efficient heating and cooling system. "Dollar-value-wise, the total energy costs have gone from $95,000 a year to $65,000 for the whole facility," explained McNeally. The Housing Commission can also rest assured knowing residents have an effective heating and cooling solution for all seasons. Also, the town no longer has to worry about the addition of a pipeline.

Project Completed: June 2021 |

"One of the benefits of this project was helping this community avoid the financial and environmental costs of bringing in expensive gas lines to the property," said DeMaster. In climates like the upper peninsula of Michigan, carbon emissions are a real problem as many developers specify fossil-fuel-burning systems to combat cold temperatures without considering planet-friendly alternatives.

With UPPCO serving a rural service territory (just over 50,000 customers across 4,400 square miles) and 40 percent of their customer base identified as low income, helping developers understand the efficiency, cost and performance benefits of heat pump systems is a goal for the utility — along with reducing the number of power plants.

"I now have 60 tenants here in Ontonagon Village telling me and anyone else in earshot how wonderful the heat pumps are," expressed McNeally. "This project gives us a powerful opportunity to showcase what heat pumps can do, and what UPPCO can do for tenants and customers."

EQUIPMENT

- (36) MUZ-FH H2i® Heat Pumps
- (24) MUZ-FS H2i plus® Heat Pumps
- (36) MSZ-FH Wall-mounted Indoor Units
- (24) MSZ-FS Deluxe Wall-mounted Indoor Units

PROJECT TEAM

Owner and Property Management:
Ontonagon Village Housing, Ontonagon, MI

Utility:
UPPCO
- Corporate Office: Marquette, MI
- MI Service Centers: Escanaba, Houghton, Iron River, Ishpeming, Munising and Ontonagon

Mechanical Contractor:
Stop's Heating and Cooling, Land O' Lakes, WI

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Michigan Public Service Commission
Upper Peninsula Power Company
AFUDC Calculation
for the Projected Year ended, June 30, 2024

Case No. U-21286
Exhibit A-45 (GRH-28)

Witness: Gradon R. Haehnel

AFUDC Calculation

	CAPEX Adds	CWIP Balance	ST Debt Balance	ST Debt Rate	LT Debt Rate	Debt Thickness	Equity Thickness	Equity Rate	AFUDC Debt	AFUDC Equity	AFUDC Total
Oct-22	$ 600,623	$ 600,623	$ 21,323,716	0.43%	0.30%	46.00%	54.00%	0.83%	$ 2,590	$ -	$ 2,590
Nov-22	$ -	$ 600,623	$ 22,764,955	0.44%	0.30%	46.00%	54.00%	0.83%	$ 2,640	$ -	$ 2,640
Dec-22	$ 100,000	$ 700,623	$ 24,206,194	0.44%	0.30%	46.00%	54.00%	0.83%	$ 3,097	$ -	$ 3,097
Jan-23	$ -	$ 700,623	$ 26,111,969	0.45%	0.30%	46.00%	54.00%	0.83%	$ 3,127	$ -	$ 3,127
Feb-23	$ -	$ 700,623	$ 28,017,745	0.45%	0.30%	46.00%	54.00%	0.83%	$ 3,138	$ -	$ 3,138
Mar-23	$ -	$ 700,623	$ 29,923,521	0.46%	0.30%	46.00%	54.00%	0.83%	$ 3,248	$ -	$ 3,248
Apr-23	$ -	$ 700,623	$ 31,829,297	0.48%	0.30%	46.00%	54.00%	0.83%	$ 3,363	$ -	$ 3,363
May-23	$ -	$ 700,623	$ 33,735,072	0.49%	0.30%	46.00%	54.00%	0.83%	$ 3,401	$ -	$ 3,401
Jun-23	$ -	$ 700,623	$ 35,640,848	0.50%	0.30%	46.00%	54.00%	0.83%	$ 3,524	$ -	$ 3,524
Jul-23	$ -	$ 700,623	$ 37,546,624	0.51%	0.30%	46.00%	54.00%	0.83%	$ 3,565	$ -	$ 3,565
Aug-23	$ -	$ 700,623	$ 39,452,399	0.49%	0.30%	46.00%	54.00%	0.83%	$ 3,434	$ -	$ 3,434
Sep-23	$ -	$ 700,623	$ 41,358,175	0.51%	0.30%	46.00%	54.00%	0.83%	$ 3,559	$ -	$ 3,559
Oct-23	$ -	$ 700,623	$ 43,263,951	0.49%	0.30%	46.00%	54.00%	0.83%	$ 3,428	$ -	$ 3,428
Nov-23	$ -	$ 700,623	$ 45,169,727	0.47%	0.30%	46.00%	54.00%	0.83%	$ 3,304	$ -	$ 3,304
Dec-23	$ -	$ 700,623	$ 47,075,502	0.48%	0.30%	46.00%	54.00%	0.83%	$ 3,377	$ -	$ 3,377
Jan-24	$ -	$ 700,623	$ 49,643,366	0.46%	0.30%	46.00%	54.00%	0.83%	$ 3,256	$ -	$ 3,256
Feb-24	$ -	$ 700,623	$ 52,211,230	0.45%	0.30%	46.00%	54.00%	0.83%	$ 3,140	$ -	$ 3,140
Mar-24	$ -	$ 700,623	$ 54,779,094	0.46%	0.30%	46.00%	54.00%	0.83%	$ 3,243	$ -	$ 3,243
Apr-24	$ -	$ 700,623	$ 57,346,958	0.48%	0.30%	46.00%	54.00%	0.83%	$ 3,358	$ -	$ 3,358
May-24	$ -	$ 700,623	$ 59,914,821	0.46%	0.30%	46.00%	54.00%	0.83%	$ 3,257	$ -	$ 3,257
Jun-24	$ -	$ 700,623	$ 62,482,685	0.45%	0.30%	46.00%	54.00%	0.83%	$ 3,141	$ -	$ 3,141

Upper Peninsula Power Company
Projection of Balance Sheet and Benefit Cost
Pension Plans

Total Pension	2022	2023	2024
Projected Benefit Obligation (PBO)	(108,229,582)	(85,689,459)	(83,640,574)
Fair value of assets (FVA)	123,448,920	93,981,161	91,989,232
Funded status	15,219,338	8,291,702	8,348,658
Accumulated Other Comprehensive (Income)/Loss			
Net prior service cost/(credit)	0	0	0
Net (gain) / loss	38,267,501	44,866,662	44,327,504
Total	38,267,501	44,866,662	44,327,504
Service cost	919,693	581,727	556,999
Interest cost	3,014,355	3,942,904	3,836,350
Expected return on assets	(5,014,396)	(5,007,727)	(4,889,700)
Amortization of net prior service cost/(credit)	0	0	0
Amortization of net (gain)/loss	1,453,686	1,009,129	1,005,323
Net periodic benefit cost	373,338	526,033	508,972

UPPCO Retirement Plan	2022	2023	2024
Projected Benefit Obligation (PBO)	(107,720,274)	(85,276,837)	(83,253,891)
Fair value of assets (FVA)	123,448,920	93,981,161	91,989,232
Funded status	15,728,646	8,704,324	8,735,341
Accumulated Other Comprehensive (Income)/Loss			
Net prior service cost/(credit)	0	0	0
Net (gain) / loss	38,042,667	44,747,145	44,216,669
Total	38,042,667	44,747,145	44,216,669
Service cost	919,693	581,727	556,999
Interest cost	3,002,298	3,925,015	3,819,697
Expected return on assets	(5,014,396)	(5,007,727)	(4,889,700)
Amortization of net prior service cost/(credit)	0	0	0
Amortization of net (gain)/loss	1,412,249	1,000,444	995,957
Net periodic benefit cost	319,844	499,459	482,953
Discount rate	2.85%	4.75%	4.75%
Expected return on assets	4.50%	5.00%	5.00%
Actual return on assets	-19.03%	5.00%	5.00%

Upper Peninsula Power Company
Projection of Balance Sheet and Benefit Cost
Pension Plans

UPPCO SERP Plan	2022	2023	2024
Projected Benefit Obligation (PBO)	(124,276)	(100,629)	(92,435)
Fair value of assets (FVA)	0	0	0
Funded status	(124,276)	(100,629)	(92,435)
Accumulated Other Comprehensive (Income)/Loss			
Net prior service cost/(credit)	0	0	0
Net (gain) / loss	106,766	84,883	77,998
Total	106,766	84,883	77,998
Service cost	0	0	0
Interest cost	2,828	4,251	3,894
Expected return on assets	0	0	0
Amortization of net prior service cost/(credit)	0	0	0
Amortization of net (gain)/loss	8,337	6,887	6,724
Net periodic benefit cost	11,165	11,138	10,618
Discount rate	2.40%	4.50%	4.50%
Expected return on assets	0.00%	0.00%	0.00%
Actual return on assets	0.00%	0.00%	0.00%

UPPCO Restoration Plan	2022	2023	2024
Projected Benefit Obligation (PBO)	(385,032)	(311,993)	(294,248)
Fair value of assets (FVA)	0	0	0
Funded status	(385,032)	(311,993)	(294,248)
Accumulated Other Comprehensive (Income)/Loss			
Net prior service cost/(credit)	0	0	0
Net (gain) / loss	118,068	34,634	32,837
Total	118,068	34,634	32,837
Service cost	0	0	0
Interest cost	9,229	13,638	12,759
Expected return on assets	0	0	0
Amortization of net prior service cost/(credit)	0	0	0
Amortization of net (gain)/loss	33,100	1,798	2,642
Net periodic benefit cost	42,329	15,436	15,401
Discount rate	2.50%	4.60%	4.60%
Expected return on assets	0.00%	0.00%	0.00%
Actual return on assets	0.00%	0.00%	0.00%

The results are based on the January 1, 2022 valuation results delivered on June 27, 2022. The forecast reflects:
> discount rates as of 6/30/2022
> estimated 2022 asset returns reflect actual returns through 6/30/2022 and assumes 0% return for the remainder of 2022
> 2023 and 2024 expected return on assets assumption of 5.00%

Upper Peninsula Power Company
Projection of Balance Sheet and Benefit Cost
OPEB Plans

Total OPEB	2022	2023	2024
Accumulated Postretirement Benefit Obligation (APBO)	(19,737,101)	(15,551,208)	(16,148,454)
Fair value of assets (FVA)	31,866,704	26,162,457	26,779,161
Funded status	12,129,603	10,611,249	10,630,707
Accumulated Other Comprehensive (Income)/Loss			
Net prior service cost/(credit)	(2,340,547)	(1,608,669)	(931,330)
Net (gain) / loss	(10,520,148)	(8,888,827)	(8,165,314)
Total	(12,860,695)	(10,497,496)	(9,096,644)
Service cost	905,405	608,516	634,360
Interest cost	610,983	764,746	794,724
Expected return on assets	(1,282,923)	(1,427,598)	(1,462,921)
Amortization of net prior service cost/(credit)	(731,878)	(677,339)	(677,339)
Amortization of net (gain)/loss	(314,338)	(587,528)	(540,812)
Net periodic benefit cost	(812,751)	(1,319,203)	(1,251,988)

Administrative Medical	2022	2023	2024
Accumulated Postretirement Benefit Obligation (APBO)	(1,479,328)	(1,276,776)	(1,291,215)
Fair value of assets (FVA)	1,822,757	1,373,624	1,338,039
Funded status	343,429	96,848	46,824
Accumulated Other Comprehensive (Income)/Loss			
Net prior service cost/(credit)	(75,079)	5,673	31,886
Net (gain) / loss	355,828	519,506	500,027
Total	280,749	525,179	531,913
Service cost	111,098	91,636	91,636
Interest cost	37,050	59,194	59,715
Expected return on assets	(73,186)	(73,177)	(71,244)
Amortization of net prior service cost/(credit)	(80,752)	(26,213)	(26,213)
Amortization of net (gain)/loss	36,441	26,350	24,981
Net periodic benefit cost	30,651	77,790	78,875
Discount rate	2.45%	4.55%	4.55%
Expected return on assets	4.50%	5.00%	5.00%
Actual return on assets	-18.25%	5.00%	5.00%

Upper Peninsula Power Company
Projection of Balance Sheet and Benefit Cost
OPEB Plans

Non-Administrative Medical	2022	2023	2024
Accumulated Postretirement Benefit Obligation (APBO)	(16,325,195)	(12,720,368)	(13,352,256)
Fair value of assets (FVA)	29,822,496	24,738,082	25,441,122
Funded status	13,497,301	12,017,714	12,088,866
Accumulated Other Comprehensive (Income)/Loss			
Net prior service cost/(credit)	(2,129,378)	(1,492,157)	(854,936)
Net (gain) / loss	(11,711,735)	(9,936,794)	(9,162,341)
Total	(13,841,113)	(11,428,951)	(10,017,277)
Service cost	794,307	516,880	542,724
Interest cost	523,358	636,014	667,723
Expected return on assets	(1,204,063)	(1,352,249)	(1,391,677)
Amortization of net prior service cost/(credit)	(637,221)	(637,221)	(637,221)
Amortization of net (gain)/loss	(408,956)	(646,250)	(596,100)
Net periodic benefit cost	(932,575)	(1,482,826)	(1,414,551)
Discount rate	3.10%	4.90%	4.90%
Expected return on assets	4.50%	5.00%	5.00%
Actual return on assets	-15.58%	5.00%	5.00%

Retiree Life Insurance	2022	2023	2024
Accumulated Postretirement Benefit Obligation (APBO)	(1,932,578)	(1,554,064)	(1,504,983)
Fair value of assets (FVA)	221,451	50,751	0
Funded status	(1,711,127)	(1,503,313)	(1,504,983)
Accumulated Other Comprehensive (Income)/Loss			
Net prior service cost/(credit)	(136,090)	(122,185)	(108,280)
Net (gain) / loss	835,759	528,461	497,000
Total	699,669	406,276	388,720
Service cost	0	0	0
Interest cost	50,575	69,538	67,286
Expected return on assets	(5,674)	(2,172)	0
Amortization of net prior service cost/(credit)	(13,905)	(13,905)	(13,905)
Amortization of net (gain)/loss	58,177	32,372	30,307
Net periodic benefit cost	89,173	85,833	83,688
Discount rate	2.70%	4.65%	4.65%
Expected return on assets	4.50%	5.00%	0.00%
Actual return on assets	-34.73%	5.00%	0.00%

The results are based on the January 1, 2022 valuation results delivered on June 27, 2022. The forecast reflects:
> discount rates as of 6/30/2022
> estimated 2022 asset returns reflect actual returns through 6/30/2022 and assumes 0% return for the remainder of 2022
> 2023 and 2024 expected return on assets assumption of 5.00%
> contributions are assumed once assets are exhausted

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*** * * * ***

In the matter, on the Commission's own motion, to to review its response to the novel coronavirus (COVID-19) pandemic, including the statewide state of emergency, and to provide guidance and direction to energy and telecommunications providers and other stakeholders.	)	Case No. U-20757

RESPONSE OF UPPER PENINSULA POWER COMPANY

On July 7, 2022 the Michigan Public Service Commission issued an Order in Case No. U-20757 (July 7 Order) directing rate-regulated utilities, with recorded deferred uncollectible expenses per the April 15, 2020 Order (April 15 Order) in the aforementioned case, to respond to the following questions no later than 5:00 p.m. (Eastern time) on July 28, 2022:

1. *The dollar amounts recorded and a brief narrative. This should include (a) the authorized amount of uncollectible expenses in base rates, (b) the actual amount of uncollectible expenses experienced, and (c) the amount of the uncollectible expenses deferral. For (a), also provide the order docket number(s) and date(s) used to determine the amount of uncollectible expenses authorized in base rates;*

2. *A reasonable discontinuation date of the deferred uncollectible deferral; and*

3. *How and when the utility would propose to seek recovery of deferred amounts.*

Upper Peninsula Power Company ("UPPCO" or "The Company") offers the following responses to the Commission's questions included in the July 7 Order:

1. As contemplated by the April 15 Order and for the period of March 24, 2020 through December 31, 2020, UPPCO recorded deferrals of its uncollectible debt expense by comparing its actual uncollectible expenses recorded to the general ledger to the level of uncollectible expenses used in the development of UPPCO's base rates. UPPCO has not recorded deferrals related to the April 15 order at any time period post after December 31, 2020.
    a. The total amount of uncollectible expenses included in UPPCO's current base rates is equal to $522,968, pursuant to the Commission's May 23, 2019 Order approving settlement in UPPCO's most recent general rate proceeding, Case No. U-20276.
    b. The actual amount of uncollectible expense experienced during the time period beginning March 24, 2020 through December 31, 2020 totals $1,387,161.88.

c. To date, UPPCO has deferred $863,117.84 to the U-20757 deferred asset account authorized by the April 15 Order.

Furthermore, UPPCO notes that on May 26, 2021, the Commission issued an Order approving settlement in Case No. U-20995. Paragraph 2(l) of the approved settlement agreement states that:

> *"As part of Axium UP's commitment to integrating Environmental, Social, and Corporate Governance matters into its management strategy, in its next rate case under its new ownership, UPPCO will forgive 20% of the bad debt booked to the Company's Covid 19 deferred asset account, which shall be borne by shareholders and shall not be recovered from ratepayers. UPPCO will propose an arrears forgiveness program, in consultation with the Staff and the Attorney General, within 90 days form settlement execution, to provide the benefit of the bad debt expense forgiven above to customer arrearages."*

Through these comments, UPPCO confirms that it intends to request recovery of the Covid 19 deferred asset in its next rate case proceeding, and at the conclusion of this case will effectuate the arrears forgiveness program defined by the aforementioned paragraph.

2. UPPCO suggests that a reasonable discontinuation date for the accrual of expenses included in this deferred uncollectible account should be the earlier of (a) the date of filing its next general rate case, or (b) September 1, 2022.

3. As discussed previously, UPPCO will seek recovery of the deferred uncollectible amount at the time it files it next general rate case through the establishment of a regulatory asset. The value of the deferred uncollectible amount will be reflected in working capital, and consequently amortized over a yet to be determined period and included in the derivation of revenue deficiency.

Dated: July 28, 2022

Eric W. Stocking
Manager of Rates & Power Supply
Upper Peninsula Power Company

Michigan Public Service Commission
Upper Peninsula Power Company
Revolver Caclulation
for the Projected Year ended, June 30, 2024

Case No. U-21286
Exhibit A-48 (GRH-31)

Witness: Gradon R. Haehnel

	UPPCO Monthly Revolver							
		Revolver	% Δ LIBOR	6-mo. LIBOR rate	Margin Rate	Total Rate	Montly Interest Expense	Annual Expense
actual	December-21	**$ 12,000,000**		0.34%	1.625%	1.97%	$ 19,650	
actual	January-22	$ 12,000,000		0.54%	1.625%	2.17%	$ 21,650	
actual	February-22	$ 12,000,000		0.80%	1.625%	2.43%	$ 24,250	
actual	March-22	$ 12,000,000		1.47%	1.625%	3.10%	$ 30,950	
actual	April-22	$ 12,000,000		1.91%	1.625%	3.54%	$ 35,350	
actual	May-22	$ 12,000,000		2.11%	1.625%	3.74%	$ 37,350	
actual	June-22	$ 12,000,000		2.94%	1.625%	4.57%	$ 45,650	
fcast	July-22	$ 17,000,000		3.03%	1.625%	4.66%	$ 65,946	
fcast	August-22	$ 18,441,239		3.21%	1.625%	4.84%	$ 74,303	
fcast	September-22	$ 19,882,477		3.40%	1.625%	5.03%	$ 83,258	
fcast	October-22	$ 21,323,716		3.55%	1.625%	5.18%	$ 91,959	
fcast	November-22	$ 22,764,955		3.65%	1.625%	5.28%	$ 100,071	
fcast	December-22	**$ 24,206,194**		3.68%	1.625%	5.31%	$ 107,012	$ 717,748
fcast	January-23	$ 26,111,969		3.73%	1.625%	5.36%	$ 116,525	
fcast	February-23	$ 28,017,745		3.75%	1.625%	5.38%	$ 125,496	
fcast	March-23	$ 29,923,521	5.0%	3.94%	1.625%	5.56%	$ 138,708	
fcast	April-23	$ 31,829,297	5.0%	4.13%	1.625%	5.76%	$ 152,764	
fcast	May-23	$ 33,735,072	1.6%	4.20%	1.625%	5.83%	$ 163,770	
fcast	June-23	$ 35,640,848	5.0%	4.41%	1.625%	6.04%	$ 179,260	
fcast	July-23	$ 37,546,624	1.6%	4.48%	1.625%	6.11%	$ 191,053	
fcast	August-23	$ 39,452,399	-5.0%	4.26%	1.625%	5.88%	$ 193,385	
fcast	September-23	$ 41,358,175	5.0%	4.47%	1.625%	6.09%	$ 210,062	
fcast	October-23	$ 43,263,951	-5.0%	4.25%	1.625%	5.87%	$ 211,684	
fcast	November-23	$ 45,169,727	-5.0%	4.03%	1.625%	5.66%	$ 213,017	
fcast	December-23	**$ 47,075,502**	**3.1%**	4.16%	1.625%	5.78%	$ 226,910	$ 2,122,635
fcast	January-24	$ 49,643,366	-5.0%	3.95%	1.625%	5.58%	$ 230,684	
fcast	February-24	$ 52,211,230	-5.0%	3.75%	1.625%	5.38%	$ 234,021	
fcast	March-24	$ 54,779,094	4.7%	3.93%	1.625%	5.56%	$ 253,584	
fcast	April-24	$ 57,346,958	5.0%	4.13%	1.625%	5.75%	$ 274,862	
fcast	May-24	$ 59,914,821	-4.2%	3.95%	1.625%	5.58%	$ 278,516	
fcast	June-24	**$ 62,482,685**	**-5.0%**	3.76%	1.625%	5.38%	$ 280,161	$ 2,977,201

UPPCO Free Cash Flow Projection					
	2021	2022	2023	full year 2024	1st 6 mo. 2024
	actual	fcast	fcast	fcast	fcast
Net Income UPPCO		$ 11,448,000	$ 7,839,391	$ (1,467,010)	$ (733,505)
+ D&A UPPCO		$ 12,229,004	$ 13,190,228	$ 15,240,782	$ 7,620,391
- Base CAPEX		$ (23,238,198)	$ (31,253,928)	$ (31,943,138)	$ (15,971,569)
- Solar CAPEX		$ -	$ -	$ -	$ -
- Misc Paid-in Capital		$ (5,400,000)	$ (5,400,000)	$ (5,400,000)	$ (2,700,000)
- Misc Paid-in Capital		$ (7,245,000)	$ (7,245,000)	$ (7,245,000)	$ (3,622,500)
Free Cash Flow		**$ (12,206,194)**	**$ (22,869,309)**	**$ (30,814,366)**	**$ (15,407,183)**
EOY Revolver Balance	**$ 12,000,000**	**$ 24,206,194**	**$ 47,075,502**	**$ 77,889,868**	**$ 62,482,685**

welfare

Upper Peninsula Power Company

Consolidated Actuarial Valuation Report Benefit Cost for Fiscal Year Beginning January 1, 2022 under US GAAP

June 2022

Table of Contents

Purposes of valuation **1**
Section 1 : Summary of key consolidated results **3**
Benefit cost, plan assets & obligations *3*
Comments on results *4*
Basis for valuation *4*
Actuarial certification **5**
Section 2 : Consolidated accounting exhibits **9**
2.1 Balance sheet asset/(liability) *9*
2.2 Summary of net balances *10*
2.3 Summary and comparison of benefit cost and cash flows *11*
2.4 Development of Market-Related Value of Assets *12*
Appendix A : Statement of consolidated actuarial assumptions, methods and data sources **13**
Appendix B : Summary of principal other postretirement benefit plan provisions **29**
Appendix C : Accounting exhibits by plan **35**

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Purposes of valuation

Upper Peninsula Power Company (the Company) engaged Willis Towers Watson US LLC (WTW) to value the Company's other postretirement benefit plans.

As requested by the Company, this report documents the results of an actuarial valuation of the Plans:

- Upper Peninsula Power Company Administrative Medical and Dental Plan
- Upper Peninsula Power Company Non-Administrative Medical and Dental Plan
- Upper Peninsula Power Company Retiree Life Insurance Plan

The primary purpose of this valuation is to determine the Net Periodic Postretirement Benefit Cost/(Income) (Benefit Cost), in accordance with FASB Accounting Standards Codification Topic 715 (ASC 715) for the fiscal year ending December 31, 2022. It is anticipated that a separate report will be prepared for year-end financial reporting purposes.

Limitations

This valuation has been conducted for the purposes described above and may not be suitable for any other purpose. In particular, please note the following:

1. The expected contribution to the other postretirement benefits plan(s) has been set at $0.

   Note that any significant change in the amounts contributed or expected to be contributed in 2022 from what is disclosed at December 31, 2021 may require disclosure in the interim financial statements, but should not affect the expected return on plan assets absent a remeasurement for another purpose.

2. There may be certain events that have occurred since the valuation date that are not reflected in the current valuation. See Subsequent Events in the Basis for Valuation section below for more information.

3. This report does not provide information for plan accounting and financial reporting under ASC 960 or ASC 965.

4. This report does not present liabilities on a plan termination basis, for which a separate extensive analysis would be required. No funded status measure included in this report is intended to assess, and none may be appropriate for assessing, the sufficiency of plan assets to cover the estimated cost of settling benefit obligations, as all such measures differ in some way from plan termination obligations. In addition, funded status measures shown in this report do not reflect the current costs of settling obligations by offering immediate lump sum payments to participants and/or purchasing annuity contracts for the remaining participants (e.g., insurer profit, insurer pricing of contingent benefits and/or provision for anti-selection in the choice of a lump sum vs. an annuity).

5. The comparisons of plan obligations as determined for accounting and financial reporting purposes to plan assets presented in this report cannot be relied upon to determine the need for nor the amount of required future plan contributions. Nevertheless, such comparisons may be useful to assess the need for future contributions because they reflect current interest rates at the measurement date in determining benefit obligations. However, asset gains and losses, demographic experience different from assumed, changes in interest rates, future benefit accruals, if any, and other factors will all affect the need for and amount of future contributions. In addition, if a plan is not required by law to be funded, benefit payments may also be paid directly by the plan sponsor as they come due.

Section 1: Summary of key consolidated results

Benefit cost, plan assets & obligations

All monetary amounts shown in US Dollars

Fiscal Year Beginning		01/01/2022	05/31//2021
Benefit Cost/ (Income)	Net Periodic Postretirement Benefit Cost/(Income)[1]	(812,751)	(483,338)
	Benefit Cost/(Income) due to Special Events	0	0
	Total Benefit Cost/(Income)[1]	(812,751)	(483,338)
Measurement Date		**01/01/2022**	**05/31/2021**
Plan Assets	Fair Value of Plan Assets (FVA)	31,866,704	30,350,430
	Market Related Value of Plan Assets (MRVA)	28,866,684	27,490,560
Benefit Obligations	Accumulated Postretirement Benefit Obligation (APBO)	(19,737,101)	(19,665,863)
Funded Ratio	Fair Value of Plan Assets to APBO	161.5%	154.3%
Accumulated Other Comprehensive (Income)/Loss (Pre-tax)	Net Prior Service Cost/(Credit)	(2,340,547)	(2,837,734)
	Net Loss/(Gain)	(10,520,148)	(9,072,401)
	Total Accumulated Other Comprehensive (Income)/Loss (pre-tax)	(12,860,695)	(11,910,135)
Assumptions	Discount rate	3.01%	3.21%
	Expected Long-Term Rate of Return on Plan Assets	4.50%	4.50%
	Current Health Care Cost Trend Rate	7.00%	6.00%
	Ultimate Health Care Cost Trend Rate	5.00%	5.25%
	Year of Ultimate Trend Rate	2030	2026
Participant Data	Census Date	1/1/2022	1/1/2021

[1] Benefit cost shown for the 2021 fiscal year is for the period June 1, 2021 through December 31, 2021

Comments on results

Change in net periodic cost and funded position

The net periodic cost decreased from $(483,338) in fiscal 2021 to $(812,751) in fiscal 2022 and the funded position improved from $10,684,567 to $12,129,603.

Significant reasons for these changes include the following:

- The actual return on the fair value of plan assets since the prior measurement date was greater than assumed, which caused the net periodic cost to decrease and improved the funded position.
- The discount rates for the plans decreased, which caused the net periodic cost to increase and the funded position to deteriorate.
- The trend assumption was updated, which caused the net periodic cost to increase and the funded position to deteriorate.
- Demographic liability gains caused the net periodic cost to decrease and improved the funding position.

Effects of Health Care Reform

This valuation reflects our understanding of the relevant provisions of the Patient Protection and Affordable Care Act (PPACA) and Health Care and Education Reconciliation Act (HCERA), and subsequent legislation (the SECURE Act of 2019) that eliminated the Cadillac tax, medical device tax and health insurance issuer tax. The IRS has yet to issue final guidance with respect to many aspects of these laws. It is possible that future guidance may conflict with our understanding of these laws based on currently available guidance and could therefore affect the results shown in this report. The valuation does not anticipate the effects of any additional possible future changes to PPACA or HCERA.

Basis for valuation

Appendix A summarizes the assumptions, methods and models used in the valuation. Appendix B summarizes our understanding of the principal provisions of the plans being valued. Both of these appendices include a summary of any changes since the prior valuation. Unless otherwise described below under Subsequent Events, assumptions were selected based on information known as of the measurement date.

Subsequent events

WTW is not aware of any other material events that have occurred and are not reflected in the valuation.

Additional information

None.

Actuarial certification

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. However, please note the information discussed below regarding this valuation.

Reliances

In preparing the results presented in this report, we have relied on information regarding plan provisions, participants, assets, and sponsor accounting policies and methods provided by the Company and other persons or organizations designated by the Company. See the Sources of Data and Other Information section of Appendix A for further details. We have relied on all the data and information provided as complete and accurate. We have reviewed this information for overall reasonableness and consistency, but have neither audited nor independently verified this information. Based on discussions with and concurrence by the plan sponsor, assumptions or estimates may have been made if data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations. The results presented in this report are directly dependent upon the accuracy and completeness of the underlying data and information. Any material inaccuracy in the data, assets, plan provisions or other information provided to us may have produced results that are not suitable for the purposes of this report and such inaccuracies, as corrected by the Company, may produce materially different results that could require that a revised report be issued.

Measurement of benefit obligations, plan assets and balance sheet adjustments

Census date/measurement date

The measurement date is January 1, 2022. The benefit obligations were measured as of January 1, 2022 and are based on participant data as of the census date, which is displayed by Plan in Appendix C.

Plan assets and balance sheet adjustments

Information about the fair value of plan assets and the general ledger account balances for the other postretirement benefit plans cost at December 31, 2021, which reflect the expected funded status of the plans before adjustment to reflect the funded status based on the year-end measurements, and differences between the expected Medicare Part D subsidies and amounts received during the year was reviewed for reasonableness and consistency, but no audit was performed.

Accumulated other comprehensive (income)/loss amounts shown in the report are shown prior to adjustment for tax effects. Any tax effects in AOCI should be determined by the Company in consultation with its tax advisors and independent accountants.

Assumptions and methods under U.S. GAAP

As required by U.S. GAAP, the actuarial assumptions and methods employed in the development of the other postretirement benefit cost and other financial reporting have been selected by the Company. WTW has evaluated the assumptions used and believes that they do not significantly conflict with what would be reasonable. U.S. GAAP requires that each significant assumption "individually represent the best estimate of the plan's future experience solely with respect to that assumption."

The results shown in this report have been developed based on actuarial assumptions that, to the extent evaluated by WTW, we consider to be reasonable. Other actuarial assumptions could also be considered to be reasonable. Thus, reasonable results differing from those presented in this report could have been developed by selecting different reasonable assumptions.

A summary of the assumptions, methods and sources of data and other information used is provided in Appendix A. Note that any subsequent changes in methods or assumptions for the January 1, 2022 measurement date will change the results shown in this report.

Certain models (as described in ASOP No. 56) were used in preparing the information presented herein. Further information on these models can be found in Appendix A.

Nature of actuarial calculations

The results shown in this report are estimates based on data that may be imperfect and on assumptions about future events that cannot be predicted with any certainty. The effects of certain plan provisions may be approximated, or determined to be insignificant and therefore not valued. Reasonable efforts were made in preparing this valuation to confirm that items that are significant in the context of the actuarial liabilities or costs are treated appropriately, and are not excluded or included inappropriately. Any rounding (or lack thereof) used for displaying numbers in this report is not intended to imply a degree of precision, which is not a characteristic of actuarial calculations.

If overall future plan experience produces higher benefit payments or lower investment returns than assumed, the relative level of plan costs reported in this valuation will likely increase in future valuations (and vice versa). Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for the measurements (such as the end of an amortization period), and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements.

See Basis for Valuation in Section 1 above for a discussion of any material events that have occurred after the valuation date that are not reflected in this valuation.

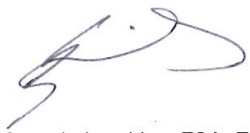
Limitations on use

This report is provided subject to the terms set out herein and in our engagement letter dated November 16, 2020 and any accompanying or referenced terms and conditions.

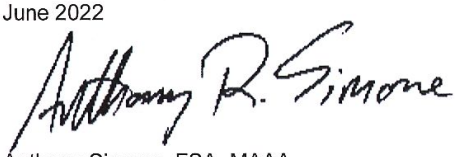
The information contained in this report was prepared for the internal use of the Company and its independent accountants in connection with our actuarial valuation of the other postretirement benefit plans as described in Purposes of Valuation above. It is not intended for and may not be used for other purposes, and we accept no responsibility or liability in this regard. The Company may distribute this actuarial valuation report to the appropriate authorities who have the legal right to require the Company to provide them this report, in which case the Company will use best efforts to notify WTW in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without WTW's prior written consent. WTW accepts no responsibility for any consequences arising from any other party relying on this report or any advice relating to its contents.

Professional qualifications

The undersigned are members of the Society of Actuaries and meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to other postretirement benefit plans. Our objectivity is not impaired by any relationship between the plan sponsor and our employer, Willis Towers Watson US LLC.



Georgia Louridas, FSA, EA
Director, Retirement
Valuation Actuary
June 2022



Anthony Simone, FSA, MAAA
Director, Retirement
Valuation Actuary and Pricing Specialist
June 2022

The Pricing Specialist is responsible for developing and/or determining the reasonableness of retiree welfare plan trend and participation assumptions as well as assumed per capita claims costs (including the aging/morbidity assumption if applicable). The Valuation Actuary is responsible for other aspects of the valuation (e.g., developing and/or reviewing the reasonableness of other valuation assumptions and methods, ensuring that the valuation model reasonably reflects the substantive plan, preparing demographic data, performing the valuation, implementing the appropriate accounting or funding calculations, etc.).

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Section 2: Consolidated accounting exhibits

2.1 Balance sheet asset/(liability)

All monetary amounts shown in US Dollars

	Measurement Date	01/01/2022	05/31/2021
A	**Development of Balance Sheet Asset/(Liability)[1]**		
	1 Accumulated postretirement benefit obligation (APBO)	(19,737,101)	(19,665,863)
	2 Fair value of plan assets (FVA) [2]	31,866,704	30,350,430
	3 Net balance sheet asset/(liability)	12,129,603	10,684,567
B	**Current and Noncurrent Classification[3]**		
	1 Noncurrent asset	13,840,730	12,463,573
	2 Current liability	0	(3,227)
	3 Noncurrent liability	(1,711,127)	(1,775,779)
	4 Net balance sheet asset/(liability)	12,129,603	10,684,567
C	**Accumulated Other Comprehensive (Income)/Loss**		
	1 Net prior service cost/(credit)	(2,340,547)	(2,837,734)
	2 Net loss/(gain)	(10,520,148)	(9,072,401)
	3 Accumulated other comprehensive (income)/loss[4]	(12,860,695)	(11,901,135)
D	**Assumptions and Dates**		
	1 Discount rate	3.01%	3.21%
	2 Current health care cost trend rate	7.00%	6.25%
	3 Ultimate health care cost trend rate	5.00%	5.00%
	4 Year of ultimate trend rate	2030	2026
	5 Census date	01/01/2022	01/01/2021

1 Whether any amounts in this table that differ from those disclosed at year-end must be disclosed in subsequent interim financial statements should be determined.
2 Excludes receivable contributions.
3 The current liability (for each underfunded plan) was measured as the discounted value of benefits expected to be paid over the next 12 months in excess of the fair value of the plan's assets at the measurement date.
4 Amount shown is pre-tax and should be adjusted by plan sponsor for tax effects.

2.2 Summary of net balances

Refer to Appendix C for balances by plan.

2.3 Summary and comparison of benefit cost and cash flows

All monetary amounts shown in US Dollars

Fiscal Year Ending	12/31/2022	12/31/2021
A Total Benefit Cost		
1 Employer service cost	905,405	489,027
2 Interest cost	610,983	377,827
3 Expected return on plan assets	(1,282,923)	(712,135)
4 Subtotal	233,465	154,719
5 Net prior service cost/(credit) amortization	(731,878)	(497,187)
6 Net loss/(gain) amortization	(314,338)	(140,870)
7 Subtotal	(1,046,216)	(638,057)
8 Net periodic postretirement benefit cost/(income)	(812,751)	(483,338)
9 Curtailment (gain)/loss	0	0
10 Settlement (gain)/loss	0	0
11 Special/contractual termination benefits	0	0
12 Total benefit cost[1]	(812,751)	(483,338)
B Assumptions		
1 Discount rate	3.01%	3.21%
2 Expected long-term rate of return on plan assets	4.50%	4.50%
3 Current health care cost trend rate	7.00%	6.25%
4 Ultimate health care cost trend rate	5.00%	5.00%
5 Year of ultimate trend rate	2030	2026
6 Census date	01/01/2022	01/01/2021
C Plan Assets at Beginning of Period		
1 Fair value	31,866,704	30,350,430
2 Market-related value	28,866,684	27,490,560
D Cash Flows Net of Medicare Part D Subsidy	**Expected**	
1 Employer contributions	0	
2 Plan participants' contributions	0	
3 Benefits paid from Company assets	32,094	
4 Benefits paid from plan assets	722,522	
E Amortization Period	N/A	

[1] Benefit cost shown for the 2021 fiscal year is for the period June 1, 2021 through December 31, 2021

2.4 Development of Market-Related Value of Assets

All monetary amounts shown in US Dollars

Fiscal Year Ending	12/31/2022
A Development of Market-Related Value of Assets – Total	
1 Fair value of assets at current fiscal year end	31,866,704
2 Deferred investment gains/(losses) for prior periods	
Fiscal Year Gain/(Loss)	
a 12/31/2021	1,268,707
b 12/31/2020	2,283,753
c 12/31/2019	2,678,007
d 12/31/2018	(2,282,004)
e 12/31/2017	1,174,543
Percent Deferred	
a 12/31/2021	80%
b 12/31/2020	60%
c 12/31/2019	40%
d 12/31/2018	20%
e 12/31/2017	0%
Deferred Amount	
a 12/31/2021	1,014,966
b 12/31/2020	1,370,251
c 12/31/2019	1,071,203
d 12/31/2018	(456,400)
e 12/31/2017	0
3 Market-related value of assets	28,866,684

Appendix A: Statement of consolidated actuarial assumptions, methods and data sources

Plan Sponsor

Upper Peninsula Power Company for all plans.

Statement of Assumptions

The assumptions disclosed in this Appendix are for the fiscal year ending December 31, 2021 financial reporting.

Assumptions and methods for other postretirement benefit cost purposes

Actuarial Assumptions and Methods — Other Postretirement Benefit Cost

Economic Assumptions

Discount rate

- Administrative Medical and Dental Plan 2.45%
- Non-Administrative Medical and Dental Plan 3.10%
- Retiree Life Insurance Plan 2.70%

Expected rate of return on assets

- Return on Administrative VEBA:
  - Fiscal 2021 3.35%
  - Fiscal 2022 N/A
- Return on other funding vehicles:
  - Fiscal 2021 4.50%
  - Fiscal 2022 4.50%

The return on assets shown above is net of investment expenses and administrative expenses assumed to be paid from the trust.

Demographic and Other Assumptions	
Inclusion date	The valuation date coincident with or next following the date on which the employee becomes a participant.
New or rehired employees	It was assumed there will be no new or rehired employees.
Covered pay	Assumed plan compensation for the year beginning on the valuation date was determined as actual gross earnings during the prior year provided by the employer

Participation Assumptions for Plan	Current Retirees	Future Retirees	
Participation:	Based on valuation census data	Percentages of eligible individuals electing coverage	
		Participant	*Spouse*
■ Medical			
■ Pre-65		100%	100%
■ Post-65		100%	100%
■ Dental			
■ Pre-65		100%	100%
■ Post-65		100%	100%
■ Life insurance		100%	100%
Percentage of retirees covering a spouse	Based on valuation census data	80% of males; 50% of females	
Spouse age	Based on valuation census data	Wife 3 years younger than husband	
Non-spouse dependent coverage	Based on valuation census data	No participants are assumed to elect coverage for non-spouse dependents in retirement.	

Demographic Assumptions

Mortality – Healthy & Disabled

- Base table: Pri-2012 retiree and contingent annuitant tables with separate tables for males and females.
- Base mortality table year: 2012
- Table Type: No collar
- Healthy or Disabled: Healthy (Disabled for disability mortality)
- Table weighting: Benefit
- Separate rates for annuitants and non-annuitants (based on employee tables)
- Mortality improvement scale: MP-2020

Disability rates

Representative Disability Rates

Percentage assumed to become disabled during the year		
Attained Age	Males	Females
20	0.03%	0.04%
25	0.03%	0.05%
30	0.04%	0.06%
35	0.05%	0.08%
40	0.07%	0.10%
45	0.10%	0.15%
50	0.18%	0.26%
55	0.36%	0.49%
60	0.90%	1.21%
65	0.00%	0.00%

Termination

Rates Varying by Age

Percentage assumed to leave during the year		
Attained Age	Males	Females
25	5.0%	10.0%
30	4.7%	9.4%
35	3.3%	6.7%
40	1.4%	2.7%
45	0.6%	1.2%
50	0.2%	0.5%
55	0.0%	0.0%
60	0.0%	0.0%

Retirement

Representative Retirement Rates

Percentage assumed to retire during the year		
Age	Administrative	Non-Administrative
55	5%	5%
56	5%	5%
57	5%	5%
58	15%	20%
59	10%	15%
60	20%	30%
61	20%	40%
62	60%	80%
63	30%	50%
64	50%	50%
65	100%	100%

Trend Rates

Health care cost trend rate:

- Medical costs for Pre-Medicare and Medicare eligible retirees — 7.00% in 2022 reducing 0.25% for 8 years, reaching 5.00% in 2030 and after
- Dental care cost trend rate — 5.00%

Participant contribution trend rates:

- Medical costs — Same as applicable medical plan trend rate
- Dental — Same as dental plan trend rate

Medicare Part D Assumptions

Eligibility for Medicare Part D subsidy — The plan for Medicare eligible participants is a Fully Insured Medicare Advantage plan and does not qualify for the Part D subsidy.

Medicare Part D subsidy value — N/A

Per Capita Claims Costs and Retiree Contributions

Basis for per capita claim cost and retiree contribution assumptions

The average annual per capita health rates for 2022 are shown below. Best estimate assumptions developed based on insurance premiums, adjusted where appropriate for the effect of aging.

Effective in 2021, UPPCO changed carriers to Humana and in doing so is experiencing a large drop in premium rates. It is unclear at this point in time the extent to which these lower premium rates reflect the best long-term estimate of the cost structure of the plan. For this reason, in setting the claim cost assumption for 2022, a margin was added to both pre and post 65 claim costs. The margins were 50% for pre-65 and 20% for post-65. For consistency, these same margins were also added to the retiree contribution rates for purposes of performing the valuation of obligations. In future years, we will continue to monitor the premium rates for these plans to determine the extent to which this kind of margin continues to be appropriate.

	PPO	Benistar	Dental
<50	$ 6,624	N/A	$ 493
50 – 54	$ 8,134	N/A	$ 493
55 – 59	$ 9,766	N/A	$ 493
60 – 64	$ 12,086	N/A	$ 493
65 or Older	$ 3,084	$ 3,740	$ 493

Retiree premium assumption for 2022 are shown below:

Age	PPO	Benistar	Dental
Prior to 65	$ 10,896	N/A	$ 493
65 or Older	$ 3,084	$ 3,740	$ 493

Additional Assumptions

Administrative expenses	Return on asset assumption is net of any expense paid by the trust. It is assumed that administrative expenses will reduce the rate of return on assets by 0.25% for the VEBA and 0.45% for the 401(h) for fiscal 2021 and 2022.
Cash flow	
■ **Decrement timing**	The assumptions used are collectively called rounded middle of year (rounded MOY) decrement timing. Most events are assumed to occur at the middle of year during which the eligibility condition will be met or the start/end date will occur. For death and disability decrements, the rate applied is based on the participant's rounded age (nearest integer age) at the beginning of the year, to align with the methodology generally used to create those rate tables. For retirement and withdrawal decrements, the age is generally the participant's rounded age at the middle of the year.
■ **Timing of benefit payments**	Annuity payments are payable monthly at the beginning of the month and lump sum payments are payable on date of decrement.

Methods – Other Postretirement Benefit Cost and Funded Position

Census date	January 1, 2022
Measurement date	January 1, 2022

Service cost and accumulated postretirement benefit obligation	Costs are determined using the Projected Unit Credit Cost Method. The annual service cost is equal to the present value of the portion of the projected benefit attributable to service during the upcoming year, and the Accumulated Postretirement Benefit Obligation (APBO) is equal to the present value of the portion of the projected benefit attributable to service before the measurement date. Service from the beginning of the attribution period through the expected full eligibility date is counted in allocating costs. For Administrative employees hired prior to January 1, 2008, the beginning of the attribution period is the later of age 45 and January 1, 2013. The full eligibility date is the date the employee is eligible to retire with at least 10 years of continuous service after age 45. For Administrative employees hired on or after January 1, 2008, the beginning of the attribution period is the later of date of hire and age 45. The full eligibility date is the date the employee is eligible to retire with at least 10 years of continuous service after age 45. For the Non-Administrative plan and Retiree Life Insurance plan, the beginning of the attribution period is date of hire. The full eligibility date is age 55 with 10 years of service.
Market-related value of assets	The fair value of assets on the measurement date, less the unrecognized portion of the returns net of interest and dividends on the fair value of assets. The following percentages are considered for this purpose ■ 80% of the first preceding 12 months ■ 60% of the second preceding 12 months ■ 40% of the third preceding 12 months ■ 20% of the fourth preceding 12 months The smoothing method has a bias to produce a market-related value of assets that is below the fair value of assets.

Methods – Other Postretirement Benefit Cost and Funded Position (continued)

Amortization of unamortized amounts:	
■ Transition obligation (asset)	Not applicable

■ Past service cost (credit)	Amortization of net prior service cost/(credit) resulting from a plan change is included as a component of Net Periodic Benefit Cost/(Income) in the year first recognized and every year thereafter until such time as it is fully amortized. The annual amortization payment is determined in the first year as the increase in APBO due to the plan change divided by the average remaining service period of participating employees expected to receive benefits under the plan. However, when the plan change reduces the APBO, existing positive prior service costs are reduced or eliminated on a pro-rata basis before a new prior service credit is established.
■ Net loss (gain)	Amortization of the net gain or loss resulting from experience different from the assumed and from changes in assumptions (excluding asset gains and losses not yet reflected in market-related value) is included as a component of Net Periodic Benefit Cost/(Income) for a year. If, as of the beginning of the year, that net gain or loss exceeds 10% of the greater of the APBO and the market-related value of assets, the amortization is that excess divided by the average remaining service period of participating employees expected to receive benefits under the plan. For the Retiree Life Insurance plan average remaining lifetime is used instead of average remaining service. Under this methodology, the gain/loss amounts recognized in AOCI are not expected to be fully recognized in benefit cost until the plan is terminated (or an earlier event, like a settlement triggers recognition) because the average expected remaining service of active participants expected to benefit under the plan over which the amounts are amortized is redetermined each year and amounts that fall within the corridor described above are not amortized. For the Retiree Life Insurance plan average remaining lifetime is used instead of average remaining service.
Benefits not valued	All benefits described in the Plan Provisions section of this report were valued. WTW has reviewed the plan provisions with the Plan Sponsor and, based on that review, is not aware of any other significant benefits required to be valued that were not.

Source of Prescribed Methods

Accounting methods	The methods used for accounting purposes as described in Appendix A, including the method of determining the market-related value of plan assets are "prescribed methods set by another party", as defined in the actuarial standards of practice (ASOPs). As required by U.S. GAAP, these methods were selected by the plan sponsor.

Assumptions Rationale - Significant Economic Assumptions

Discount rate	As required by U.S. GAAP, the discount rate was chosen by the plan sponsor based on market information on the measurement date. The rate derived from market information is rounded to 5 basis points. Based on WTW's interest rate model, RATE:Link, that uses a yield curve derived from current, high quality (rated AA and above) corporate bonds to discount expected pension cash flows, and thus determine discount rates, we believe the discount rate chosen does not significantly conflict with what would be reasonable.
Expected return on plan assets	We understand that the expected return on assets assumption reflects the plan sponsor's estimate of future experience for trust asset returns, reflecting the plan's current asset allocation and any expected changes during the current plan year, current market conditions and the plan sponsor's expectations for future market conditions. The analysis was informed by analysis of investment managers and recent trends for CPI, GDP growth, and real returns on the various classes of assets held by the trust. WTW's determination that this assumption does not significantly conflict with what would be reasonable is informed by WTW's Expected Return Estimator model.
Claims cost trend rates	Assumed increases were chosen by the plan sponsor and, as required by U.S. GAAP they represent an estimate of future experience, leading to select and ultimate assumed trend rates. In setting near term trend rates, other pertinent statistics were considered, including surveys on general medical cost increases. In setting the ultimate trend rate, considerations included assumed GDP growth reasonably consistent with the assumed future economic conditions inherent in other economic assumptions chosen by the client at the measurement date. After examining historical variability in trend rates and all of the factors described above, we believe that the selected assumptions do not significantly conflict with what would be

	reasonable based on a combination of market conditions at the measurement date and future expectations reasonably consistent with other economic assumptions used, other than the discount rate.
Participant contribution trend rates	In accordance with the substantive plan communicated to participants, participant contributions are intended to remain a fixed percentage of total plan costs, and thus the trend rates, and the description of the derivation of the trend rates, are the same as for claims costs as shown above. We believe this assumption does not significantly conflict with what would be reasonable based on the considerations mentioned above, and current and historical trend rates and their variability, and that this assumption is reasonably consistent with the terms of the substantive plan and the other assumed economic assumptions, other than the discount rate.
Medicare Part D subsidy trend rates	Not applicable
Per capita claims costs	Per capita claims costs were chosen by the plan sponsor based on premiums set by Humana in the plan year beginning on the measurement date (with any expected changes in future years reflected in the trend rate assumption). We believe the per capita claims cost assumptions do not significantly conflict with what would be reasonable.
Medicare Part D subsidy value	Not applicable

Assumptions Rationale - Significant Demographic Assumptions

Healthy Mortality	Assumptions used for accounting purposes were selected by the plan sponsor and, as required by U.S. GAAP, represent a best estimate of future experience. We believe the assumptions do not significantly conflict with what would be reasonable because they reflect recent experience and are adjusted to reflect the plan sponsor's expectations regarding future mortality improvement.
Disabled Mortality	Assumptions used for accounting purposes were selected by the plan sponsor and, as required by U.S. GAAP, represents a best estimate of future experience. For the reasons described above, we believe the assumptions do not significantly conflict with what would be reasonable.

Termination	Termination rates were set several years ago based on historical experience and no significant gains or losses have been observed due to actual termination experience different than expected. For the reasons discussed above, we believe the assumptions selected do not significantly conflict with what would be reasonable.
Disability	Disability rates are based on a standard UAW table. Actual experience is not credible to set plan specific rates. For the reasons discussed above, we believe the assumptions selected do not significantly conflict with what would be reasonable.
Retirement	Retirement rates were set several years ago based on historical experience and no significant gains or losses have been observed due to actual retirement experience different than expected. For the reasons discussed above, we believe the assumptions selected do not significantly conflict with what would be reasonable.
Participation:	
■ Participants	Assumed participation rates reflect historical experience as well as anticipated future experience.
■ Covered spouses	Assumed coverage rates for spouses reflect historical experience as well as anticipated future experience. For the reasons discussed above, we believe the assumption does not significantly conflict with what would be reasonable.
Benefit commencement date:	
■ Retiree benefit	Retirees are assumed to begin benefits immediately on eligible retirement because experience shows that retirees who enroll tend to do so immediately. For the reasons discussed above, we believe the assumption does not significantly conflict with what would be reasonable.
Marital Assumptions:	
■ Percent married	The assumed percentage married is based on general population statistics on the marital status of individuals of retirement age. For the reasons discussed above, we believe

the assumption does not significantly conflict with what would be reasonable.

- Spouse age — The assumed age difference for spouses is based on general population statistics of the age difference for married individuals of retirement age. For the reasons discussed above, we believe the assumption does not significantly conflict with what would be reasonable.

Sources of Data and Other Information

The plan sponsor furnished participant data and claims data as of January 1, 2022. Information on assets, contributions and plan provisions was supplied by the plan sponsor. Data and other information were reviewed for reasonableness and consistency, but no audit was performed. Based on discussions with the plan sponsor, assumptions or estimates were made when data were not available, and the data was adjusted to reflect any significant events that occurred between the date the data was collected and the measurement date. In consultations with the Company, the following assumptions were made for missing or apparently inconsistent data elements: for missing beneficiary dates of birth, females were assumed to be 3 years younger than males; for missing beneficiary sexes, male participants were assumed to have a female beneficiary and female participants were assumed to have a male beneficiary.

Accumulated other comprehensive (income)/loss amounts shown in the report are shown prior to adjustment for deferred taxes. Any deferred tax effects in AOCI should be determined in consultation with the Company's tax advisors and auditors. WTW used information supplied by the Company regarding the amounts recognized in accumulated other comprehensive income as of the end of the 2021 fiscal year and amounts recognized in other comprehensive income in the 2021 fiscal year.

We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

Changes in Assumptions, Methods and Estimation Techniques

Changes in Assumptions

The discount rate for each plan was updated to reflect current market conditions.

- UPPCO Administrative Medical and Dental Plan from 2.40% to 2.45%
- UPPCO Non-Administrative Medical and Dental Plan from 3.35 % to 3.10%
- UPPCO Retiree Life Insurance Plan from 2.75% to 2.70%

The claims cost and retiree premiums were updated based on actual 2022 information provided by the vendors.

The trend assumption was updated to better reflect expected future claims experience.

Changes in Methods	None
Changes in Estimation Techniques	None

Model Descriptions and Disclosures in accordance with ASOP No. 56

Quantify

Quantify is the WTW centrally developed, tested and maintained Global actuarial valuation system. It is used to perform valuations of clients' benefit plans.

Quantify provides the ability to process data, calculate benefits and value benefit liabilities, develop results using applicable standards, and generate client reports.

Quantify parameters provide significant flexibility to model populations and plan designs. Various demographic, economic and benefit related assumptions exist for users to model multiple demographic and economic situations.

Plan liabilities are calculated based on standard actuarial techniques, developing actuarially reasonable results using the population and parameters entered. The calculation and presentation of liabilities in Quantify relies on the assumptions used and the reasonability of the assumptions selected.

Quantify incorporates standard liability methodologies that are intended to reasonably reflect a variety of economic or demographic conditions. The model itself does not evaluate any assumptions entered for reasonableness, consistency or probability of occurrence.

Quantify is designed specifically for these purposes, and we know of no material limitations that would prevent the system from being suitable for these intended purposes. The actuaries signing this report have relied on the actuaries who develop, test and maintain this system, and have also performed a limited review of results to ensure that system parameters have been set appropriately and plan provisions coded correctly.

Quantify FR

Quantify Financial Reporting (FR) is intended to calculate funding results, accounting results and produce the associated client reports under selected accounting standards. The calculations

and reports are based on various user specified inputs including liability results and asset values.

Quantify FR develops valuation results for various accounting and funding purposes using standard actuarial techniques.

Calculation of disclosure liabilities and results may be based on roll forward liabilities.

Liability roll-forwards are used in accounting scenarios where the date as of which liabilities are valued does not coincide with the fiscal year measurement date. The roll-forwards consist of adjusting liabilities for the passage of time.

The estimate of the following year's expense is calculated based on the obligations and assets used for disclosure and incorporates service cost that may be based on a projection in the associated Quantify liability run, depending on the relationship of the liability valuation date to the fiscal year.

The Roll Forward accounting calculations assume that applicable rules will not change during the roll-forward period. Actuaries make adjustments to the data, plan provisions and assumptions reflected in the calculation of the liabilities that are rolled forward so that the results reflect conditions at the measurement date, and/or make similar adjustments to the results of the roll forward, including reflecting any changes in applicable accounting standards.

RATE:Link/RateCalc

RATE:Link is a methodology to develop spot rates to be used for liability and cost measurements related to employee benefit plans. The same core methodology is used to develop all RATE:Link curves. The RATE:Link process develops term structures of interest rates from corporate bond data for each covered geography (e.g., the U.S.) for this valuation).

The construction of RATE:Link yield curves relies on bond data collected as of the measurement date.

Information regarding quoted bond prices, yields and other bond related data is from Bloomberg Finance L.P.

RateCalc is used as one component in developing the single equivalent discount rate that reflects the characteristics of the client's employee benefit plan. It references a yield curve (often a RATE:Link curve) and expected plan benefit payments. The projected benefit payments from the client's plan are matched to the spot rates along the yield curve to determine their present values. A single equivalent discount rate is then solved for, which produces the same total present value as the spot rates.

Expected Return Estimator

The Expected Return Estimator is used to help inform the choice of an expected return assumption (e.g., as one data point to consider) for returns on the assets of the trust.

The tool depends on the capital market assumptions chosen at the starting date of the simulation. These assumptions reflect currently prevailing capital market conditions, assumed future conditions ("normative conditions"), and the transition from the current conditions to the normative ones.

The assumed normative conditions incorporate a blend of historical capital market data and future expectations. The sources consulted in the determination of normative levels include practitioners in our global actuarial and investment consulting practices, plan sponsors, investment managers, economists, and academics.

Published Demographic Tables

Certain demographic tables described above are standard published tables or are based on standard published tables from models developed by organizations with the requisite expertise.

AgeDist

AgeDist is a spreadsheet tool that applies relative cost factors by age to average per capita costs (pre- and post-65) and census weights to produce age-graded plan costs for pre- and post-65 populations. The average per capita costs and census weights are provided as inputs to the tool, which is then combined with a morbidity curve to produce a set of weighted average age-related costs that equal the average. The age-graded costs are used in the actuarial valuation.

The morbidity curve was developed from a broad set of claims data aggregated by age and blended and may not reflect your specific morbidity. The model does not evaluate the average per capita costs or census weights for reasonableness or consistency.

Appendix B: Summary of principal other postretirement benefit plan provisions

Substantive Plan Provisions – UPPCO Administrative Retiree, LTD and Surviving Spouse

Medical Benefits

Eligibility

Employees are eligible upon retirement and completion of 3 years of service after attaining age 45.

Medical benefit

Post January 1, 2013 retirees

Employees who retire after January 1, 2013 will receive a $4,000 retiree medical contribution credit (RMCC) for each year of service earned after the later of age 45 and date of hire (but no earlier than January 1, 2013 for those hired prior to January 1, 2008). RMCC are used to offset the premiums of company-sponsored health plans in retirement.

Pre January 1, 2013 retirees

Employees who retired prior to January 1, 2001 pay 50% of benefit cost. Employees who retire on or after January 1, 2001 pay the full cost for their retiree medical.

A grandfathered group of participants participate in a Medigap plan sponsored by Benistar.

Retiree contributions

Refer to Methods and Assumptions for the premiums amounts. Retirees pay the following cost share of the premium amounts shown:

Retired prior to January 1, 2001	50%
Retired on or after January 1, 2001 and before January 1, 2013	100%
RMCC	100% after the account balance has been exhausted

Deductible

PPO (single/family)	$500/$1,000
MAPD PPO (per individual)	$250

Coinsurance

PPO	80%
MAPD PPO	90%

Out-of-pocket maximum (includes deductible)

PPO (single/family)	$3,000/$6,000
MAPD PPO (per individual)	$2,000

Prescription drug copayments

	Generic	Brand	Non-Preferred
PPO (Pre-65)	$15	$50	50% ($70 min - $100 max)
MAPD PPO	$1	$20	$50

Lifetime benefit maximum Unlimited

Benistar A small group of current retirees are eligible for the "Benistar" plan which has a $100 deductible and 80% coinsurance. Retail Rx copays for this option are $10 generic/$25 brand formulary/$40 non-formulary. Mail-order Rx copays are double these amounts.

Dental Benefits

Eligibility Employees who retire prior to January 1, 2013 are eligible upon retirement and attaining age 55 and 5 years of service.

All other employees retiring on or after January 1, 2013 will not be eligible for retiree dental benefits.

Benefits Employees who retired before January 1, 2001 do not receive a dental benefit. Those who retire after January 1, 2001 pay the full cost.

Retiree contributions Refer to methods and assumptions

Deductible $50 per person/$150 per family

Annual maximum $1,500 per participant

Coverage Preventative care services: Covered at 100%; no deductible

Basic services: Covered at 80%; after deductible

Major services: Covered at 50% after deductible

Orthodontia services (for dependent children under age 19 only):

- Covered at 50% after deductible
- Lifetime maximum of $2,000

Future Plan Changes

None.

Changes in Benefits Valued

None.

Substantive Plan Provisions – UPPCO Non-Administrative Retiree, LTD and Surviving Spouse Medical & Dental

Medical Benefits

Eligibility

Age 55 and 10 years of service, or 85 points.

Medical benefit

Employees receive fully subsidized benefits for a period of 3 years (or until age 65, if earlier), after which employees pay 50% of benefit cost (for all covered persons). A covered spouse of a retiree who dies is required to pay 50% of benefit cost following the death of the retiree.

A grandfathered group of participants participate in a Medigap plan sponsored by Benistar.

Former UPPCO term vested employees who were "grandfathered" continue accruing age plus service toward 85 points, and may have access to UPPCO retiree coverage when they reach 85 points and begin drawing their UPPCO pension benefit. A "Grandfathered" employee is someone who was employed by UPPCO on January 1, 1994 and whose combined age and years of service total 55 or more.

Retiree contributions

Refer to Methods and Assumptions for the premium amounts. Retirees pay the following cost share of the premium amounts shown:

Retiree under 65 and in their first 3 years of coverage	0%
Over 65 or under 65 after the first 3 years of coverage	50%

Deductible

PPO (single/family)	$500/$1,000
MAPD PPO (per individual)	$250

Coinsurance

PPO	80%
MAPD PPO	90%

Out-of-pocket maximum (includes deductible)

PPO (single/family)	$3,000/$6,000
MAPD PPO (per individual)	$2,000

Prescription drug copayments

	Generic	Brand	Non-Preferred
PPO (Pre 65)	$15	$50	50% ($70 min - $100 max)
MAPD PPO	$1	$20	$50

Lifetime benefit maximum Unlimited

Benistar A small group of current retirees are eligible for the "Benistar" plan which has a $100 deductible and 80% coinsurance. Retail Rx copays for this option are $10 generic/$25 brand formulary/$40 non-formulary. Mail-order Rx copays are double these amounts.

Dental Benefits

Eligibility Age 55 and 10 years of service, or 85 points.

Retiree contributions Refer to methods and assumptions

Deductible $50 per person/$150 per family

Annual maximum $1,500 per participant

Coverage Preventative care services: Covered at 100%; no deductible

Basic services: Covered at 80%; after deductible

Major services: Covered at 50% after deductible

Orthodontia services (for dependent children under age 19 only):

- Covered at 50% after deductible
- Lifetime maximum of $2,000

Future Plan Changes

None.

Changes in Benefits Valued

None.

Substantive Plan Provisions – UPPCO Postretirement Life Insurance and Survivor Income Benefit

Life Insurance Benefits

Eligibility

Non-Administrative

Age 55 and 10 years of service, or 85 points, who retire prior to May 1, 2018.

Administrative

Age 55 and 5 years of service for employees hired on or before December 31, 2000 who retire prior to January 1, 2013.

Benefit

Non-Administrative

Employees Group Life-Company Paid

Benefits into retirement if:

- Insured for a minimum of 10 years.

Benefit amount into retirement:

- $15,000.

UPPCO terminated vested and Presque Isle grandfathered participants are generally not eligible for retiree life insurance.

Administrative Employees

Life Insurance – $7,000 Non-Contributory Life Insurance for employees hired on or before December 31, 2000. Employees retiring on or after January 1, 2013 will not be eligible for life insurance.

Some UPPCO Grandfathered retirees have a different life insurance amount that varies by individual.

Future Plan Changes

None.

Changes in Benefits Valued

None.

Appendix C: Accounting exhibits by plan

C.1 Summary of key results for period beginning January 1, 2022

All monetary amounts shown in US Dollars

		Total	UPPCO Admin Med	UPPCO Non-Admin Med	UPPCO Life Insurance
Benefit Cost/(Income)	Net Periodic Postretirement Benefit Cost/(Income)	(812,751)	30,651	(932,575)	89,173
	Benefit Cost/(Income) due to Special Events	0	0	0	0
	Total Benefit Cost/(Income)	(812,751)	30,651	(932,575)	89,173
Plan Assets	Fair Value of Plan Assets (FVA)	31,866,704	1,822,757	29,822,496	221,451
	Market Related Value of Plan Assets (MRVA)	28,866,684	1,690,050	26,993,143	183,491
Benefit Obligations	Accumulated Postretirement Benefit Obligation (APBO)	(19,737,101)	(1,479,328)	(16,325,195)	(1,932,578)
Funded Ratio	Fair Value of Plan Assets to APBO	161.5%	123.2%	182.7%	11.5%
Accumulated Other Comprehensive (Income)/Loss (Pre-tax)	Net Prior Service Cost/(Credit)	(2,340,547)	(75,079)	(2,129,378)	(136,090)
	Net Loss/(Gain)	(10,520,148)	355,828	(11,711,735)	835,759
	Total Accumulated Other Comprehensive (Income)/Loss	(12,860,695)	280,749	(13,841,113)	699,669

		Total	UPPCO Admin Med	UPPCO Non-Admin Med	UPPCO Life Insurance
Assumptions	Discount Rate	3.01%	2.45%	3.10%	2.70%
	Expected Long-Term Rate of Return on Plan Assets	4.50%	4.50%	4.50%	4.50%
	Current Health Care Cost Trend Rate	7.00%	7.00%	7.00%	N/A
	Ultimate Health Care Cost Trend Rate	5.00%	5.00%	5.00%	N/A
	Year of Ultimate Trend Rate	2030	2030	2030	N/A
Participant Data	Census Date	N/A	01/01/2022	01/01/2022	01/01/2022

C.2 Participant information

All monetary amounts shown in US Dollars

Census Date		Total N/A	UPPCO Admin Med 01/01/2022	UPPCO Non-Admin Med 01/01/2022	UPPCO Life Insurance 01/01/2022
Participating Employees	Number of Fully Eligible	14	1	13	0
	Number of Other	157	75	82	0
	Total Number	171	76	95	0
	Average Age	43.48	44.32	42.80	0.00
	Average Service	10.23	8.39	11.71	0.00
Retirees, Surviving Spouses and Surviving Dependents	Retirees	287	20	100	167
	Average Age for Retirees	76.17	78.85	74.89	76.61
	Surviving Spouses and Surviving Dependents	48	22	26	0
	Average Age of Surviving Spouses and Surviving Dependents	83.33	86.23	80.88	0.00
	Total retirees, surviving spouses and surviving dependents	335	42	126	167

C.3 Balance sheet asset/(liability) at January 1, 2022

All monetary amounts shown in US Dollars

		Total	UPPCO Admin Med	UPPCO Non-Admin Med	UPPCO Life Insurance
F	**Development of Balance Sheet Asset/(Liability)**				
1	Accumulated postretirement benefit obligation (APBO)	(19,737,101)	(1,479,328)	(16,325,195)	(1,932,578)
2	Fair value of plan assets (FVA)	31,866,704	1,822,757	29,822,496	221,451
3	Net balance sheet asset/(liability)	12,129,603	343,429	13,497,301	(1,711,127)
G	**Current and Noncurrent Classification**				
1	Noncurrent asset	13,840,730	343,429	13,497,301	0
2	Current liability	0	0	0	0
3	Noncurrent liability	(1,711,127)	0	0	(1,711,127)
4	Net balance sheet asset/(liability)	12,129,603	343,429	13,497,301	(1,711,127)
H	**Accumulated Other Comprehensive (Income)/Loss**				
1	Net prior service cost/(credit)	(2,340,547)	(75,079)	(2,129,378)	(136,090)
2	Net loss/(gain)	(10,520,148)	355,828	(11,711,735)	835,759
3	Accumulated other comprehensive (income)/loss	(12,860,695)	280,749	(13,841,113)	699,669
I	**Assumptions and Dates**				
1	Discount rate	3.01%	2.45%	3.10%	2.70%
2	Current health care cost trend rate	7.00%	7.00%	7.00%	N/A
3	Ultimate health care cost trend rate	5.00%	5.00%	5.00%	N/A
4	Year ultimate trend rate is reached	2030	2030	2030	N/A
5	Census date	01/01/2022	01/01/2022	01/01/2022	01/01/2022

C.4 Summary of net balances at January 1, 2022

All monetary amounts shown in US Dollars

	Total	UPPCO Admin Med	UPPCO Non-Admin Med	UPPCO Life Insurance
Amortization Details of Plan Amendment #1				
1 Net amount at 01/01/2022	N/A	(54,539)	(2,129,378)	(136,090)
2 Remaining amortization period	N/A	0.31167	3.34166	9.78754
3 Amortization amount in 2022	N/A	54,539	637,221	13,905
4 Effect of curtailments	N/A	0	0	0
5 Other events	N/A	0	0	0
Amortization Details of Plan Amendment #2				
1 Net amount at 01/01/2022	N/A	(189,636)	0	0
2 Remaining amortization period	N/A	4.76124	0	0
3 Amortization amount in 2022	N/A	39,830	0	0
4 Effect of curtailments	N/A	0	0	0
5 Other events	N/A	0	0	0
Amortization Details of Plan Amendment #3				
1 Net amount at 01/01/2022	N/A	169,096	0	0
2 Remaining amortization period	N/A	12.41753	0	0
3 Amortization amount in 2022	N/A	(13,617)	0	0
4 Effect of curtailments	N/A	0	0	0
5 Other events	N/A	0	0	0
A Summary of Net Prior Service Cost/(Credit)				
1 Net amount at 01/01/2022	(2,340,547)	(75,079)	(2,129,378)	(136,090)
2 Amortization amount during 2022	731,878	80,752	637,221	13,905
3 Plan amendments	0	0	0	0
4 Effect of curtailments	0	0	0	0
5 Other events	0	0	0	0

	Total	UPPCO Admin Med	UPPCO Non-Admin Med	UPPCO Life Insurance
B Summary of Net Loss/(Gain)				
1 Net amount at 01/01/2022	(10,520,148)	355,828	(11,711,735)	835,759
2 Amount recognized during 2022	314,338	(36,441)	408,956	(58,177)
3 Effect of curtailments	0	0	0	0
4 Effect of settlements	0	0	0	0
5 Other events	0	0	0	0

C.5 Development of market related value of assets

Fiscal Year Ending	Total 12/31/2021	UPPCO Admin Med 12/31/2021	UPPCO Non-Admin Med 12/31/2021	UPPCO Life Insurance 12/31/2021
A Development of Market-Related Value of Assets – Total				
1 Fair value of assets at current fiscal year end	31,866,704	1,822,757	29,822,496	221,451
2 Deferred investment gains/(losses) for prior periods				
Fiscal Year Gain/(Loss)				
a 12/31/2021	1,268,707	(27,110)	1,282,772	13,045
b 12/31/2020	2,283,753	177,712	2,078,337	27,704
c 12/31/2019	2,678,007	204,844	2,417,473	55,690
d 12/31/2018	(2,282,004)	(170,851)	(2,054,281)	(56,872)
e 12/31/2017	1,174,543	141,948	995,271	37,324
Percent Deferred				
a 12/31/2021	80%	80%	80%	80%
b 12/31/2020	60%	60%	60%	60%
c 12/31/2019	40%	40%	40%	40%
d 12/31/2018	20%	20%	20%	20%
e 12/31/2017	0%	0%	0%	0%
Deferred Amount				
a 12/31/2021	1,014,966	(21,688)	1,026,218	10,436
b 12/31/2020	1,370,251	106,627	1,247,002	16,622
c 12/31/2019	1,071,203	81,938	966,989	22,276
d 12/31/2018	(456,400)	(34,170)	(410,856)	(11,374)
e 12/31/2017	0	0	0	0
3 Market-related value of assets	28,866,684	1,690,050	26,993,143	183,491

C.6 Summary and comparison of benefit cost and cash flows

All monetary amounts shown in US Dollars

	Total	UPPCO Admin Med	UPPCO Non-Admin Med	UPPCO Life Insurance
A Total Benefit Cost for Fiscal Year Ending 12/31/2022				
1 Employer service cost	905,405	111,098	794,307	0
2 Interest cost	610,983	37,050	523,358	50,575
3 Expected return on plan assets	(1,282,923)	(73,186)	(1,204,063)	(5,674)
4 Subtotal	233,465	74,962	113,602	44,901
5 Net prior service cost/(credit) amortization	(731,878)	(80,752)	(637,221)	(13,905)
6 Net loss/(gain) amortization	(314,338)	36,441	(408,956)	58,177
7 Subtotal	(1,046,216)	(44,311)	(1,046,177)	44,272
8 Net periodic postretirement benefit cost/(income)	(812,751)	30,651	(932,575)	89,173
9 Curtailment (gain)/loss	0	0	0	0
10 Settlement (gain)/loss	0	0	0	0
11 Special/contractual termination benefits	0	0	0	0
12 Total benefit cost	(812,751)	30,651	(932,575)	89,173
B Assumptions				
1 Discount rate	3.01%	2.45%	3.10%	2.70%
2 Expected long-term rate of return on plan assets	4.50%	4.50%	4.50%	4.50%
3 Current health care cost trend rate	7.00%	7.00%	7.00%	N/A
4 Ultimate health care cost trend rate	5.00%	5.00%	5.00%	N/A
5 Year ultimate trend rate is reached	2030	2030	2030	N/A
6 Census date	01/01/2022	01/01/2022	01/01/2022	01/01/2022
C Assets at Beginning of Year				
Fair value	31,866,704	1,822,757	29,822,496	221,451
Market-related value	28,866,684	1,690,050	26,993,143	183,491

	Total	UPPCO Admin Med	UPPCO Non-Admin Med	UPPCO Life Insurance
D Cash Flows Net of Medicare Part D Subsidy				
1 Expected				
a Employer contributions	0	0	0	0
b Plan participants' contributions	0	0	0	0
c Benefits paid from Company assets	32,094	28,500	0	3,594
d Benefits paid from plan assets	722,522	128,811	477,622	116,089
E Amortization Period				
For gain/loss amortization, if applicable	N/A	8.76831	15.11916	11.69634

Pension

Upper Peninsula Power Company

Consolidated Actuarial Valuation Report Benefit Cost for Fiscal Year Beginning January 1, 2022 under US GAAP

June 2022

Table of Contents

Purposes of valuation **1**
Section 1 : Summary of key consolidated results **3**
Benefit cost, plan assets & obligations *3*
Comments on results *4*
Basis for valuation *4*
Actuarial certification **5**
Section 2 : Consolidated accounting exhibits **9**
2.1 Balance sheet asset/(liability) *9*
2.2 Summary of net balances *10*
2.3 Summary and comparison of benefit cost and cash flows *11*
2.4 Development of market-related value of assets *12*
Appendix A : Statement of consolidated actuarial assumptions, methods and data sources .. **13**
Appendix B : Summary of principal plan provisions **27**
Appendix C : Accounting exhibits by plan **39**

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Purposes of valuation

Upper Peninsula Power Company (the Company) engaged Willis Towers Watson US LLC (WTW) to value the Company's pension plans.

As requested by the Company, this report documents the results of an actuarial valuation of the Plans:

- Upper Peninsula Power Company Retirement Plan
- Upper Peninsula Power Company Pension Restoration Plan
- Upper Peninsula Power Company SERP

The primary purpose of this valuation is to determine the Net Periodic Benefit Cost/(Income) (Benefit Cost), in accordance with FASB Accounting Standards Codification Topic 715 (ASC 715) for the fiscal year ending December 31, 2022. It is anticipated that a separate report will be prepared for year-end financial reporting purposes.

Limitations

This valuation has been conducted for the purposes described above and may not be suitable for any other purpose. In particular, please note the following:

1. The expected contributions to the qualified pension plan were set at $0.

   Note that any significant change in the amounts contributed or expected to be contributed in 2022 from what is disclosed at December 31, 2021 may require disclosure in the interim financial statements, but should not affect the expected return on plan assets absent a remeasurement for another purpose.

2. There may be certain events that have occurred since the valuation date that are not reflected in the current valuation. See Subsequent Events in the Basis for Valuation section below for more information.

3. This report is not intended to constitute a certification of the Adjusted Funding Target Attainment Percentage (AFTAP) under IRC §436 for any plan year.

4. This report does not determine funding requirements under IRC §430.

5. This report does not provide information for plan accounting and financial reporting under ASC 960.

6. This report does not present liabilities on a plan termination basis, for which a separate extensive analysis would be required. No funded status measure included in this report is intended to assess, and none may be appropriate for assessing, the sufficiency of plan assets to cover the estimated cost of settling benefit obligations, as all such measures differ in some way from plan termination obligations. In addition, funded status measures shown in this report do not reflect

the current costs of settling obligations by offering immediate lump sum payments to participants and/or purchasing annuity contracts for the remaining participants (e.g., insurer profit, insurer pricing of contingent benefits and/or provision for anti-selection in the choice of a lump sum vs. an annuity).

7. The comparisons of plan obligations as determined for accounting and financial reporting purposes to plan assets presented in this report cannot be relied upon to determine the need for nor the amount of required future plan contributions. Nevertheless, such comparisons may be useful to assess the need for future contributions because they reflect current interest rates at the measurement date in determining benefit obligations. However, asset gains and losses, demographic experience different from assumed, changes in interest rates, future benefit accruals, if any, and other factors will all affect the need for and amount of future contributions. In addition, if a plan is not required by law to be funded, benefit payments may also be paid directly by the plan sponsor as they come due.

Section 1: Summary of key consolidated results

Benefit cost, plan assets & obligations

All monetary amounts shown in US Dollars

Fiscal Year Beginning		01/01/2022	05/31/2021
Benefit Cost/ (Income)	Net Periodic Benefit Cost/(Income)[1]	373,338	538,183
	Benefit Cost/(Income) due to Special Events	0	0
	Total Benefit Cost/(Income)	373,338	538,183
Measurement Date		**01/01/2022**	**05/31/2021**
Plan Assets	Fair Value of Plan Assets (FVA)	123,448,920	119,864,326
	Market Related Value of Plan Assets (MRVA)	114,713,972	111,258,885
Benefit Obligations	Accumulated Benefit Obligation (ABO)	(105,104,398)	(105,483,318)
	Projected Benefit Obligation (PBO)	(108,229,582)	(108,816,925)
Funded Ratios	Fair Value of Plan Assets to ABO	117.4%	106.8%
	Fair Value of Plan Assets to PBO	114.1%	113.6%
Accumulated Other Comprehensive (Income)/Loss (Pre-tax)	Net Prior Service Cost/(Credit)	0	0
	Net Loss/(Gain)	38,267,501	42,955,398
	Total Accumulated Other Comprehensive (Income)/Loss (pre-tax)	38,267,501	42,955,398
Assumptions	Discount rate	2.85%	2.95%
	Expected Long-Term Rate of Return on Plan Assets	4.50%	4.50%
	Rate of Compensation Increase (non-administrative)	4.00%	4.00%
Participant Data	Census Date	01/01/2022	01/01/2021

[1] For 2021, benefit cost is for the period June 1, 2021 through December 31, 2021.

Comments on results

Change in net periodic cost and funded position

The net periodic cost decreased from $538,183 in fiscal 2021 (June 1, 2021 through December 31, 2021) to $373,338 in fiscal 2022 and the funded position improved from $11,047,401 to $15,219,338.

Significant reasons for these changes include the following:

- The actual return on the fair value of plan assets since the prior measurement date was greater than expected, which improved the funded position.
- The aggregate discount rate declined compared to May 31, 2021, which caused the funded position to deteriorate.
- Demographic liability gains caused the net periodic cost to decrease and improved the funding position.

Basis for valuation

Appendix A summarizes the assumptions, methods and models used in the valuation. Appendix B summarizes our understanding of the principal provisions of the plans being valued. Both of these appendices include a summary of any changes since the prior valuation. Unless otherwise described below under Subsequent Events, assumptions were selected based on information known as of the measurement date.

Subsequent events

WTW is not aware of any other material events that have occurred and are not reflected in the valuation.

Additional information

None.

Actuarial certification

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. However, please note the information discussed below regarding this valuation.

Reliances

In preparing the results presented in this report, we have relied on information regarding plan provisions, participants, assets, and sponsor accounting policies and methods provided by the Company and other persons or organizations designated by the Company. See the Sources of Data and Other Information section of Appendix A for further details. We have relied on all the data and information provided as complete and accurate. We have reviewed this information for overall reasonableness and consistency, but have neither audited nor independently verified this information. Based on discussions with and concurrence by the plan sponsor, assumptions or estimates may have been made if data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations. The results presented in this report are directly dependent upon the accuracy and completeness of the underlying data and information. Any material inaccuracy in the data, assets, plan provisions or other information provided to us may have produced results that are not suitable for the purposes of this report and such inaccuracies, as corrected by the Company, may produce materially different results that could require that a revised report be issued.

Measurement of benefit obligations, plan assets and balance sheet adjustments

Census date/measurement date

The measurement date is January 1, 2022. The benefit obligations were measured as of January 1, 2022 and are based on participant data as of the census date, which is displayed by Plan in Appendix C.

Plan assets and balance sheet adjustments

Information about the fair value of plan assets and the general ledger account balances for the benefit plans cost at December 31, 2021, which reflect the expected funded status of the plans was reviewed for reasonableness and consistency, but no audit was performed.

Accumulated other comprehensive (income)/loss amounts shown in the report are shown prior to adjustment for tax effects. Any tax effects in AOCI should be determined by the Company in consultation with its tax advisors and independent accountants.

Assumptions and methods under U.S. GAAP

As required by U.S. GAAP, the actuarial assumptions and methods employed in the development of the benefit cost and other financial reporting have been selected by the Company. WTW has evaluated the assumptions used and believes that they do not significantly conflict with what would be reasonable. U.S. GAAP requires that each significant assumption "individually represent the best estimate of the plan's future experience solely with respect to that assumption.

The results shown in this report have been developed based on actuarial assumptions that, to the extent evaluated by WTW, we consider to be reasonable. Other actuarial assumptions could also be considered to be reasonable. Thus, reasonable results differing from those presented in this report could have been developed by selecting different reasonable assumptions.

A summary of the assumptions, methods and sources of data and other information used is provided in Appendix A. Note that any subsequent changes in methods or assumptions for the January 1, 2022 measurement date will change the results shown in this report.

Certain models (as described in ASOP No. 56) were used in preparing the information presented herein. Further information on these models can be found in Appendix A.

Nature of actuarial calculations

The results shown in this report are estimates based on data that may be imperfect and on assumptions about future events that cannot be predicted with any certainty. The effects of certain plan provisions may be approximated, or determined to be insignificant and therefore not valued. Reasonable efforts were made in preparing this valuation to confirm that items that are significant in the context of the actuarial liabilities or costs are treated appropriately, and are not excluded or included inappropriately. Any rounding (or lack thereof) used for displaying numbers in this report is not intended to imply a degree of precision, which is not a characteristic of actuarial calculations.

If overall future plan experience produces higher benefit payments or lower investment returns than assumed, the relative level of plan costs reported in this valuation will likely increase in future valuations (and vice versa). Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for the measurements (such as the end of an amortization period), and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

See Basis for Valuation in Section 1 above for a discussion of any material events that have occurred after the valuation date that are not reflected in this valuation.

Limitations on use

This report is provided subject to the terms set out herein and in our engagement letter dated November 16, 2020, and any accompanying or referenced terms and conditions.

The information contained in this report was prepared for the internal use of the Company and its independent accountants in connection with our actuarial valuation of the pension plans as described in Purposes of Valuation above. It is not intended for and may not be used for other purposes, and we accept no responsibility or liability in this regard. The Company may distribute this actuarial valuation report to the appropriate authorities who have the legal right to require the Company to provide them this report, in which case the Company will use best efforts to notify WTW in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without WTW's prior written consent. WTW accepts no responsibility for any consequences arising from any other party relying on this report or any advice relating to its contents.

Professional qualifications

The undersigned are members of the Society of Actuaries and meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to pension. Our objectivity is not impaired by any relationship between the plan sponsor and our employer, Willis Towers Watson US LLC.

Georgia Louridas, FSA, EA
Director, Retirement
June 27, 2022

Tania E. Staffen, FSA, EA
Associate Director, Retirement
June 27, 2022

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Section 2: Consolidated accounting exhibits

2.1 Balance sheet asset/(liability)

All monetary amounts shown in US Dollars

Measurement Date	01/01/2022	05/31/2021
A Development of Balance Sheet Asset/(Liability)[1]		
1 Projected benefit obligation (PBO)	(108,229,582)	(108,816,925)
2 Fair value of plan assets (FVA) [2]	123,448,920	119,864,326
3 Net balance sheet asset/(liability)	15,219,338	11,047,401
B Current and Noncurrent Classification[3]		
1 Noncurrent asset	15,728,646	11,563,590
2 Current liability	(44,319)	(47,922)
3 Noncurrent liability	(464,989)	(468,267)
4 Net balance sheet asset/(liability)	15,219,338	11,047,401
C Accumulated Benefit Obligation (ABO)	(105,104,398)	(105,483,318)
D Accumulated Other Comprehensive (Income)/Loss		
1 Net prior service cost/(credit)	0	0
2 Net loss/(gain)	38,267,501	42,955,398
3 Accumulated other comprehensive (income)/loss[4]	38,267,501	42,955,398
E Assumptions and Dates		
1 Discount rate	2.85%	2.95%
2 Rate of compensation increase (non-administrative)	4.00%	4.00%
3 Census date	01/01/2022	01/01/2021

1 Whether any amounts in this table that differ from those disclosed at year-end must be disclosed in subsequent interim financial statements should be determined.
2 Excludes receivable contributions.
3 The current liability (for each underfunded plan) was measured as the discounted value of benefits expected to be paid over the next 12 months in excess of the fair value of the plan's assets at the measurement date.
4 Amount shown is pre-tax and should be adjusted by plan sponsor for tax effects.

2.2 Summary of net balances

Refer to Appendix C for balances by plan

2.3 Summary and comparison of benefit cost and cash flows

All monetary amounts shown in US Dollars

Fiscal Year Ending	12/31/2022	12/31/2021
A Total Benefit Cost		
1 Employer service cost	919,693	579,296
2 Interest cost	3,014,355	1,831,628
3 Expected return on plan assets	(5,014,396)	(2,835,172)
4 Subtotal	(1,080,348)	(424,248)
5 Net prior service cost/(credit) amortization	0	0
6 Net loss/(gain) amortization	1,453,686	962,431
7 Subtotal	1,453,686	962,432
8 Net periodic benefit cost/(income)	373,338	538,183
9 Curtailment (gain)/loss	0	0
10 Settlement (gain)/loss	0	0
11 Special/contractual termination benefits	0	0
12 Other adjustments	0	0
13 Total benefit cost	373,338	538,183
B Assumptions (See Appendix A for interim measurements, if any)		
1 Discount rate	2.85%	2.95%
2 Expected long-term rate of return on plan assets	4.50%	4.50%
3 Rate of compensation increase (non-administrative)	4.00%	4.00%
4 Census date	01/01/2022	01/01/2021
C Plan Assets at Beginning of Year		
1 Fair value	123,448,920	119,864,326
2 Market-related value	114,713,972	111,258,885
D Cash Flows	**Expected**	**Actual**
1 Employer contributions	0	0
2 Plan participants' contributions	0	0
3 Benefits paid from Company assets	44,863	22,223
4 Benefits paid from plan assets	6,638,967	6,387,775
E Amortization Period	N/A	N/A

2.4 Development of market-related value of assets

All monetary amounts shown in US Dollars

Fiscal Year Ending		12/31/2021
A	**Development of Market-Related Value of Assets**	
1	Fair value of assets at current fiscal year end	123,448,920
2	Deferred investment gains/(losses) for prior periods	
	Fiscal Year Gain/(Loss)	
	a 12/31/2020	(2,072,014)
	b 12/31/2019	11,951,941
	c 12/31/2018	13,475,413
	d 12/31/2017	(10,843,853)
	e 12/31/2016	8,869,992
	Percent Deferred	
	a 12/31/2020	80%
	b 12/31/2019	60%
	c 12/31/2018	40%
	d 12/31/2017	20%
	e 12/31/2016	0%
	Deferred Amount	
	a 12/31/2020	(1,657,611)
	b 12/31/2019	7,171,165
	c 12/31/2018	5,390,165
	d 12/31/2017	(2,168,771)
	e 12/31/2016	0
3	Market-related value of assets	114,713,972

Appendix A: Statement of consolidated actuarial assumptions, methods and data sources

Plan Sponsor

Upper Peninsula Power Company for all plans.

Statement of Assumptions

The assumptions disclosed in this Appendix are for the fiscal year ending December 31, 2022 financial reporting.

Assumptions and methods for pension cost purposes

Economic Assumptions	
Discount rate:	
Upper Peninsula Power Company Retirement Plan	2.85%
Pension Restoration Plan	2.50%
SERP	2.40%
Expected return on assets	
Fiscal 2021 and 2022	4.50%
Lump sum conversion rate	
Upper Peninsula Power Company Retirement Plan	2.85%
Annual rates of increase	
Compensation:	
Administrative employees	N/A
Non-Administrative employees	4.00%
Future Social Security wage bases	3.50%
Statutory limits on compensation	2.50%
Interest crediting rate	3.05%

The expected return on assets shown above is net of expenses assumed to be paid from the trust.

Demographic and Other Assumptions

Inclusion date	The valuation date coincident with or next following the date on which the employee becomes a participant.
New or rehired employees	It was assumed there will be no new or rehired employees.
Benefit commencement dates	
■ Preretirement death benefit	
▪ Administrative	Upon death of the active participant
▪ Non-Administrative	Upon the later of the death of the active participant or the date the participant would have attained earliest retirement age.
■ Deferred vested benefit	
▪ Administrative	Upon termination of employment
▪ Non-Administrative	Upon the later of attainment of normal retirement age or termination of employment.
■ Disability benefit	Upon disablement
■ Retirement benefit	Upon termination of employment
Form of payment	
■ Administrative	100% of participants are assumed to elect an immediate lump sum.
■ Non-Administrative	100% of single participants are assumed to elect a lifetime monthly annuity. 100% of married participants assumed to elect a 50% Joint and Survivor annuity.

Mortality for annuity conversion basis for PEP account balances and lump sums	417(e)(3) applicable mortality table in effect at 1/1/2022
Percent married	80% of males; 50% of females
Spouse age	Wife three years younger than husband
Cash flow	
■ Decrement timing	The assumptions used are collectively called rounded middle of year (rounded MOY) decrement timing. Most events are assumed to occur at the middle of year during which the eligibility condition will be met or the start/end date will occur. For death and disability decrements, the rate applied is based on the participant's rounded age (nearest integer age) at the beginning of the year, to align with the methodology generally used to create those rate tables. For retirement and withdrawal decrements, the age is generally the participant's rounded age at the middle of the year.
■ Timing of benefit payments	Annuity payments are payable monthly at the beginning of the month and lump sum payments are payable on date of decrement.
Administrative expenses	Return on asset assumption is net of any expense paid by the trust. It is assumed that administrative expenses will reduce the rate of return on assets by 0.45% per annum.
Funding policy	■ Retirement Plan: The funding policy of the Plan is to meet all minimum required contributions and maintain a funded status of 80%. ■ Non-qualified Plans: These are unfunded plans, and a funding policy is not applicable.

Demographic Assumptions

Mortality – Healthy & Disabled

- Base table: Pri-2012 retiree and contingent annuitant tables with separate tables for males and females.
- Base mortality table year: 2012
- Table Type: No collar
- Healthy or Disabled: Healthy (Disabled for disability mortality)
- Table weighting: Benefit
- Separate rates for annuitants and non-annuitants (based on employee tables)
- Mortality improvement scale: MP-2020

Disability

Rates Varying by Age and Gender
Representative Disability Rates

Percentage assumed to become disabled during the year		
Attained Age	Males	Females
20	0.03%	0.04%
25	0.03%	0.05%
30	0.04%	0.06%
35	0.05%	0.08%
40	0.07%	0.10%
45	0.10%	0.15%
50	0.18%	0.26%
55	0.36%	0.49%
60	0.90%	1.21%
65	0.00%	0.00%

Termination

Rates Varying by Age and Gender
Representative Termination Rates

Percentage assumed to leave during the year		
Attained Age	Males	Females
25	5.0%	10.0%
30	4.7%	9.4%
35	3.3%	6.7%
40	1.4%	2.7%
45	0.6%	1.2%
50	0.2%	0.5%

55	0.0%	0.0%
60	0.0%	0.0%

Retirement

Rates Varying by Age and Plan
Representative Retirement Rates

Percentage assumed to retire during the year		
Age	Administrative	Non-Administrative
55	5%	5%
56	5%	5%
57	5%	5%
58	15%	20%
59	10%	15%
60	20%	30%
61	20%	40%
62	60%	80%
63	30%	50%
64	50%	50%
65	100%	100%

Methods (for all plans)

Census date

- January 1, 2022 for Upper Peninsula Power Company Retirement Plan
- December 31, 2021 for Pension Restoration Plan and SERP

Measurement date

January 1, 2022

Service cost and projected benefit obligation

The Projected Unit Credit Cost Method is used to determine the Projected Benefit Obligation (PBO) and the related service cost. Under this method, a "projected accrued benefit" is calculated based upon service as of the measurement date and projected future compensation and social security levels at the age at which the employee is assumed to leave active service. The PBO is the present value of this benefit and the service cost is the present value of the increase in the benefit due to service in the upcoming year. In normal circumstances the "projected accrued benefit" is based upon the plan's accrual formula. However, if service in later years leads to a materially higher level of benefit than in earlier years, the "projected accrued benefit" is calculated by attributing benefits on a straight-line basis over the relevant period.

The benefits described above are used to determine both ABO and PBO (except that final average pay, Social Security offsets, and

covered compensation are assumed to remain constant in the future when calculating ABO).

Market value of assets

The fair value of assets on the measurement date, less the unrecognized portion of assets gains and losses on fair value of assets. The following percentages are considered for this purpose

- 80% of the first preceding 12 months
- 60% of the second preceding 12 months
- 40% of the third preceding 12 months
- 20% of the fourth preceding 12 months

Amortization of unamortized amounts:

- Transition obligation (asset)

Not applicable

- Past service cost (credit)

Amortization of net prior service cost/(credit) resulting from a plan change is included as a component of Net Periodic Benefit Cost/(Income) in the year first recognized and every year thereafter until such time as it is fully amortized. The annual amortization payment is determined in the first year as the increase in PBO due to the plan change divided by the average remaining service period of participating employees expected to receive benefits under the plan.

However, when the plan change reduces the PBO, existing positive prior service costs are reduced or eliminated on a pro-rata basis before a new prior service credit is established.

- Net loss (gain)

Amortization of the net gain or loss resulting from experience different from the assumed and from changes in assumptions (excluding asset gains and losses not yet reflected in market-related value) is included as a component of Net Periodic Benefit Cost/(Income) for a year.

If, as of the beginning of the year, that net gain or loss exceeds 10% or greater of the PBO and the market-related value of assets, the amortization is that excess divided by 25 years for the qualified plan and average remaining life expectancy for the non-qualified plans.

The plan sponsor considers participants whose benefits are soft frozen to be active participants.

Under this methodology, the gain/loss amount recognized in AOCI are not expected to be fully recognized in benefit cost until the plan is terminated (or an earlier event, like a settlement triggers recognition) because the period over which the amounts are amortized is

redetermined each year and amounts that fall within the corridor described above are not amortized.

Benefits not valued

All benefits described in the Plan Provisions were valued as described. WTW is not aware of any significant benefits required to be valued that were not.

Source of Prescribed Methods

Accounting methods

The methods used for accounting purposes described in Appendix A, including the method of determining the market-related value of plan assets are "prescribed methods set by another party," as defined in the actuarial standards of practice (ASOPs). As required by U.S. GAAP, these methods were selected by the plan sponsor.

Assumptions Rationale - Significant Economic Assumptions

Discount rate

As required by U.S. GAAP the discount rate was chosen by the plan sponsor based on market information on the measurement date. The rate derived from market information is rounded to 5 basis points. Based on WTW's interest rate model, RATE:Link, that uses a yield curve derived from current, high quality (rated AA and above) corporate bonds to discount expected pension cash flows, and thus determine discount rates, we believe the discount rate chosen does not significantly conflict with what would be reasonable.

Expected return on plan assets

We understand that the expected return on assets assumption reflects the plan sponsor's estimate of future experience for trust asset returns, reflecting the plan's current asset allocation and any expected changes during the current plan year, current market conditions and the plan sponsor's expectations for future market conditions. The analysis was informed by analysis of historical data and recent trends for CPI, GDP growth, and real returns on the various classes of assets held by the trust. WTW's determination that this assumption does not significantly conflict with what would be reasonable is informed by WTW's Expected Return Estimator model.

Interest crediting rate

The plan will credit interest to the frozen pension equity plan accounts using the first segment rate defined under the Pension Protection Act for use in determining minimum lump distribution under IRC 417(e)(3). The plan sponsor has selected a single rate. After examining historical variability in this rate, we believe that the selected assumption does not significantly conflict with what would be reasonable based on a combination of market conditions at the measurement date and future expectations consistent with other economic assumptions used.

Annuity conversion rate	The annuity conversion rate is based on the current market rates. After examining historical variability in this rate, we believe that the selected assumption does not significantly conflict with what would be reasonable based on a combination of market conditions at the measurement date and future expectations consistent with other economic assumptions used.
Lump sum conversion rate	Lump sum benefits are valued based on the current market rates. After examining historical variability in this rate, we believe that the selected assumption does not significantly conflict with what would be reasonable based on a combination of market conditions at the measurement date and future expectations consistent with other economic assumptions used.
Rates of increase in compensation	Assumed increases were chosen by the plan sponsor and, as required by U.S. GAAP they represent an estimate of future experience. We relied on the plan sponsor for this assumption, as the plan sponsor has access to pertinent information related to their business and is in a better position to set this assumption. However, we believe that the assumption chosen does not significantly conflict with what would be reasonable based on the assumed future CPI and GDP growth inherent in the other economic assumptions chosen, other than the discount rate.
Administrative expenses	Administrative expenses are estimated by determining the actual expenses paid from the trust the preceding year and are already incorporated into the expected rate on assets assumption. We believe that this approach to setting assumed future expenses does not significantly conflict with what would be reasonable because it considers both historical and expected future changes in the level of expenses.

Assumptions Rationale - Significant Demographic Assumptions

Healthy Mortality	Assumptions used for accounting purposes were selected by the plan sponsor and, as required by U.S. GAAP, represent a best estimate of future experience. We believe the assumptions do not significantly conflict with what would be reasonable because they reflect recent experience and are adjusted to reflect the plan sponsor's expectations regarding future mortality improvement.
Disabled Mortality	Assumptions used for accounting purposes were selected by the plan sponsor and, as required by U.S. GAAP, represent a best estimate of future experience. For the reasons described above, we believe the assumptions do not significantly conflict with what would be reasonable.

Termination	Termination rates were set several years ago based on historical experience and no significant gains or losses have been observed due to actual termination experience different than expected. For the reasons discussed above, we believe the assumptions selected do not significantly conflict with what would be reasonable.
Disability	Disability rates are based on a standard UAW table. Actual experience is not material to set plan-specific rates. For the reasons discussed above, we believe the assumptions selected do not significantly conflict with what would be reasonable.
Retirement	Retirement rates were set several years ago based on historical experience and no significant gains or losses have been observed due to actual retirement experience different than expected. For the reasons discussed above, we believe the assumptions selected do not significantly conflict with what would be reasonable.
Benefit commencement date for deferred benefits:	
■ Deferred vested benefit	Deferred vested participants are assumed to begin benefits at age 65 (or current age if later) because the plan's experience is not considered to be credible. For the reasons discussed above, we believe the assumption does not significantly conflict with what would be reasonable.
Form of payment	Retiring Administrative participants are assumed to take a lump sum due to the design of the plan. Retiring Non-Administrative participants are assumed to take a 50% joint and survivor annuity if married and a single life annuity if single. These are the normal forms under the plan. For the reasons discussed above, we believe the assumption does not significantly conflict with what would be reasonable.

Marital Assumptions:

- Percent married — The assumed percentage married is based on general population statistics on the marital status of individuals of retirement age.
- Spouse age — The assumed age difference for spouses is based on general population statistics of the age difference for married individuals of retirement age.

  For the reasons discussed above, we believe the assumption does not significantly conflict with what would be reasonable.

Sources of Data and Other Information

The plan sponsor furnished participant data as of 1/1/2022 for the Upper Peninsula Power Company Pension Plan and as of 12/31/2021 for the Pension Restoration Plan and the SERP. Information on assets, contributions and plan provisions was supplied by the plan sponsor. Data and other information were reviewed for reasonableness and consistency, but no audit was performed. Based on discussions with the plan sponsor, assumptions or estimates were made when data were not available, and the data was adjusted to reflect any significant events that occurred between the date the data was collected and the measurement date. In consultations with the Company, the following assumptions were made for missing or apparently inconsistent data elements: for missing beneficiary dates of birth, females were assumed to be 3 years younger than males; for missing beneficiary sexes, male participants were assumed to have a female beneficiary and female participants were assumed to have a male beneficiary; for deferred participants, the benefit commencement date was assumed to be the date the participant reaches age 65.

Accumulated other comprehensive (income)/loss amounts shown in the report are shown prior to adjustment for deferred taxes. Any deferred tax effects in AOCI should be determined in consultation with the Company's tax advisors and auditors. WTW used information supplied by the Company regarding the amounts recognized in accumulated other comprehensive income as of the end of the 2021 fiscal year and amounts recognized in other comprehensive income in the 2021 fiscal year.

We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

Changes in Assumptions, Methods, and Estimation Techniques

Changes in Assumptions

The discount rate was changed for each plan as of December 31, 2021 to reflect current market conditions:

- UPPCO Retirement Plan from 2.95% to 2.85%
- UPPCO SERP from 2.30% to 2.40%

Changes in Methods

None

Changes in Estimation Techniques

None

Model Descriptions and Disclosures in accordance with ASOP No. 56

Quantify

Quantify is the WTW centrally developed, tested and maintained Global actuarial valuation system. It is used to perform valuations of clients' benefit plans.

Quantify provides the ability to process data, calculate benefits and value benefit liabilities, develop results using applicable standards, and generate client reports.

Quantify parameters provide significant flexibility to model populations and plan designs. Various demographic, economic and benefit related assumptions exist for users to model multiple demographic and economic situations.

Plan liabilities are calculated based on standard actuarial techniques, developing actuarially reasonable results using the population and parameters entered. The calculation and presentation of liabilities in Quantify relies on the assumptions used and the reasonability of the assumptions selected.

Quantify incorporates standard liability methodologies that are intended to reasonably reflect a variety of economic or demographic conditions. The model itself does not evaluate any assumptions entered for reasonableness, consistency or probability of occurrence.

Quantify is designed specifically for these purposes, and we know of no material limitations that would prevent the system from being suitable for these intended purposes. The actuaries signing this report have relied on the actuaries who develop, test and maintain this system, and have also performed a limited review of results to ensure that system parameters have been set appropriately and plan provisions coded correctly.

Quantify FR

Quantify Financial Reporting (FR) is intended to calculate funding results, accounting results and produce the associated client reports under selected accounting standards. The calculations and reports are based on various user specified inputs including liability results and asset values.

Quantify FR develops valuation results for various accounting and funding purposes using standard actuarial techniques.

Calculation of disclosure liabilities and results may be based on roll forward liabilities.

Liability roll-forwards are used in accounting scenarios where the date as of which liabilities are valued does not coincide with the fiscal year measurement date. The roll-forwards consist of adjusting liabilities for the passage of time.

The estimate of the following year's expense is calculated based on the obligations and assets used for disclosure and incorporates service cost that may be based on a projection in the associated Quantify liability run, depending on the relationship of the liability valuation date to the fiscal year.

The Roll Forward accounting calculations assume that applicable rules will not change during the roll-forward period. Actuaries make adjustments to the data, plan provisions and assumptions reflected in the calculation of the liabilities that are rolled forward so that the results reflect conditions at the measurement date, and/or make similar adjustments to the results of the roll forward, including reflecting any changes in applicable accounting standards.

RATE:Link/RateCalc

RATE:Link is a methodology to develop spot rates to be used for liability and cost measurements related to employee benefit plans. The same core methodology is used to develop all RATE:Link curves. The RATE:Link process develops term structures of interest rates from corporate bond data for each covered geography (e.g., the U.S.) for this valuation).

The construction of RATE:Link yield curves relies on bond data collected as of the measurement date.

Information regarding quoted bond prices, yields and other bond related data is from Bloomberg Finance L.P.

RateCalc is used as one component in developing the single equivalent discount rate that reflects the characteristics of the client's employee benefit plan. It references a yield curve (often a RATE:Link curve) and expected plan benefit payments. The

projected benefit payments from the client's plan are matched to the spot rates along the yield curve to determine their present values. A single equivalent discount rate is then solved for, which produces the same total present value as the spot rates.

Expected Return Estimator

The Expected Return Estimator is used to help inform the choice of an expected return assumption (e.g., as one data point to consider) for returns on the assets of the trust.

The tool depends on the capital market assumptions chosen at the starting date of the simulation. These assumptions reflect currently prevailing capital market conditions, assumed future conditions ("normative conditions"), and the transition from the current conditions to the normative ones.

The assumed normative conditions incorporate a blend of historical capital market data and future expectations. The sources consulted in the determination of normative levels include practitioners in our global actuarial and investment consulting practices, plan sponsors, investment managers, economists, and academics.

Published Demographic Tables

Certain demographic tables described above are standard published tables or are based on standard published tables from models developed by organizations with the requisite expertise

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Appendix B: Summary of principal plan provisions

Plan Provisions – Upper Peninsula Power Company Retirement Plan

Upper Peninsula Power Company Retirement Plan is closed to new entrants, effective as follows:

- Administrative employees effective January 1, 2008
- Non-Administrative employees effective April 19, 2009

Retirement Program for Administrative Employees

Employees included	Except for anyone who is subject to a collective bargaining agreement, an employee became a participant on January 1 or July 1 coincident with or next following the date of completion of one year of eligibility service subject to the provisions concerning closure of the plan to new entrants.

Definitions

Service considered	Year of "Eligibility Service" is the twelve month period commencing on the date of hire or rehire, or any plan year in which the employee completes 1,000 or more hours of service. "Service credit," to determine eligibility for and the amount of benefits, is determined under the ERISA elapsed-time rules. Service credit will be earned while the employee is receiving benefits from the long-term disability plan sponsored by the company. No additional benefit service will accrue after December 31, 2012.
Compensation considered	Total compensation prior to severance from service excluding nonqualified deferred compensation payments, and extraordinary payments. Annual compensation is limited to $200,000, adjusted in accordance with Internal Revenue Code. Final average pay is the higher of the average of (a) the highest five complete calendar years of pay within the last 10 calendar years preceding severance from service, or (b) total pay for 60 months preceding severance from service. Pay after December 31, 2017 will not be considered in the calculation of final average pay.

Eligibility for Benefits

Benefit eligibility

5 years of service (3 years for employees who terminate employment on or after January 1, 2008).

Benefits Payable

Plan Benefit

(a) Benefit payable to a plan participant with 3 years of vesting service.

(b) Total Service Percent is a total of:

9% per year for the first 10 years of service;

plus 12% per year for years 11 through 20;

plus 15% per year for years 21 and thereafter.

For employees hired after December 31, 2000, the service percentages are 9%, 11% and 13%, respectively.

(c) Pension Income (lump-sum form) is equal to Total Service Percent times Final Average Pay.

(d) Minimum benefit is the lump-sum value of the benefit earned through December 31, 2000 under the plan provisions in effect at December 31, 2000.

There will be no additional service or pay increases applied to the plan benefit after December 31, 2012 and December 31, 2017, respectively. Effective January 1, 2018 the frozen accrued benefit will be increased each year until benefit commencement with annual interest credits based on the greater of (a) first segment rate defined under the Pension Protection Act for use in determining minimum lump-sum distributions under IRC 417(e), and (b) the plan's minimum interest crediting rate of 3.05%.

Pension transition

For employees employed on January 1, 2001:

(a) Calculated by taking combination of participant's age and service on January 1, 2001.

(b) Total age plus service is multiplied by 1.35% to arrive at Transition Percent (limited to 115%).

This percent is held constant until retirement or participant leaves the company and will be multiplied by Final Average Pay to determine the Pension Transition amount (payable as a lump sum). The minimum

amount is $50,000 for employees who were at least age 58 and had five years of service at December 31, 2000.

Pension supplement

To be eligible for the Pension Supplement, participant must be

(a) employed on January 1, 2001;

(b) retire after January 1, 2001;

(c) be at least 55 years of age, and

(d) have 5 years of service with the company.

The Pension Supplement is payable as a fixed $800 monthly payment from retirement until age 65, or as a lump sum based on age at retirement and current interest rates.

For employees hired after January 1, 2001, eligibility for the supplement requires the participant to be age 55 with 10 years of service. The Pension Supplement amount is earned at a rate of $40 per year of service (earned prior to January 1, 2013).

Surviving spouse's benefit

(a) If the death of a vested participant occurs, the spouse will receive either a single-sum payment or a survivor annuity benefit. If the participant had designated a non-spouse beneficiary and the surviving spouse had consented, the beneficiary will receive a single-sum payment.

(b) If a participant who was receiving a monthly pension dies, the surviving spouse will receive payment in accordance with the joint and survivor option elected or the remainder of the Pension Equity Account Balance, if any.

Other Plan Provisions

Forms of payment

Preretirement death benefits are payable only as described above. Monthly pension benefits are paid as described above as a life annuity, if the participant has no spouse as of the date payments begin, or if the participant so elects. Otherwise, benefits are paid in the form of a 50% joint and survivor annuity option or, if the participant elects and the spouse consents, another actuarially equivalent optional form offered by the plan. Optional forms and actuarial equivalence are as follows:

Normal form of payment

Married participants receive a fully subsidized 50% joint & survivor annuity. The normal form of payment for unmarried participants is a single life annuity.

Optional forms of payment and conversion factors

Form of Payment	Conversion Factor
Lump Sum	Accrued PEP Balance at time of termination or retirement.
Annuity	PEP balance is converted to an annuity using the Applicable Mortality Table and Applicable Interest Rate.
Life Annuity	Calculated using annuity conversion factor with no further adjustment.
50% Joint and Survivor Annuity	Calculated using annuity conversion factor with no further adjustment unless spouse is more than 5 years younger than participant, in which case additional reductions apply.
75% Joint and Survivor Annuity	Calculated as 96% of life annuity benefit unless spouse is more than 5 years younger than participant, in which case additional reductions apply.
100% Joint and Survivor Annuity	Calculated as 93% of life annuity benefit unless spouse is more than 5 years younger than participant, in which case additional reductions apply.

	Unreduced lifetime benefit	Participants whose spouse is greater than 5 years younger can elect to receive the equivalent of the life annuity benefit during their lifetime, with their spouse receiving an actuarially equivalent 50% survivor benefit, calculated using 6% interest and the 1971 Group Annuity Mortality Table.

Additionally, participants who are administrative employees who have joined the plan through a merged prior plan may be entitled to actuarially equivalent benefits in the following forms: single life annuity, 5, 10, or 15-year certain annuity, 25% joint and survivor annuity with or without popup, 50% joint and survivor annuity with or without popup, 66 2/3% joint and survivor annuity with or without popup, 100% joint and survivor annuity with or without popup.

Pension Increases	None
Plan participants' contributions	None
Maximum on benefits and pay	All benefits and pay for any calendar year may not exceed the maximum limitations for that year as defined in the Internal Revenue Code. The plan provides for increasing the dollar limits automatically as such changes become effective. Increases in the dollar limits are not assumed for determining the AFTAP.
Benefits not valued	All benefits described in the Plan Provisions were valued as described. WTW in not aware of any significant benefits to be valued that were not.

Future Plan Changes

None.

Changes in Benefits Valued Since Prior Year

None.

Retirement Program for Non-Administrative Employees

Employees Included	An employee represented by Local Union No. 510 of the IBEW became a participant upon completion of one year of service credit subject to the provisions concerning closure of the plan to new entrants.

Definitions

Service considered	A year of service is granted for each July 1st through June 30th in which 1,000 hours are worked. In any computation period in which a participant begins, resumes, or terminates employment, 1/12th of a year of credit is given for each complete month worked.
Compensation considered	Fixed Monthly Earnings on July 1 of each year.

Eligibility for Benefits

Normal retirement benefit	On or after attainment of age 65 or, for an individual who became a participating employee after age 60, on the 4th anniversary of his date of participation.
Early retirement benefit	Available upon reaching age 55 with 10 years of service (prior to 1/1/1993: age 45 and 10 years of service).
Deferred vested benefit	In the event of termination of employment prior to age 55 and after 10 or more years of service credit. Certain participants are granted a grandfather eligibility of age 45 and 10 years of service.
Surviving spouse benefit	In the event of death of an active participant occurring after attainment 5 years of service credit. In the event of a death of a participant who was receiving a pension under the foregoing paragraphs. In the event of death of a deferred vested participant who has not commenced the benefit and who has been married for one year as of the date of death dies prior to pension commencement date.

Benefits Payable

Normal retirement benefit	The sum of (1) 2% of Monthly Earnings as of 7/1/1980 times years of service prior to 7/1/1980 plus (2) 2% of July 1 fixed Monthly Earnings for each year after 7/1/1980 and prior to 7/1/1999 plus (3) 2.25% of July 1 fixed Monthly Earnings for each year beginning 7/1/1999.
Early retirement benefit	Monthly pension commencing as of the date designated by the participant or as of the participant's severance from service date, as the case may be, is determined in the same manner as a normal retirement benefit under the Normal Retirement Benefit paragraph above, reduced by 3% per year. Unreduced benefit becomes available upon reaching Rule of 85 for participants as of May 1, 1991.
Deferred vested benefit	Monthly pension payable as of the later of age 55 or the date designated by the employee, but not later than age 65, is determined in the same manner as an early retirement benefit under the Early Retirement Benefit paragraph
Surviving spouse benefit	The spouse to whom the participant was married to as of the date of his death will receive 50% of the pension determined under the following stipulations. This benefit will be reduced if the spouse is younger than the participant. If the death occurs after early retirement age, the base benefit is determined under the above Normal Retirement Benefit provisions, as if his date of death was his normal retirement date, based on his service credit and average monthly compensation as of his death. Payable at the later of the date of death or the date the participant would have reached age 55. If the death occurs prior early retirement age, but after 5 years of service credit and before 10 years of service credit, the base benefit is determined based upon the foregoing paragraph of Normal Retirement Benefit payable at the date the deceased member would have turned age 65. If the death occurs prior early retirement age, but after 10 years of service credit, the base benefit is determined as the total accrued monthly benefit, without reduction for early commencement. The benefit is payable on the first day of the month following the date of death.

If the death of a participant who was receiving a pension under the foregoing paragraphs, the base benefit is determined as the pension the participant was receiving immediately prior to his death.

If the death of a vested participant occurs prior to his pension commencement date, the base benefit is determined under the foregoing Early Retirement Benefit paragraph based on his service credit. Payable at the date of the participant's death.

Other Plan Provisions

Lump sum payments

Small lump sums will be paid if the value of benefit is $1,000 or less ($5,000 prior to March 28, 2005). Lump sums are determined based on interest rates prescribed by the Secretary of the Treasury pursuant to Section 417(e)(3) of the Code.

Normal form of payment

Married participants receive a fully subsidized 50% joint & survivor annuity. The normal form of payment for unmarried participants is a single life annuity.

Optional forms of payment and conversion factors

Plan participants from the prior Upper Peninsula Power Company Plan are also eligible for the following forms of payment using the option factors shown:

Joint and Survivor Pension Option Factors

Age of Participant at Retirement	Option			
	100%	75%	66-2/3%	50%
45-49	.93	.95	.95	.96
50-54	.91	.93	.94	.95
55-59	.89	.92	.92	.94
60-64	.86	.89	.90	.92
65 and above	.83	.87	.88	.91

Additional age adjustments apply for participants whose spouse has an age difference of greater than three years, subject to maximum adjustments as outlined in the plan document.

Additionally, Non-Administrative employees who are participants and joined the plan through a merged prior plan may be entitled to actuarially equivalent benefits in the following forms: single life annuity,

	5, 10, or 15-year certain annuity, joint and survivor annuity with or without popup.
Pension Increases	None
Plan participants' contributions	None
Maximum on benefits and pay	All benefits and pay for any calendar year may not exceed the maximum limitations for that year as defined in the Internal Revenue Code. The plan provides for increasing the dollar limits automatically as such changes become effective. Increases in the dollar limits are not assumed for determining the AFTAP.
Benefits not valued	All benefits described in the Plan Provisions were valued as described. WTW in not aware of any significant benefits to be valued that were not.

Future Plan Changes

None.

Changes in Benefits Valued Since Prior Year

None.

Plan Provisions – Upper Peninsula Power Company Pension Restoration Plan

Effective date	The plan was most recently amended and restated effective in 2014.
Employees included	UPPCO employees who were participating in the Integrys Energy Group Pension Restoration Plan immediately prior to August 28, 2014. The plan is intended to be a deferred compensation plan maintained for a select group of management or highly compensated employees.
Plan compensation	Total compensation prior to severance from service, including nonqualified deferred compensation payments, and extraordinary payments. Final average pay is the higher of the average of (a) the five complete calendar years of service within the last 10 calendar years preceding severance from service, or (b) 60 months preceding severance from service. Compensation includes annual bonus amounts deferred by the employee under a Deferred Compensation Plan. Pay after December 31, 2017 will be not be considered in the calculation of final average pay.
Benefit amount	The benefit amount payable under this plan is based on the Administrative employees' formula as provided in the qualified retirement plan (Part A), and is the difference between the amount calculated using plan compensation outlined above, without restriction for IRC sections 401(a)(17) and 415, and the amount determined using plan compensation as defined under the qualified plan.
Surviving spouse benefit	Upon the death of an active participant, the beneficiary will receive a lump sum equal to the lump sum that the employee would have received had he terminated.
Form of payment	Lump sum will be paid unless the employee elects otherwise.

Future Plan Changes

None.

Changes in Benefits Valued Since Prior Year

None.

Plan Provisions – Upper Peninsula Power Company SERP

Service	Period of employment with the Company. Full year given in any plan year with 1,000 hours.
Retirement benefit	One-half percent of Final Annual Salary times Service. Service uses 25 years minimum and 40 years maximum.
Pre-retirement death benefit	A surviving spouse of a participant who dies prior to his or her Retirement Date and while still employed shall be entitled to an annual benefit based upon the participant's Retirement Benefit calculated on the date of death.
Normal form	15 year certain benefit.

Future Plan Changes

None.

Changes in Benefits Valued Since Prior Year

None.

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Appendix C: Accounting exhibits by plan

C.1 Summary of key results for period beginning January 1, 2022

All monetary amounts shown in US Dollars

		Total	UPPCO Retirement	UPPCO Restoration	UPPCO SERP
Benefit Cost/(Income)	Net Periodic Benefit Cost/(Income)	373,338	319,844	42,329	11,165
	Benefit Cost/(Income) due to Special Events	0	0	0	0
	Total Benefit Cost/(Income)	373,338	319,844	42,329	11,165
Plan Assets	Fair Value of Plan Assets (FVA)	123,448,920	123,448,920	0	0
	Market Related Value of Plan Assets (MRVA)	114,713,972	114,713,972	0	0
Benefit Obligations	Accumulated Benefit Obligation (ABO)	(105,104,398)	(104,595,090)	(385,032)	(124,276)
	Projected Benefit Obligation (PBO)	(108,229,582)	(107,720,274)	(385,032)	(124,276)
Funded Ratios	Fair Value of Plan Assets to ABO	117.4%	118.0%	0.0%	0.0%
	Fair Value of Plan Assets to PBO	114.1%	114.6%	0.0%	0.0%
Accumulated Other Comprehensive (Income)/Loss (Pre-tax)	Net Prior Service Cost/(Credit)	0	0	0	0
	Net Loss/(Gain)	38,267,501	38,042,667	118,068	106,766
	Total Accumulated Other Comprehensive (Income)/Loss	38,267,501	38,042,667	118,068	106,766
Assumptions	Discount Rate	2.85%	2.85%	2.50%	2.40%
	Expected Long-Term Rate of Return on Plan Assets	4.50%	4.50%	N/A	N/A
	Rate of Compensation Increase (non-administrative)	4.00%	4.00%	N/A	N/A
Participant Data	Census Date	N/A	01/01/2022	01/01/2022	01/01/2022

C.2 Participant information

All monetary amounts shown in US Dollars

Census Date		Total N/A	UPPCO Retirement 01/01/2022	UPPCO Restoration 01/01/2022	UPPCO SERP 01/01/2022
Participating Employees	Number	62	61	1	0
	Average Annual Compensation for Non-Administrative Employees	92,577	92,577	0	0
	Average PEP Lump Sum Benefit for Administrative Employees	291,643	296,219	12,502	0
	Average Age	49.36	49.19	60.00	0.00
	Average Credited Service	20.47	20.20	36.81	0.00
Participants with Deferred Benefits	Number	45	45	0	0
	Average Annual Deferred Annuity Benefits	6,753	6,753	0	0
	Average PEP Deferred Lump Sum Benefits	195,885	195,885	0	0
	Average Age	55.53	55.53	0.00	0.00
Participants Receiving Benefits	Number	505	501	2	2
	Average Annual Benefit Payments	12,424	12,438	14,642	6,572
	Average Age	73.69	73.65	80.50	77.50
Other Participants	Number	0	0	0	0
	Average Annual Benefit Payments	N/A	N/A	N/A	N/A
	Average Age	N/A	N/A	N/A	N/A

C.3 Balance sheet asset/(liability) at January 1, 2022

All monetary amounts shown in US Dollars

	Total	UPPCO Retirement	UPPCO Restoration	UPPCO SERP
A Development of Balance Sheet Asset/(Liability)				
1 Projected benefit obligation (PBO)	(108,229,582)	(107,720,274)	(385,032)	(124,276)
2 Fair value of plan assets (FVA)	123,448,920	123,448,920	0	0
3 Net balance sheet asset/(liability)	15,219,338	15,728,646	(385,032)	(124,276)
B Current and Noncurrent Classification				
1 Noncurrent asset	15,728,646	15,728,646	0	0
2 Current liability	(44,319)	0	(31,542)	(12,777)
3 Noncurrent liability	(464,989)	0	(353,490)	(111,499)
4 Net balance sheet asset/(liability)	15,219,338	15,728,646	(385,032)	(124,276)
C Accumulated Benefit Obligation (ABO)	(105,104,398)	(104,595,090)	(385,032)	(124,276)
D Accumulated Other Comprehensive (Income)/Loss				
1 Net prior service cost/(credit)	0	0	0	0
2 Net loss/(gain)	38,267,501	38,042,667	118,068	106,766
3 Accumulated other comprehensive (income)/loss	38,267,501	38,042,667	118,068	106,766
E Assumptions and Dates				
1 Discount rate	2.85%	2.85%	2.50%	2.40%
2 Rate of compensation increase (non-administrative)	4.00%	4.00%	N/A	N/A
3 Census date	N/A	01/01/2022	01/01/2022	01/01/2022

C.4 Summary of net balances at January 1, 2022

All monetary amounts shown in US Dollars

	Total	UPPCO Retirement	UPPCO Restoration	UPPCO SERP
A Summary of Net Prior Service Cost/(Credit)				
1 Net amount at 01/01/2022	0	0	0	0
2 Amortization amount during 2022	0	0	0	0
3 Plan amendments	0	0	0	0
4 Effect of curtailments	0	0	0	0
5 Other events	0	0	0	0
B Summary of Net Loss/(Gain)				
1 Net amount at 01/01/2022	38,267,501	38,042,667	118,068	106,766
2 Amount recognized during 2022	(1,453,686)	(1,412,249)	(33,100)	(8,337)
3 Effect of curtailments	0	0	0	0
4 Effect of settlements	0	0	0	0
5 Other events	0	0	0	0

C.5 Development of market related value of assets

All monetary amounts shown in US Dollars

Fiscal Year Ending	Total Pension 12/31/2021	UPPCO Retirement Plan 12/31/2021	UPPCO Restoration Plan 12/31/2021	UPPCO SERP 12/31/2021
A Development of Market-Related Value of Assets				
1 Fair value of assets at current fiscal year end	123,448,920	123,448,920	N/A	N/A
2 Deferred investment gains/(losses) for prior periods				
Fiscal Year Gain/(Loss)				
a. 12/31/2021	(2,072,014)	(2,072,014)		
b. 12/31/2020	11,951,941	11,951,941	N/A	N/A
c. 12/31/2019	13,475,413	13,475,413	N/A	N/A
d. 12/31/2018	(10,843,853)	(10,843,853)	N/A	N/A
e. 12/31/2017	8,869,992	8,869,992	N/A	N/A
Percent Deferred				
a. 12/31/2021	80%	80%	N/A	N/A
b. 12/31/2020	60%	60%	N/A	N/A
c. 12/31/2019	40%	40%	N/A	N/A
d. 12/31/2018	20%	20%	N/A	N/A
e. 12/31/2017	0%	0%	N/A	N/A
Deferred Amount				
a. 12/31/2021	(1,657,611)	(1,657,611)	N/A	N/A
b. 12/31/2020	7,171,165	7,171,165	N/A	N/A
c. 12/31/2019	5,390,165	5,390,165	N/A	N/A
d. 12/31/2018	(2,168,771)	(2,168,771)	N/A	N/A
e. 12/31/2017	0	0	N/A	N/A
3 Market-related value of assets	114,713,972	114,713,972	N/A	N/A

C.6 Summary and comparison of benefit cost and cash flows

All monetary amounts shown in US Dollars

	Total	UPPCO Retirement	UPPCO Restoration	UPPCO SERP
C Total Benefit Cost for Fiscal Year Ending 12/31/2022				
1 Employer service cost	919,693	919,693	0	0
2 Interest cost	3,014,355	3,002,298	9,229	2,828
3 Expected return on plan assets	(5,014,396)	(5,014,396)	0	0
4 Subtotal	(1,080,348)	(1,092,405)	9,229	2,828
5 Net prior service cost/(credit) amortization	0	0	0	0
6 Net loss/(gain) amortization	1,453,686	1,412,249	33,100	8,337
7 Subtotal	1,453,686	1,412,249	33,100	8,337
8 Net periodic benefit cost/(income)	373,338	319,844	42,329	11,165
9 Curtailment (gain)/loss	0	0	0	0
10 Settlement (gain)/loss	0	0	0	0
11 Special/contractual termination benefits	0	0	0	0
12 Other adjustments	0	0	0	0
13 Total benefit cost	373,338	319,844	42,329	11,165
D Assumptions				
1 Discount rate	2.85%	2.85%	2.50%	2.40%
2 Expected long-term rate of return on plan assets	4.50%	4.50%	N/A	N/A
3 Rate of compensation increase (non-administrative)	4.00%	4.00%	N/A	N/A
4 Census date	N/A	01/01/2022	01/01/2022	01/01/2022
E Assets at Beginning of Year				
Fair value	123,448,920	123,448,920	0	0
Market-related value	114,713,972	114,713,972	0	0

	Total	UPPCO Retirement	UPPCO Restoration	UPPCO SERP
F Cash Flows				
1 Expected				
a Employer contributions	0	0	0	0
b Plan participants' contributions	0	0	0	0
c Benefits paid from Company assets	44,863	0	31,934	12,929
d Benefits paid from plan assets	6,638,967	6,638,967	0	0
G Amortization Period				
For gain/loss amortization, if applicable	N/A	25.00000	2.40378	11.31516

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO Information Technology CAPEX
Information Technology Projects for 2023-24

Case No.: U-21286
Exhibit No.: A-52 (GRH-35)
Schedule:
Page: 1 of 1
Witness: Gradon R. Haehnel

UPPCO Information Technology CAPEX

Information Technology Projects for 2023-24

Line	Corporate | Information Technology Capital		2023	2024
1	4000.01	AMI Add 'l Phase	2,036,042	2,137,843
2	4000.01	5 Additional CGR for AMI	36,357	36,357
3	4000.01	ASA Firewall Replacement (Cisco 2140)	-	332,410
4	4000.01	CDT/ICWEB Chat and email and Dialer Calls	-	155,817
5	4000.01	Cisco Routers and switches replacement	62,327	-
6	4000.01	Control House Security Door Access? 40 sites x2 doors Each Estimated $320K	-	-
7	4000.01	CRM/ ICWeb Move on Site and upgraded (Move with ECC)	124,654	-
8	4000.01	Cyme Upgraded	-	51,939
9	4000.01	Disaster Recovery (DR) Additional Hosts Disaster Recovery (DR) w/MS Licenses, w/VM licenses, w/Oracle licenses	612,881	-
10	4000.01	Disaster Recovery (DR) HANA Production	103,878	-
11	4000.01	Disaster Recovery (DR) Primear Marquette Datacenter 3-Par Replacement	363,573	-
12	4000.01	Disaster Recovery (DR) Secondary ISP and Firewalls	207,756	-
13	4000.01	Disaster Recovery (DR) Zerto	83,102	-
14	4000.01	Dragos Platform	-	103,878
15	4000.01	ECC move on Promise and upgraded (Move with CRM/ ICWEB)	207,756	-
16	4000.01	Hana Upgraded Over Run from 2022	519,390	-
17	4000.01	Houghton & Ishpeming Plotter Replacements	14,543	-
18	4000.01	inJixu	25,970	-
19	4000.01	Ishpeming South Community Room	-	83,102
20	4000.01	Load settlement	-	519,390
21	4000.01	Malware Bytes (crossed out but in total, removed 10K)	-	-
22	4000.01	Mobile TC Replacement	-	207,756
23	4000.01	Mobius Upgraded/ Replacement	-	207,756
24	4000.01	OT Vulnerability Scanning software	20,776	-
25	4000.01	Oth Hardware, Infrastructure repl, i.e. DVRs Security Camera, Routers, Switches, Aps as needed.	155,817	155,817
26	4000.01	PC/Laptops	265,928	7,271
27	4000.01	PGRT Monitoring for SCADA	10,388	-
28	4000.01	PowerPlan Upgraded	-	519,390
29	4000.01	Printers	93,490	31,163
30	4000.01	Ricoh Copier Replacement	51,939	62,327
31	4000.01	SAP Marking Cloud/Salesforce to included Enhanced Outage Communication/Notifications.	207,756	-
32	4000.01	SAP Solution Manager Upgraded & (OS Upgraded)	72,715	-
33	4000.01	SAP Warehouse Module	-	311,634
34	4000.01	Sinch (CDT) Upgraded	-	103,878
35	4000.01	Staking Tool Over Run from 2022	519,390	-
36	4000.01	Unbuild Report from Itron	-	103,878
37	4000.01	Victoria Proxy Door Security for Garage and Power-House	20,776	-
38	4000.01	Video conference work w MS Teams (3-Mqt, 2-ISH SC, 2-Ish S, 2-Houghton, 1-Iron Riv, 1-Ontonagon, 2-Esc, 1-Munising, 1- Vic)	-	67,521
39	4000.01	Video Wall for SOC Replacement	155,817	-
40	4000.01	WebDispatcher & Mobius Upgraded (OS upgraded)	103,878	-
	Total Corporate | Information Technology Capital		**6,076,899**	**5,199,127**

EXHIBIT AMM-1

QUALIFICATIONS OF ADRIEN M. MCKENZIE

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Adrien M. McKenzie. My business address is 3907 Red River Street, Austin, Texas 78751.

Q. PLEASE STATE YOUR OCCUPATION.

A. I am a principal in FINCAP, Inc., a firm engaged primarily in financial, economic, and policy consulting in the field of public utility regulation.

Q. PLEASE DESCRIBE YOUR QUALIFICATIONS AND EXPERIENCE.

A. I received B.A. and M.B.A. degrees with a major in finance from The University of Texas at Austin and hold the Chartered Financial Analyst (CFA®) designation. Since joining FINCAP in 1984, I have participated in consulting assignments involving a broad range of economic and financial issues, including cost of capital, cost of service, rate design, economic damages, and business valuation. I have extensive experience in economic and financial analysis for regulated industries, and in preparing and supporting expert witness testimony before courts, regulatory agencies, and legislative committees throughout the U.S. and Canada. I have personally sponsored direct and rebuttal testimony in over 150 proceedings filed with the Federal Energy Regulatory Commission ("FERC") and regulatory agencies in Alaska, Arkansas, Colorado, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Montana, Nebraska, New Mexico, Ohio, Oklahoma, Oregon, South Dakota, Texas, Virginia, Washington, West Virginia, and Wyoming. My testimony addressed the establishment of risk-comparable proxy groups, the application of alternative quantitative methods, and the consideration of regulatory standards and

policy objectives in establishing a fair rate of return on equity for regulated electric, gas, and water utility operations. In connection with these assignments, my responsibilities have included critically evaluating the positions of other parties and preparation of rebuttal testimony, representing clients in settlement negotiations and hearings, and assisting in the preparation of legal briefs.

FINCAP was formed in 1979 as an economic and financial consulting firm serving clients in both the regulated and competitive sectors. FINCAP conducts assignments ranging from broad qualitative analyses and policy consulting to technical analyses and research. The firm's experience is in the areas of public utilities, valuation of closely-held businesses, and economic evaluations (e.g., damage and cost/benefit analyses). Prior to joining FINCAP, I was employed by an oil and gas firm and was responsible for operations and accounting. I am a member of the CFA Institute. A resume containing the details of my qualifications and experience is attached below.

ADRIEN M. McKENZIE

FINCAP, INC.
Financial Concepts and Applications
Economic and Financial Counsel

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amm.fincap@outlook.com

Summary of Qualifications

Adrien McKenzie has an MBA in finance from the University of Texas at Austin and holds the Chartered Financial Analyst (CFA®) designation. He has over 30 years of experience in economic and financial analysis for regulated industries, and in preparing and supporting expert witness testimony before courts, regulatory agencies, and legislative committees throughout the U.S. and Canada. Assignments have included a broad range of economic and financial issues, including cost of capital, cost of service, rate design, economic damages, and business valuation.

Employment

President FINCAP, Inc. (June 1984 to June 1987) (April 1988 to present)	Economic consulting firm specializing in regulated industries and valuation of closely-held businesses. Assignments have involved electric, gas, telecommunication, and water/sewer utilities, with clients including utilities, consumer groups, municipalities, regulatory agencies, and cogenerators. Areas of participation have included rate of return, revenue requirements, rate design, tariff analysis, avoided cost, forecasting, and negotiations. Develop cost of capital analyses using alternative market models for electric, gas, and telephone utilities. Prepare pre-filed direct and rebuttal testimony, participate in settlement negotiations, respond to interrogatories, evaluate opposition testimony, and assist in the areas of cross-examination and the preparations of legal briefs. Other assignments have involved preparation of technical reports, valuations, estimation of damages, industry studies, and various economic analyses in support of litigation.
Manager, McKenzie Energy Company (Jan. 1981 to May. 1984)	Responsible for operations and accounting for firm engaged in the management of working interests in oil and gas properties.

Education

M.B.A., Finance, University of Texas at Austin (Sep. 1982 to May. 1984)	Program included coursework in corporate finance, accounting, financial modeling, and statistics. Received Dean's Award for Academic Excellence and Good Neighbor Scholarship. Professional Report: *The Impact of Construction Expenditures on Investor-Owned Electric Utilities*
B.B.A., Finance, University of Texas at Austin (Jan. 1981 to May 1982)	Electives included capital market theory, portfolio management, and international economics and finance. Elected to Beta Gamma Sigma business honor society. Dean's List 1981-1982.
Simon Fraser University, Vancouver, Canada and University of Hawaii at Manoa, Honolulu, Hawaii (Jan. 1979 to Dec 1980)	Coursework in accounting, finance, economics, and liberal arts.

Professional Associations

Received Chartered Financial Analyst (CFA®) designation in 1990.

Member – CFA Institute.

Bibliography

"A Profile of State Regulatory Commissions," A Special Report by the Electricity Consumers Resource Council (ELCON), Summer 1991.

"The Impact of Regulatory Climate on Utility Capital Costs: An Alternative Test," with Bruce H. Fairchild, *Public Utilities Fortnightly* (May 25, 1989).

Presentations

"ROE at FERC: Issues and Methods," *Expert Briefing on Parallels in ROE Issues between AER, ERA, and FERC*, Jones Day (Sydney, Melbourne, and Perth, Australia) (April 15, 2014).

Cost of Capital Working Group eforum, Edison Electric Institute (April 24, 2012).

"Cost-of-Service Studies and Rate Design," General Management of Electric Utilities (A Training Program for Electric Utility Managers from Developing Countries), Austin, Texas (October 1989 and November 1990 and 1991).

Representative Assignments

Mr. McKenzie has prepared and sponsored prefiled testimony submitted in over 150 regulatory proceedings. In addition to filings before regulatory agencies in Alaska, Arkansas, Colorado, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Montana, Nebraska, New Mexico, Ohio, Oklahoma, Oregon, South Dakota, Texas, Virginia, Washington, West Virginia, and Wyoming, Mr. McKenzie has considerable expertise in preparing expert analyses and testimony before the Federal Energy Regulatory Commission ("FERC") on the issue of rate of return on equity ("ROE"), and has broad experience in applying and evaluating the results of quantitative methods to estimate a fair ROE. Other representative assignments have included developing cost of service and cost allocation studies, the application of econometric models to analyze the impact of anti-competitive behavior and estimate lost profits; development of explanatory models for nuclear plant capital costs in connection with prudency reviews; and the analysis of avoided cost pricing for cogenerated power.

ROE ANALYSIS

SUMMARY OF RESULTS

Method	Result
DCF	
Value Line	8.7%
IBES	10.0%
Zacks	9.4%
Internal br + sv	8.6%
CAPM	
Current Bond Yield	12.1%
Projected Bond Yield	12.1%
ECAPM	
Current Bond Yield	12.3%
Projected Bond Yield	12.4%
Utility Risk Premium	
Current Bond Yield	10.4%
Projected Bond Yield	10.7%
Expected Earnings	10.8%

Proxy Group Cost of Equity Range			
Recommended Cost of Equity Range	**9.7%**	**--**	**11.2%**

REGULATORY MECHANISMS

ELECTRIC GROUP

		Type of Adjustment Clause								
						New Capital				
	Company	Fuel/PPA	Conserv. Program Expense	Decoupling Full	Decoupling Partial	Trad. Generation	Renewables/ Non-Trad.	Delivery Infra.	Environ. Compliance	Trans. Costs
1	ALLETE	✓	✓	--	--	--	✓	--	--	✓
2	Avista Corp.	✓	✓	✓	--	--	--	--	--	--
3	Black Hills Corp.	✓	✓	--	✓	✓	✓	--	✓	✓
4	CenterPoint Energy	✓	✓	--	✓	--	--	✓	✓	✓
5	CMS Energy Corp.	✓	✓	--	--	--	✓	--	--	✓
6	Dominion Energy	✓	✓	--	--	✓	✓	✓	✓	✓
7	DTE Energy Co.	✓	✓	--	--	--	✓	--	--	✓
8	Duke Energy Corp.	✓	✓	--	✓	✓	✓	✓	✓	✓
9	Edison International	✓	--	✓	--	--	--	--	--	--
10	Emera Inc.	✓	✓	--	--	✓	✓	--	✓	--
11	Entergy Corp.	✓	✓	--	✓	✓	✓	✓	✓	✓
12	Hawaiian Elec.	✓	✓	--	--	--	✓	--	--	--
13	NorthWestern Corp.	✓	✓	--	--	--	--	--	--	--
14	OGE Energy Corp.	✓	✓	--	✓	✓	✓	✓	✓	✓
15	Otter Tail Corp.	✓	✓	--	--	✓	✓	✓	✓	✓
16	Pinnacle West Capital	✓	✓	--	✓	--	✓	--	✓	✓
17	Sempra Energy	✓	✓	✓	--	--	--	✓	--	✓
18	Southern Company	✓	--	--	✓	✓	✓	--	✓	--

Sources:
Exhibit AMM-3, pages 2-4, contain operating company data that are aggregated into the parent company data on this page.

REGULATORY MECHANISMS

ELECTRIC GROUP OPERATING COS.

			Type of Adjustment Clause (a)																	
					Conserv.		Decoupling				New Capital									
	Company	State	Fuel/PPA		Program Expense		Full		Partial		Trad. Generation		Renewables/ Non-Trad.		Delivery Infra.		Environ. Compliance		Trans. Costs	
1	**ALLETE**																			
	Minnesota Power Enterprises Inc.	MN	✓		✓		--		--		--		✓		--		--		✓	
2	**AVISTA CORP.**																			
	Alaska Electric Light & Power Co.	AK	✓		--		--		--		--		--		--		--		--	
	Avista Corp.	ID	✓	*	✓		✓	*	--		--		--		--		--		--	
	Avista Corp.	WA	✓	*	✓		✓		--	*	--		--		--		--		--	
3	**BLACK HILLS CORP.**																			
	Black Hills Colorado Electric Inc.	CO	✓		✓		--		--		✓	*	✓		--		--		✓	
	Black Hills Power Inc.	SD	✓		--		--		--		--		--		--		✓	*	✓	*
	Cheyenne Light Fuel & Power Co.	WY	✓		✓		--		✓	*	--		--		--		--		--	
4	**CENTERPOINT ENERGY**																			
	CenterPoint Energy Houston Electric I	TX	--	*	✓		--		--		--		--		✓		--		✓	
	Southern Indiana Gas & Electric Co.	IN	✓		✓		--		✓	*	--		--		✓	*	✓	*	✓	
5	**CMS ENERGY**																			
	Consumers Energy Co.	MI	✓		✓		--	*	--		--		✓		--		--		✓	*
6	**DOMINION ENERGY**																			
	Virginia Electric & Power Co.	NC	✓		✓	*	--		--	*	--		✓	*	--		✓		--	
	Virginia Electric & Power Co.	VA	✓		✓		--		--		✓		✓		✓		✓		✓	
	Dominion Energy South Carolina	SC	✓		✓		--		--		✓	*	--		--		✓		--	
7	**DTE ENERGY CO.**																			
	DTE Electric Co.	MI	✓		✓		--	*	--		--		✓		--		--		✓	*
8	**DUKE ENERGY**																			
	Duke Energy Florida LLC	FL	✓		✓		--		--		✓	*	✓	*	--	*	✓		--	
	Duke Energy Indiana LLC	IN	✓		✓		--		✓	*	--		✓		✓	*	✓	*	✓	
	Duke Energy Kentucky Inc.	KY	✓		✓		--		✓	*	--		--		--		✓		--	
	Duke Energy Carolinas LLC	NC	✓		✓	*	--		--	*	--		✓	*	--		✓		--	
	Duke Energy Progress LLC	NC	✓		✓	*	--		--	*	--		✓	*	--		✓		--	
	Duke Energy Ohio Inc.	OH	--	*	✓	*	--		✓	*	--		✓		✓	*	--		✓	
	Duke Energy Progress LLC	SC	✓		✓		--		--		--	*	--		--		✓		--	
	Duke Energy Carolinas LLC	SC	✓		✓		--		--		--	*	--		--		✓		--	
9	**EDISON INTERNATIONAL**																			
	Southern California Edison Co.	CA	✓		--		✓		--		--		--		--		--		--	
10	**EMERA INC.**																			
	Tampa Electric Co.	FL	✓		✓		--		--		✓	*	✓	*	--	*	✓		--	

REGULATORY MECHANISMS

ELECTRIC GROUP OPERATING COS.

			Type of Adjustment Clause (a)																	
					Conserv.		Decoupling			New Capital										
					Program					Trad.		Renewables/		Delivery		Environ.		Trans.	
	Company	State	Fuel/PPA		Expense		Full	Partial		Generation		Non-Trad.		Infra.		Compliance		Costs	
11	**ENTERGY CORP.**																		
	Entergy Arkansas LLC	AR	✓		✓		--	✓	*	✓	*	✓	*	✓	*	--		✓	
	Entergy New Orleans LLC	LA	✓		✓		--	--		--		✓		--		✓	*	✓	*
	Entergy Louisiana LLC	LA	✓		✓	*	--	✓	*	--		--		--		✓		--	
	Entergy Mississippi LLC	MS	✓		--		--	✓	*	--		--		--		--		✓	
	Entergy Texas Inc.	TX	✓	*	✓		--	--		✓	*	--		✓		--		✓	
12	**HAWAIIAN ELEC.**																		
	Hawaiian Electric Co.	HI	✓		✓		--	--		--		✓	*	--		--		--	
	Hawaii Electric Light Co.	HI	✓		✓		--	--		--		--		--		--		--	
	Maui Electric Co.	HI	✓		✓		--	--		--		✓	*	--		--		--	
13	**NORTHWESTERN CORP.**																		
	NorthWestern Corp.	MT	✓	*	✓		--	--		--		--		--		--		--	
	NorthWestern Corp.	SD	✓		✓		--	--		--		--		--		--		--	
14	**OGE ENERGY CORP.**																		
	Oklahoma Gas & Electric Co.	AR	✓		✓		--	✓	*	✓		✓		✓		✓		✓	
	Oklahoma Gas & Electric Co.	OK	✓		✓	*	--	✓	*	--		--		✓	*	✓	*	✓	*
15	**OTTER TAIL CORP.**																		
	Otter Tail Power Co.	MN	✓		✓		--	--		--		✓		--		✓		✓	
	Otter Tail Power Co.	ND	✓		--		--	--		✓	*	✓	*	✓	*	✓	*	✓	*
	Otter Tail Power Corp.	SD	✓		✓		--	--		✓	*	--		✓		✓		--	
16	**PINNACLE WEST CAPITAL**																		
	Arizona Public Service Co.	AZ	✓		✓		--	✓	*	--		✓		--		✓		✓	
17	**SEMPRA ENERGY**																		
	San Diego Gas & Electric Co.	CA	✓		--		✓	--		--		--		--		--		--	
	Oncor Electric Delivery Co.	TX	--	*	✓		--	--		--		--		✓		--		✓	
18	**SOUTHERN CO.**																		
	Alabama Power Co.	AL	✓	*	--		--	--		✓	*	✓		--		✓	*	--	
	Georgia Power Co.	GA	✓		--		--	--		✓	*	--		--		✓	*	--	
	Mississippi Power Co.	MS	✓		--		--	✓	*	--		--		--		✓	*	--	

Sources:

(a) S&P Global Market Intelligence, *Adjustment clauses: A state by state overview* , Regulatory Focus Topical Special Report *(* Jul. 18, 2022).

Notes:

* For additional context around the specific recovery mechanisms available to the particular operating companies in each state, see the source document.

CAPITAL STRUCTURE

ELECTRIC GROUP

		At Year-end 2021 (a)			Value Line Projected (b)		
	Company	**Debt**	**Preferred**	**Common Equity**	**Debt**	**Preferred**	**Common Equity**
1	ALLETE	40.2%	0.0%	59.8%	40.5%	0.0%	59.5%
2	Avista Corp.	49.9%	0.0%	50.1%	48.5%	0.0%	51.5%
3	Black Hills Corp.	58.8%	0.0%	41.2%	45.5%	0.0%	54.5%
4	CenterPoint Energy	63.1%	3.1%	33.8%	60.0%	2.5%	37.5%
5	CMS Energy Corp.	63.4%	1.1%	35.5%	61.0%	1.0%	38.0%
6	Dominion Energy	58.4%	2.7%	38.9%	56.0%	2.0%	42.0%
7	DTE Energy Co.	66.6%	0.0%	33.4%	61.0%	0.0%	39.0%
8	Duke Energy Corp.	55.5%	0.0%	44.5%	61.0%	1.5%	37.5%
9	Edison International	58.7%	0.0%	41.3%	63.5%	2.5%	34.0%
10	Emera Inc.	59.1%	5.7%	35.2%	52.8%	0.0%	47.2%
11	Entergy Corp.	68.5%	0.6%	31.0%	66.0%	0.5%	33.5%
12	Hawaiian Elec.	49.8%	0.7%	49.4%	46.0%	0.5%	53.5%
13	NorthWestern Corp.	52.2%	0.0%	47.8%	49.0%	0.0%	51.0%
14	OGE Energy Corp.	52.6%	0.0%	47.4%	49.0%	0.0%	51.0%
15	Otter Tail Corp.	43.5%	0.0%	56.5%	42.5%	0.0%	57.5%
16	Pinnacle West Capital	54.0%	0.0%	46.0%	54.5%	0.0%	45.5%
17	Sempra Energy	43.6%	0.0%	56.4%	46.5%	1.5%	52.0%
18	Southern Company	61.6%	0.3%	38.0%	63.0%	0.0%	37.0%
	Average	**55.5%**	**0.8%**	**43.7%**	**53.7%**	**0.7%**	**45.7%**
	Average - Ex. High and Low	**55.7%**	**0.5%**	**43.5%**	**53.7%**	**0.6%**	**45.5%**

(a) 2021 SEC Form 10-K reports.

(b) The Value Line Investment Survey (Apr. 22, May 13 and Jun. 10, 2022).

CAPITAL STRUCTURE **Exhibit A-56 (AMM-4)**
Page 2 of 3

ELECTRIC GROUP OPERATING SUBSIDIARIES

		At Year-End 2021 (a)		
	Operating Company	**Debt**	**Preferred**	**Common Equity**
1	**ALLETE**			
	ALLETE, Inc. (Minnesota Power)	43.9%	0.0%	56.1%
2	**AVISTA CORP.**			
	Avista Corp.	52.8%	0.0%	47.2%
	Alaska Electric Light & Power	39.5%	0.0%	60.5%
3	**BLACK HILLS CORP.**			
	Black Hills Power	52.0%	0.0%	48.0%
	Cheyenne Light Fuel & Power	53.6%	0.0%	46.4%
	Black Hills/Colorado Electric Utility Co	53.4%	0.0%	46.6%
4	**CENTERPOINT ENERGY**			
	Centerpoint Energy Houston Electric	60.3%	0.0%	39.7%
5	**CMS ENERGY**			
	Consumers Energy Co.	47.7%	0.2%	52.1%
6	**DOMINION ENERGY**			
	Virginia Electric & Power	47.2%	0.0%	52.8%
	Dominion Energy South Carolina	48.7%	1.2%	50.1%
7	**DTE ENERGY CO.**			
	DTE Electric Co.	50.0%	0.0%	50.0%
8	**DUKE ENERGY**			
	Duke Energy Carolinas	48.9%	0.0%	51.1%
	Duke Energy Florida	50.6%	0.0%	49.4%
	Duke Energy Indiana	46.3%	0.0%	53.7%
	Duke Energy Ohio	41.7%	0.0%	58.3%
	Duke Energy Progress	51.8%	0.0%	48.2%
	Duke Energy Kentucky	50.4%	0.0%	49.6%
9	**EDISON INTERNATIONAL**			
	Southern California Edison Co.	52.9%	4.6%	42.4%
10	**EMERA INC.**			
	Tampa Electric Co.	46.3%	0.0%	53.7%

CAPITAL STRUCTURE **Exhibit A-56 (AMM-4)**
Page 3 of 3

ELECTRIC GROUP OPERATING SUBSIDIARIES

		At Year-End 2021 (a)		
	Operating Company	**Debt**	**Preferred**	**Common Equity**
11	**ENTERGY CORP.**			
	Entergy Arkansas Inc.	52.5%	0.0%	47.5%
	Entergy Louisiana LLC	57.2%	0.0%	42.8%
	Entergy Mississippi Inc.	54.2%	0.0%	45.8%
	Entergy New Orleans Inc.	55.2%	0.0%	44.8%
	Entergy Texas Inc.	48.7%	0.8%	50.5%
12	**HAWAIIAN ELEC.**			
	Hawaiian Electric Co.	42.2%	0.9%	56.9%
13	**NORTHWESTERN CORP.**			
	NorthWestern Corporation	52.2%	0.0%	47.8%
14	**OGE ENERGY CORP.**			
	Oklahoma G&E	46.5%	0.0%	53.5%
15	**OTTER TAIL CORP.**			
	Otter Tail Power Co.	47.6%	0.0%	52.4%
16	**PINNACLE WEST CAPITAL**			
	Arizona Public Service Co.	48.1%	0.0%	51.9%
17	**SEMPRA ENERGY**			
	San Diego Gas & Electric	48.1%	0.0%	51.9%
	Oncor Electric Delivery	42.5%	0.0%	57.5%
18	**SOUTHERN CO.**			
	Alabama Power Co.	46.8%	1.4%	51.8%
	Georgia Power Co.	44.4%	0.0%	55.6%
	Mississippi Power Co.	44.7%	0.0%	55.3%
	Minimum	**39.5%**	**0.0%**	**39.7%**
	Maximum	**60.3%**	**4.6%**	**60.5%**
	Average	**49.1%**	**0.3%**	**50.6%**

(a) Data from 2021 Company Form 10-K and FERC Form 1 reports.

DCF MODEL - ELECTRIC GROUP **Exhibit A-57 (AMM-5)**
Page 1 of 3

DIVIDEND YIELD

	Company	(a) Price	(b) Dividends	Yield
1	ALLETE	$ 60.35	$ 2.65	4.4%
2	Avista Corp.	$ 42.46	$ 1.78	4.2%
3	Black Hills Corp.	$ 73.75	$ 2.44	3.3%
4	CenterPoint Energy	$ 30.31	$ 0.73	2.4%
5	CMS Energy Corp.	$ 67.91	$ 1.89	2.8%
6	Dominion Energy	$ 80.76	$ 2.71	3.4%
7	DTE Energy Co.	$ 127.50	$ 3.66	2.9%
8	Duke Energy Corp.	$ 107.83	$ 4.00	3.7%
9	Edison International	$ 65.77	$ 2.88	4.4%
10	Emera Inc.	$ 61.68	$ 2.65	4.3%
11	Entergy Corp.	$ 114.91	$ 4.19	3.6%
12	Hawaiian Elec.	$ 41.58	$ 1.41	3.4%
13	NorthWestern Corp.	$ 59.46	$ 2.53	4.3%
14	OGE Energy Corp.	$ 39.09	$ 1.68	4.3%
15	Otter Tail Corp.	$ 64.51	$ 1.70	2.6%
16	Pinnacle West Capital	$ 73.79	$ 3.44	4.7%
17	Sempra Energy	$ 156.74	$ 4.63	3.0%
18	Southern Company	$ 72.48	$ 2.72	3.8%
	Average			**3.6%**

(a) Average of closing prices for 30 trading days ended Jun. 24, 2022.
(b) The Value Line Investment Survey, Summary & Index (Jun. 24, 2022).

DCF MODEL - ELECTRIC GROUP **Exhibit A-57 (AMM-5)**
Page 2 of 3

GROWTH RATES

		(a)	(b)	(c)	(d)
		Earnings Growth			**br+sv**
	Company	**V Line**	**IBES**	**Zacks**	**Growth**
1	ALLETE	6.0%	8.7%	8.7%	4.8%
2	Avista Corp.	3.0%	5.8%	5.8%	3.8%
3	Black Hills Corp.	5.5%	4.7%	6.3%	5.0%
4	CenterPoint Energy	6.5%	-0.8%	3.9%	5.0%
5	CMS Energy Corp.	6.5%	8.5%	8.1%	6.0%
6	Dominion Energy	14.0%	6.5%	6.3%	6.1%
7	DTE Energy Co.	4.5%	4.0%	6.0%	6.4%
8	Duke Energy Corp.	6.0%	5.9%	6.1%	3.1%
9	Edison International	n/a	4.5%	3.9%	5.6%
10	Emera Inc.	3.5%	5.5%	n/a	4.7%
11	Entergy Corp.	4.0%	6.0%	6.7%	5.7%
12	Hawaiian Elec.	3.5%	1.3%	3.2%	3.9%
13	NorthWestern Corp.	3.0%	4.5%	2.3%	3.7%
14	OGE Energy Corp.	6.5%	1.9%	3.5%	5.3%
15	Otter Tail Corp.	4.5%	9.0%	n/a	5.1%
16	Pinnacle West Capital	1.5%	0.1%	n/a	3.4%
17	Sempra Energy	11.5%	6.8%	5.6%	4.6%
18	Southern Company	6.5%	6.1%	4.0%	5.5%

(a) The Value Line Investment Survey (Apr. 22, May 13 and Jun. 10, 2022).
(b) www.finance.yahoo.com (retreived Jun. 23, 2022).
(c) www.zacks.com (retrieved Jun. 23, 2022).
(d) See Exhibit AMM-6.

DCF MODEL - ELECTRIC GROUP

COST OF EQUITY ESTIMATES

	Company	(a) V Line	(a) IBES	(a) Zacks	(a) br+sv
1	ALLETE	10.4%	13.1%	13.1%	9.2%
2	Avista Corp.	7.2%	10.0%	10.0%	8.0%
3	Black Hills Corp.	8.8%	8.0%	9.6%	8.3%
4	CenterPoint Energy	8.9%	1.6%	6.3%	7.4%
5	CMS Energy Corp.	9.3%	11.3%	10.9%	8.8%
6	Dominion Energy	17.4%	9.9%	9.7%	9.5%
7	DTE Energy Co.	7.4%	6.8%	8.9%	9.2%
8	Duke Energy Corp.	9.7%	9.6%	9.8%	6.8%
9	Edison International	n/a	8.9%	8.3%	9.9%
10	Emera Inc.	7.8%	9.8%	n/a	9.0%
11	Entergy Corp.	7.6%	9.7%	10.4%	9.3%
12	Hawaiian Elec.	6.9%	4.7%	6.6%	7.3%
13	NorthWestern Corp.	7.3%	8.8%	6.5%	8.0%
14	OGE Energy Corp.	10.8%	6.2%	7.8%	9.6%
15	Otter Tail Corp.	7.1%	11.6%	n/a	7.7%
16	Pinnacle West Capital	6.2%	4.8%	n/a	8.1%
17	Sempra Energy	14.5%	9.8%	8.6%	7.6%
18	Southern Company	10.3%	9.9%	7.8%	9.2%
	Average (b)	**8.7%**	**10.0%**	**9.4%**	**8.6%**

(a) Sum of dividend yield (Exhibit AMM-5, p. 1) and respective growth rate (Exhibit AMM-5, p. 2).
(b) Excludes highlighted values.

BR+SV GROWTH RATE

ELECTRIC GROUP

		(a)	(a)	(a)	(b)	(c)	(d)	(e)		(f)	(g)		
		2026					Adjustment			"sv" Factor			
	Company	EPS	DPS	BVPS	b	r	Factor	Adjusted r	br	s	v	sv	br + sv
1	ALLETE	$4.75	$3.00	$54.00	36.8%	8.8%	1.0313	9.1%	3.3%	0.0424	0.3455	1.46%	4.8%
2	Avista Corp.	$2.75	$2.05	$34.75	25.5%	7.9%	1.0296	8.1%	2.1%	0.0479	0.3682	1.76%	3.8%
3	Black Hills Corp.	$5.00	$2.95	$54.75	41.0%	9.1%	1.0332	9.4%	3.9%	0.0298	0.3743	1.11%	5.0%
4	CenterPoint Energy	$1.80	$0.95	$18.00	47.2%	10.0%	1.0280	10.3%	4.9%	0.0027	0.4000	0.11%	5.0%
5	CMS Energy Corp.	$3.75	$2.30	$29.25	38.7%	12.8%	1.0322	13.2%	5.1%	0.0155	0.5500	0.85%	6.0%
6	Dominion Energy	$5.25	$3.40	$43.00	35.2%	12.2%	1.0379	12.7%	4.5%	0.0307	0.5351	1.65%	6.1%
7	DTE Energy Co.	$7.50	$4.65	$60.75	38.0%	12.3%	1.0365	12.8%	4.9%	0.0274	0.5500	1.51%	6.4%
8	Duke Energy Corp.	$6.50	$4.35	$70.00	33.1%	9.3%	1.0133	9.4%	3.1%	0.0004	0.3778	0.02%	3.1%
9	Edison International	$6.00	$3.55	$47.00	40.8%	12.8%	1.0199	13.0%	5.3%	0.0049	0.5053	0.25%	5.6%
10	Emera Inc.	$4.40	$2.98	$41.55	32.3%	10.6%	1.0139	10.7%	3.5%	0.0260	0.4639	1.21%	4.7%
11	Entergy Corp.	$8.50	$5.10	$74.00	40.0%	11.5%	1.0308	11.8%	4.7%	0.0204	0.4618	0.94%	5.7%
12	Hawaiian Elec.	$2.50	$1.60	$26.25	36.0%	9.5%	1.0213	9.7%	3.5%	0.0108	0.3824	0.41%	3.9%
13	NorthWestern Corp.	$4.00	$2.70	$49.50	32.5%	8.1%	1.0273	8.3%	2.7%	0.0379	0.2667	1.01%	3.7%
14	OGE Energy Corp.	$3.25	$1.85	$27.00	43.1%	12.0%	1.0292	12.4%	5.3%	-	0.4316	0.00%	5.3%
15	Otter Tail Corp.	$3.75	$2.20	$34.25	41.3%	10.9%	1.0383	11.4%	4.7%	0.0086	0.4731	0.41%	5.1%
16	Pinnacle West Capital	$5.50	$3.80	$59.25	30.9%	9.3%	1.0169	9.4%	2.9%	0.0139	0.3763	0.52%	3.4%
17	Sempra Energy	$10.75	$5.60	$101.00	47.9%	10.6%	1.0207	10.9%	5.2%	(0.0132)	0.4229	-0.56%	4.6%
18	Southern Company	$4.75	$3.10	$32.25	34.7%	14.7%	1.0216	15.0%	5.2%	0.0045	0.5839	0.26%	5.5%

BR+SV GROWTH RATE

ELECTRIC GROUP

		(a)	(a)	(h)	(a)	(a)	(h)	(i)	(a)	(a)		(j)	(a)	(a)	(i)
			2021			2026		Chg		2026				Common Shares	
	Company	Eq Ratio	Tot Cap	Com Eq	Eq Ratio	Tot Cap	Com Eq	Equity	High	Low	Avg.	M/B	2021	2026	Growth
1	ALLETE	57.8%	$4,176	$2,414	59.5%	$5,550	$3,302	6.5%	$95.0	$70.0	$82.5	1.528	53.20	61.00	2.77%
2	Avista Corp.	52.5%	$4,105	$2,155	51.5%	$5,625	$2,897	6.1%	$65.0	$45.0	$55.0	1.583	71.50	83.00	3.03%
3	Black Hills Corp.	40.3%	$6,914	$2,786	54.5%	$7,125	$3,883	6.9%	$100.0	$75.0	$87.5	1.598	64.74	71.00	1.86%
4	CenterPoint Energy	34.5%	$24,973	$8,616	37.5%	$30,400	$11,400	5.8%	$35.0	$25.0	$30.0	1.667	628.92	634.00	0.16%
5	CMS Energy Corp.	34.2%	$18,760	$6,416	38.0%	$23,300	$8,854	6.7%	$75.0	$55.0	$65.0	2.222	289.76	300.00	0.70%
6	Dominion Energy	38.5%	$66,344	$25,542	42.0%	$88,900	$37,338	7.9%	$105.0	$80.0	$92.5	2.151	810.40	870.00	1.43%
7	DTE Energy Co.	37.5%	$23,236	$8,714	39.0%	$32,200	$12,558	7.6%	$155.0	$115.0	$135.0	2.222	193.75	206.00	1.23%
8	Duke Energy Corp.	43.1%	$109,744	$47,300	37.5%	$144,100	$54,038	2.7%	$130.0	$95.0	$112.5	1.607	769.00	770.00	0.03%
9	Edison International	33.2%	$41,959	$13,930	34.0%	$50,000	$17,000	4.1%	$115.0	$75.0	$95.0	2.021	380.38	385.00	0.24%
10	Emera Inc.	41.6%	$24,312	$10,116	47.2%	$24,630	$11,630	2.8%	$90.0	$65.0	$77.5	1.865	261.07	279.80	1.40%
11	Entergy Corp.	31.7%	$36,733	$11,644	33.5%	$47,300	$15,846	6.4%	$160.0	$115.0	$137.5	1.858	202.65	214.00	1.10%
12	Hawaiian Elec.	52.8%	$4,524	$2,389	53.5%	$5,525	$2,956	4.4%	$50.0	$35.0	$42.5	1.619	109.31	113.00	0.67%
13	NorthWestern Corp.	47.8%	$4,893	$2,339	51.0%	$6,025	$3,073	5.6%	$80.0	$55.0	$67.5	1.364	54.06	62.00	2.78%
14	OGE Energy Corp.	47.4%	$8,553	$4,054	51.0%	$10,650	$5,432	6.0%	$55.0	$40.0	$47.5	1.759	200.10	200.10	0.00%
15	Otter Tail Corp.	57.4%	$1,725	$990	57.5%	$2,525	$1,452	8.0%	$75.0	$55.0	$65.0	1.898	41.55	42.50	0.45%
16	Pinnacle West Capital	46.1%	$12,820	$5,910	45.5%	$15,375	$6,996	3.4%	$110.0	$80.0	$95.0	1.603	113.01	118.00	0.87%
17	Sempra Energy	53.3%	$47,049	$25,077	52.0%	$59,300	$30,836	4.2%	$200.0	$150.0	$175.0	1.733	316.92	305.00	-0.76%
18	Southern Company	35.6%	$78,285	$27,869	37.0%	$93,500	$34,595	4.4%	$90.0	$65.0	$77.5	2.403	1060.00	1070.00	0.19%

(a) The Value Line Investment Survey (Apr. 22, May 13 and Jun. 10, 2022).
(b) "b" is the retention ratio, computed as (EPS-DPS)/EPS.
(c) "r" is the rate of return on book equity, computed as EPS/BVPS.
(d) Computed using the formula 2*(1+5-Yr. Change in Equity)/(2+5 Yr. Change in Equity).
(e) Product of year-end "r" for 2026 and Adjustment Factor.
(f) Product of change in common shares outstanding and M/B Ratio.
(g) Computed as 1 - B/M Ratio.
(h) Product of total capital and equity ratio.
(i) Five-year rate of change.
(j) Average of High and Low expected market prices for 2026 divided by 2026 BVPS.

CAPM

CURRENT BOND YIELD

		(a)	(b)		(c)		(d)		(e)	(f)	
		Market Return (R_m)									
	Company	**Div Yield**	**Proj. Growth**	**Cost of Equity**	**Risk-Free Rate**	**Risk Premium**	**Beta**	**Unadjusted K_e**	**Market Cap**	**Size Adjustment**	**CAPM Result**
1	ALLETE	2.0%	10.5%	12.5%	3.3%	9.2%	0.90	11.6%	$3,300	0.91%	12.5%
2	Avista Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	0.90	11.6%	$3,200	1.20%	12.8%
3	Black Hills Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	0.95	12.0%	$5,000	0.91%	13.0%
4	CenterPoint Energy	2.0%	10.5%	12.5%	3.3%	9.2%	1.15	13.9%	$20,000	0.44%	14.3%
5	CMS Energy Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	0.75	10.2%	$21,000	0.44%	10.6%
6	Dominion Energy	2.0%	10.5%	12.5%	3.3%	9.2%	0.80	10.7%	$66,000	-0.17%	10.5%
7	DTE Energy Co.	2.0%	10.5%	12.5%	3.3%	9.2%	0.95	12.0%	$26,000	0.44%	12.5%
8	Duke Energy Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	0.85	11.1%	$84,000	-0.17%	11.0%
9	Edison International	2.0%	10.5%	12.5%	3.3%	9.2%	0.95	12.0%	$27,000	0.44%	12.5%
10	Emera Inc.	2.0%	10.5%	12.5%	3.3%	9.2%	0.75	10.2%	$16,400	0.57%	10.8%
11	Entergy Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	0.90	11.6%	$25,000	0.44%	12.0%
12	Hawaiian Elec.	2.0%	10.5%	12.5%	3.3%	9.2%	0.80	10.7%	$4,800	0.91%	11.6%
13	NorthWestern Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	0.95	12.0%	$3,300	0.91%	13.0%
14	OGE Energy Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	1.00	12.5%	$8,300	0.57%	13.1%
15	Otter Tail Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	0.85	11.1%	$2,700	1.20%	12.3%
16	Pinnacle West Capital	2.0%	10.5%	12.5%	3.3%	9.2%	0.90	11.6%	$8,800	0.57%	12.2%
17	Sempra Energy	2.0%	10.5%	12.5%	3.3%	9.2%	0.95	12.0%	$53,000	-0.17%	11.9%
18	Southern Company	2.0%	10.5%	12.5%	3.3%	9.2%	0.90	11.6%	$78,000	-0.17%	11.4%
	Average							**11.6%**			**12.1%**

(a) Weighted average for dividend-paying stocks in the S&P 500 based on data from www.valueline.com (retrieved June 5, 2022)..
(b) Average of weighted average earnings growth rates from IBES, Value Line, and Zacks for dividend-paying stocks in the S&P 500 based on data from Refinitiv, as provided by fidelity.com (retrieved Jun. 5, 2022), www.valueline.com (retrieved June 5, 2022)., and www.zacks.com (retrieved Jun. 5, 2022). Eliminated growth rates that were greater than 20%, as well as all negative values.
(c) Average yield on 30-year Treasury bonds for Jun. 2022 based on data from https://fred.stlouisfed.org/.
(d) The Value Line Investment Survey, Summary & Index (Jun. 24, 2022).
(e) The Value Line Investment Survey (Apr. 22, May 13 and Jun. 10, 2022).
(f) Kroll, 2022 Supplementary CRSP Decile Size Study Data Exhibits.

CAPM

PROJECTED BOND YIELD

		(a)	(b)		(c)		(d)		(e)	(f)	
		Market Return (R_m)									
	Company	**Div Yield**	**Proj. Growth**	**Cost of Equity**	**Risk-Free Rate**	**Risk Premium**	**Beta**	**Unadjusted K_e**	**Market Cap**	**Size Adjustment**	**CAPM Result**
1	ALLETE	2.0%	10.5%	12.5%	3.8%	8.7%	0.90	11.6%	$3,300	0.91%	12.5%
2	Avista Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	0.90	11.6%	$3,200	1.20%	12.8%
3	Black Hills Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	0.95	12.1%	$5,000	0.91%	13.0%
4	CenterPoint Energy	2.0%	10.5%	12.5%	3.8%	8.7%	1.15	13.8%	$20,000	0.44%	14.2%
5	CMS Energy Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	0.75	10.3%	$21,000	0.44%	10.8%
6	Dominion Energy	2.0%	10.5%	12.5%	3.8%	8.7%	0.80	10.8%	$66,000	-0.17%	10.6%
7	DTE Energy Co.	2.0%	10.5%	12.5%	3.8%	8.7%	0.95	12.1%	$26,000	0.44%	12.5%
8	Duke Energy Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	0.85	11.2%	$84,000	-0.17%	11.0%
9	Edison International	2.0%	10.5%	12.5%	3.8%	8.7%	0.95	12.1%	$27,000	0.44%	12.5%
10	Emera Inc.	2.0%	10.5%	12.5%	3.8%	8.7%	0.75	10.3%	$16,400	0.57%	10.9%
11	Entergy Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	0.90	11.6%	$25,000	0.44%	12.1%
12	Hawaiian Elec.	2.0%	10.5%	12.5%	3.8%	8.7%	0.80	10.8%	$4,800	0.91%	11.7%
13	NorthWestern Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	0.95	12.1%	$3,300	0.91%	13.0%
14	OGE Energy Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	1.00	12.5%	$8,300	0.57%	13.1%
15	Otter Tail Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	0.85	11.2%	$2,700	1.20%	12.4%
16	Pinnacle West Capital	2.0%	10.5%	12.5%	3.8%	8.7%	0.90	11.6%	$8,800	0.57%	12.2%
17	Sempra Energy	2.0%	10.5%	12.5%	3.8%	8.7%	0.95	12.1%	$53,000	-0.17%	11.9%
18	Southern Company	2.0%	10.5%	12.5%	3.8%	8.7%	0.90	11.6%	$78,000	-0.17%	11.5%
	Average							**11.6%**			**12.1%**

(a) Weighted average for dividend-paying stocks in the S&P 500 based on data from www.valueline.com (retrieved June 5, 2022)..
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(c) Projected yield on 30-year Treasury bonds for 2023-27 based on data from Wolters Kluwer, Blue Chip Financial Forecasts (Jun. 1, 2022).
(d) The Value Line Investment Survey, Summary & Index (Jun. 24, 2022).
(e) The Value Line Investment Survey (Apr. 22, May 13 and Jun. 10, 2022).
(f) Kroll, 2022 Supplementary CRSP Decile Size Study Data Exhibits.

ECAPM

CURRENT BOND YIELD

		(a)	(b)		(c)		(d)		(e)	(d)				(f)	(g)	
		Market Return (R_m)					Unadjusted RP		Beta Adjusted RP							
	Company	Div Yield	Proj. Growth	Cost of Equity	Risk-Free Rate	Risk Premium	Weight	RP^1	Beta	Weight	RP^2	Total RP	Unadjusted K_e	Market Cap	Size Adjustment	ECAPM Result
1	ALLETE	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.90	75%	6.2%	8.5%	11.8%	$3,300	0.91%	12.7%
2	Avista Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.90	75%	6.2%	8.5%	11.8%	$3,200	1.20%	13.0%
3	Black Hills Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.95	75%	6.6%	8.9%	12.2%	$5,000	0.91%	13.1%
4	CenterPoint Energy	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	1.15	75%	7.9%	10.2%	13.5%	$20,000	0.44%	14.0%
5	CMS Energy Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.75	75%	5.2%	7.5%	10.8%	$21,000	0.44%	11.2%
6	Dominion Energy	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.80	75%	5.5%	7.8%	11.1%	$66,000	-0.17%	11.0%
7	DTE Energy Co.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.95	75%	6.6%	8.9%	12.2%	$26,000	0.44%	12.6%
8	Duke Energy Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.85	75%	5.9%	8.2%	11.5%	$84,000	-0.17%	11.3%
9	Edison International	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.95	75%	6.6%	8.9%	12.2%	$27,000	0.44%	12.6%
10	Emera Inc.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.75	75%	5.2%	7.5%	10.8%	$16,400	0.57%	11.3%
11	Entergy Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.90	75%	6.2%	8.5%	11.8%	$25,000	0.44%	12.3%
12	Hawaiian Elec.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.80	75%	5.5%	7.8%	11.1%	$4,800	0.91%	12.0%
13	NorthWestern Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.95	75%	6.6%	8.9%	12.2%	$3,300	0.91%	13.1%
14	OGE Energy Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	1.00	75%	6.9%	9.2%	12.5%	$8,300	0.57%	13.1%
15	Otter Tail Corp.	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.85	75%	5.9%	8.2%	11.5%	$2,700	1.20%	12.7%
16	Pinnacle West Capital	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.90	75%	6.2%	8.5%	11.8%	$8,800	0.57%	12.4%
17	Sempra Energy	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.95	75%	6.6%	8.9%	12.2%	$53,000	-0.17%	12.0%
18	Southern Company	2.0%	10.5%	12.5%	3.3%	9.2%	25%	2.3%	0.90	75%	6.2%	8.5%	11.8%	$78,000	-0.17%	11.6%
	Average												**11.8%**			**12.3%**

(a) Weighted average for dividend-paying stocks in the S&P 500 based on data from www.valueline.com (retrieved June 5, 2022)..
(b) Average of weighted average earnings growth rates from IBES, Value Line, and Zacks for dividend-paying stocks in the S&P 500 based on data from Refinitiv, as provided by fidelity.com (retrieved Jun. 5, 2022), www.valueline.com (retrieved June 5, 2022)., and www.zacks.com (retrieved Jun. 5, 2022). Eliminated growth rates that were greater than 20%, as well as all negative values.
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ECAPM

PROJECTED BOND YIELD

		(a)	(b)		(c)		(d)		(e)	(d)				(f)	(g)	
		Market Return (R_m)					Unadjusted RP		Beta Adjusted RP							
	Company	Div Yield	Proj. Growth	Cost of Equity	Risk-Free Rate	Risk Premium	Weight	RP^1	Beta	Weight	RP^2	Total RP	Unadjusted K_e	Market Cap	Size Adjustment	ECAPM Result
1	ALLETE	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.90	75%	5.9%	8.0%	11.8%	$3,300	0.91%	12.8%
2	Avista Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.90	75%	5.9%	8.0%	11.8%	$3,200	1.20%	13.0%
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5	CMS Energy Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.75	75%	4.9%	7.1%	10.9%	$21,000	0.44%	11.3%
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7	DTE Energy Co.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.95	75%	6.2%	8.4%	12.2%	$26,000	0.44%	12.6%
8	Duke Energy Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.85	75%	5.5%	7.7%	11.5%	$84,000	-0.17%	11.4%
9	Edison International	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.95	75%	6.2%	8.4%	12.2%	$27,000	0.44%	12.6%
10	Emera Inc.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.75	75%	4.9%	7.1%	10.9%	$16,400	0.57%	11.4%
11	Entergy Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.90	75%	5.9%	8.0%	11.8%	$25,000	0.44%	12.3%
12	Hawaiian Elec.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.80	75%	5.2%	7.4%	11.2%	$4,800	0.91%	12.1%
13	NorthWestern Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.95	75%	6.2%	8.4%	12.2%	$3,300	0.91%	13.1%
14	OGE Energy Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	1.00	75%	6.5%	8.7%	12.5%	$8,300	0.57%	13.1%
15	Otter Tail Corp.	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.85	75%	5.5%	7.7%	11.5%	$2,700	1.20%	12.7%
16	Pinnacle West Capital	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.90	75%	5.9%	8.0%	11.8%	$8,800	0.57%	12.4%
17	Sempra Energy	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.95	75%	6.2%	8.4%	12.2%	$53,000	-0.17%	12.0%
18	Southern Company	2.0%	10.5%	12.5%	3.8%	8.7%	25%	2.2%	0.90	75%	5.9%	8.0%	11.8%	$78,000	-0.17%	11.7%
	Average												**11.8%**			**12.4%**

(a) Weighted average for dividend-paying stocks in the S&P 500 based on data from www.valueline.com (retrieved June 5, 2022)..
(b) Average of weighted average earnings growth rates from IBES, Value Line, and Zacks for dividend-paying stocks in the S&P 500 based on data from Refinitiv, as provided by fidelity.com (retrieved Jun. 5, 2022), www.valueline.com (retrieved June 5, 2022)., and www.zacks.com (retrieved Jun. 5, 2022). Eliminated growth rates that were greater than 20%, as well as all negative values.
(c) Projected yield on 30-year Treasury bonds for 2023-27 based on data from Wolters Kluwer, Blue Chip Financial Forecasts (Jun. 1, 2022).
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ELECTRIC UTILITY RISK PREMIUM **Exhibit A-61 (AMM-9)**
Page 1 of 4

CURRENT BOND YIELD

Current Equity Risk Premium	
(a) Avg. Yield over Study Period	7.89%
(b) Average Utility Bond Yield	4.91%
Change in Bond Yield	-2.98%
(c) Risk Premium/Interest Rate Relationship	-0.4303
Adjustment to Average Risk Premium	1.28%
(a) Average Risk Premium over Study Period	3.87%
Adjusted Risk Premium	**5.15%**

Implied Cost of Equity	
(b) Baa Utility Bond Yield	5.22%
Adjusted Equity Risk Premium	5.15%
Risk Premium Cost of Equity	**10.37%**

(a) Exhibit AMM-9, page 3.
(b) Average bond yield on all utility bonds and 'Baa' subset for Jun. 2022 based on data from Moody's Investors Service at www.credittrends.com.
(c) Exhibit AMM-9, page 4.

ELECTRIC UTILITY RISK PREMIUM **Exhibit A-61 (AMM-9)**
Page 2 of 4

PROJECTED BOND YIELD

Current Equity Risk Premium	
(a) Avg. Yield over Study Period	7.89%
(b) Average Utility Bond Yield 2023-27	5.61%
Change in Bond Yield	-2.28%
(c) Risk Premium/Interest Rate Relationship	-0.4303
Adjustment to Average Risk Premium	0.98%
(a) Average Risk Premium over Study Period	3.87%
Adjusted Risk Premium	**4.85%**
Implied Cost of Equity	
(b) Baa Utility Bond Yield 2023-27	5.87%
Adjusted Equity Risk Premium	4.85%
Risk Premium Cost of Equity	**10.72%**

(a) Exhibit AMM-9, page 3.
(b) Yields on all utility bonds and 'Baa' subset based on data from Wolters Kluwer, Blue Chip Financial Forecasts (Jun. 1, 2021) and Moody's Investors Service at www.credittrends.com.
(c) Exhibit AMM-9, page 4.

ELECTRIC UTILITY RISK PREMIUM

AUTHORIZED RETURNS

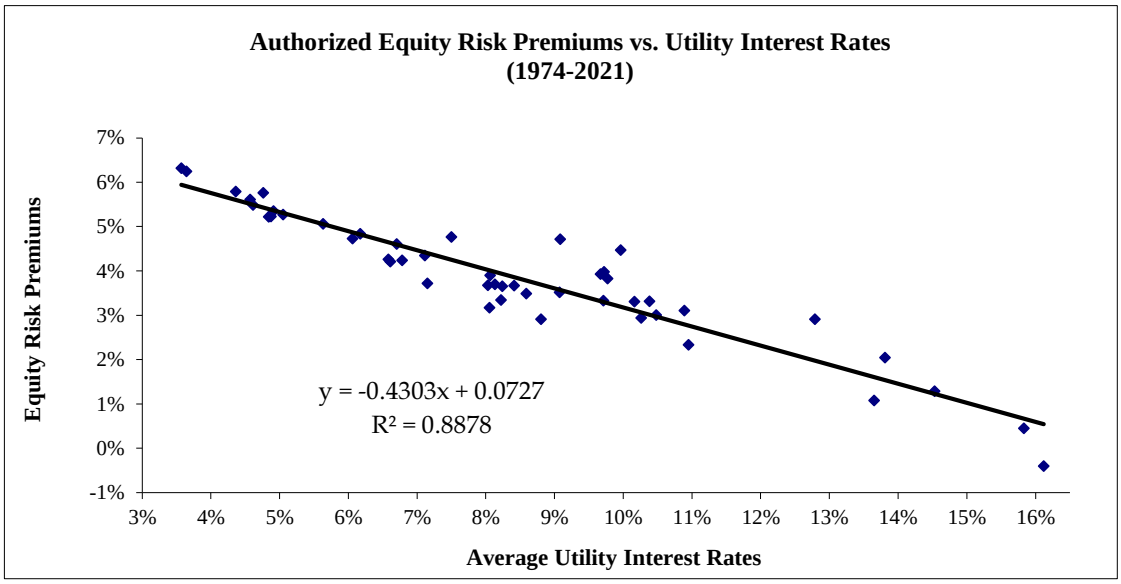
Year	(a) Allowed ROE	(b) Average Utility Bond Yield	Risk Premium
1974	13.10%	9.27%	3.83%
1975	13.20%	9.88%	3.32%
1976	13.10%	9.17%	3.93%
1977	13.30%	8.58%	4.72%
1978	13.20%	9.22%	3.98%
1979	13.50%	10.39%	3.11%
1980	14.23%	13.15%	1.08%
1981	15.22%	15.62%	-0.40%
1982	15.78%	15.33%	0.45%
1983	15.36%	13.31%	2.05%
1984	15.32%	14.03%	1.29%
1985	15.20%	12.29%	2.91%
1986	13.93%	9.46%	4.47%
1987	12.99%	9.98%	3.01%
1988	12.79%	10.45%	2.34%
1989	12.97%	9.66%	3.31%
1990	12.70%	9.76%	2.94%
1991	12.54%	9.21%	3.33%
1992	12.09%	8.57%	3.52%
1993	11.46%	7.56%	3.90%
1994	11.21%	8.30%	2.91%
1995	11.58%	7.91%	3.67%
1996	11.40%	7.74%	3.66%
1997	11.33%	7.63%	3.70%
1998	11.77%	7.00%	4.77%
1999	10.72%	7.55%	3.17%
2000	11.58%	8.09%	3.49%
2001	11.07%	7.72%	3.35%
2002	11.21%	7.53%	3.68%
2003	10.96%	6.61%	4.35%
2004	10.81%	6.20%	4.61%
2005	10.51%	5.67%	4.84%
2006	10.34%	6.08%	4.26%
2007	10.32%	6.11%	4.21%
2008	10.37%	6.65%	3.72%
2009	10.52%	6.28%	4.24%
2010	10.29%	5.56%	4.73%
2011	10.19%	5.13%	5.06%
2012	10.02%	4.26%	5.76%
2013	9.82%	4.55%	5.27%
2014	9.76%	4.41%	5.35%
2015	9.60%	4.37%	5.23%
2016	9.60%	4.11%	5.49%
2017	9.68%	4.07%	5.61%
2018	9.56%	4.34%	5.22%
2019	9.65%	3.86%	5.79%
2020	9.39%	3.07%	6.32%
2021	9.39%	3.14%	6.25%
Average	**11.76%**	**7.89%**	**3.87%**

(a) S&P Global Market Intelligence, *Major Rate Case Decisions*, RRA Regulatory Focus; *UtilityScope Regulatory Service*, Argus. Data for "general" rate cases (excluding limited-issue rider cases) beginning in 2006 (the first year such data presented by RRA).

(b) Moody's Investors Service.

ELECTRIC UTILITY RISK PREMIUM

REGRESSION RESULTS



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.942226
R Square	0.887791
Adjusted R Square	0.885351
Standard Error	0.004807
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.008411	0.008411	363.948371	0.000000
Residual	46	0.001063	0.000023		
Total	47	0.009474			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.072668	0.001911	38.034901	0.000000	0.068822	0.076514	0.068822	0.076514
X Variable 1	-0.430291	0.022555	-19.077431	0.000000	-0.475692	-0.384890	-0.475692	-0.384890

EXPECTED EARNINGS APPROACH

ELECTRIC GROUP

	Company	(a) Expected Return on Common Equity	(b) Adjustment Factor	(c) Adjusted Return on Common Equity
1	ALLETE	9.0%	1.0313	9.3%
2	Avista Corp.	8.0%	1.0296	8.2%
3	Black Hills Corp.	9.0%	1.0332	9.3%
4	CenterPoint Energy	10.0%	1.0280	10.3%
5	CMS Energy Corp.	13.0%	1.0322	13.4%
6	Dominion Energy	12.5%	1.0379	13.0%
7	DTE Energy Co.	12.5%	1.0365	13.0%
8	Duke Energy Corp.	9.0%	1.0133	9.1%
9	Edison International	12.0%	1.0199	12.2%
10	Emera Inc.	10.5%	1.0139	10.6%
11	Entergy Corp.	11.5%	1.0308	11.9%
12	Hawaiian Elec.	9.5%	1.0213	9.7%
13	NorthWestern Corp.	8.0%	1.0273	8.2%
14	OGE Energy Corp.	12.5%	1.0292	12.9%
15	Otter Tail Corp.	11.5%	1.0383	11.9%
16	Pinnacle West Capital	9.5%	1.0169	9.7%
17	Sempra Energy	10.5%	1.0207	10.7%
18	Southern Company	14.5%	1.0216	14.8%
	Average (d)	**10.5%**		**10.8%**

(a) The Value Line Investment Survey (Apr. 22, May 13 and Jun. 10, 2022).
(b) Adjustment to convert year-end return to an average rate of return from Exhibit AMM-6.
(c) (a) x (b).
(d) Excludes highlighted values.

DCF MODEL - NON-UTILITY GROUP

DIVIDEND YIELD

	Company	Industry Group	(a) Price	(b) Dividends	Yield
1	3M Company	Diversified Co.	$ 142.52	$ 5.96	4.2%
2	Abbott Labs.	Med Supp Non-Invasive	$ 111.16	$ 1.88	1.7%
3	Air Products & Chem.	Chemical (Diversified)	$ 242.80	$ 6.48	2.7%
4	Amdocs Ltd.	IT Services	$ 83.37	$ 1.58	1.9%
5	Amgen	Biotechnology	$ 244.74	$ 8.18	3.3%
6	Analog Devices	Semiconductor	$ 158.04	$ 3.04	1.9%
7	Apple Inc.	Computers/Peripherals	$ 141.57	$ 0.92	0.6%
8	Baxter Int'l Inc.	Med Supp Invasive	$ 71.44	$ 1.16	1.6%
9	Becton, Dickinson	Med Supp Invasive	$ 249.07	$ 3.60	1.4%
10	Bristol-Myers Squibb	Drug	$ 75.88	$ 2.16	2.8%
11	Brown & Brown	Financial Svcs. (Div.)	$ 56.78	$ 0.41	0.7%
12	Brown-Forman 'B'	Beverage	$ 66.27	$ 0.75	1.1%
13	Church & Dwight	Household Products	$ 88.96	$ 1.05	1.2%
14	Cisco Systems	Telecom. Equipment	$ 44.95	$ 1.52	3.4%
15	Clorox Co.	Household Products	$ 138.85	$ 4.64	3.3%
16	CME Group	Brokers & Exchanges	$ 199.21	$ 4.00	2.0%
17	Coca-Cola	Beverage	$ 62.50	$ 1.76	2.8%
18	Colgate-Palmolive	Household Products	$ 77.29	$ 1.88	2.4%
19	Comcast Corp.	Cable TV	$ 41.70	$ 1.08	2.6%
20	Costco Wholesale	Retail Store	$ 462.06	$ 3.60	0.8%
21	Danaher Corp.	Diversified Co.	$ 252.89	$ 1.00	0.4%
22	Gen'l Mills	Food Processing	$ 68.83	$ 2.07	3.0%
23	Gilead Sciences	Drug	$ 62.25	$ 2.92	4.7%
24	Hershey Co.	Food Processing	$ 212.53	$ 3.60	1.7%
25	Hormel Foods	Food Processing	$ 47.50	$ 1.04	2.2%
26	Hunt (J.B.)	Trucking	$ 167.32	$ 1.63	1.0%
27	Intel Corp.	Semiconductor	$ 41.26	$ 1.46	3.5%
28	Intercontinental Exch.	Brokers & Exchanges	$ 97.95	$ 1.52	1.6%
29	Johnson & Johnson	Med Supp Non-Invasive	$ 97.95	$ 4.52	4.6%
30	Kellogg	Food Processing	$ 69.42	$ 2.35	3.4%
31	Kimberly-Clark	Household Products	$ 130.60	$ 4.64	3.6%
32	Lilly (Eli)	Drug	$ 302.37	$ 3.92	1.3%
33	Marsh & McLennan	Financial Svcs. (Div.)	$ 153.98	$ 2.14	1.4%
34	McCormick & Co.	Food Processing	$ 90.12	$ 1.50	1.7%
35	McDonald's Corp.	Restaurant	$ 242.59	$ 5.68	2.3%
36	McKesson Corp.	Med Supp Non-Invasive	$ 319.31	$ 1.88	0.6%
37	Merck & Co.	Drug	$ 90.20	$ 2.76	3.1%
38	Microsoft Corp.	Computer Software	$ 260.31	$ 2.52	1.0%
39	Mondelez Int'l	Food Processing	$ 62.03	$ 1.40	2.3%
40	NewMarket Corp.	Chemical (Specialty)	$ 319.33	$ 8.40	2.6%
41	Northrop Grumman	Aerospace/Defense	$ 461.79	$ 6.92	1.5%
42	Oracle Corp.	Computer Software	$ 69.87	$ 1.28	1.8%
43	PepsiCo, Inc.	Beverage	$ 165.17	$ 4.40	2.7%
44	Pfizer, Inc.	Drug	$ 51.16	$ 1.60	3.1%
45	Procter & Gamble	Household Products	$ 143.91	$ 3.65	2.5%
46	Progressive Corp.	Insurance (Prop/Cas.)	$ 114.19	$ 0.40	0.4%
47	Public Storage	R.E.I.T.	$ 315.73	$ 8.05	2.5%
48	Republic Services	Environmental	$ 129.59	$ 1.84	1.4%
49	Sherwin-Williams	Retail Building Supply	$ 254.43	$ 2.50	1.0%
50	Smucker (J.M.)	Food Processing	$ 128.07	$ 4.05	3.2%
51	Texas Instruments	Semiconductor	$ 164.92	$ 4.60	2.8%
52	Thermo Fisher Sci.	Precision Instrument	$ 540.08	$ 1.20	0.2%
53	United Parcel Serv.	Air Transport	$ 177.53	$ 6.08	3.4%
54	Verizon Communic.	Telecom. Services	$ 50.23	$ 2.60	5.2%
55	Walmart Inc.	Retail Store	$ 125.60	$ 2.24	1.8%
56	Waste Management	Environmental	$ 153.35	$ 2.60	1.7%
	Average				**2.2%**

(a) Average of closing prices for 30 trading days ended Jun. 24, 2022.
(b) The Value Line Investment Survey, *Summary & Index* (Jun. 24, 2022).

DCF MODEL - NON-UTILITY GROUP **Exhibit A-63 (AMM-11)**
Page 2 of 3

GROWTH RATES

		(a)	(b)	(c)
		Earnings Growth		
	Company	**V Line**	**IBES**	**Zacks**
1	3M Company	5.50%	5.72%	9.50%
2	Abbott Labs.	8.00%	12.60%	5.72%
3	Air Products & Chem.	12.00%	12.13%	13.07%
4	Amdocs Ltd.	7.00%	12.25%	10.00%
5	Amgen	5.50%	7.10%	6.68%
6	Analog Devices	14.00%	18.71%	12.25%
7	Apple Inc.	14.00%	9.91%	12.50%
8	Baxter Int'l Inc.	10.00%	14.05%	12.60%
9	Becton, Dickinson	5.50%	4.85%	6.61%
10	Bristol-Myers Squibb	n/a	4.57%	6.24%
11	Brown & Brown	8.00%	13.22%	n/a
12	Brown-Forman 'B'	12.00%	8.49%	n/a
13	Church & Dwight	6.00%	7.24%	8.00%
14	Cisco Systems	8.00%	6.47%	6.50%
15	Clorox Co.	4.50%	-6.13%	7.00%
16	CME Group	7.50%	7.45%	6.14%
17	Coca-Cola	7.50%	6.58%	6.99%
18	Colgate-Palmolive	6.50%	3.96%	4.85%
19	Comcast Corp.	9.50%	13.07%	13.29%
20	Costco Wholesale	10.50%	12.61%	9.18%
21	Danaher Corp.	17.00%	11.05%	8.73%
22	Gen'l Mills	4.00%	4.13%	7.50%
23	Gilead Sciences	13.50%	-1.35%	15.00%
24	Hershey Co.	6.50%	9.50%	7.67%
25	Hormel Foods	6.50%	8.60%	7.79%
26	Hunt (J.B.)	11.50%	22.97%	15.00%
27	Intel Corp.	2.50%	3.24%	7.50%
28	Intercontinental Exch.	6.50%	7.62%	9.27%
29	Johnson & Johnson	8.00%	4.63%	4.94%
30	Kellogg	4.00%	2.56%	3.79%
31	Kimberly-Clark	5.50%	5.40%	5.00%
32	Lilly (Eli)	11.50%	10.44%	17.42%
33	Marsh & McLennan	12.00%	8.60%	8.63%
34	McCormick & Co.	6.00%	6.95%	6.09%
35	McDonald's Corp.	10.50%	7.70%	8.02%
36	McKesson Corp.	10.00%	13.00%	9.42%
37	Merck & Co.	8.00%	11.62%	10.13%
38	Microsoft Corp.	16.50%	16.11%	11.95%
39	Mondelez Int'l	9.50%	6.93%	6.80%
40	NewMarket Corp.	-0.50%	7.70%	n/a
41	Northrop Grumman	6.50%	6.10%	6.10%
42	Oracle Corp.	9.00%	12.10%	8.00%
43	PepsiCo, Inc.	6.00%	7.48%	7.57%
44	Pfizer, Inc.	6.50%	-0.80%	12.47%
45	Procter & Gamble	6.50%	5.27%	6.05%
46	Progressive Corp.	6.50%	30.32%	17.27%
47	Public Storage	n/a	17.00%	7.05%
48	Republic Services	12.50%	10.60%	10.53%
49	Sherwin-Williams	11.50%	14.70%	13.19%
50	Smucker (J.M.)	4.00%	1.60%	n/a
51	Texas Instruments	9.00%	10.00%	9.33%
52	Thermo Fisher Sci.	10.00%	8.70%	13.00%
53	United Parcel Serv.	11.50%	14.10%	8.95%
54	Verizon Communic.	3.00%	3.58%	3.60%
55	Walmart Inc.	7.50%	9.52%	5.50%
56	Waste Management	6.50%	11.66%	10.86%

(a) The Value Line Investment Survey (various editions as of Jun. 24, 2022).
(b) www.finance.yahoo.com (retrieved Jun. 23, 2022).
(c) www.zacks.com (retrieved Jun. 23, 2022).

DCF MODEL - NON-UTILITY GROUP **Exhibit A-63 (AMM-11)**
Page 3 of 3

DCF COST OF EQUITY ESTIMATES

		(a)	(b)	(c)
	Company	**V Line**	**IBES**	**Zacks**
1	3M Company	9.7%	9.9%	13.7%
2	Abbott Labs.	9.7%	14.3%	7.4%
3	Air Products & Chem.	14.7%	14.8%	15.7%
4	Amdocs Ltd.	8.9%	14.1%	11.9%
5	Amgen	8.8%	10.4%	10.0%
6	Analog Devices	15.9%	20.6%	14.2%
7	Apple Inc.	14.6%	10.6%	13.1%
8	Baxter Int'l Inc.	11.6%	15.7%	14.2%
9	Becton, Dickinson	6.9%	6.3%	8.1%
10	Bristol-Myers Squibb	n/a	7.4%	9.1%
11	Brown & Brown	8.7%	13.9%	n/a
12	Brown-Forman 'B'	13.1%	9.6%	n/a
13	Church & Dwight	7.2%	8.4%	9.2%
14	Cisco Systems	11.4%	9.9%	9.9%
15	Clorox Co.	7.8%	-2.8%	10.3%
16	CME Group	9.5%	9.5%	8.1%
17	Coca-Cola	10.3%	9.4%	9.8%
18	Colgate-Palmolive	8.9%	6.4%	7.3%
19	Comcast Corp.	12.1%	15.7%	15.9%
20	Costco Wholesale	11.3%	13.4%	10.0%
21	Danaher Corp.	17.4%	11.4%	9.1%
22	Gen'l Mills	7.0%	7.1%	10.5%
23	Gilead Sciences	18.2%	3.3%	19.7%
24	Hershey Co.	8.2%	11.2%	9.4%
25	Hormel Foods	8.7%	10.8%	10.0%
26	Hunt (J.B.)	12.5%	23.9%	16.0%
27	Intel Corp.	6.0%	6.8%	11.0%
28	Intercontinental Exch.	8.1%	9.2%	10.8%
29	Johnson & Johnson	12.6%	9.2%	9.6%
30	Kellogg	7.4%	5.9%	7.2%
31	Kimberly-Clark	9.1%	9.0%	8.6%
32	Lilly (Eli)	12.8%	11.7%	18.7%
33	Marsh & McLennan	13.4%	10.0%	10.0%
34	McCormick & Co.	7.7%	8.6%	7.8%
35	McDonald's Corp.	12.8%	10.0%	10.4%
36	McKesson Corp.	10.6%	13.6%	10.0%
37	Merck & Co.	11.1%	14.7%	13.2%
38	Microsoft Corp.	17.5%	17.1%	12.9%
39	Mondelez Int'l	11.8%	9.2%	9.1%
40	NewMarket Corp.	2.1%	10.3%	n/a
41	Northrop Grumman	8.0%	7.6%	7.6%
42	Oracle Corp.	10.8%	13.9%	9.8%
43	PepsiCo, Inc.	8.7%	10.1%	10.2%
44	Pfizer, Inc.	9.6%	2.3%	15.6%
45	Procter & Gamble	9.0%	7.8%	8.6%
46	Progressive Corp.	6.9%	30.7%	17.6%
47	Public Storage	n/a	19.5%	9.6%
48	Republic Services	13.9%	12.0%	11.9%
49	Sherwin-Williams	12.5%	15.7%	14.2%
50	Smucker (J.M.)	7.2%	4.8%	n/a
51	Texas Instruments	11.8%	12.8%	12.1%
52	Thermo Fisher Sci.	10.2%	8.9%	13.2%
53	United Parcel Serv.	14.9%	17.5%	12.4%
54	Verizon Communic.	8.2%	8.8%	8.8%
55	Walmart Inc.	9.3%	11.3%	7.3%
56	Waste Management	8.2%	13.4%	12.6%
	Average (b)	**10.1%**	**10.5%**	**10.3%**

(a) Sum of dividend yield (p. 1) and respective growth rate (p. 2).
(b) Excludes highlighted figures.