

MICHIGAN PUBLIC SERVICE COMMISSION

Schedule A1

Case No: U-17882

Exhibit: S-1

Schedule A1

Witness: RFNichols

Date: 12/4/15

Page 1 of 1

Consumers Energy Company

Computation of Gas Revenue Deficiency for

Test Year 2016

(000)

Line	Description (a)	Source (c)	Applicant Projection (b)	Staff Adjustments (c)	Staff Projection (d)
1	Rate Base	Exh. S-2, Sch. B1	\$ 4,014,528	\$ (71,960)	\$ 3,942,568
2	Adjusted Net Operating Income	Exh. S-3, Sch. C1	<u>205,804</u>	<u>20,021</u>	<u>225,825</u>
3	Overall Rate of Return	Line 2 / Line 1	5.13%	0.60%	5.73%
4	Required Rate of Return	Exh. S-4, Sch. D1	<u>6.42%</u>	<u>-0.39%</u>	<u>6.03%</u>
5	Income Required	Line 1 x Line 4	<u>\$ 257,548</u>	<u>\$ (19,925)</u>	<u>\$ 237,623</u>
6	Income Deficiency (Sufficiency)	Line 5 - Line 2	\$ 51,744	\$ (39,946)	\$ 11,798
7	Revenue Multiplier	Exhibit: A-9 (JRF-48)	<u>1.6367</u>	<u>-</u>	<u>1.6367</u>
8	Revenue Deficiency (Sufficiency)	Line 6 x Line 7	<u><u>\$ 84,687</u></u>	<u><u>\$ (65,378)</u></u>	<u><u>\$ 19,309</u></u>

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Development of Rate Base
Test Year Ending December 2016
(000)

Schedule B1

Case No.: U-17882
Witness: JSGerken
Exhibit: S-2
Schedule B1
Date: December 4, 2015
Page 1 of 1

Line	Description (a)	Total Gas Applicant Projection (b)	Staff Adjustments (c)	Total Gas Staff Projection (d)
1	Plant In Service	\$ 5,855,641	\$ (6,849)	\$ 5,848,792
2	Plant Held For Future Use	209	0	209
3	Construction Work In Progress	<u>202,611</u>	<u>(278)</u>	<u>202,333</u>
4	Total Projected Utility Plant	\$ 6,058,460	\$ (7,127)	\$ 6,051,333
5	Less: Depreciation Reserve	<u>2,800,610</u>	<u>(121)</u>	<u>2,800,489</u>
6	Net Utility Plant	3,257,851	(7,006)	3,250,845
7	MGP - Deferred Net Unamortized Balance	33,247	(8,200)	25,047
8	Retainers & Customer Advances	(7,588)	-	(7,588)
9	Working Capital	<u>731,018</u>	<u>(56,754)</u>	<u>674,264</u>
10	Adjusted Rate Base	<u>\$ 4,014,528</u>	<u>\$ (71,960)</u>	<u>\$ 3,942,568</u>

Source:

Column (b): Exhibit: A-8 (JRF-42)

Column (c): Staff Exhibits S-2 (Schedules B1.1, B2, B3, B4)

Column (d): Sum of Columns (b) and (c)

		Average Balance December 31, 2016	
Lines:	Assets:		
1	182 MGP Deferred Exp-2001	\$	-
2	182 MGP Deferred Exp-2002		0
3	182 MGP Deferred Exp-2003		0
4	182 MGP Deferred Exp-2004		0
5	182 MGP Deferred Exp-2005		0
6	182 MGP Deferred Exp-2006		232
7	182 MGP Deferred Exp-2007		801
8	182 MGP Deferred Exp-2008		769
9	182 MGP Deferred Exp-2009		1,019
10	182 MGP Deferred Exp-2010		1,686
11	182 MGP Deferred Exp-2011		3,873
12	182 MGP Deferred Exp-2012		4,949
13	182 MGP Deferred Exp-2013		5,315
14	182 MGP Deferred Exp-2014		4,177
15	182 MGP Deferred Exp: Jan-Jun 2015		2,429
16	MGP Deferred Exp-2016		0
			0
17	Total Assets:	\$	25,247
	Liabilities:		
18	253 MGP Deferred Liabilities 2002	\$	-
19	253 MGP Deferred Liabilities 2003		0
20	253 MGP Deferred Liabilities 2004		0
21	253 MGP Deferred Liabilities 2005		0
22	253 MGP Deferred Liabilities 2006		(174)
23	253 MGP Deferred Liabilities 2007		0
24	253 MGP Deferred Liabilities 2008		(2)
25	253 MGP Deferred Liabilities 2009		(2)
26	253 MGP Deferred Liabilities 2010		(0)
27	253 MGP Deferred Liabilities 2011		(7)
28	253 MGP Deferred Liabilities 2012		(11)
29	253 MGP Deferred Liabilities 2013		0
30	253 MGP Deferred Liabilities 2014		(5)
31	253 MGP Deferred Liabilities 2015		(1)
32	MGP Deferred Liabilities 2016		0
			0
33	Total Liabilities:	\$	(200)
34	Deferred Net Unamortized Balance	\$	25,047
35	Unamortized Balance Filed by Company per Exhibit A-45 (DLH-5), Line 34, page 2	\$	33,247
36	Staff Adjustment	\$	(8,200)
37	Deferred Net Unamortized Balance to be included in Rate Base:	\$	25,047

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Projected Utility Plant
Test Year Ending December 2016
(000)

Schedule B2

Case No.: U-17882
Witness: JSGerken
Exhibit: S-2
Schedule B2
Date: December 4, 2015
Page 1 of 1

Line	Description (a)	Total Gas Applicant Projection (b)	Staff Adjustments (c)	Total Gas Staff Projection (d)
1	Plant In Service	\$ 5,855,641	\$ (6,849)	\$ 5,848,792
2	Plant Purchased or Sold	0	0	0
3	Experimental Plant Unclassified	0	0	0
4	Plant Leased To Others	0	0	0
5	Completed Construction Not Classified	<u>0</u>	<u>0</u>	<u>0</u>
6	Plant In Service	\$ 5,855,641	\$ (6,849)	\$ 5,848,792
7	Plant Held For Future Use	209	0	209
8	Construction Work In Progress	<u>202,611</u>	<u>(278)</u>	<u>202,333</u>
9	Total Projected Utility Plant	<u>\$ 6,058,460</u>	<u>\$ (7,127)</u>	<u>\$ 6,051,333</u>

Source:

Column (b): Exhibit: A-8 (JRF-44)
Column (c): Staff WP-JSG-1
Column (d): Sum of Columns (b) and (c)

Schedule B3

Line	Description	Company Projection December 2015	Company Projection December 2016	Company Projection Average	Staff Adjustments Average	Staff Projection
	(a)	(b)	(c)	(d)	(e)	(f)
1	AMI (Smart Energy program)	\$ 5,857	\$ 9,388	\$ 7,622	\$ -	\$ 7,622
2	CEA Software (Business Technology Solutions)	34,432	39,536	36,984	0	36,984
3	Common Plant-Gas Allocated	169,777	192,792	181,284	(22)	181,262
4	Distribution	2,013,926	2,087,741	2,050,834	(99)	2,050,735
5	Franchises	86	86	86	0	86
6	General Plant	47,866	55,843	51,854	0	51,854
7	Intangibles	21,428	22,410	21,919	0	21,919
8	NGP Depletion	143	143	143	0	143
9	NGP Depreciation	512	508	510	0	510
10	NGP Unsuccessful	8,209	8,209	8,209	0	8,209
11	Plant Held For Future Use	-	-	-	0	-
12	Transmission	236,527	249,453	242,990	0	242,990
13	Underground Storage Amortization	5,070	5,208	5,139	0	5,139
14	Underground Storage Depreciation	166,143	174,938	170,541	0	170,541
15	UOP Transmission Kalkaska	15,640	15,579	15,609	0	15,609
16	UOP Transmission SoMich	4,660	4,649	4,654	0	4,654
17	UOP Transmission St Clair	2,243	2,215	2,229	0	2,229
18	Total Projected Accumulated Provision for Depreciation	<u>\$ 2,732,520</u>	<u>\$ 2,868,699</u>	<u>\$ 2,800,610</u>	<u>\$ (121)</u>	<u>\$ 2,800,489</u>

Source:

Column (b): Exhibit: A-8 (JRF-45)
Column (c): Exhibit: A-8 (JRF-45)
Column (d): Exhibit: A-8 (JRF-45)
Column (e): Staff WP-JSG-1
Column (f): Sum of Columns (d) and (e)

Line	Description (a)	Applicant Projection (b)	Staff Adjustments (c)	Staff Projection (d)
Assets				
1	Cash	\$ 56,548	\$ (47,645) ^[1]	\$ 8,903
2	Cash Equivalents	-	-	-
3	Notes Receivable	914	(914)	-
4	Accounts Receivable	147,391	(13)	147,378
5	Sale of Receivables	(147,542)	145,778	(1,764)
6	CE Receivable Funding	257,901	(257,901)	-
7	Materials & Supplies	25,465	-	25,465
8	Gas Stored Underground	439,441	(5,702) ^[2]	433,739
9	Accrued Revenues	111,723	-	111,723
10	Sale of Accrued Revenues	(110,359)	110,359	-
11	Prepayments	22,007	-	22,007
12	Real & Personal Property Taxes	65,425	-	65,425
13	Total Current Assets	\$ 868,914	\$ (56,038)	\$ 812,876
14	Deferred Debits	271,611	(38)	271,573
15	Total Assets	\$ 1,140,525	\$ (56,076)	\$ 1,084,449
Liabilities				
16	Accounts Payable	\$ 155,399	\$ (914)	\$ 154,485
17	Dividends Payable	12,422	-	12,422
18	Accrued Interest	16,240	-	16,240
19	Accrued Taxes	66,403	-	66,403
20	Other Current Liabilities	7,242	-	7,242
21	Total Current Liabilities	\$ 257,706	\$ (914)	\$ 256,792
22	Deferred Credits and Operating Reserves	151,801	1,592	153,393
23	Total Liabilities	\$ 409,507	\$ 678	\$ 410,185
24	Net Gas Working Capital Requirement	\$ 731,018	\$ (56,754)	\$ 674,264

Source:

Column (b): Exhibit: A-8 (JRF-46)

Column (c): Exhibits S-9.1, S-9.5, S-9.6, S-9.7, S-9.8

Column (d): Sum of Columns (b) and (c)

[1] - Staff Adjustment to Remove Temporary Cash Investments of \$62,645.

- Staff Reversal of Company Normalization Adjustment of \$15,000.

- Resulting Line 1 Net Reduction of \$47,645.

\$ (62,645)

\$ 15,000

\$ (47,645)

[2] - Supported by Staff Witness Quilico

MICHIGAN PUBLIC SERVICE COMMISSION
Schedule C1

Case No: U-17882

Exhibit: S-3

Schedule C1

Witness: RFNichols

Date: 12/4/15

Page 1 of 1

Consumers Energy Company
 Projected Net Operating Income
 Test Year 2016
 (000)

Line	Description (a)	Source (b)	Applicant Projection (c)	Staff Adjustments (d)	Staff Projection (e)
<u>Operating Revenue:</u>					
1	Sales Revenue	Exh. S-3, Sch. C3	\$ 1,607,871	\$ (15,875)	\$ 1,591,996
2	Transport Revenues	Exh. S-3, Sch. C3	57,935	-	57,935
3	Miscellaneous Revenue	Exh. S-3, Sch. C3	93,150	6,485	99,635
4	Total Operating Revenue	Sum Lines 1-3	\$ 1,758,956	(9,390)	1,749,567
<u>Operating Expenses:</u>					
5	Cost of Gas Sold	Exh. S-3, Sch. C1.1	810,312	(17,040)	793,272
6	LAUF	Exh. S-3, Sch. C1.1	17,443	(5,572)	11,870
7	Company Use	Exh. S-3, Sch. C1.1	1,477	4,854	6,331
8	Other O&M Expense	Exh. S-3, Sch. C5	385,183	(25,157)	360,026
9	Depreciation & Amortization	Exh. S-3, Sch. C1.1	202,214	(1,107)	201,107
10	R&PP Tax	Exh. S-3, Sch. C1.1	72,800	-	72,800
11	Other General Taxes	Exh. S-3, Sch. C1.1	15,151	-	15,151
12	Local Income Tax	Exh. S-3, Sch. C1.1	73	-	73
13	Michigan Corporate Income Tax ¹	Exh. S-3, Sch. C1.1	13,799	2,254	16,053
14	Federal Income Tax ¹	Exh. S-3, Sch. C1.1	42,310	12,358	54,668
15	Total Operating Expenses	Sum Lines 5-14	1,560,763	(29,410)	1,531,352
16	Net Operating Income	L4 - L15	198,194	20,021	218,214
<u>Operating Income Adjustments:</u>					
17	AFUDC	Exh. S-3, Sch. C1.1	7,611	-	7,611
18	Income Tax Effect of Interest ¹	Included in Lines 13 & 14			
19	Interest Synchronization Adjustment ¹	Included in Lines 13 & 14			
20	Total Operating Income Adjustments	Sum Lines 17-19	7,611	-	7,611
21	Adjusted Net Operating Income	Line 16 + Line 20	\$ 205,804	\$ 20,021	\$ 225,825

Footnotes:

¹ Income Tax Effect of Interest and Interest Synchronization are included in the calculation of MI Corporate Income Tax & Federal Income Tax. The separate calculations can be seen on Exhibit: S-3, Sch. C12 & Exhibit: S-3, Sch. C13.

Consumers Energy Company
 Projected Net Operating Income
 Test Year 2016
 (000)

Line	Description	Revenues				Expenses										NOI		
		Sales	Wholesale	Misc.	Total	Cost of Gas	LAUF	Company Use	O&M	Depr. & Amort.	Property Tax	Other Taxes	City Income Tax	MBT/MCIT	FIT	NOI	AFUDC	Adjusted NOI
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
Company Filed																		
1	Operating Income	\$ 1,607,871	\$ 57,935	\$ 93,150	\$ 1,758,956	\$ 810,312	\$ 17,443	\$ 1,477	\$ 385,183	\$ 202,214	\$ 72,800	\$ 15,151	\$ 73	\$ 13,799	\$ 42,310	\$ 198,194	\$ 7,611	\$ 205,805
Staff Adjustments																		
2	Sales	\$ 1,165			\$ 1,165								\$ 70	\$ 383		\$ 712	\$ -	\$ 712
3	Cost of Gas	\$ (17,040)			(17,040)	\$ (17,040)							-	-		-	-	-
4	LAUF				-		(5,572)						334	1,833		3,405	-	3,405
5	Company Use				-			4,854					(291)	(1,597)		(2,966)	-	(2,966)
6	Appliance Servie Plan (ASP)			\$ 6,485	6,485				\$ (4,664)				669	3,668		6,812	-	6,812
7	SERP				-				\$ (2,348)				141	772		1,435	-	1,435
8	DC SERP				-				(100)				6	33		61	-	61
9	Incentive Compensation				-				(7,635)				458	2,512		4,665	-	4,665
10	Insurance Adjustment				-				(203)				12	67		124	-	124
11	Advertising				-				(1,355)				81	446		828	-	828
12	BTS/IT				-				(2,733)				164	899		1,670	-	1,670
13	Active Healthcare				-				(450)				27	148		275	-	275
14	Pension				-				(1,250)				75	411		764	-	764
15	Retiree Healthcare/OPEB				-				(1,244)				75	409		760	-	760
16	Easy Pay				-				(2,587)				155	851		1,581	-	1,581
17	Uncollectibles				-				(606)				36	199		370	-	370
18	Depreciation				-					(244)			15	80		149	-	149
19	Interest Income on Cash Equivalents				-				19				(1)	(6)		(12)	-	(12)
20	MGP Amortization				-					(863)			52	284		527	-	527
21	Proforma Interest				-								175	960		(1,135)	-	(1,135)
22	Interest Synchronization				-								1	4		(5)	-	(5)
23	Total Adjustments	(15,875)	-	6,485	(9,390)	(17,040)	(5,572)	4,854	(25,157)	(1,107)	-	-	-	2,254	12,358	20,021	-	20,021
24	Net Operating Income - Test Year	<u>\$ 1,591,996</u>	<u>\$ 57,935</u>	<u>\$ 99,635</u>	<u>\$ 1,749,567</u>	<u>\$ 793,272</u>	<u>\$ 11,870</u>	<u>\$ 6,331</u>	<u>\$ 360,026</u>	<u>\$ 201,107</u>	<u>\$ 72,800</u>	<u>\$ 15,151</u>	<u>\$ 73</u>	<u>\$ 16,053</u>	<u>\$ 54,668</u>	<u>\$ 218,214</u>	<u>\$ 7,611</u>	<u>\$ 225,825</u>

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Projected Sales Revenue
(\$000)

Case No: U-17882
Witness: Rivera
Exhibit: S-3.0
Schedule: C-3
Page: 1 of 1
Date: December 4, 2015

<u>Line</u>	<u>Description</u>	<u>Company</u>	<u>Adjustment</u>	<u>Staff</u>
1	Sales Revenue	(1) \$ 797,559	\$ 1,165	\$ 798,724
2	Transportation Revenue	(2) \$ 57,935	\$ 0	\$ 57,935
3	Sales & Transportation Revenue (Excluding Cost of Gas)	\$ 855,494	\$ 1,166	\$ 856,659
4	Cost of Gas	(4) \$ 810,312	\$ (17,040)	\$ 793,273
5	Sales & Transportation Revenue (Including Cost of Gas)	\$ 1,665,806	\$ (15,874)	\$ 1,649,932
6	Miscellaneous Revenue	(3) \$ 93,150	6,485	\$ 99,635
7	Total Revenue	<u>\$ 1,758,956</u>	<u>\$ (9,389)</u>	<u>\$ 1,749,567</u>

- (1) Exhibits A-11 and S-6
(2) Exhibits A-11 and S-6
(3) WP-JRF-81 and Exhibit S-11.6
(4) Exhibits A-11 and S-6

MICHIGAN PUBLIC SERVICE COMMISSION

Schedule C5

Case No: U-17882

Exhibit: S-3

Schedule C5

Witness: RFNichols

Date: 12/4/2015

Page 1 of 1

Consumers Energy Company

Projected Other O&M Expense

Test Year 2016

(000)

Line	Description	Source	Applicant Board Reviewed Budget*	Applicant Projection	Staff Adjustment	Staff Projection
	(a)	(b)	(c)	(d)	(e)	(f)
1	Gas Division Expenses		\$ 155,512	\$ 157,551		\$ 157,551
2	Pipeline Integrity Inspections and Remediation		11,857	11,857		11,857
3	Storage Well Logging and Maintenance		3,000	3,011		3,011
4	ASP Program	Exhibit S-11.6	45,754	39,772	\$ (4,664)	35,108
5	Leak Repair and Survey		15,441	15,400		15,400
6	Cross Bore Investigations		7,100	7,074		7,074
7	Right of Way Clearing		1,985	1,985		1,985
8	Easy Pay	Exhibits S-11.4	400	3,435	(2,587)	848
9	LAUF		18,343	17,443	(5,572)	11,871
10	Company Use		4,060	1,477	4,854	6,331
11	Business Technology Solutions (BTS) / IT	Exhibit S-11.2	29,145	32,933	(2,733)	30,200
12	Smart Energy Program		2,653	1,447		1,447
13	Pension	Exhibit S-11.19	26,895	21,610	(1,250)	20,360
14	SERP		3,532	2,348	(2,348)	-
15	Defined Company Contribution Plan		-	3,938		3,938
16	DC SERP		-	100	(100)	-
17	401 (K) Savings Plan		4,016	4,138		4,138
18	Active Health Care/ Insurance/ LTD	Exhibit S-11.3	17,637	17,296	(450)	16,846
19	Retiree Health Care and Life Insurance (OPEB)	Exhibit S-11.20	(4,926)	(4,926)	(1,244)	(6,170)
20	Corporate	Exh. S-11.0 & S-11.1	27,483	29,993	(1,558)	28,435
21	Uncollectibles	Exhibit S-11.5	22,874	24,790	(606)	24,184
22	Injuries & Damages		1,824	1,824		1,824
23	MGP - Direct Management Costs		970	970		970
24	Accounts Receivable Sale Costs		372	376		376
25	Incentive Compensation		7,635	7,635	(7,635)	-
26	Jobwork Expense		950	645		645
27	Interest Income on Cash Equivalents		-	(19)	19	0
28	Unresolved Task in Budget		(20,000)			
29	Projected Other O&M Expense		<u>\$ 384,512</u>	<u>\$ 404,103</u>	<u>\$ (25,875)</u>	<u>\$ 378,228</u>
	Less:					
30	LAUF		18,343	17,443	line 9	11,871
31	Company Use		<u>4,060</u>	<u>1,477</u>	line 10	<u>6,331</u>
32	Projected Other O&M Expense		<u>\$ 362,109</u>	<u>\$ 385,183</u>	<u>\$ (25,157)</u>	<u>\$ 360,026</u>

Notes:

*Source: S-11.17

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Projected Depreciation & Amortization Expense
Test Year Ending December 2016
(000)

Schedule C6

Case No.: U-17882
Witness: JSGerken
Exhibit: S-3
Schedule C6
Date: December 4, 2015
Page 1 of 1

Line	Description	Applicant Projection	Staff Adjustments	Staff Projection
	(a)	(b)	(c)	(d)
<u>Projected Depreciation Expense</u>				
1	AMI (Smartgrid program)	\$ 3,623	\$ -	\$ 3,623
2	CEA Software (Business Technology Solutions)	5,104	0	5,104
3	Common Plant-Gas Allocated	35,485	(44)	35,441
4	Distribution	104,971	(199)	104,772
5	Franchises	0	0	0
6	General Plant	9,621	0	9,621
7	Intangibles	982	0	982
8	NGP Depletion	0	0	0
9	NGP Depreciation	0	0	0
10	NGP Unsuccessful	0	0	0
11	Plant Held For Future Use	0	0	0
12	Transmission	20,213	0	20,213
13	Underground Storage Amortization	139	0	139
14	Underground Storage Depreciation	16,677	0	16,677
15	UOP Transmission Kalkaska	0	0	0
16	UOP Transmission SoMich	0	0	0
17	UOP Transmission St Clair	0	0	0
18	Projected Depreciation	196,814	(243)	196,571
19	Projected MGP Amortization Expense	5,400	(863)	4,537
20	Projected Depreciation & Amortization Expense	<u>\$ 202,214</u>	<u>\$ (1,106)</u>	<u>\$ 201,108</u>

Source:

Column (b): Exhibit: A-9 (JRF-52)

Column (c): Staff WP-JSG-1 and Exhibit S-3 (Schedule C6.1)

Column (d): Sum of Columns (b) and (c)

[illegible]

MICHIGAN PUBLIC SERVICE COMMISSION**Schedule C12**

Case No: U-17882

Exhibit: S-3

Schedule C12

Witness: RFNichols

Date: 12/4/15

Page 1 of 1

Consumers Energy Company

Adjusted Net Operating Income

Pro Forma Interest Adjustment for

Test Year 2016

(000)

Line	Description (a)	Amount (b)	Source (c)
1	Rate Base	\$ 3,942,568	Exh. S-2, Sch. B1
2	Cost of Debt	1.90%	Exh. S-4, Sch. D1
3	Allowable Interest Expense	\$ 74,974	L3 x L4
4	Less: Section A Pro Forma Interest Expense	77,891	Exhibit: A-9 (JRF-58)
5	Difference	\$ (2,917)	L4 - L3
6	Change in MCIT	175	Line 12
7	Total difference	(2,742)	L5 + L6
8	Federal Income Tax Rate	35.00%	
9	Total change in Federal Income Taxes	\$ 960	L7 x L8
<u>MCIT Effect of Test Year Interest</u>			
10	Difference	\$ (2,917)	Line 5
11	MCIT Rate	6.00%	
12	Change In Michigan Corporate Income Tax	\$ 175	L10 x L11

MICHIGAN PUBLIC SERVICE COMMISSION**Schedule C13**

Case No: U-17882

Exhibit: S-3

Schedule C13

Witness: RFNichols

Date: 12/4/15

Page 1 of 1

Consumers Energy Company

Tax Effect of Interest

Synchronization Adjustment for

Test Year 2016

(000)

Line	Description (a)	Amount (b)	Source (c)
1	Rate Base	\$ 3,942,568	Exh. S-2, Sch. B1
2	Debt Related JDITC ¹ Portion of the Capital Structure	0.18%	Exh. S-4, Sch. D1
3	Portion of Rate Base Funded by JDITC	\$ 7,136	L1 x L2
4	Cost of JDITC - Debt	4.93%	Exh. S-4, Sch. D1
5	Interest Expense	\$ 352	L3 x L4
6	Section A JDITC - Interest Expense	364	Exhibit: A-9 (JRF-59)
7	Change in JDITC - Interest Expense	\$ (12)	L5 - L6
8	Change in MCIT	1	Line 14
9	Total difference	(12)	L7 - L8
10	Federal Income Tax Rate	35.00%	
11	Change in Federal Income Taxes	\$ 4	L9 x L10

MCIT Effect of Test YEAR JDITC Interest

12	Total Change In Interest Expense	(12)	Line 7
13	MCIT Rate	6.00%	
14	Change In Michigan Corporate Income Tax	\$ 1	L12 x L13

Footnote:¹ Job Development Investment Tax Credit

Case No.: U-17882
Witness: Kirk D. Megginson
Exhibit No: S-4
Schedule: D-1
Date: December 4, 2015

Consumers Energy Company (Gas Division)
Ratemaking Capital Structure
Recommended For Test Year Ending December 31, 2016

Schedule D-1

Line	Description	Amount	Permanent Ratio	Total Capital Ratio	Cost Rate	Weighted Cost	Convrsn Factor	Pre-Tax Weighted Cost
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Long Term Debt	\$5,192,400,000	47.81%	37.65%	4.93%	1.86%	1.0000	1.86%
2	Preferred Stock	\$37,315,000	0.34%	0.27%	4.50%	0.01%	1.6367	0.02%
3	Common Equity	\$ 5,631,755,105	51.85%	40.84%	10.00%	4.08%	1.6367	6.68%
4	Total Permanent Capital	<u>\$10,861,470,105</u>	<u>100.00%</u>					
5	Short Term Debt	\$ 178,200,000		1.29%	1.88%	0.02%	1.00	0.02%
6	Customer Deposits	\$31,633,000		0.23%	7.00%	0.02%	1.0000	0.02%
7	Other Interest Bearing Accounts	\$24,169,000		0.18%	3.25%	0.01%	1.0000	0.01%
8	Deferred FIT	\$2,642,037,000		19.16%	0.00%	0.00%	1.0000	0.00%
9	JDITC	\$53,300,000						
10	Def JDITC - Long Term Debt	\$25,480,429		0.18%	4.93%	0.01%	1.0000	0.01%
11	Def JDITC - Preferred Stock	\$183,114		0.00%	4.50%	0.00%	1.6367	0.00%
12	Def JDITC - Common Equity	\$27,636,457		0.20%	10.00%	0.02%	1.6367	0.03%
13	Total JDITC	<u>\$53,300,000</u>				<u>0.03%</u>		<u>0.04%</u>
14	Total Capitalization	<u>\$13,790,809,105</u>		<u>100.00%</u>		<u>6.03%</u>		<u>8.65%</u>

Consumers Energy
Gas Division
Staff 2015 Long-Term Debt Balance and Cost Rate

Case No.: U-17882
Witness: Kirk D. Megginson
Exhibit No: S-4
Schedule: D-2
Date: December 4, 2015

Schedule D-2

Line	Mortgage Bonds	Date Sold	Maturity	Amount of Offering (000)	Cost Based On Net Proceeds	Amount Outstanding (000)	Annual Cost (000)	Annual Cost (%)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	5.5% Series	Aug 04	Aug-16	350,000	5.64%	106,462	6,004	
2	5.15% Series	Jan 05	Feb-17	250,000	5.28%	250,000	13,200	
3	5.65% Series	Mar 05	Apr-20	300,000	5.78%	300,000	17,337	
4	5.80% Series	Aug 05	Sep-35	175,000	5.89%	175,000	10,304	
5	5.65% Series	Mar 08	Sep-18	250,000	5.80%	250,000	14,500	
6	6.125% Series	Sep 08	Sep-19	350,000	6.23%	350,000	21,805	
7	6.700% Series	Mar 09	Mar-19	500,000	6.80%	500,000	34,000	
8	5.300% Series	Sep 10	Sep-13	250,000	5.34%	250,000	13,361	
7	6.170% Series	Sep 10	Sep-40	50,000	6.24%	50,000	3,122	
10	3.210% Series	Oct 10	Oct-17	100,000	3.30%	100,000	3,296	
11	3.770% Series	Oct 10	Oct-20	100,000	3.83%	100,000	3,835	
12	4.970 Series	Oct 10	Oct-40	50,000	5.00%	50,000	2,502	
13	2.850% Series	May-12	May-22	375,000	2.94%	375,000	11,020	
14	3.190% Series	Dec-12	Dec-24	51,500	3.27%	51,500	1,682	
15	3.390% Series	Dec-12	Dec-27	35,500	3.45%	35,500	1,226	
16	4.310% Series	Dec-12	Dec-42	263,000	4.36%	263,000	11,454	
17	3.950% Series	May-13	May-43	425,000	4.02%	425,000	17,072	
18	3.375% Series	Aug-13	Aug-23	325,000	3.49%	325,000	11,332	
19	3.125% Series	Aug-14	Aug-24	250,000	3.14%	250,000	7,850	
20	4.35% Series	Aug-14	Aug-64	250,000	4.39%	250,000	10,975	
21	3.85% Series ⁽¹⁾	Aug-15	Aug-45	250,000	3.88%	250,000	9,700	
22	4.25% Series ⁽¹⁾	Jul-16	Jul-46	500,000	4.30%	230,769	9,923	
23	FMB Total					4,937,231	235,501	
<u>Senior Notes</u>								
24	6.875% Series	Mar-98	Mar-18	225,000	7.10%	180,000	12,789	
25	Senior Note Total					180,000	12,789	
<u>PCRB'S</u>								
		<u>Coupon Rate</u>						
26	New PCRB-88 ⁽²⁾	1.0434%	Apr-18	67,700	1.048%	67,700	710	
27	MSF LORB-05 ⁽²⁾	1.0434%	Apr-35	35,000	1.047%	35,000	367	
28	PCRB Total					102,700	1,076	
29	Sub-Total 2016 Long-Term Debt					5,219,931	249,366	
30	Amortized Call Premium on reacquired debt ⁽²⁾						6,427	
31	PCRB Fees ⁽²⁾						123	
32	Total 2016 Long-Term Debt					5,219,931	255,916	4.90%
33	Unamortized Debt Expense ⁽²⁾					(27,531)		
34	Ratemaking Long Term Debt					5,192,400	255,916	4.93%

Notes

(1) 30-Year 2015 T-Bond Forecast for Aug 2015 bond issuance and 30-Year 2016 T-Bond Forecast for Aug. 2016 issuance (Value Line Sep. 2015) =	3.10%	3.50%
Credit Spread:	= 0.75%	0.75%
Forecasted cost rate for Aug. 2015 and Aug. 2016 30-YR FMB debt issuance as shown on lines 22 and 23:	3.85%	4.25%

(2) Adopted Company's PCRB debt rate, call premium on required debt & and unamortized debt expense

Consumers Energy
Gas Division
Staff 2015 Short-Term Debt Balance and Cost

Case No.: U-17882
Witness: Kirk D. Megginson
Exhibit No: S-4
Schedule: D-3
Date: December 4, 2015

Schedule D-3

Short-Term Debt Facilities (million)

	<u>Type of Facility</u>	<u>Agreement</u>		<u>Facility</u> <u>Amount</u>	<u>Letters</u> <u>of Credit</u>	<u>Amount</u>		<u>Average</u> <u>Borrowings</u>
		<u>Date</u>	<u>Expiration</u>			<u>Unused</u>		
1	JPMorgan Revolver	Mar. 2011	Mar. 2016	\$ 650.0	\$ 9.7	\$ 640.3		\$ -
2	Commercial Paper Facility	Apr. 2012	Apr. 2017	\$ 500.0	\$ -	\$ 430.8		\$ 69.2
3	JPMorgan Letter of Credit Facility 1	Sep. 2011	Sep. 2014		\$ 30.0			\$ -
4	JPMorgan Letter of Credit Facility 2	Aug. 2012	Aug. 2018		\$ 104.0			\$ -
5	Renewables Liability	May 2009	May 2029	\$ 109.0	\$ -	-		\$ 109.0
6	Total Average Borrowings							\$ 178.2

Source: [Revolver & LOC- A.J. Denato Exhibit A-9, Schedule D3 pg 2 of 2] {Renewables - A.J. Denato Exhibit A-9, Schedule D6}

Short-Term Debt Cost Rate

		<u>Applicable</u>	<u>Interest</u>	<u>Estimated</u>	<u>Average</u>	<u>Cost of</u>	<u>Cost</u>
		<u>ST-Rate</u>	<u>Rate Spread</u>	<u>Rate</u>	<u>Borrowings</u>	<u>Funds (\$)</u>	<u>Rate (%)</u>
1	JPMorgan Revolver ¹	1.14%	0.70%	1.84%	\$ -	\$ -	
2	JP Morgan LOC fee Facility 1	0.55%	0.00%	0.55%	\$ 30.0	\$ 0.17	
3	JP Morgan LOC fee Facility 2	0.625%	0.00%	0.625%	\$ 104.0	\$ 0.65	
4	Select Fees (JP Morgan) ²	-	-	-	-	\$ 0.42	
5	Commercial Paper Facility ³	1.04%	0.15%	1.19%	\$ 69.20	\$ 0.82	
6	Renewables Liability	1.04%	0.15%	1.19%	\$ 109.00	\$ 1.30	
7	Total Short-Term Debt Cost				\$ 178.20	\$ 3.36	1.88%

Description and Calculation of Costs

Source

(1) Average 3-month LIBOR forecast for 2016 = 1.14%

Global Insight (September 2015)

(2) JPMorgan Revolver

Cost Rate

Source

Unused Balance fee: \$640.3 million x 0.035% =

\$0.22

A.J. Denato Workpaper AJD-5

Amortization of Upfront Revolver fees:

\$0.20

A.J. Denato Workpaper AJD-5

Total Projected Fees

\$0.42

(3) Global Insight Commercial Paper Rate Forecast (September 2015)

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-4
 Date: December 4, 2015

**Consumers Energy
 Gas Division
 2015 Preferred Stock Balance and Cost**

Schedule D-4

(a)	(b)	(c)	(d)
	Amount	Cost	Annual
Preferred Stock (000)	<u>Outstanding</u>	<u>Rate</u>	<u>Cost</u>
4.50% Conv. Pref. Stock	37,315	4.50%	1,679
4.16% Conv. Pref. Stock	-	4.21%	-
Total Preference Stock	37,315		1,679
Total Preference Stock Cost		<u>4.50%</u>	

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-5
 Date: December 4, 2015
 page: 1 of 14

**Consumers Energy
 Gas Division
 Staff 2016 Common Equity Balance**

(a)	(b)		(c)
	Common Stock		Common Stock
<u>Month - Year</u>	<u>Balance</u>	<u>Month - Year</u>	<u>Balance</u>
Dec. 2014	5,240,388,497	Dec. 2015	5,494,895,105
Jan. 2015	5,343,443,277	Jan. 2016 ³	5,517,705,105
Feb. 2015 ²	5,427,646,641	Feb. 2016	5,540,515,105
Mar. 2015	5,478,469,407	Mar. 2016	5,563,325,105
Apr. 2015	5,366,620,458	Apr. 2016	5,586,135,105
May 2015	5,394,356,136	May 2016	5,608,945,105
Jun. 2015	5,428,585,280	Jun 2016	5,631,755,105
Jul. 2015	5,392,416,368	Jul. 2016	5,654,565,105
Aug. 2015 ¹	5,458,215,105	Aug. 2016	5,677,375,105
Sep. 2015	5,467,385,105	Sep. 2016	5,700,185,105
Oct. 2015	5,476,555,105	Oct. 2016	5,722,995,105
Nov. 2015	5,485,725,105	Nov. 2016	5,745,805,105
Dec. 2015	5,494,895,105	Dec. 2016	5,768,615,105
13 month average			<u><u>5,631,755,105</u></u>

Notes

1) actual common equity figures through August 2015 from Consumers Energy's Monthly Financial Reports

2) 2014 net income = \$565 million; 2013 net income = \$532 million: Average \$548.5 million

\$548.5 million*(1 - 0.8) = \$109.7 million: Estimating \$110 million in retained earnings for August 2015 to December 31, 2015 adding \$9.17 million per month

3) Company anticipates \$150 million equity infusion in January 2016. Adding \$13.64 million per month in addition to the \$9.17 million retained earnings = \$22.81 million per month until December 31, 2016

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-5
 Date: December 4, 2015
 page: 2 of 14

Gas Proxy Group & Consumers Energy Corporate Statistics

Line	(a) Company	(b) Ticker Symbol	(c) Net Plant (\$MM)	(d) Percent Gas Revenues	(e) S&P Bond Rating	(f) MOODY'S Bond Rating	(g) Common Equity Ratio	(h) Value Line Beta	(i) Dividend Payout Ratio	(j) Current Allowed ROE
1	AGL Resources Inc.	GAS	9,174.0	72	A-/BBB+	A2/A3	49	0.80	63	10.41
2	Atmos Energy Corp	ATO	7,212.1	68	A-	A2	55	0.85	51	9.81
3	Laclede Group, Inc.	LG	2,824.7	93	A+	A3	44	0.70	62	9.50
4	National Fuel Gas Co.	NFG	5,896.5	52	BBB	Baa1	59	1.15	61	9.5
5	Northwest Natural Gas	NWN	2,148.9	97	AA-	A1	49	0.70	102	10.40
6	Piedmont Natural Gas	PNY	4,136.1	97	A	A2	46	0.80	73	10.00
7	Questar Corporation	STR	3,784.7	62	A/A-	A2	51	0.8	65	10.3
8	South Jersey Industries	SJI	2,165.5	67	A	A2	43	0.85	65	9.75
9	Southwest Gas Corp	SWX	3,732.5	51	A-	A3	50	0.85	56	9.98
10	WGL Holdings	WGL	3,527.1	76	A+	A1	52	0.80	55	9.58
	Average		4460.2	74	A/A-	A1/A2	50	0.83	65	9.92
11	Consumers Energy ¹		3,224.0	35	A ²	A1 ³	51	0.75	80	10.30

Sources

AUS Utility Reports (October 2015)

Value Line (September 4, 2015)

Proxy Group Selection Criteria

- Net plant greater than \$2.0 billion - less than \$10.0 billion
- Gas revenues from regulated operations in excess of 50%
- Investment grade credit rating within three notches of Consumers Energys' rating
- currently paying dividends to shareholders

¹ Most of Consumers Energy's statistics taken from D.V. Rao Exhibit A-10, Schedule D5, pg 1 of 14

² S&P raised Consumers Energy's secured rating from A- to A in December 2014

³ Moody's raised Consumers Energy's secured rating from A2 to A1 in January 2014

Case No.: U-17882
Witness: Kirk D. Megginson
Exhibit No: S-4
Schedule: D-5
Date: December 4, 2015
page: 3 of 14

Proxy Group Rating's Criteria

<u>S&P</u>	<u>Moody's</u>
AAA	Aaa
AA+	Aa1
AA	Aa2
AA-	Aa3
A+	A1
A	A2
A-	A3
BBB+	Baa1
BBB	Baa2
BBB-	Baa3

Consumers Energy
S&P rating

Consumers Energy
Moody's rating

The boxed Credit ratings are within three notches (+) of Consumers rating

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-5
 Date: December 4, 2015
 page: 4 of 14

**Gas Proxy Group & Consumers Energy
 Return On Common Equity (%)**

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
<u>Line</u>	<u>Company</u>	<u>Ticker Symbol</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>Average</u>
1	AGL Resources Inc.	GAS	12.9	5.2	7.9	8.6	14.9	9.9
2	Atmos Energy Corp	ATO	9.2	8.8	8.1	8.9	9.4	8.9
3	Laclede Group, Inc.	LG	10.1	11.1	10.4	5.0	5.6	8.4
4	National Fuel Gas Co.	NFG	12.6	13.7	11.2	12.1	12.4	12.4
5	Northwest Natural Gas	NWN	10.5	8.9	8.2	8.1	7.6	8.7
6	Piedmont Natural Gas	PNY	11.6	11.4	11.7	11.3	11.0	11.4
7	Questar Corporation	STR	18.6	20.1	20.5	17.8	18.2	19.0
8	South Jersey Industries	SJI	14.2	13.9	12.7	11.7	11.2	12.7
9	Southwest Gas Corp	SWX	8.9	9.2	10.2	10.3	9.5	9.6
10	WGL Holdings	WGL	9.9	9.5	10.8	9.3	11.0	<u>10.1</u>
	Average							11.1
11	CMS Energy Company		9.80	7.63	10.44	10.70	11.28	10.0
12	CE Gas Division**		10.93	10.49	8.63	12.32	12.09	10.9

Source: Value Line Investment Survey (September 5, 2014)

* Consumers figures from published 2009-2013 10-K Financial Reports

**Consumers Energy Gas Division ROE derived from monthly financial reports

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-5
 Date: December 4, 2015
 page: 5 of 14

Gas Proxy Group
3-month Average Stock Price and Dividend Yield

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
			Closing \$	Closing \$	Closing \$	3-month	Annualized	
		Ticker	Stock Price	Stock Price	Stock Price	Stock Price	Dividend	Dividend
<u>Line</u>	<u>Company</u>	<u>Symbol</u>	<u>Aug-15</u>	<u>Sep-15</u>	<u>Oct-15</u>	<u>Average</u>	<u>2013</u>	<u>Yield</u>
1	AGL Resources Inc.	GAS	62.02	61.04	60.99	61.35	2.04	3.33%
2	Atmos Energy Corp	ATO	54.79	58.18	59.93	57.63	1.56	2.71%
3	Laclede Group, Inc.	LG	53.94	52.86	57.1	54.63	1.84	3.37%
4	National Fuel Gas Co.	NFG	53.96	49.98	52.86	52.27	1.58	3.02%
5	Northwest Natural Gas	NWN	34.69	43.98	45.84	47.65	1.86	3.90%
6	Piedmont Natural Gas	PNY	38.58	40.07	42.22	40.29	1.32	3.28%
7	Questar Corporation	STR	19.31	19.41	20.37	19.70	0.84	4.26%
8	South Jersey Industries	SJI	24.1	25.25	26.45	25.27	1.00	3.96%
9	Southwest Gas Corp	SWX	55.09	58.32	61.23	58.21	1.62	2.78%
10	WGL Holdings	WGL	52.2	57.67	61.66	57.18	1.85	<u>3.24%</u>
	Average							3.38%

Source: Yahoo Finance-Commodity Systems, Inc. (October 26, 2015)

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-5
 Date: December 4, 2015
 page: 6 of 14

Gas Proxy Group
5 year Projected Growth Rates
 (%)

	(a)	(b)	(c)	(d)	(e)	(f)
		Ticker	I/B/E/S	Zack's	Value Line	Average
<u>Line</u>	<u>Company</u>	<u>Symbol</u>	<u>Earnings</u>	<u>Earnings</u>	<u>Earnings</u>	<u>Growth</u>
1	AGL Resources Inc.	GAS	5.9	4.0	6.5	5.47
2	Atmos Energy Corp	ATO	7.0	7.0	7.0	7.00
3	Laclede Group, Inc.	LG	4.4	4.8	10.0	6.41
4	National Fuel Gas Co.	NFG	4.4	4.4	6.0	4.93
5	Northwest Natural Gas	NWN	4.0	4.0	7.0	5.00
6	Piedmont Natural Gas	PNY	5.0	4.0	3.0	4.00
7	Questar Corporation	STR	5.7	3.7	6.0	5.13
8	South Jersey Industries	SJI	6.0	5.0	7.5	6.17
9	Southwest Gas Corp	SWX	4.0	5.0	7.0	5.33
10	WGL Holdings	WGL	7.0	6.0	5.5	<u>6.17</u>
	Average					5.56

Source: Yahoo Finance-Commodity Systems, Inc. (October 26, 2015)
 Zacks Earnings Estimates (September 11, 2014)
 Value Line Research (Aug. 22 and September 5, 2014)

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-5
 Date: December 4, 2015
 page: 7 of 14

Gas Proxy Group
Discounted Cash Flow - Cost of Equity

	(a)	(b)	(c)	(d)	(e)	(f)
		Ticker	Dividend	Growth	Cost of Equity	Adjusted
<u>Line</u>	<u>Company</u>	<u>Symbol</u>	<u>Yield</u>	<u>Rate</u>	<u>DCF</u>	<u>DCF</u>
1	AGL Resources Inc.	GAS	3.33%	5.47%	8.79%	8.88%
2	Atmos Energy Corp	ATO	2.71%	7.00%	9.71%	9.80%
3	Laclede Group, Inc.	LG	3.37%	6.41%	9.77%	9.88%
4	National Fuel Gas Co.	NFG	3.02%	4.93%	7.96%	8.03%
5	Northwest Natural Gas	NWN	3.90%	5.00%	8.90%	9.00%
6	Piedmont Natural Gas	PNY	3.28%	4.00%	7.28%	7.34%
7	Questar Corporation	STR	4.26%	5.13%	9.40%	9.51%
8	South Jersey Industries	SJI	3.96%	6.17%	10.12%	10.25%
9	Southwest Gas Corp	SWX	2.78%	5.33%	8.12%	8.19%
10	WGL Holdings	WGL	3.24%	6.17%	9.40%	9.50%
	Average					
11	Average				8.95%	9.04%
12	Minimum				7.28%	7.34%
13	Maximum				10.12%	10.25%
14	Median				9.15%	9.25%

Source

(d) dividend yield from Column (h), page 5

(e) growth rate from Column (g), page 6

(f) DCF formula = col. (d) + col. (e)

(g) Adjusted DCF formula: (Div. Yield)(1 + 0.5 growth rate) + growth rate

Statistics for CAPM Analysis

*Arithmetic

Line No.	Period	Large Company Total Returns (%)	Long Term Gov Bonds Income Returns (%)	Difference
1	1926	11.62	3.73	7.89
2	1927	37.49	3.41	34.08
3	1928	43.61	3.22	40.39
4	1929	(8.42)	3.47	(11.89)
5	1930	(24.90)	3.32	(28.22)
6	1931	(43.34)	3.33	(46.67)
7	1932	(8.19)	3.69	(11.88)
8	1933	53.99	3.12	50.87
9	1934	(1.44)	3.18	(4.62)
10	1935	47.67	2.81	44.86
11	1936	33.92	2.77	31.15
12	1937	(35.03)	2.66	(37.69)
13	1938	31.12	2.64	28.48
14	1939	(0.41)	2.40	(2.81)
15	1940	(9.78)	2.23	(12.01)
16	1941	(11.59)	1.94	(13.53)
17	1942	20.34	2.46	17.88
18	1943	25.90	2.44	23.46
19	1944	19.75	2.46	17.29
20	1945	36.44	2.34	34.10
21	1946	(8.07)	2.04	(10.11)
22	1947	5.71	2.13	3.58
23	1948	5.50	2.40	3.10
24	1949	18.79	2.25	16.54
25	1950	31.71	2.12	29.59
26	1951	24.02	2.38	21.64
27	1952	18.37	2.66	15.71
28	1953	(0.99)	2.84	(3.83)
29	1954	52.62	2.79	49.83
30	1955	31.56	2.75	28.81
31	1956	6.56	2.99	3.57
32	1957	(10.78)	3.44	(14.22)
33	1958	43.36	3.27	40.09
34	1959	11.96	4.01	7.95
35	1960	0.47	4.26	(3.79)
36	1961	26.89	3.83	23.06
37	1962	(8.73)	4.00	(12.73)
38	1963	22.80	3.89	18.91
39	1964	16.48	4.15	12.33
40	1965	12.45	4.19	8.26
41	1966	(10.06)	4.49	(14.55)
42	1967	23.98	4.59	19.39
43	1968	11.06	5.50	5.56
44	1969	(8.50)	5.95	(14.45)
45	1970	4.01	6.74	(2.73)
46	1971	14.31	6.32	7.99
47	1972	18.98	5.87	13.11
48	1973	(14.66)	6.51	(21.17)
49	1974	(26.47)	7.27	(33.74)
50	1975	37.20	7.99	29.21
51	1976	23.84	7.89	15.95
52	1977	(7.18)	7.14	(14.32)
53	1978	6.56	7.90	(1.34)
54	1979	18.44	8.86	9.58
55	1980	32.42	9.97	22.45
56	1981	(4.91)	11.55	(16.46)
57	1982	21.41	13.50	7.91
58	1983	22.51	10.38	12.13
59	1984	6.27	11.74	(5.47)
60	1985	32.16	11.25	20.91
61	1986	18.47	8.98	9.49
62	1987	5.23	7.92	(2.69)
63	1988	16.81	8.97	7.84
64	1989	31.49	8.81	22.68
65	1990	(3.17)	8.19	(11.36)
66	1991	30.55	8.22	22.33
67	1992	7.67	7.26	0.41
68	1993	9.99	7.17	2.82
69	1994	1.31	6.59	(5.28)
70	1995	37.43	7.60	29.83
71	1996	23.07	6.18	16.89
72	1997	33.36	6.64	26.72
73	1998	28.58	5.83	22.75
74	1999	21.04	5.57	15.47
75	2000	(9.11)	6.50	(15.61)
76	2001	(11.88)	5.53	(17.41)
77	2002	(22.10)	5.59	(27.69)
78	2003	28.70	4.80	23.90
79	2004	10.87	5.02	5.85
80	2005	4.91	4.69	0.22
81	2006	15.80	4.68	11.12
82	2007	5.49	4.86	0.63
83	2008	(37.00)	4.45	(41.45)
84	2009	26.46	3.47	22.99
85	2010	15.06	4.25	10.81
86	2011	2.11	3.81	-1.7
87	2012	16.00	2.4	13.6
88	2013	32.39	2.86	29.53
89	2014	13.69	3.12	10.57
90	1926 - 2014 AVE	12.07	5.07	7.00
91	1952 - 2014 AVE	12.34	6.04	6.30

Case No.: U-17882
Witness: Kirk D. Megginson
Exhibit No: S-4
Schedule: D-5
Date: December 4, 2015
page: 9 of 14

Gas Proxy Group Capital Asset Pricing Model

Ibbotson Historical Return	Proxy Group (1952 - 2014)
Average Common Stock Return ⁽¹⁾	12.34%
Average LT Government Bond Return	6.04%
Risk Premium	6.30%
Risk Free Rate: Long-term Treasury Bond Yield ⁽²⁾	3.50%

Line	(a) Company	(b) Ticker Symbol	(c) Value Line Beta	(d) Risk Free Rate	(e) 1952-2014 Risk Premium	(f) 52-Year CAPM
1	AGL Resources Inc.	GAS	0.80	3.50%	6.30%	8.54%
2	Atmos Energy Corp	ATO	0.85	3.50%	6.30%	8.86%
3	Laclede Group, Inc.	LG	0.70	3.50%	6.30%	7.91%
4	National Fuel Gas Co.	NFG	1.15	3.50%	6.30%	10.75%
5	Northwest Natural Gas	NWN	0.70	3.50%	6.30%	7.91%
6	Piedmont Natural Gas	PNY	0.80	3.50%	6.30%	8.54%
7	Questar Corporation	STR	0.80	3.50%	6.30%	8.54%
8	South Jersey Industries	SJI	0.85	3.50%	6.30%	8.86%
9	Southwest Gas Corp	SWX	0.85	3.50%	6.30%	8.86%
10	WGL Holdings	WGL	0.80	3.50%	6.30%	8.54%
11	Average					8.73%
12	Minimum					7.91%
13	Maximum					10.75%
14	Median					8.54%

Source: ⁽¹⁾Ibbotson SBBI 2015 Classic Yearbook

⁽²⁾Value Line's 2016 LT-Treasury bond rate = 3.50%

Value Line Beta taken from Schedule D-5, page 1

CAPM Equation = Risk Free + Beta*(Risk premium)

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-5
 Date: December 4, 2015
 page: 10 of 14

Dow Jones Utility Average

<u>Line</u>	<u>(a)</u> <u>Date</u>	<u>(b)</u> <u>Index value</u>	<u>(c)</u> <u>Price Return %</u>	<u>(d)</u> <u>TR Index Value</u>	<u>(e)</u> <u>TR % age</u>
1	3-Jan-00	276.72		577.38	
2	29-Dec-00	412.16	48.95	890.95	54.31
3	31-Dec-01	293.94	(28.68)	656.90	(26.27)
4	31-Dec-02	215.18	(26.79)	503.29	(23.38)
5	31-Dec-03	266.90	24.04	651.22	29.39
6	31-Dec-04	334.95	25.50	848.16	30.24
7	30-Dec-05	405.11	20.95	1061.35	25.14
8	29-Dec-06	456.77	12.75	1237.84	16.63
9	31-Dec-07	532.69	16.62	1486.82	20.11
10	31-Dec-08	370.76	(30.40)	1072.94	(27.84)
11	31-Dec-09	398.01	7.35	1206.78	12.47
12	31-Dec-10	404.99	1.75	1284.76	6.46
13	30-Dec-11	464.88	14.79	1537.94	19.71
14	31-Dec-12	453.09	(2.54)	1563.18	1.64
15	31-Dec-13	490.57	8.27	1761.56	12.69
16	31-Dec-14	618.08	25.99	2301.45	30.65

Merchant Public Utility Manual
Dow Jones Utility Average Index

NATURAL GAS UTILITY MARKET

UTILITY BOND

Period	Market Price - Weighted Avg \$ Per Share (End of Dec)	Capital Gain/Loss % Growth (Loss) on Stock	Dividend Yield on Stock (End of Dec) (Mergent)	Total Return (Capital Gain + Dividend Yield)	Yields on A-Rated Public Utility Bonds (end of Dec)
1954	26.47		4.72		
1955	28.1	6.16	4.91	11.07	3.35
1956	28.23	0.46	5.24	5.70	3.91
1957	25.78	(8.68)	5.78	(2.90)	4.36
1958	38.71	50.16	4.06	54.22	4.49
1959	39.59	2.27	4.19	6.46	4.96
1960	48.21	21.77	3.82	25.59	4.65
1961	64.96	34.74	2.99	37.73	4.65
1962	59.73	(8.05)	3.38	(4.67)	4.44
1963	64.62	8.19	3.32	11.51	4.46
1964	68.24	5.60	3.37	8.97	4.54
1965	64.31	(5.76)	3.86	(1.90)	4.83
1966	53.5	(16.81)	4.88	(11.93)	5.67
1967	50.49	(5.63)	5.43	(0.20)	6.67
1968	53.8	6.56	5.22	11.78	6.87
1969	43.88	(18.44)	6.68	(11.76)	8.59
1970	52.33	19.26	5.75	25.01	8.48
1971	47.86	(8.54)	6.41	(2.13)	7.90
1972	53.54	11.87	5.83	17.70	7.48
1973	43.43	(18.88)	7.55	(11.33)	8.24
1974	29.71	(31.59)	11.24	(20.35)	10.27
1975	38.29	28.88	9.09	37.97	10.11
1976	51.8	35.28	7.14	42.42	8.62
1977	50.88	(1.78)	7.72	5.94	8.64
1978	45.97	(9.65)	9.09	(0.56)	9.70
1979	53.5	16.38	8.3	24.68	11.79
1980	56.61	5.81	8.27	14.08	14.63
1981	53.5	(5.49)	9.57	4.08	16.29
1982	50.62	(5.38)	10.65	5.27	14.43
1983	55.79	10.21	9.95	20.16	13.52
1984	69.7	24.93	8.44	33.37	13.11
1985	76.58	9.87	8.12	17.99	10.97
1986	90.89	18.69	6.28	24.97	9.12
1987	77.25	(15.01)	7.79	(7.22)	10.98
1988	86.76	12.31	7.22	19.53	10.06
1989	117.05	34.91	5.63	40.54	9.44
1990	108.86	(7.00)	6.28	(0.72)	9.73
1991	124.32	14.20	5.62	19.82	8.88
1992	138.79	11.64	5.14	16.78	8.43
1993	154.06	11.00	4.74	15.74	7.34
1994	126.96	(17.59)	5.86	(11.73)	8.76
1995	155.94	22.83	4.85	27.68	7.23
1996	166.64	6.86	4.75	11.61	7.59
1997	191.04	14.64	4.2	18.84	7.16
1998	177.24	(7.22)	4.59	(2.63)	6.91
1999	166.84	(5.87)	4.93	(0.94)	8.14
2000	200.68	20.28	4.1	24.38	7.84
Dow Jones Utility Average (Total Return)					
2001				(26.27)	7.83
2002				(23.38)	6.93
2003				29.39	6.27
2004				30.24	5.92
2005				25.14	5.80
2006				16.63	5.81
2007				20.11	6.16
2008				(27.84)	6.54
2009				12.47	5.79
2010				6.46	5.56
2011				19.71	4.33
2012				1.64	4.00
2013				12.69	4.81
2014				30.65	3.94

1955 - 2014 Natural Gas Utility Return Average

11.30

1955 - 2014 Average Yield on Public Utility Bonds

7.63

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-5
 Date: December 4, 2015
 page: 12 of 14

Risk Premium Method

Line No.	(a)	(b)	(c)
1	Gas Utility Realized Market Return Average (1955 - 2015) ⁽¹⁾	11.30%	
2	Realized Utility Bond Yield Average (1955 - 2015) ⁽¹⁾	<u>7.63%</u>	
3	Historical Spread [1]	3.67%	
4	Projected Spread: Survey of Chief Financial Officers ⁽²⁾ [3]	3.83%	
5	Bond Rating	<u>A-rated</u>	<u>BBB-rated</u>
6	Value Line Long Term Utility Bond Returns ^(a) [2]	4.41%	4.83%
7	Cost of Equity Estimate w/ Historical Spread: [1] + [2]	<u>8.08%</u>	<u>8.50%</u>
8	Cost of Equity Estimate w/ Projected Spread: [2] + [3]	<u>8.24%</u>	<u>8.66%</u>

Sources

(a) Value Line 25/30 Year Utility Bond Yields %

<u>Date</u>	<u>A-rated</u>	<u>BBB-rated</u>
10/7/2015	4.34	4.74
9/30/2015	4.31	4.75
9/16/2015	4.53	4.92
8/19/2015	<u>4.39</u>	<u>4.82</u>
average	4.41	4.83

(1) Schedule D5, NatGas-RPData

(2) John R. Graham and Campbell R. Harvey (Fuqua School of Business, Duke University)

for the National Bureau of Economic Research, Cambridge, MA.

"The Equity Risk Premium in 2013" (Jan. 28, 2013)

Retrieved from <http://ssrn.com/abstract=2206538>

Allowed Returns on Common Equity 2014 - 2015

Major Gas Utility Rate Case Decisions

<u>State</u>	<u>ROE</u>	<u>Date</u> <u>Authorized</u>
<u>ARKANSAS</u>		
Source Gas Arkansas, Inc.	9.30%	7/7/2014
Arkansas Oklahoma Gas Corp.	9.30%	7/25/2014
<u>CALIFORNIA</u>		
Southwest Gas Corp	10.10%	6/12/2014
Southwest Gas Corp	10.10%	6/13/2014
Southwest Gas Corp	10.10%	6/14/2014
<u>COLORADO</u>		
Almos Energy Corp Colorado	9.72%	3/16/2014
<u>CONNECTICUT</u>		
CT Natural Gas Corp.	9.18%	1/22/2014
<u>ILLINOIS</u>		
North Shore Gas Co.	9.05%	1/21/2015
Peoples Gas Light & Coke Co.	9.05%	1/22/2015
<u>KANSAS</u>		
Almos Energy Corp Kansas	9.10%	9/4/2014
<u>KENTUCKY</u>		
Almos Energy Corp Kentucky	9.80%	4/22/2014
<u>LOUISIANA</u>		
<u>MAINE</u>		
<u>MARYLAND</u>		
<u>MASSACHUSETTS</u>		
Bay State Gas Co.	9.55%	2/28/2014
<u>MICHIGAN</u>		
Consumers Energy	10.30%	1/13/2015
Northern States Power Co.	10.20%	5/13/2014
<u>MINNESOTA</u>		
CenterPoint Energy Resources	9.59%	5/8/2014
Minnesota Energy Resources Corp.	9.35%	9/24/2014
<u>MISSOURI</u>		
Summit Natural Gas of Missouri	10.80%	10/29/2014
Liberty Utilities (Midstates)	10.00%	12/3/2014
<u>MONTANA</u>		
<u>NEBRASKA</u>		
<u>NEW HAMPSHIRE</u>		
Northern Utilities, Inc.	9.50%	4/24/2014
<u>NEW JERSEY</u>		
South Jersey Gas Co.	9.75%	9/30/2014
<u>NEW MEXICO</u>		
<u>NEW YORK</u>		
Consolidated Edison Co. of NY	9.30%	2/20/2014
National Fuel Gas Dist. Corp.	9.10%	5/8/2014
Central Hudson Gas & Electric	9.00%	6/17/2015
<u>OHIO</u>		
<u>OKLAHOMA</u>		
<u>OREGON</u>		
Avista Corp. dba Avista Utilities	9.65%	1/21/2014
Avista Corp.	9.50%	4/9/2015
<u>PENNSYLVANIA</u>		
<u>TENNESSEE</u>		
Almos Energy of Tennessee	9.80%	5/11/2015
<u>TEXAS</u>		
<u>UTAH</u>		
Questar Gas Co.	9.85%	2/21/2014
<u>VERMONT</u>		
<u>VIRGINIA</u>		
Columbia Gas of Virginia, Inc.	9.75%	8/21/2015
<u>WASHINGTON</u>		
<u>WEST VIRGINIA</u>		
<u>WISCONSIN</u>		
Madison Gas & Electric	10.20%	11/26/2014
Wisconsin Power & Light	10.40%	6/6/2014
Wisconsin Public Service Corp.	10.20%	11/6/2014
Wisconsin Electric Power Co.	10.20%	11/14/2014
Wisconsin Gas LLC	10.30%	11/14/2014
<u>WYOMING</u>		
Cheyenne Light Fuel Power Co.	9.90%	7/31/2014
Average Authorized ROEs	<u><u>9.74%</u></u>	

Source: SNL Energy

Case No.: U-17882
 Witness: Kirk D. Megginson
 Exhibit No: S-4
 Schedule: D-5
 Date: December 4, 2015
 page: 13 of 14

Case No.: U-17882
Witness: Kirk D. Megginson
Exhibit No: S-4
Schedule: D-5
Date: December 4, 2015
page: 14 of 14

STAFF
Cost of Equity Recommendation
Consumers Energy Company - Gas Division

	<u>ROE</u>
Adjusted Average DCF:	9.04%
Adjusted Median DCF:	9.25%
Proxy Group CAPM Average:	8.73%
Proxy Group CAPM Median:	8.54%
Risk Premium Historical Method - A-Rated Utilities:	8.08%
Risk Premium Projected Method - A-Rated Utilities:	8.24%
Risk Premium Historical Method - Baa/BBB Rated Utilities:	8.50%
Risk Premium Projected Method - Baa/BBB Rated Utilities:	8.66%
Average Gas Utility ROE Decisions for 2014-2015:	9.74%
Average Authorized ROE of Proxy Group	9.92%
Recommended Cost of Equity Range:	9.00% - 10.00%
ROE used in Overall Cost of Capital:	10.00%

Line	Summary Description (a)	Alloc Basis (b)	Total (c)	Residential (d)	Rate GS-1 (e)	Rate GS-2 (f)	Rate GS-3 (g)	Rate ST (h)	Rate LT (i)	Rate XLT (j)
1	Service Revenue		\$ 1,649,932	\$ 1,208,359	\$ 141,053	\$ 191,559	\$ 51,026	\$ 22,270	\$ 16,126	\$ 19,539
2	Other Revenue		<u>99,635</u>	<u>70,495</u>	<u>9,200</u>	<u>13,476</u>	<u>3,912</u>	<u>721</u>	<u>655</u>	<u>1,176</u>
3	Total Revenue		\$ 1,749,567	\$ 1,278,854	\$ 150,253	\$ 205,034	\$ 54,938	\$ 22,991	\$ 16,781	\$ 20,716
4	Expenses:									
5	Cost of Gas Sold (COGS)		\$ 793,271	\$ 568,118	\$ 76,704	\$ 114,691	\$ 33,758	\$ -	\$ -	\$ -
6	O & M Expense		360,026	275,049	26,120	28,592	6,622	7,338	6,033	10,273
7	Depreciation & Amortization Expense		201,108	145,262	15,294	19,184	4,627	5,086	4,271	7,383
8	Lost and Unaccounted for (LAUF) Gas		11,870	8,501	1,148	1,716	505	-	-	-
9	Taxes		158,745	115,986	12,411	15,923	3,730	4,296	3,047	3,352
10	Company Use		<u>6,331</u>	<u>4,534</u>	<u>612</u>	<u>915</u>	<u>269</u>	<u>-</u>	<u>-</u>	<u>-</u>
11	Total Expenses		\$ 1,531,351	\$ 1,117,451	\$ 132,289	\$ 181,022	\$ 49,512	\$ 16,720	\$ 13,351	\$ 21,008
12	Net Operating Income		\$ 218,215	\$ 161,403	\$ 17,964	\$ 24,013	\$ 5,426	\$ 6,271	\$ 3,430	\$ (292)
13	Test Year AFUDC	207	<u>7,611</u>	<u>4,981</u>	<u>636</u>	<u>937</u>	<u>267</u>	<u>212</u>	<u>199</u>	<u>378</u>
14	Adjusted Net Operating Income		\$ 225,826	\$ 166,384	\$ 18,601	\$ 24,950	\$ 5,693	\$ 6,483	\$ 3,629	\$ 86
15	Total Rate Base		\$ 3,942,568	\$ 2,739,434	\$ 309,950	\$ 415,209	\$ 108,056	\$ 106,742	\$ 93,868	\$ 169,308
16	Return on Rate Base @ 6.03%		237,623	165,109	18,681	25,025	6,513	6,433	5,658	10,204
17	Income Deficiency/(Sufficiency)		11,797	(1,276)	80	75	819	(50)	2,029	10,118
18	Revenue Deficiency/(Sufficiency)		19,308	(2,088)	132	123	1,341	(81)	3,321	16,560
19	Rev Requirement/Total Cost of Service		\$ 1,768,874	\$ 1,276,766	\$ 150,384	\$ 205,157	\$ 56,279	\$ 22,910	\$ 20,102	\$ 37,276
20	Less: Cost of Gas Sold (Test Yr)		793,271	568,118	76,704	114,691	33,758	-	-	-
21	Less: Miscellaneous Revenue (TY)		<u>99,635</u>	<u>70,495</u>	<u>9,200</u>	<u>13,476</u>	<u>3,912</u>	<u>721</u>	<u>655</u>	<u>1,176</u>
22	Proposed Rate Design Revenue		\$ 875,969	\$ 638,153	\$ 64,480	\$ 76,990	\$ 18,609	\$ 22,189	\$ 19,447	\$ 36,100
23	Transmission Related Cost		\$ 137,787	\$ 83,711	\$ 11,516	\$ 16,540	\$ 4,884	\$ 5,094	\$ 5,259	\$ 10,783
24	Storage Related Cost		139,748	90,543	11,938	18,159	5,310	3,529	3,442	6,827
25	Distribution Related Cost		<u>598,434</u>	<u>463,899</u>	<u>41,025</u>	<u>42,292</u>	<u>8,415</u>	<u>13,566</u>	<u>10,747</u>	<u>18,490</u>
26	Total		\$ 875,969	\$ 638,153	\$ 64,480	\$ 76,990	\$ 18,609	\$ 22,189	\$ 19,447	\$ 36,100
27	Mcf Thruput		301,299,510	158,743,526	21,456,585	34,111,386	10,532,949	18,695,011	19,873,173	37,886,880
28	Customer Count		1,742,293	1,611,048	101,569	26,582	912	1,370	558	254

Line	Allocation Factors (a)	Alloc (b)	Total (c)	Residential (d)	Rate GS-1 (e)	Rate GS-2 (f)	Rate GS-3 (g)	Rate ST (h)	Rate LT (i)	Rate XLT (j)
1	Total Thruput (Mcf)	101	100.00%	52.69%	7.12%	11.32%	3.50%	6.20%	6.60%	12.57%
2	GCR Sales (Incl GL-1)	102	100.00%	71.62%	9.67%	14.46%	4.26%	0.00%	0.00%	0.00%
3	Transportation Gas	103	100.00%	0.00%	0.00%	0.00%	0.00%	24.45%	25.99%	49.55%
4	Average & Peak - Transmission	104	100.00%	57.92%	7.82%	11.71%	3.36%	4.94%	4.86%	9.40%
5	Average & Peak - High Pressure Distribution	105	100.00%	57.27%	7.76%	11.65%	3.37%	4.97%	5.04%	9.94%
6	Average & Peak - Non High Pressure Distribution	106	100.00%	64.69%	8.40%	12.39%	3.24%	4.56%	2.97%	3.76%
7	50% Storage Capacity / 50% Peak Month	107	100.00%	63.88%	8.63%	13.20%	3.89%	2.72%	2.61%	5.07%
8	Weighted Customer	108	100.00%	87.98%	6.45%	4.80%	0.34%	0.27%	0.11%	0.05%
9	Average Customers	109	100.00%	92.47%	5.83%	1.53%	0.05%	0.08%	0.03%	0.01%
10	Weighted Cust / Average Cust	110	100.00%	92.19%	5.81%	1.52%	0.05%	0.27%	0.11%	0.05%
11	Service Revenue Including COGS	111	100.00%	73.24%	8.55%	11.61%	3.09%	1.35%	0.98%	1.18%
12	Service Revenue Excluding COGS	112	100.00%	74.74%	7.51%	8.97%	2.02%	2.60%	1.88%	2.28%
13	Total Revenue	201	100.00%	73.10%	8.59%	11.72%	3.14%	1.31%	0.96%	1.18%
14	Production Plant	202	100.00%	71.62%	9.67%	14.46%	4.26%	0.00%	0.00%	0.00%
15	Total Transmission Plant	204	100.00%	61.06%	8.25%	12.49%	3.64%	3.77%	3.67%	7.12%
16	Total Distribution Plant	205	100.00%	75.97%	7.24%	8.17%	1.70%	2.31%	1.78%	2.83%
17	Total Plant In Service excl GC&I	206	100.00%	71.52%	7.61%	9.64%	2.35%	2.65%	2.26%	3.96%
18	Total CWIP	207	100.00%	65.45%	8.36%	12.32%	3.51%	2.78%	2.61%	4.97%
19	Total Rate Base	208	100.00%	69.48%	7.86%	10.53%	2.74%	2.71%	2.38%	4.29%
20	Total O&M excl Admin & General	209	100.00%	76.62%	7.17%	7.71%	1.75%	2.10%	1.72%	2.92%
21	Total O&M Expense	214	100.00%	76.62%	7.17%	7.71%	1.75%	2.10%	1.72%	2.92%
22	Pretax Net Operating Income	215	100.00%	74.08%	8.17%	10.84%	2.45%	2.84%	1.58%	0.03%
23	Total Depreciation & Amortization Expense	216	100.00%	72.23%	7.60%	9.54%	2.30%	2.53%	2.12%	3.67%

Line	Rate Base (a)	Alloc Basis (b)	Total (c)	Residential (d)	Rate GS-1 (e)	Rate GS-2 (f)	Rate GS-3 (g)	Rate ST (h)	Rate LT (i)	Rate XLT (j)
1	Production Plant	102	\$ 8,911	\$ 6,382	\$ 862	\$ 1,288	\$ 379	\$ -	\$ -	\$ -
2	Storage Plant	107	\$ 606,618	\$ 387,520	\$ 52,341	\$ 80,058	\$ 23,587	\$ 16,502	\$ 15,834	\$ 30,777
3	Transmission To/From Storage	107	\$ 562,038	\$ 359,041	\$ 48,494	\$ 74,174	\$ 21,854	\$ 15,289	\$ 14,670	\$ 28,515
4	Other Transmission	104	\$ 505,473	\$ 292,755	\$ 39,526	\$ 59,209	\$ 16,978	\$ 24,951	\$ 24,557	\$ 47,497
5	Total Transmission Plant		\$ 1,067,511	\$ 651,796	\$ 88,021	\$ 133,383	\$ 38,832	\$ 40,240	\$ 39,228	\$ 76,013
6	Distribution Plant - Other	105	\$ 243,582	\$ 139,491	\$ 18,912	\$ 28,372	\$ 8,208	\$ 12,112	\$ 12,276	\$ 24,211
7	Mains - High Pressure Capable	105	\$ 372,789	\$ 213,483	\$ 28,943	\$ 43,422	\$ 12,561	\$ 18,537	\$ 18,788	\$ 37,054
8	Mains - Non-High Pressure Capable	106	\$ 1,021,583	\$ 660,828	\$ 85,769	\$ 126,542	\$ 33,115	\$ 46,546	\$ 30,341	\$ 38,442
9	Services & Meters	108	\$ 1,919,876	\$ 1,689,032	\$ 123,898	\$ 92,214	\$ 6,571	\$ 5,168	\$ 2,047	\$ 946
10	Total Distribution Plant		\$ 3,557,830	\$ 2,702,834	\$ 257,522	\$ 290,549	\$ 60,456	\$ 82,363	\$ 63,452	\$ 100,652
11	Total Plant In Service excl Gen, Com, & Int		\$ 5,240,870	\$ 3,748,530	\$ 398,746	\$ 505,278	\$ 123,254	\$ 139,105	\$ 118,514	\$ 207,442
12	Gen, Com, & Int Plant and PHFFU	206	\$ 608,130	\$ 434,965	\$ 46,269	\$ 58,630	\$ 14,302	\$ 16,141	\$ 13,752	\$ 24,071
13	Total Test Year Plant in Service		\$ 5,849,000	\$ 4,183,495	\$ 445,014	\$ 563,909	\$ 137,556	\$ 155,247	\$ 132,266	\$ 231,513
14	Storage	107	\$ 142,373	\$ 90,950	\$ 12,284	\$ 18,789	\$ 5,536	\$ 3,873	\$ 3,716	\$ 7,223
15	Transmission	204	\$ 18,817	\$ 11,489	\$ 1,552	\$ 2,351	\$ 684	\$ 709	\$ 691	\$ 1,340
16	Distribution	205	\$ 12,544	\$ 9,529	\$ 908	\$ 1,024	\$ 213	\$ 290	\$ 224	\$ 355
17	General, Common & Intangible and PHFFU	206	\$ 28,600	\$ 20,456	\$ 2,176	\$ 2,757	\$ 673	\$ 759	\$ 647	\$ 1,132
18	Total CWIP		\$ 202,333	\$ 132,425	\$ 16,920	\$ 24,922	\$ 7,106	\$ 5,632	\$ 5,278	\$ 10,050
19	Production	202	\$ (8,862)	\$ (6,347)	\$ (857)	\$ (1,281)	\$ (377)	\$ -	\$ -	\$ -
20	Storage	107	\$ (175,680)	\$ (112,228)	\$ (15,158)	\$ (23,185)	\$ (6,831)	\$ (4,779)	\$ (4,586)	\$ (8,913)
21	Transmission	204	\$ (265,483)	\$ (162,097)	\$ (21,890)	\$ (33,171)	\$ (9,657)	\$ (10,007)	\$ (9,756)	\$ (18,904)
22	Distribution	205	\$ (2,058,357)	\$ (1,563,705)	\$ (148,988)	\$ (168,095)	\$ (34,976)	\$ (47,651)	\$ (36,710)	\$ (58,232)
23	General, Common & Intangible and PHFFU	206	\$ (292,106)	\$ (208,929)	\$ (22,225)	\$ (28,162)	\$ (6,870)	\$ (7,753)	\$ (6,606)	\$ (11,562)
24	Total Accumulated Depreciation		\$ (2,800,488)	\$ (2,053,306)	\$ (209,118)	\$ (253,895)	\$ (58,711)	\$ (70,190)	\$ (57,657)	\$ (97,611)
25	Cash & Cash Equivalents	209	\$ 32,274	\$ 24,730	\$ 2,315	\$ 2,487	\$ 566	\$ 677	\$ 556	\$ 944
26	Accounts Receivable	111	\$ 258,664	\$ 189,437	\$ 22,113	\$ 30,031	\$ 7,999	\$ 3,491	\$ 2,528	\$ 3,063
27	Materials and Supplies	209	\$ 25,465	\$ 19,512	\$ 1,826	\$ 1,962	\$ 447	\$ 534	\$ 439	\$ 745
28	Gas Stored Underground	107	\$ 447,549	\$ 285,903	\$ 38,616	\$ 59,065	\$ 17,402	\$ 12,175	\$ 11,682	\$ 22,707
29	End User Gas Storage Credit	103	\$ (13,810)	\$ -	\$ -	\$ -	\$ -	\$ (3,377)	\$ (3,590)	\$ (6,844)
30	Real & Personal Property Taxes	206	\$ 65,425	\$ 46,795	\$ 4,978	\$ 6,308	\$ 1,539	\$ 1,737	\$ 1,479	\$ 2,590
31	Other Assets	206	\$ (3,407)	\$ (2,437)	\$ (259)	\$ (328)	\$ (80)	\$ (90)	\$ (77)	\$ (135)
32	Deferred Debits	206	\$ 271,611	\$ 194,270	\$ 20,665	\$ 26,186	\$ 6,388	\$ 7,209	\$ 6,142	\$ 10,751
33	Total Assets		\$ 1,083,771	\$ 758,211	\$ 90,254	\$ 125,711	\$ 34,260	\$ 22,356	\$ 19,159	\$ 33,821
34	Accounts Payable	102	\$ 155,399	\$ 111,292	\$ 15,026	\$ 22,468	\$ 6,613	\$ -	\$ -	\$ -
35	Dividends Declared	215	\$ 12,422	\$ 9,179	\$ 1,014	\$ 1,354	\$ 307	\$ 357	\$ 200	\$ 10
36	Accrued Interest	206	\$ 16,240	\$ 11,616	\$ 1,236	\$ 1,566	\$ 382	\$ 431	\$ 367	\$ 643
37	Accrued Taxes - Federal	215	\$ 7,491	\$ 5,535	\$ 612	\$ 817	\$ 185	\$ 215	\$ 121	\$ 6
38	Accrued Taxes - State	215	\$ 1,156	\$ 854	\$ 94	\$ 126	\$ 29	\$ 33	\$ 19	\$ 1
39	Accrued Taxes - R&PP Tax & Other	206	\$ 57,756	\$ 41,310	\$ 4,394	\$ 5,568	\$ 1,358	\$ 1,533	\$ 1,306	\$ 2,286
40	Other Liabilities	206	\$ 7,242	\$ 5,180	\$ 551	\$ 698	\$ 170	\$ 192	\$ 164	\$ 287
41	Deferred Credits	206	\$ 151,801	\$ 108,575	\$ 11,550	\$ 14,635	\$ 3,570	\$ 4,029	\$ 3,433	\$ 6,009
42	Total Liabilities		\$ 409,507	\$ 293,542	\$ 34,477	\$ 47,232	\$ 12,615	\$ 6,790	\$ 5,609	\$ 9,242
43	Total Working Capital		\$ 674,264	\$ 464,669	\$ 55,777	\$ 78,479	\$ 21,645	\$ 15,565	\$ 13,550	\$ 24,579
44	Test Year Unamortized MGP Expense - Net	206	\$ 25,047	\$ 17,915	\$ 1,906	\$ 2,415	\$ 589	\$ 665	\$ 566	\$ 991
45	Test Year Retainers & Customer Advances-Net	205	\$ (7,588)	\$ (5,764)	\$ (549)	\$ (620)	\$ (129)	\$ (176)	\$ (135)	\$ (215)
46	Adjustments to Rate Base		\$ 17,459	\$ 12,151	\$ 1,356	\$ 1,795	\$ 460	\$ 489	\$ 431	\$ 777
47	Total Test Year Rate Base		\$ 3,942,568	\$ 2,739,434	\$ 309,950	\$ 415,209	\$ 108,056	\$ 106,742	\$ 93,868	\$ 169,308

Line	Expenses (a)	Alloc Basis (b)	Total (c)	Residential (d)	Rate GS-1 (e)	Rate GS-2 (f)	Rate GS-3 (g)	Rate ST (h)	Rate LT (i)	Rate XLT (j)
1	Production	202	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
2	Storage	107	18,657	11,918	1,610	2,462	725	508	487	947
3	Transmission	204	27,490	16,785	2,267	3,435	1,000	1,036	1,010	1,957
4	Distribution	205	150,022	113,970	10,859	12,252	2,549	3,473	2,676	4,244
5	Customer Accounting	110	46,429	42,803	2,699	706	24	125	49	23
6	Customer Service & Information	109	1,153	1,066	67	18	1	1	0	0
7	Customer Assistance	109	1,452	1,343	85	22	1	1	0	0
8	Total Test Year O&M Expense excl Admin & General		\$ 245,203	\$ 187,884	\$ 17,586	\$ 18,895	\$ 4,300	\$ 5,144	\$ 4,223	\$ 7,171
9	Administrative & General Expense	209	\$ 51,151	\$ 39,194	\$ 3,669	\$ 3,942	\$ 897	\$ 1,073	\$ 881	\$ 1,496
10	Test Year Uncollectible Expense	209	\$ 24,184	\$ 17,455	\$ 2,057	\$ 2,807	\$ 770	\$ 312	\$ 274	\$ 508
11	Sales Expense	209	\$ 376	\$ 301	\$ 26	\$ 25	\$ 5	\$ 7	\$ 5	\$ 8
12	Production	202	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
13	Storage	107	1,738	1,110	150	229	68	47	45	88
14	Transmission	204	3,146	1,921	259	393	114	119	116	224
15	Distribution	205	22,062	16,760	1,597	1,802	375	511	393	624
16	Customer Accounting (Billing)	110	6,683	6,161	388	102	3	18	7	3
17	Customer Service	109	387	358	23	6	0	0	0	0
18	Sales Expense	209	0	0	0	0	0	0	0	0
19	Administrative & General	209	5,096	3,904	365	393	89	107	88	149
20	Total Test Year Pension & Benefits Expense		\$ 39,112	\$ 30,215	\$ 2,783	\$ 2,924	\$ 650	\$ 802	\$ 649	\$ 1,089
21	Production	202	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
22	Storage	107	535	342	46	71	21	15	14	27
23	Transmission	204	969	591	80	121	35	37	36	69
24	Distribution	205	6,794	5,161	492	555	115	157	121	192
25	Customer Accounting (Billing)	110	2,058	1,897	120	31	1	6	2	1
26	Customer Service	109	119	110	7	2	0	0	0	0
27	Sales Expense	209	0	0	0	0	0	0	0	0
28	Administrative & General	209	1,569	1,202	113	121	28	33	27	46
29	Total Payroll Taxes		\$ 12,044	\$ 9,304	\$ 857	\$ 901	\$ 200	\$ 247	\$ 200	\$ 335
30	Production	202	\$ 4,537	\$ 3,249	\$ 439	\$ 656	\$ 193	\$ 0	\$ 0	\$ 0
31	Storage	107	16,815	10,742	1,451	2,219	654	457	439	853
32	Transmission	204	20,213	12,341	1,667	2,526	735	762	743	1,439
33	Distribution	205	108,395	82,346	7,846	8,852	1,842	2,509	1,933	3,067
34	Gen, Com, & Int	206	51,148	36,583	3,892	4,931	1,203	1,358	1,157	2,025
35	Test Year Total Depreciation & Amort Expense		\$ 201,108	\$ 145,262	\$ 15,294	\$ 19,184	\$ 4,627	\$ 5,086	\$ 4,271	\$ 7,383
36	Test Year Lost and Unaccounted for (LAUF) Gas	102	\$ 11,870	\$ 8,501	\$ 1,148	\$ 1,716	\$ 505	\$ -	\$ -	\$ -
37	Test Year Company Use	102	\$ 6,331	\$ 4,534	\$ 612	\$ 915	\$ 269	\$ -	\$ -	\$ -
38	Test Year Property Taxes	206	\$ 72,800	\$ 52,070	\$ 5,539	\$ 7,019	\$ 1,712	\$ 1,932	\$ 1,646	\$ 2,882
39	Test Year FIT & City Income Tax	215	54,741	40,450	4,470	5,967	1,355	1,572	881	46
40	Test Year MBT	215	16,053	11,862	1,311	1,750	397	461	258	13
41	Test Year Miscellaneous Taxes	112	3,107	2,300	235	287	66	83	61	76
42	Total Test Year Other Taxes		\$ 146,701	\$ 106,682	\$ 11,554	\$ 15,023	\$ 3,530	\$ 4,049	\$ 2,847	\$ 3,017
43	Total Test Year Expenses Excluding COGS & Company Use		\$ 731,749	\$ 544,799	\$ 54,972	\$ 65,415	\$ 15,484	\$ 16,720	\$ 13,351	\$ 21,008
44	Test Year Cost of Gas Sold (COGS)		\$ 793,271	\$ 568,118	\$ 76,704	\$ 114,691	\$ 33,758	\$ -	\$ -	\$ -

<u>Line</u>	<u>Revenues</u> (a)	<u>Alloc</u> <u>Basis</u> (b)	<u>Total</u> (c)	<u>Residential</u> (d)	<u>Rate GS-1</u> (e)	<u>Rate GS-2</u> (f)	<u>Rate GS-3</u> (g)	<u>Rate ST</u> (h)	<u>Rate LT</u> (i)	<u>Rate XLT</u> (j)
1	Test Year Service Revenue Including Cost of Gas Sold		\$ 1,649,932	\$ 1,208,359	\$ 141,053	\$ 191,559	\$ 51,026	\$ 22,270	\$ 16,126	\$ 19,539
	<u>Other Revenues</u>									
2	Forfeited Discounts (Late Payment Charge)	111	\$ 8,339	\$ 6,107	\$ 713	\$ 968	\$ 258	\$ 113	\$ 81	\$ 99
3	Misc Service Rev (ASP)	102	68,450	49,022	6,619	9,897	2,913	-	-	-
4	Rev from Transmission of Gas of Others	204	11,701	7,145	965	1,462	426	441	430	833
5	Rent from Gas Property	204	742	453	61	93	27	28	27	53
6	Joint Commodities Mkt Agrmt Rev	102	-	-	-	-	-	-	-	-
7	GCR related charges to Transport Customers	102	1,080	774	104	156	46	-	-	-
8	Gas Merchant-Buy/sell Contracts	107	-	-	-	-	-	-	-	-
9	Rev from Storage Agrmts (GM, MCV & others)	107	2,741	1,751	237	362	107	75	72	139
10	Administrative Customer Acctg charges for GCC	110	2,237	2,062	130	34	1	6	2	1
11	Miscellaneous	111	4,344	3,181	371	504	134	59	42	51
12	Total Other Test Year Revenues		\$ 99,635	\$ 70,495	\$ 9,200	\$ 13,476	\$ 3,912	\$ 721	\$ 655	\$ 1,176
13	Total Test Year Revenues		\$ 1,749,567	\$ 1,278,854	\$ 150,253	\$ 205,034	\$ 54,938	\$ 22,991	\$ 16,781	\$ 20,716

<u>Line</u>	<u>Customer Costs by Class</u> <u>Using MPSC Approved Methodology</u> (a)	<u>Alloc</u> <u>Basis</u> (b)	<u>Total</u> (c)	<u>Residential</u> (d)	<u>Rate GS-1</u> (e)	<u>Rate GS-2</u> (f)	<u>Rate GS-3</u> (g)	<u>Rate ST</u> (h)	<u>Rate LT</u> (i)	<u>Rate XLT</u> (j)
1	Customer-Related Plant (Services & Meters) (1)		\$ 1,919,876	\$ 1,689,032	\$ 123,898	\$ 92,214	\$ 6,571	\$ 5,168	\$ 2,047	\$ 946
2	Plant Cost Rate (2)		<u>8.74%</u>	<u>8.74%</u>	<u>8.74%</u>	<u>8.74%</u>	<u>8.74%</u>	<u>8.74%</u>	<u>8.74%</u>	<u>8.74%</u>
3	Annual Plant Cost		\$ 167,752	\$ 147,582	\$ 10,826	\$ 8,057	\$ 574	\$ 452	\$ 179	\$ 83
Expenses:										
4	Customer Related Distribution Expense (3)	108	\$ 27,811.64	\$ 24,468	\$ 1,795	\$ 1,336	\$ 95	\$ 75	\$ 30	\$ 14
5	Customer Related Service Expense (3)	110	11,075	10,210	644	168	6	30	12	5
6	Customer Acctg Expense (1)		46,429	42,803	2,699	706	24	125	49	23
7	Cust Service and Info & Cust Assistance Exp (1)		<u>2,605</u>	<u>2,408</u>	<u>152</u>	<u>40</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>0</u>
8	Total Expenses		\$ 87,921	\$ 79,889	\$ 5,289	\$ 2,250	\$ 127	\$ 232	\$ 92	\$ 42
9	Annual Plant Cost		\$ 167,752	\$ 147,582	\$ 10,826	\$ 8,057	\$ 574	\$ 452	\$ 179	\$ 83
10	Expenses		<u>87,921</u>	<u>79,889</u>	<u>5,289</u>	<u>2,250</u>	<u>127</u>	<u>232</u>	<u>92</u>	<u>42</u>
11	Total Cost		\$ 255,673	\$ 227,471	\$ 16,115	\$ 10,308	\$ 701	\$ 683	\$ 271	\$ 125
12	Number of Customers (1)		1,742,293	1,611,048	101,569	26,582	912	1,370	558	254
13	Annual Cost		\$ 146.75	\$ 141.19	\$ 158.66	\$ 387.77	\$ 768.38	\$ 498.73	\$ 484.97	\$ 492.33
14	Monthly Cost		\$ 12.23	\$ 11.77	\$ 13.22	\$ 32.31	\$ 64.03	\$ 41.56	\$ 40.41	\$ 41.03

Source:

(1) Exhibit S-6, page 3, line 9 and page 4, lines 5-7

(2) Pretax Cost of Capital from Exhibit S-4, adjusted by the Accumulated Depreciation, Depreciation Expense and Property Taxes related to Customer-Related Plant

(3) MPSC Form P-522, page 324, as adjusted

SCHEDULE F-2

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
 Staff Summary of Present and Proposed Revenue by Rate Schedule
 Total Revenue

Case No.: U-17882
 Exhibit: S-6
 Schedule F-2.0
 Witness: Rivera
 Date: December 4, 2015
 Page: 1 of 2

Line No.	Description	(a) Monthly Cust. Count	(b) Annual Consumption MMcf	(c) Present Revenues \$000	(d) Proposed Revenues \$000	(e) Difference Revenues \$000	(f) Percent %
Gas Sales ⁽¹⁾							
Residential Service							
1	Single Family Dwelling A	1,601,924	151,950	\$ 1,164,342	\$ 1,170,625	\$ 6,283	0.5
2	Multifamily Dwelling A-1	9,124	6,794	44,017	44,137	120	0.3
3	Total Residential Service	1,611,048	158,744	1,208,359	1,214,762	6,403	0.5
General Service							
4	Small Service GS-1	101,561	21,455	141,040	142,316	1,276	0.9
5	Medium Service GS-2	26,582	34,111	191,559	193,094	1,536	0.8
6	Large Service GS-3	912	10,533	51,026	52,753	1,727	3.4
7	Outdoor Lighting GL	8	2	13	10	(3)	(23.4)
8	Total General Service	129,063	66,101	383,638	388,174	4,536	1.2
9	Total Gas Sales	1,740,111	224,844	1,591,996	1,602,936	10,939	0.7
Transportation							
10	Small Transport ST	1,370	18,695	22,270	22,493	223	1.0
11	Large Transport LT	558	19,873	16,126	18,545	2,419	15.0
12	Extra-large Transport XLT	254	37,887	19,539	25,259	5,720	29.3
13	Total Transportation	2,182	76,455	57,935	66,297	8,361	14.4
14	Total Service (Delivery & Fuel)	1,742,293	301,300	\$ 1,649,932	\$ 1,669,232	\$ 19,300	1.2
15	Additional Late Payment Charge Revenues					69	
16	Revenue increase/(decrease) due to rounding					(55)	
17	Total Revenue (Sufficiency)/Deficiency					\$ 19,315	

Note

⁽¹⁾ Includes aggregate billed transportation accounts.

SCHEDULE F-2

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
 Staff Summary of Present and Proposed Revenue by Rate Schedule
 Delivery Revenue

Case No.: U-17882
 Exhibit: S-6
 Schedule F-2.0
 Witness: Rivera
 Date: December 4, 2015
 Page: 2 of 2

Line No.	Description	(a) Monthly Cust. Count	(b) Annual Consumption MMcf	(c) Present Revenues \$000	(d) Proposed Revenues \$000	(e) Difference Revenues \$000	(f) Percent %
Gas Sales ⁽¹⁾							
Residential Service							
1	Single Family Dwelling A	1,601,924	151,950	\$ 619,919	\$ 626,202	\$ 6,283	1.0
2	Multifamily Dwelling A-1	9,124	6,794	20,322	20,442	120	0.6
3	Total Residential Service	1,611,048	158,744	640,241	646,644	6,403	1.0
General Service							
4	Small Service GS-1	101,561	21,455	64,342	65,618	1,276	2.0
5	Medium Service GS-2	26,582	34,111	76,867	78,403	1,536	2.0
6	Large Service GS-3	912	10,533	17,268	18,995	1,727	10.0
7	Outdoor Lighting GL	8	2	7.05	3.97	(3)	(43.6)
8	Total General Service	129,063	66,101	158,484	163,020	4,536	2.9
9	Total Gas Sales	1,740,111	224,844	798,726	809,665	10,939	1.4
Transportation							
10	Small Transport ST	1,370	18,695	22,270	22,493	223	1.0
11	Large Transport LT	558	19,873	16,126	18,545	2,419	15.0
12	Extra-large Transport XLT	254	37,887	19,539	25,259	5,720	29.3
13	Total Transportation	2,182	76,455	57,935	66,297	8,361	14.4
14	Total Delivery	1,742,293	301,300	\$ 856,661	\$ 875,961	\$ 19,300	2.3
15	Additional Late Payment Charge Revenues					69	
16	Revenue increase/(decrease) due to rounding					(55)	
17	Total Revenue (Sufficiency)/Deficiency					\$ 19,315	

Note

⁽¹⁾ Includes aggregate billed transportation accounts.

SCHEDULE F-2.1

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Summary of Present and Proposed Rates by Rate Schedule

Case No.: U-17882
Exhibit: S-6
Schedule F-2.1
Witness: Rivera
Date: December 4, 2015
Page: 1 of 1

Line No.	Description	(a) Units	(b) Present	(c) Proposed	Description	(d) Units	(e) Present	(f) Proposed
1	Residential Class				Transportation			
2	Single Family Dwelling A				Small Transport ST			
3	Customer Charge	\$/Mth	11.50	11.75	Customer Charge	\$/Mth	621.50	\$580.00
4	Income Assistance	\$/Mth	(11.50)	(11.75)	Distribution Charge			
5	Distribution Charge	\$/Mcf	2.7021	2.7135	Cost Based	\$/Mcf	0.9484	0.9765
6					Market Ceiling	\$/Mcf	1.4226	1.4648
7	Multifamily Dwelling A-1				Market Floor	\$/Mcf	0.4742	0.4883
8	Customer Charge	\$/Mth	11.50	11.75				
9	Excess Peak Charge	\$/Mcf	0.0700	0.0715	Large Transport LT			
10	Distribution Charge	\$/Mcf	2.7021	2.7135	Customer Charge	\$/Mth	3,370.00	\$1,757.00
11					Distribution Charge			
12	General Service				Cost Based	\$/Mcf	0.6186	0.8353
13	Small Service GS-1				Market Ceiling	\$/Mcf	0.9279	1.2530
14	Customer Charge	\$/Mth	12.50	\$13.50	Market Floor	\$/Mcf	0.3093	0.4177
15	Distribution Charge	\$/Mcf	2.2890	2.2917				
16					Extra-large Transport XLT			
17	Medium Service GS-2				Customer Charge	\$/Mth	8,792.00	\$10,505.00
18	Customer Charge	\$/Mth	19.50	\$19.00	Remote Meter Charge	\$/Mth	70.00	70.00
19	Distribution Charge	\$/Mcf	2.0712	2.1209	Distribution Charge			
20					Cost Based	\$/Mcf	0.4868	0.6237
21	Large Service GS-3				Market Ceiling	\$/Mcf	0.7302	0.9356
22	Customer Charge	\$/Mth	576.80	\$435.00	Market Floor	\$/Mcf	0.2434	0.3119
23	Distribution Charge	\$/Mcf	1.0730	1.3762				
24					Authorized Tolerance Level			
25	Outdoor Lighting GL				6.5% ATL	\$/Mcf	(0.0532)	(0.0498)
26	Single Mantle	\$/Lum.	15.00	11.00	7.5% ATL	\$/Mcf	(0.0266)	(0.0249)
27	Multiple Mantle	\$/Lum.	23.00	19.00	8.5% ATL	\$/Mcf	-	-
28					9.5% ATL	\$/Mcf	0.0266	0.0249
29	Customer Attachment Program				10.5% ATL	\$/Mcf	0.0532	0.0498
30	Discount Rate	%	7.72	7.56				
31	Carrying Cost Rate	%	11.12	10.87	Other Transportation			
32					Authorized Gas Use Charge	\$/Mcf	1.00	1.00
33					Unauthorized Gas Use Charge	\$/Mcf	10.00	10.00
34					Load Balancing Charge	\$/MMBtu	0.25	0.25
35					EUT Gas In Kind	%	1.83	2.43

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Test-Year Calculation of Rate Design Targets
(\$000)

Case No.: U-17882
Exhibit S-6
Schedule: F-2.2
Witness: Nicholas M. Revere
Page: 1 of 1
Date: December 4, 2015

Line No.	Description	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
		Total	Residential	GS-1 ⁽¹⁾	General Service GS-2	GS-3	ST	Transportation LT	XLT
1	Cost-of-Service Study Revenue Targets ⁽²⁾	\$ 875,969	\$ 638,153	\$ 64,480	\$ 76,990	\$ 18,609	\$ 22,189	\$ 19,447	\$ 36,100
2	Adjustment - Present Revenue (line 18)	\$ (0)	\$ 8,490	\$ 1,148	\$ 1,414	\$ 386	\$ 304	\$ (902)	\$ (10,841)
3	Adjusted Cost-of-Service Study	\$ 875,969	\$ 646,644	\$ 65,628	\$ 78,405	\$ 18,995	\$ 22,493	\$ 18,545	\$ 25,259
4	Test-Year Present Revenues	856,654	640,241	64,342	76,867	17,268	22,270	16,126	19,539
5	(Sufficiency)/Deficiency	19,315	6,402	1,287	1,537	1,727	223	2,419	5,720
6	Less: Incremental Late Payments	-	-	-	-	-	-	-	-
7	Adjusted (Suff.)/Def.	19,315	6,402	1,287	1,537	1,727	223	2,419	5,720
8	Rate Design Targets	\$ 875,969	\$ 646,644	\$ 65,628	\$ 78,405	\$ 18,995	\$ 22,493	\$ 18,545	\$ 25,259

(1) Includes Outdoor Lighting GL

(2) Exhibit S-5, Schedule F-1, Page 1, Line 22

Cost-of-Service Study Allocation based on Present Revenue									
	Total	Residential	General Service			Transportation			
			GS-1 ⁽¹⁾	GS-2	GS-3	ST	LT	XLT	
9	Test-Year Present Revenues (line 4)	\$ 856,654	\$ 640,241	\$ 64,342	\$ 76,867	\$ 17,268	\$ 22,270	\$ 16,126	\$ 19,539
10	Total Present Revenues by Class		\$ 640,241		\$ 158,477				\$ 57,935
11	Test-Year Present Revenue % of Class Total		40.60%	48.50%	10.90%	38.44%	27.83%	33.73%	
12	Cost-of-Service Study Total by Class	\$ 875,969	\$ 638,153		\$ 160,080				\$ 77,735
13	COS less Present Revenues by Class		\$ (2,088)		\$ 1,603				\$ 19,800
14	COSS Allocated based on Present Revenue		\$ 638,153	\$ 64,992	\$ 77,645	\$ 17,443	\$ 29,881	\$ 21,637	\$ 26,217
15	Residential Income Assistance Credit Adjustment ⁽⁴⁾		\$ (3,547)	\$ 1,084	\$ 1,479	\$ 406	\$ 165	\$ 145	\$ 269
16	Rate Stability Adjustment less RIA Adjustment		\$ 12,037	\$ (448)	\$ (719)	\$ 1,147	\$ (7,553)	\$ (3,237)	\$ (1,227)
17	Adjusted Cost-of-Service		\$ 646,644	\$ 65,628	\$ 78,405	\$ 18,995	\$ 22,493	\$ 18,545	\$ 25,259
18	% Increase to Test-Year Present Revenue		1.0%	2.0%	2.0%	10.0%	1.0%	15.0%	29.3%
19	Adjustment to Cost-of-Service Study		\$ 8,490	\$ 1,148	\$ 1,414	\$ 386	\$ 304	\$ (902)	\$ (10,841)
20	Cost-of-Service Study		\$ 638,153	\$ 64,480	\$ 76,990	\$ 18,609	\$ 22,189	\$ 19,447	\$ 36,100
21	Cost-of-Service Study % Increase		-0.3%	0.2%	0.2%	7.8%	-0.4%	20.6%	84.8%

(4) Exhibit S-6, Schedule F-2.3, column b

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Allocation of Residential Income Assistance (RIA) Credit
(\$000)

Case No.: U-17882
Exhibit: S-6
Schedule F-2.3
Witness: Rivera
Date: December 4, 2015
Page: 1 of 1

Line	Rate Schedule	COS with COG % of total (a)	RIA Discount Allocation (b)
Sales:			
1	Residential A/A1	72.18%	\$8,651
2	Subtotal Residential	72.18%	\$8,651
3	General Service - Rate GS-1	8.50%	\$1,019
4	General Service - Rate GS-2	11.60%	\$1,390
5	General Service - Rate GS-3	3.18%	\$381
6	Subtotal General Service	23.28%	\$2,790
Transportation:			
7	Transportations Service - Rate ST	1.30%	\$155
8	Transportations Service - Rate LT	1.14%	\$136
9	Transportations Service - Rate XLT	2.11%	\$253
10	Subtotal Transportation	4.54%	\$544
11	Total Sales and Transportation	100.00%	\$11,985

	Summary Description	Total	Residential	Rate GS-1	Rate GS-2	Rate GS-3	Rate ST	Rate LT	Rate XLT
12	Rev Requirement/Total COS + COG ⁽¹⁾	\$1,768,874	\$1,276,766	\$150,384	\$205,157	\$56,279	\$22,910	\$20,102	\$37,276
13	COS with COG Percentage	100.00%	72.18%	8.50%	11.60%	3.18%	1.30%	1.14%	2.11%

⁽¹⁾ Exhibit S-6 Sch F-1 pg.1, line 19

SCHEDULE F-3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Test-Year Present and Proposed Revenue Detail
Residential Single Family Dwelling A

Case No.: U-17882
Exhibit: S-6
Schedule F-3
Witness: Rivera
Date: December 4, 2015
Page: 1 of 9

Line No.	Description	(a) Billing	(b) Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed	(g) Difference	(h) Difference
		Quantity	Units	Rates	Revenues	Rates	Revenues	Revenues	Pct.
				\$/unit	\$000	\$/unit	\$000	\$000	%
	Delivery								
1	Customer ⁽¹⁾	1,601,924	Mthly	11.50	\$ 221,066	11.75	\$ 225,871	\$ 4,806	2.2
2	Distribution Mcf/mth ⁽²⁾	151,950	MMcf	2.7021	410,584	2.7135	412,316	1,732	0.4
3	Provisions								
4	Income Assistance ⁽³⁾	85,000	Mthly	(11.50)	(11,730)	(11.75)	(11,985)	(255)	(2.2)
5	Total Delivery				619,919		626,202	6,283	1.0
	Fuel								
6	GCR Sales ⁽⁴⁾	151,946	MMcf	3.5830	544,423	3.5830	544,423	-	-
7	Alternative Fuel Sales ⁽⁵⁾	4	MMcf	-	-	-	-	-	NA
8	Total Fuel	151,950			544,423		544,423	-	-
9	Total Service (Delivery & Fuel)				\$ 1,164,342		\$ 1,170,625	\$ 6,283	0.5

	Average		Bills
	Customers		
Rate A	1,601,924 ⁽¹⁾		19,223,088
RIA Provision	85,000 ⁽³⁾		1,020,000

⁽¹⁾ Exhibit: A-11 (JMS-10),pg. 2, column (b), line 14

⁽²⁾ Exhibit: A-11 (JMS-6),pg. 1, column (b), line 13

⁽³⁾ Exhibit: A-11 (JMS-11), column (d), line 14

⁽⁴⁾ Exhibit: A-11 (JMS-6),pg. 2, column (b), line 13

⁽⁵⁾ Exhibit: A-11 (JMS-6),pg. 3, column (b), line 13

SCHEDULE F-3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Test-Year Present and Proposed Revenue Detail
Residential Multifamily Dwelling A-1

Case No.: U-17882
Exhibit: S-6
Schedule F-3
Witness: Rivera
Date: December 4, 2015
Page: 2 of 9

Line No.	Description	(a) Billing Determinants		(c) Present		(e) Proposed		(g) Difference	
		Quantity	Units	Rates	Revenues	Rates	Revenues	Revenues	Pct.
				\$/unit	\$000	\$/unit	\$000	\$000	%
	Delivery								
1	Customer ⁽¹⁾	9,124	Mthly	11.50	\$ 1,259	11.75	\$ 1,286	\$ 27	2.2
2	Excess Peak Mcf/mth ⁽²⁾	10,082	MMcf	0.0700	706	0.0715	721	15	2.1
3	Distribution Mcf/mth ⁽³⁾	6,794	MMcf	2.7021	18,357	2.7135	18,435	77	0.4
4	Total Delivery				20,322		20,442	120	0.6
	Fuel								
5	GCR Sales ⁽⁴⁾	6,613	MMcf	3.5830	23,694	3.5830	23,694	-	-
6	Alternative Fuel Sales ⁽⁵⁾	181	MMcf	-	-	-	-	-	NA
7	Total Fuel	6,794			23,694		23,694	-	-
8	Total Service (Delivery & Fuel)				\$ 44,017		\$ 44,137	\$ 120	0.3

	Average	
	Customers	Bills
Rate A-1	9,124	109,488

⁽¹⁾ Exhibit: A-11 (JMS-10),pg. 2, column (c), line 14

⁽²⁾ Exhibit: A-11 (JMS-12), line 7

⁽³⁾ Exhibit: A-11 (JMS-6),pg. 1, column (c), line 13

⁽⁴⁾ Exhibit: A-11 (JMS-6),pg. 2, column (c), line 13

⁽⁵⁾ Exhibit: A-11 (JMS-6),pg. 3, column (c), line 13

SCHEDULE F-3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Test-Year Present and Proposed Revenue Detail
General Small Service GS-1

Case No.: U-17882
Exhibit: S-6
Schedule F-3
Witness: Rivera
Date: December 4, 2015
Page: 3 of 9

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
		Billing Determinants		Present		Proposed		Difference	
Line No.	Description	Quantity	Units	Rates	Revenues	Rates	Revenues	Revenues	Pct.
				\$/unit	\$000	\$/unit	\$000	\$000	%
Delivery									
1	Customer ⁽¹⁾	101,542	Mthly	12.50	\$ 15,231	\$13.50	\$ 16,450	\$ 1,219	8.0
2	Contiguous Account ⁽²⁾	19	Mthly	-	-	-	-	-	NA
3	Distribution Mcf/mth ⁽³⁾	21,455	MMcf	2.2890	49,110	2.2917	49,168	58	0.1
4	Total Delivery				64,342		65,618	1,276	2.0
Fuel									
5	GCR Sales ⁽⁴⁾	21,406	MMcf	3.5830	76,698	3.5830	76,698	-	-
6	Alternative Fuel Sales ⁽⁵⁾	49	MMcf	-	-	-	-	-	NA
7	Total Fuel	21,455			76,698		76,698	-	-
8	Total Service (Delivery & Fuel)				\$ 141,040		\$ 142,316	\$ 1,276	0.9

	Average	
	<u>Customers</u>	<u>Bills</u>
Master	101,542	1,218,504
<u>Contiguous</u>	<u>19</u>	<u>228</u>
Total	101,561	1,218,732

⁽¹⁾ Exhibit: A-11 (JMS-10),pg. 2, column (d), line 14

⁽²⁾ Exhibit: A-11 (JMS-10),pg. 3, column (d), line 14

⁽³⁾ Exhibit: A-11 (JMS-6),pg. 1, column (d), line 13

⁽⁴⁾ Exhibit: A-11 (JMS-6),pg. 2, column (d), line 13

⁽⁵⁾ Exhibit: A-11 (JMS-6),pg. 3, column (d), line 13

SCHEDULE F-3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Test-Year Present and Proposed Revenue Detail
General Medium Service GS-2

Case No.: U-17882
Exhibit: S-6
Schedule F-3
Witness: Rivera
Date: December 4, 2015
Page: 4 of 9

Line No.	Description	(a) Billing Determinants		(c) Present		(e) Proposed		(g) Difference	
		Quantity	Units	Rates	Revenues	Rates	Revenues	Revenues	Pct.
				\$/unit	\$000	\$/unit	\$000	\$000	%
	Delivery								
1	Customer ⁽¹⁾	26,564	Mthly	19.50	\$ 6,216	\$19.00	\$ 6,057	\$ (159)	(2.6)
2	Contiguous Account ⁽²⁾	18	Mthly	-	-	-	-	-	NA
3	Distribution Mcf/mth ⁽³⁾	34,111	MMcf	2.0712	70,652	2.1209	72,347	1,695	2.4
4	Total Delivery				76,867		78,403	1,536	2.0
	Fuel								
5	GCR Sales ⁽⁴⁾	32,010	MMcf	3.5830	114,691	3.5830	114,691	-	-
6	Alternative Fuel Sales ⁽⁵⁾	2,102	MMcf	-	-	-	-	-	NA
7	Total Fuel	34,111			114,691		114,691	-	-
8	Total Service (Delivery & Fuel)				\$ 191,559		\$ 193,094	\$ 1,536	0.8

	Average	
	<u>Customers</u>	<u>Bills</u>
Master	26,564	318,768
<u>Contiguous</u>	<u>18</u>	<u>216</u>
Total	26,582	318,984

⁽¹⁾ Exhibit: A-11 (JMS-10),pg. 2, column (e), line 14

⁽²⁾ Exhibit: A-11 (JMS-10),pg. 3, column (e), line 14

⁽³⁾ Exhibit: A-11 (JMS-6),pg. 1, column (e), line 13

⁽⁴⁾ Exhibit: A-11 (JMS-6),pg. 2, column (e), line 13

⁽⁵⁾ Exhibit: A-11 (JMS-6),pg. 3, column (e), line 13

SCHEDULE F-3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Test-Year Present and Proposed Revenue Detail
General Large Service GS-3

Case No.: U-17882
Exhibit: S-6
Schedule F-3
Witness: Rivera
Date: December 4, 2015
Page: 5 of 9

Line No.	Description	(a) Billing Determinants		(c) Present		(e) Proposed		(g) Difference	
		Quantity	Units	Rates	Revenues	Rates	Revenues	Revenues	Pct.
				\$/unit	\$000	\$/unit	\$000	\$000	%
	Delivery								
1	Customer ⁽¹⁾	862	Mthly	576.80	\$ 5,966	\$435.00	\$ 4,500	\$ (1,467)	(24.6)
2	Contiguous Account ⁽²⁾	50	Mthly	-	-	-	-	-	NA
3	Distribution Mcf/mth ⁽³⁾	10,533	MMcf	1.0730	11,302	1.3762	14,495	3,194	28.3
4	Total Delivery				17,268		18,995	1,727	10.0
	Fuel								
5	GCR Sales ⁽⁴⁾	9,422	MMcf	3.5830	33,758	3.5830	33,758	-	-
6	Alternative Fuel Sales ⁽⁵⁾	1,111	MMcf	-	-	-	-	-	NA
7	Total Fuel	10,533			33,758		33,758	-	-
8	Total Service (Delivery & Fuel)				\$ 51,026		\$ 52,753	\$ 1,727	3.4

	Average	
	<u>Customers</u>	<u>Bills</u>
Master	862	10,344
<u>Contiguous</u>	<u>50</u>	<u>600</u>
Total	912	10,944

⁽¹⁾ Exhibit: A-11 (JMS-10),pg. 2, column (f), line 14

⁽²⁾ Exhibit: A-11 (JMS-10),pg. 3, column (f), line 14

⁽³⁾ Exhibit: A-11 (JMS-6),pg. 1, column (f), line 13

⁽⁴⁾ Exhibit: A-11 (JMS-6),pg. 2, column (f), line 13

⁽⁵⁾ Exhibit: A-11 (JMS-6),pg. 3, column (f), line 13

SCHEDULE F-3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Test-Year Present and Proposed Revenue Detail
General Outdoor Lighting Service GL

Case No.: U-17882
Exhibit: S-6
Schedule F-3
Witness: Rivera
Date: December 4, 2015
Page: 6 of 9

Line No.	Description	(a) Billing	(b) Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed	(g) Difference	(h) Difference
		Quantity	Units	Rates	Revenues	Rates	Revenues	Revenues	Pct.
				\$/unit	\$000	\$/unit	\$000	\$000	%
	Delivery & Fuel								
1	Single Mantle	564	Lum.	15.00	\$ 8	11.00	\$ 6	\$ (2.26)	(26.7)
2	Multiple Mantle	204	Lum.	23.00	5	19.00	4	\$ (0.82)	(17.4)
3	Total Service (Delivery & Fuel)				<u>\$ 13</u>		<u>\$ 10</u>	<u>\$ (3.07)</u>	<u>(23.4)</u>

Note

		Monthly Luminaires	Annual Luminaires
	<u>Single Mantle</u>		
4	2.5 cubic feet, or less, per hour	47	564
	<u>Multiple Mantle</u>		
5	2.5 - 4.5 cubic feet per hour	17	204
		64	768
		Single Mantle	Multiple Mantle
6	Average number of hours per month	730	730
7	Hourly rated capacity of fixtures in cf	2.5	4.5
8	Monthly consumption in cf	1,825	3,285
9	Monthly consumption in Mcf	1.825	3.285
10	Cost of Gas per Mcf in this proceeding	\$ 3.5830	\$ 3.5830
11	Monthly Gas Cost per Luminaire	\$ 6.54	\$ 11.77

SCHEDULE F-3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Test-Year Present and Proposed Revenue Detail
Small Transport ST

Case No.: U-17882
Exhibit: S-6
Schedule F-3
Witness: Rivera
Date: December 4, 2015
Page: 7 of 9

Line No.	Description	(a) Billing Determinants		(c) Present		(e) Proposed		(g) Difference	
		Quantity	Units	Rates	Revenues	Rates	Revenues	Revenues	Pct.
				\$/unit	\$000	\$/unit	\$000	\$000	%
	Delivery								
1	Customer ⁽¹⁾	619	Mthly	621.50	\$ 4,617	\$580.00	\$ 4,308	\$ (308)	(6.7)
2	Contiguous Account ⁽²⁾	751	Mthly	-	-	-	-	-	NA
3	Distribution Mcf/mth ⁽³⁾	18,695	MMcf	0.9484	17,730	0.9765	18,256	526	3.0
	Authorized Tolerance Level ⁽⁴⁾								
4	6.5% ATL	1,678	MMcf	(0.0532)	(89)	(0.0498)	(84)	6	6.4
5	7.5% ATL	474	MMcf	(0.0266)	(13)	(0.0249)	(12)	1	6.4
6	8.5% ATL	16,072	MMcf	-	-	-	-	-	NA
7	9.5% ATL	-	MMcf	0.0266	-	0.0249	-	-	NA
8	10.5% ATL	471	MMcf	0.0532	25	0.0498	23	(2)	(6.4)
9	Total Delivery				<u>\$ 22,270</u>		<u>\$ 22,493</u>	<u>\$ 223</u>	<u>1.0</u>

	Average	
	Customers	Bills
Master	619	7,428
Contiguous	<u>751</u>	<u>9,012</u>
Total	1,370	16,440

⁽¹⁾ Exhibit: A-11 (JMS-10),pg. 2, column (h), line 14

⁽²⁾ Exhibit: A-11 (JMS-10),pg. 3, column (h), line 14

⁽³⁾ Exhibit: A-11 (JMS-6),pg. 1, column (h), line 13

⁽⁴⁾ Exhibit: A-11 (JMS-7), column (m)

SCHEDULE F-3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Test-Year Present and Proposed Revenue Detail
Large Transport LT

Case No.: U-17882
Exhibit: S-6
Schedule F-3
Witness: Rivera
Date: December 4, 2015
Page: 8 of 9

Line No.	Description	(a) Billing Determinants		(c) Present		(e) Proposed		(g) Difference	
		Quantity	Units	Rates	Revenues	Rates	Revenues	Revenues	Pct.
				\$/unit	\$000	\$/unit	\$000	\$000	%
	Delivery								
1	Customer ⁽¹⁾	98	Mthly	3,370.00	\$ 3,963	\$1,757.00	\$ 2,066	\$ (1,897)	(47.9)
2	Contiguous Account ⁽²⁾	460	Mthly	-	-	-	-	-	NA
3	Distribution Mcf/mth ⁽³⁾	19,873	MMcf	0.6186	12,294	0.8353	16,601	4,307	35.0
	Authorized Tolerance Level ⁽⁴⁾								
4	6.5% ATL	3,187	MMcf	(0.0532)	(170)	(0.0498)	(159)	11	6.4
5	7.5% ATL	184	MMcf	(0.0266)	(5)	(0.0249)	(5)	0	6.4
6	8.5% ATL	15,678	MMcf	-	-	-	-	-	NA
7	9.5% ATL	-	MMcf	0.0266	-	0.0249	-	-	NA
8	10.5% ATL	824	MMcf	0.0532	44	0.0498	41	(3)	(6.4)
9	Total Delivery				<u>\$ 16,126</u>		<u>\$ 18,545</u>	<u>\$ 2,419</u>	<u>15.0</u>

	Average	
	<u>Customers</u>	<u>Bills</u>
Master	98	1,176
<u>Contiguous</u>	<u>460</u>	<u>5,520</u>
Total	558	6,696

⁽¹⁾ Exhibit: A-11 (JMS-10),pg. 2, column (i), line 14

⁽²⁾ Exhibit: A-11 (JMS-10),pg. 3, column (i), line 14

⁽³⁾ Exhibit: A-11 (JMS-6),pg. 1, column (i), line 13

⁽⁴⁾ Exhibit: A-11 (JMS-7), column (m)

SCHEDULE F-3

MICHIGAN PUBLIC SERVICE COMMISSION

Case No.: U-17882

Consumers Energy Company
Staff Test-Year Present and Proposed Revenue Detail
Extra-large Transport XLT

Exhibit: S-6

Schedule F-3

Witness: Rivera

Date: December 4, 2015

Page: 9 of 9

Line No.	Description	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
		Billing	Determinants	Present		Proposed		Difference	
		Quantity	Units	Rates	Revenues	Rates	Revenues	Revenues	Pct.
				\$/unit	\$000	\$/unit	\$000	\$000	%
	Delivery								
1	Customer ⁽¹⁾	22	Mthly	8,792.00	\$ 2,321	\$10,505.00	\$ 2,773	\$ 452	19.5
2	Contiguous Account ⁽²⁾	232	Mthly	-	-	-	-	-	NA
3	Remote Meters ⁽³⁾	27	Mthly	70.00	23	70.00	23	-	-
4	Distribution Mcf/mth ⁽⁴⁾	37,887	MMcf	0.4868	18,443	0.6237	23,631	5,188	28.1
	Authorized Tolerance Level ⁽⁵⁾								
5	6.5% ATL	22,943	MMcf	(0.0532)	(1,221)	(0.0498)	(1,143)	78	6.4
6	7.5% ATL	1,020	MMcf	(0.0266)	(27)	(0.0249)	(25)	2	6.4
7	8.5% ATL	13,924	MMcf	-	-	-	-	-	NA
8	9.5% ATL	-	MMcf	0.0266	-	0.0249	-	-	NA
9	10.5% ATL	-	MMcf	0.0532	-	0.0498	-	-	NA
10	Total Delivery				<u>\$ 19,539</u>		<u>\$ 25,259</u>	<u>\$ 5,720</u>	<u>29.3</u>

	Average	
	<u>Customers</u>	<u>Bills</u>
Master	22	264
<u>Contiguous</u>	<u>232</u>	<u>2,784</u>
Total	254	3,048

⁽¹⁾ Exhibit: A-11 (JMS-10),pg. 2, column (j), line 14

⁽²⁾ Exhibit: A-11 (JMS-10),pg. 3, column (j), line 14

⁽³⁾ WP-JMS-113

⁽⁴⁾ Exhibit: A-11 (JMS-6),pg. 1, column (j), line 13

⁽⁵⁾ Exhibit: A-11 (JMS-7), column (m)

SCHEDULE F-4

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
 Staff Comparison of Present and Proposed Monthly Bills
 Residential Single Family Dwelling A
 (excluding income assistance)

Case No.: U-17882
 Exhibit: S-6
 Schedule F-4
 Witness: Rivera
 Date: December 4, 2015
 Page: 1 of 5

Line No.	Consumption	Present Net		Proposed Net		Difference		Proposed
		Monthly Bill		Monthly Bill		Amount	Percent	
	Mcf	\$		\$		\$	%	\$/Mcf
1	5	\$	42.93	\$	43.23	\$ 0.31	0.7	\$ 8.65
2	10		74.35		74.72	0.36	0.5	7.47
3	15		105.78		106.20	0.42	0.4	7.08
4	20		137.20		137.68	0.48	0.3	6.88
5	25		168.63		169.16	0.53	0.3	6.77
6	30		200.05		200.65	0.59	0.3	6.69
7	40		262.90		263.61	0.71	0.3	6.59

	Present	Proposed
Customer Charge (\$/Mth)	11.50	11.75
Distribution Charge (\$/Mcf)	2.7021	2.7135
GCR Factor (\$/Mcf)	3.5830	3.5830

SCHEDULE F-4

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
 Staff Comparison of Present and Proposed Monthly Bills
 Residential Single Family Dwelling A
 (including income assistance)

Case No.: U-17882
 Exhibit: S-6
 Schedule F-4
 Witness: Rivera
 Date: December 4, 2015
 Page: 2 of 5

Line No.	Consumption	Present Net		Proposed Net		Difference		Proposed
		Monthly Bill		Monthly Bill		Amount	Percent	
	Mcf	\$		\$		\$	%	\$/Mcf
1	5	\$	31.43	\$	31.48	\$ 0.06	0.2	\$ 6.30
2	10		62.85		62.97	0.11	0.2	6.30
3	15		94.28		94.45	0.17	0.2	6.30
4	20		125.70		125.93	0.23	0.2	6.30
5	25		157.13		157.41	0.28	0.2	6.30
6	30		188.55		188.90	0.34	0.2	6.30
7	40		251.40		251.86	0.46	0.2	6.30

	Present	Proposed
Customer Charge (\$/Mth)	11.50	11.75
Income Assistance (\$/Mth)	(11.50)	(11.75)
Distribution Charge (\$/Mcf)	2.7021	2.7135
GCR Factor (\$/Mcf)	3.5830	3.5830

SCHEDULE F-4

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Comparison of Present and Proposed Monthly Bills
General Small Service GS-1

Case No.: U-17882
Exhibit: S-6
Schedule F-4
Witness: Rivera
Date: December 4, 2015
Page: 3 of 5

Line No.	Consumption	Present Net		Proposed Net		Difference		Proposed
		Monthly Bill		Monthly Bill		Amount	Percent	
	Mcf	\$		\$		\$	%	\$/Mcf
1	2	\$	24.24	\$	26.47	\$ 2.23	9.2	\$ 13.23
2	10	\$	71.22	\$	73.47	2.25	3.2	7.35
3	15	\$	100.58	\$	102.84	2.26	2.2	6.86
4	25	\$	159.30	\$	161.59	2.29	1.4	6.46
5	40	\$	247.38	\$	249.71	2.33	0.9	6.24
6	50	\$	306.10	\$	308.46	2.36	0.8	6.17
7	80	\$	482.26	\$	484.70	2.44	0.5	6.06

	Present	Proposed
Customer Charge (\$/Mth)	12.50	14.72
Distribution Charge (\$/Mcf)	2.2890	2.2917
GCR Factor (\$/Mcf)	3.5830	3.5830

SCHEDULE F-4

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Comparison of Present and Proposed Monthly Bills
General Medium Service GS-2

Case No.: U-17882

Exhibit: S-6

Schedule F-4

Witness: Rivera

Date: December 4, 2015

Page: 4 of 5

Line No.	Consumption	Present Net Monthly Bill	Proposed Net Monthly Bill	Difference		Proposed Unit Cost
				Amount	Percent	
	Mcf	\$	\$	\$	%	\$/Mcf
1	100	\$ 584.92	\$ 580.74	\$ (4.18)	(0.7)	\$ 5.81
2	200	1,150.34	1,151.13	0.79	0.1	5.76
3	500	2,846.60	2,862.30	15.70	0.6	5.72
4	600	3,412.02	3,432.69	20.67	0.6	5.72
5	700	3,977.44	4,003.08	25.64	0.6	5.72
6	800	4,542.86	4,573.47	30.61	0.7	5.72
7	1,000	5,673.70	5,714.25	40.55	0.7	5.71

	Present	Proposed
Customer Charge (\$/Mth)	19.50	10.35
Distribution Charge (\$/Mcf)	2.0712	2.1209
GCR Factor (\$/Mcf)	3.5830	3.5830

SCHEDULE F-4

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Staff Comparison of Present and Proposed Monthly Bills
General Large Service GS-3

Case No.: U-17882

Exhibit: S-6

Schedule F-4

Witness: Rivera

Date: December 4, 2015

Page: 5 of 5

Line No.	Consumption	Present Net		Proposed Net		Difference		Proposed Unit Cost
		Monthly Bill		Monthly Bill		Amount	Percent	
	Mcf	\$		\$		\$	%	\$/Mcf
1	100	\$	1,042.40	\$	862.15	\$ (180.25)	(17.3)	\$ 8.62
2	200		1,508.00		1,358.07	(149.93)	(9.9)	6.79
3	500		2,904.80		2,845.83	(58.97)	(2.0)	5.69
4	600		3,370.40		3,341.75	(28.65)	(0.8)	5.57
5	700		3,836.00		3,837.67	1.67	0.0	5.48
6	800		4,301.60		4,333.59	31.99	0.7	5.42
7	1,000		5,232.80		5,325.43	92.63	1.8	5.33

	Present	Proposed
Customer Charge (\$/Mth)	576.80	366.23
Distribution Charge (\$/Mcf)	1.0730	1.3762
GCR Factor (\$/Mcf)	3.5830	3.5830

Request #: 291
Page 1 of 1

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/5/2015
NO. CLC-7
REQUESTED BY: Cindy L. Creisher
DATE OF RESPONSE: 10/15/15
RESPONDENT: Sarah H. Bowers

Question:

With reference to the testimony of Ms. Bowers and Company Exhibit A-14, Summary of Actual and Projected Gas Operations O&M Expenses:

3. Regarding Cross Bore Investigations:

- a. How many sewer lines were or are planned to be inspected in 2014 and 2015 to identify where cross bores may have occurred. Include the number of cross bores identified through those inspections for each year.
- b. How many sewer line inspections are projected to be required to be completed over the course of the 30-year program? How many inspections are to be completed in 2016 and each subsequent year of the program?
- c. Please identify the amount of expenses projected for each: inspection of sewer lines, remediation of conflicts, and records updates.

Answer:

3.
 - a. The Company inspected (investigated) 52 sewer leads in 2014 and identified 0 cross bores. The Company projection in this filing is to investigate 1,646 sewer leads in 2015. Thus far, 588 investigations have been completed in 2015 and the Company has identified one cross bore.
 - b. Over the course of the 30 year program the Company projects to inspect approximately 29,000 per year or 870,000 over 30 years. The projection in this filing was to inspect 29,000 in 2016.
 - c. The Company projected the cost per sewer lead inspected to be \$244. The remediation cost and record update costs are not included in this projection. Due to the unique nature of each conflict and lack of historical data the remediation costs and record update costs are uncertain at this time. The average number of conflicts found based on industry information is 1 per thousand investigations.

Request #: 292
Page 1 of 2

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/5/2015
NO. CLC-7
REQUESTED BY: Cindy L. Creisher
DATE OF RESPONSE: 10/21/15
RESPONDENT: Sarah H. Bowers

Question:

With reference to the testimony of Ms. Bowers and Company Exhibit A-14, Summary of Actual and Projected Gas Operations O&M Expenses:

4. Regarding ROW Clearing:

- a. Provide a list of pipelines including approximate location and mileage to be cleared in 2016.
- b. How many miles of transmission and distribution pipeline ROW were cleared by year from 2010 through 2015?
- c. How many miles of transmission pipeline are expected to be impacted in a 10-year cycle? Please identify the number of miles of transmission pipeline that is not expected to require the Company to perform ROW clearing.
- d. How many miles of distribution pipeline are expected to be impacted in a 10-year cycle? Please identify the number of miles of distribution pipeline that is not expected to require the Company to perform ROW clearing.

Answer:

4.

- a. The projection in this filing is to clear 180 miles of ROW per year and additional emergent and demand work miles. As part of this filing the Company did not prepare a list as described in this interrogatory.
- b. As explained in my direct testimony beginning on page 25, line 21, the Company has only been clearing necessary vegetation to complete inspections, perform integrity clearing for O&M inspection, and/or replacement of pipe and limited demand clearing for emergent work. Clearing for gas transmission and distribution lines has not occurred at a program level in over five years. Below is the 2011-2014 miles of work completed for transmission and HP/MP distribution lines for the work described above. Mileage cleared data is not available for 2010.

Miles of Demand & Emergent Work Clearing

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Distribution Pipe	30.7	13.3	8.7	6.2
Transmission Pipe	99.3	105.3	75.9	106.2

Request #: 292

Page 2 of 2

- c. As explained in my direct testimony, the projected test year amount of \$1,985,000 will permit the program clearing of approximately 180 miles of ROW to the full clearing specification width along with historical levels of emergent demand clearing projects annually. The majority of the clearing would be on the transmission system but may include Transmission Operated within the Company Distribution system (TOD) pipelines. Approximately 40% of the gas transmission ROW miles require clearing of woody vegetation based on recent inspections. Of the remaining 60% a portion of these miles require mowing of tall growing weeds and brambles to facilitate leak surveys.
- d. Distribution lines included in this program are limited to transmission pipeline operated by distribution (TOD) pipe as defined by the PHMSA. These segments are included in the 10 year cycle for gas transmission lines. The Company has not done an analysis of the TOD segments that do not require ROW clearing.

Request #: 272
Page 1 of 2

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/5/2015
NO. CLC-4
REQUESTED BY: Cindy L. Creisher
DATE OF RESPONSE: 10/22/15
RESPONDENT: Sarah H. Bowers

Question:

With reference to the testimony of Ms. Bowers and Company Exhibit A-23, Summary of Actual and Projected Gas Capital Expenditures – Regulatory Compliance Program,

1. Describe the scope of work to be completed in 2015 through 2019 for each of the programs detailed on Company Exhibit A-23. Provide further detail for any major projects included in any of these programs, including budgetary costs for those projects.

Answer:

1. The scope of work for each line with expenditures in 2015-2019 on Exhibit A-23 (SHB-10) is described below. The annual work in these programs is primarily emergent and is a result of ongoing assessments and inspections and is thus not typically planned far in advance of the work done.
 - Pipeline Integrity - T&S - This program involves Launcher and Receiver Installations, pipeline modifications to make a line piggable or for integrity purposes, and any remediation work associated with an Inline Inspection or Direct Assessment on Transmission and Storage pipelines over 50 feet in length. Major projects for 2015 are shown in the response to audit request #289. The annual costs for 2016-19 are a function of the number of miles, number of digs, seam types, location etc. and will not be known until the assessments are complete so there were no major projects included in the projections of this rate filing for those years. The Company response to MPSC Audit request #114 in this docket provided the 2017 – 2019 project plan for Pipeline Integrity –T&S .
 - PI Remediation (Distribution) - is pipeline integrity work associated with Direct Assessment for Transmission pipelines Operated by Distribution (TOD). These pipelines are operating over 20% of their specified minimum yield strength, classified as transmission (by federal law), and are subject to Transmission Integrity Management Program (TIMP) regulations. The expenditures associated with these projects include inspections and remediation, along with facility inspections and remediation costs. The annual costs are a function of the number of miles, number of digs, seam types, location etc., and there were no major projects identified or included in the projections of this rate filing.
 - Cathodic (Rectifiers, Mains, Services) - Distribution work associated with Corrosion Control Cathodic Protection including Rectifier Installations, recoating a pipeline over 100 feet, anode installations, and replacing services or mains to clear shorted sectors.

Request #: 272

Page 2 of 2

- Cathodic (T&S) - Transmission and Storage work associated with Corrosion Control Cathodic Protection including Rectifier Installations, recoating a pipeline over 100 feet, and Ultrasonic probe or corrosion coupon installation.
- Regulatory Base (Distribution) -- The projects in the regulatory base - distribution category include capital construction projects required to meet regulatory commitments and requirements. Included are “G Valve Projects” which are improvements to gas regulation that do not have readily accessible G valves (or emergency valves). The projects in this filing are related to the G Valve installation program. This program began in 2012 and must be completed by year-end 2016. The objective is to install an inlet valve to each of our distribution regulating stations so it can be shut off remotely in case of emergency. See the response to MPSC Audit Request #276 contains information concerning projects in this program.
- Regulatory Base (T&S) - This program includes plant asset replacements, equipment installations, removal, or replacement to meet regulatory, compliance and safety requirements. Typical projects funded in this program: Pressure Limiting Devices (PLD's), relief valves, lead based paint and asbestos removal, spill containment, fire eye and firegate system upgrades, observation well conversion, spill containment, other material condition situations that could create a regulatory violation. Environmental compliance projects are included in this program such as noise controls and emission controls. Major projects for 2015-2019 are shown below. This program also contains numerous smaller scale and emergent projects.

Major Projects (\$000)	2015	2016	2017	2018	2019
Overisel, install Thermal Oxidizer		0	60	840	
Overisel -Blowdown/Vent Silencers Install	1059	1124			
Ray-Plant 2 Support Restoration		525	437		
Northville-Compressor Dschrg Chk Vlv Inst (RCA)	883				
Ray-Plant 3 Noise	1412				
Fire Eye Program (Multiple Locations)	932				
Overisel-Compressor Dschrg Chk Vlv Inst	1259				

- MAOP Compliance Distribution, MAOP Compliance Pipeline, MAOP Compliance Storage – The MAOP Programs were created to remediate those segments of the High Pressure Distribution System, Transmission Pipelines, and Storage laterals that are missing complete documentation regarding pressure test or related information to validate the published MAOP based on current code requirements. The capital portion of the remediation plan is to replace those segments that have missing documentation, where it is not feasible to re-test due to the piping configuration, customer interruption or other issues. See the responses to MPSC Staff Audit Requests #114 and #275 in this docket for major projects in this program.
- Meters - Replacements - this program includes the purchase of meters to be utilized in the meter routine program, which involves the swapping out of customer meters in order to test them for accuracy and ensure that the equipment in the field is measuring properly. This would also include customer generated work such as meter exchanges and sets at existing premises. - Please refer to the response to MPSC Staff Audit question #244 in this docket which fully explains the Company meter purchase programs.

Request #: 275
Page 1 of 2

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/5/2015
NO. CLC-4
REQUESTED BY: Cindy L. Creisher
DATE OF RESPONSE: 10/21/15
RESPONDENT: Sarah H. Bowers

Question:

With reference to the testimony of Ms. Bowers and Company Exhibit A-23, Summary of Actual and Projected Gas Capital Expenditures – Regulatory Compliance Program,

4. Page 41 of Ms. Bower's testimony states, "The MAOP Projects address resolution of documentation issues and system changes as agreed upon with the MPSC Staff."
 - a. Please provide a status update on the documentation issues and system changes that are included in the MAOP Projects, including a description of the scope of the work to be completed and the year that all MAOP Projects will be completed.
 - b. Include a list of projects that involve pipeline replacement or retesting. Include pipeline or segment identification, date of pipeline installation for segments with MAOP issue identified, MAOP issue identified, estimate of capital expenditure to complete, and project completion year.

Answer:

4.

a. b.

The capital expenditures in the referenced program are for replacement of pipeline segments. Replacement of portions of Lines 1012, 1014, and 1040 were proposed as partial resolution to the June 2, 2010 MPSC letter of probable violation of the Michigan Gas Safety Standards (MGSS) Rule 192.619, *Maximum allowable operating pressure: steel or plastic pipelines* (MPSC Case 2010-04JA). Consumers Energy provided an initial response to this probable violation on July 19, 2010 recognizing the MAOP documentation for portions of Lines 1012, 1014 and 1040 did not meet the date requirements specified in Rule 192.619(a)(3). The Consumers Energy July 19, 2010 response letter originally proposed a waiver request as resolution to the MAOP documentation date discrepancies for these lines. Subsequent discussions with MPSC Gas Safety Staff determined that a waiver would not be an option to resolve these MAOP documentation issues at that time, due to a temporary freeze in waivers. Accordingly, Consumers Energy agreed to evaluate alternative measures to address MAOP documentation discrepancies and provide a revised response by March 29, 2013. On March 29, 2013 Consumers Energy submitted a proposed remediation plan to replace the bare steel and unknown vintages portions of Lines 1012, 1014 and 1040 by 2017, with resolution to MAOP documentation discrepancies for the remaining portions of

Request #: 275

Page 2 of 2

these lines to be addressed in accordance with future federal rules to address incomplete MAOP records. This proposal is shown in the attachment to this response. While the Company has not received a formal response to the July 19, 2010 letter, the MPSC Gas Safety Staff provided clear direction to propose a remediation plan for distribution lines 1012, 1014, 1040 to address MAOP records for these lines that resulted in the March 29, 2012 letter. The chart below shows the MAOP projects that all involve pipe replacement and the amounts and replacement year projected in this filing as filed July 17, 2015.

Project No.	Project Name	Pipe Vintage	Total Cost	Segment Length (ft)	Year of Replacement
5021	Line 1040 (Project #1)	1920-1929 and 1940-1950	\$2,557,720	11,129	2014
5085	Line 1014 - Project #4 (Orchard Lk Rd)	1920-1929	See Note 1	3,868	2014
5025	Line 1040 (Project #3)	1920-1929	\$785,114	1,097	2015
5026	Line 1040 (Project #4)	1920-1929 and 1940-1950	\$1,776,007	3,130	2015
5027	Line 1040 (Project #5)	1920-1929 and 1930-1939	\$6,811,523	14,000	2015
5121	Line 1014 - Project #9 (Columbia Ave)	1940-1950	\$2,767,857	5,700	2016
4964	Line 1012 - Project #1 South Blvd	1940-1950	\$3,428,646	6,502	2016
4965	Line 1012 - Project #2(Franklin Rd)	1950	\$166,706	16	2016
5119	Line 1014 - Project #7 (Golf Dr.)	1940-1950	\$397,158	620	2016
5120	Line 1014 Project #8 (Golf Dr & Bagley St)	1940-1950	\$1,309,399	2,950	2016
5023	Line 1040 (Project #2)	1920-1929 and 1930-1939	\$2,972,502	5,550	2016
5082	Line 1014-Project #3 (Orchard Lk Rd)	1920-1929	\$2,117,419	3,934	2016
5028	Line 1040 (Project #6)	1940-1950	\$244,153	250	2017
5029	Line 1040 (Project #7)	1920-1929	\$330,387	420	2017
5072	Line 1014 - Project #1 (Orchard Lk Rd City Gate	1920-1929	\$575,892	688	2017
5073	Line 1014 - Project #2 (Orchard Lake Rd)	1920-1929	\$1,034,302	2,184	2017
5114	Line 1014 - Project #5 (Long Lake Rd)	1940-1950	\$3,804,774	7,400	2017
5117	Line 1014 - Project #6 (Middlebelt Rd)	1940-1950	\$1,675,432	3,200	2017
Note 1: The MAOP segment identified fell within the scope of a larger EIRP project completed in 2014.					

U-17882
#275
Page 1 of 3



A CMS ENERGY COMPANY

March 29, 2013

Mr. David Chislea
Michigan Public Service Commission
4300 W. Saginaw Highway
PO Box 30221
Lansing, MI 48909-7721

RE: Non-Compliance 2010-04JA – Lines 1012, 1014, and 1040 Remediation Plan

Mr. Chislea:

This letter proposes a remediation plan to address Maximum Allowable Operating Pressure (MAOP) documentation issues for Consumers Energy gas distribution lines, designated as Lines 1012, 1014 and 1040, cited in Non-compliance 2010-04JA.

Background

On July 19, 2010 Consumers Energy provided written response to Michigan Public Service Commission (MPSC) June 2, 2010 letter of probable violation of Michigan Gas Safety Standard (MGSS) Rule 192.619 entitled, "Maximum allowable operating pressure: steel or plastic pipelines." The July 19, 2010 response letter recognized MAOP documentation for portions of Lines 1012, 1014 and 1040 did not meet Rule 192.619(a)(3) requiring operators to limit MAOP to the highest actual operating pressure between July 1, 1965 and July 1, 1970. MAOP documentation of the highest actual operating pressure exists for these three lines; however, the dates of this documentation are a few months outside of the July 1, 1965 to July 1, 1970 dates stipulated in 192.619(a)(3).

Consumers Energy's July 19, 2010 letter proposed submittal of a waiver request as resolution to MAOP documentation issues for Lines 1012, 1014 and 1040. Subsequent discussions with MPSC Gas Safety Staff (Staff) determined a waiver request would not be considered a viable option to resolve MAOP documentation issues. Accordingly, Consumers Energy agreed to evaluate alternative measures to resolve MAOP documentation issues for these three lines by March 29, 2013.

Remediation Plan

Consumers Energy is proposing a phased remediation plan for Lines 1012, 1014, and 1040. This proposed phased remediation plan, as outlined in herein, is consistent with risk-based pipe replacement principles utilized for both the Distribution Integrity Management Program (DIMP) and Enhanced Infrastructure Replacement Program (EIRP). In the first phase of the proposed remediation plan, replacement of bare steel pipe segments and pipe segments with unknown installation dates for each of these lines will be completed. Bare steel and unknown vintage pipe segments are generally considered as higher-risk piping under DIMP. Lines 1012, 1014, and 1040 are comprised of multiple pipe segments of bare steel installed prior to approximately 1950. The table provided on the last page of this letter summarizes the location, MAOP basis history, and total and proposed replacement lengths for each of

the subject lines. Replacement of the bare steel and unknown vintage pipe segments for Lines 1012, 1014 and 1040 will be completed by December 31, 2017.

The remaining pipe segments comprising Lines 1012, 1014, and 1040 are coated and wrapped steel (CW-S) segments. These remaining segments do not represent a risk to the integrity of the distribution system and have been safely operated since the highest actual operating pressure was established over 40 years ago. Federal rulemaking, pursuant to the Section 23 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, is expected later in 2013 and is anticipated to provide measures to address MAOPs established under 192.619(a)(3). In consideration of pending rulemaking, Consumers Energy requests the MSPC defer remediation on the remaining CW-S segments comprising Lines 1012, 1014, and 1040 until a time when alternatives consistent with future operating requirements can be fully evaluated. Consumers Energy maintains that continued operation of Lines 1012, 1014 and 1040 within the normal range of operating pressures does not constitute a threat to the integrity of the distribution system.

In summary, Consumers Energy is requesting approval to proceed with a phased approach to address MAOP documentation for Lines 1012, 1014 and 1040. The first phase of this remediation plan consists of replacement of bare steel and unknown vintage pipe line segments by December 31, 2017. The second phase of this remediation plan will be finalized at a later date following evaluation of potential alternatives pursuant to expected federal rules for pipe segments with MAOPs previously established under 192.619(a)(3).

If you have any questions or comments regarding the phased remediation approach for Lines 1012, 1014 and 1040, please feel free to contact me.

Thank you,



Tracy A. Goble
Manager of Regulatory Compliance
Consumers Energy
1945 W Parnall Road, P23-421
Jackson, MI 49201
517.768.3187
tracy.goble@cmsenergy.com

CC: GJRochow, P26-336B
MAKirkland, P26-336A
MPPalkovich, P23-100
MRomein, Livonia
PMWolven, Flint
AMChichester, P23-118
LAFobes, P14-201
NMiller, MPSC
JLivingston, MPSC

Table 1. Lines 1012, 1014 and 1040 Information Summary

Line Number	Field Area	Current MAOP (psig)	Historical Operating Test (psig)	Historical Operating Test Date	Length of Line ⁱ (miles)	Length of Bare Steel Segments ⁱⁱ
1012	Oakland	300	325	12/01/1964 10/30/1970	12.0	Approximately 1 mile
1014	Oakland	300	325	12/01/1964 10/30/1970	19.4	Approximately 6 miles
1040	Mid-State and Wayne	400	400	10/20/1970	16.3	Approximately 6 miles

ⁱ Total length of segments listed corresponds to operating test date provided in the adjacent column. Pipe lengths listed above were obtained from GIS data in 2010. Actual pipe segment lengths installed may have changes slightly due to physical system changes. There are segments within each of these lines (and not reported in the lengths in this column) that were installed after July 1970 of which pressure test documentation exists to establish the MAOP in accordance with 192.619(a)(2) requirements.

ⁱⁱ Actual replacement pipe lengths for the first phase of the proposed remediation plan may exceed the mileage provided in this column based on field and construction conditions.

Request #: 304
Page 1 of 2

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/26/2015
NO. CLC-9
REQUESTED BY: Cindy L Creisher
DATE OF RESPONSE: 11/19/15
RESPONDENT: Sarah H. Bowers

Question:

With reference to audit response #275 regarding the MAOP projects included in the Regulatory Compliance Program:

3. For each project detailed in audit response #275, please provide the following additional detail (provide the completed Excel spreadsheet with response):
 - a. The normal winter range of operating pressures
 - b. The normal summer range of operating pressures
 - c. The design pressure of the weakest element in the segment determined in accordance with Rule 192.619(a)(1)
 - d. The pressure obtained by dividing the pressure to which the segment was tested after construction by the appropriate factor in accordance with Rule 192.619(a)(2). Include the date of the test.
 - e. The highest actual operating pressure to which the segment was subjected between July 1, 1965, and July 1, 1970, in accordance with Rule 192.619(a)(3)
 - f. The pressure determined by the company to be the maximum safe pressure after considering the history of the segment in accordance with Rule 192.619(a)(4)
 - g. For each of the pressures provided in (c) through (f), what is the calculated maximum send out or daily volume associated with each pressure?
 - h. Based on the peak day on each of the systems included in the list of projects for MAOP compliance, what is the maximum send out or daily volume requirement for each system?

Answer:

3. The information requested is not readily available for the specific areas (projects) shown in the response to audit #275. The responses below pertain to the entire lines.
 - a. The attachment to audit #305 contains the information for the entire lines shown in the response to audit #275 from our most recent system planning model.
 - b. The attachment to audit #305 contains the information for the entire lines shown in the response to audit#275, from our most recent system planning model.
 - c. This information is not readily available. To obtain this information would require extensive research of each of the design elements and materials constructed for each of the work orders along the line. It would take an indeterminate amount of time to research this information. If the Staff would like the Company to continue to pursue the rest of this information, please respond in the affirmative and the Company will endeavor to secure the resources necessary to provide this information.

Request #: 304
Page 2 of 2

- d. This information is not readily available. To obtain this information would require extensive research of each construction package from the original installation for each of the work orders along the line. It would take an indeterminate amount of time to research this information. If the Staff would like the Company to continue to pursue the rest of this information, please respond in the affirmative and the Company will endeavor to secure the resources necessary to provide this information. The factor for class three and class four areas is 1.4 for any pipeline installed before 1970.
- e. For line 1012 - the highest operating pressure between July 1, 1965 and July 1, 1970 occurred on October 27, 1969 and November 1969 at 275 psig. The projects shown in the response to audit #275 are required to resolve the noncompliance that the documented highest actual operating pressure between July 1, 1965 and July 1, 1970 (275 psig) but which is below the operating MAOP required to serve our customers on peak day. An operational pressure test, under normal operating condition, did occur on October 30, 1970 for approximately four hours at a pressure of 325 psig.

For line 1014 - the highest operating pressure between July 1, 1965 and July 1, 1970 occurred on October 27, 1969 at 275 psig. The projects shown in the response to audit #275 are required to resolve the noncompliance that the documented highest actual operating pressure between July 1, 1965 and July 1, 1970 (275 psig) but which is below the operating MAOP required to serve our customers on peak day. An operational pressure test, under normal operating condition, did occur on December 1, 1964 and on October 30, 1970 at a pressure of 325 psig.

For line 1040 - the highest operating pressure between July 1, 1965 and July 1, 1970 occurred on December 1, 1966 at 375 psig. The projects shown in the response to audit #275 are required to resolve the noncompliance that the documented highest actual operating pressure between July 1, 1965 and July 1, 1970 (375 psig) but which is below the operating MAOP required to serve our customers on peak day. An operational pressure test, under normal operating condition, did occur on October 20, 1970 at a pressure of 400 psig.

- f. The attachment to audit #305 shows the pressures which the Company has safely operated these lines. Based on the available operational pressure test documentation and operating history, these lines have been safely operated since the highest actual operating pressure was established over 40 years ago. Consumers Energy maintains that continued operation of Lines 1012, 1014, and 1040 within the normal range of operating pressures does not constitute a threat to the integrity of the distribution system. MAOP documentation of the highest actual operating pressure existing for these three lines, however, are a few months outside of the July 1, 1965 to July 1, 1970 dates stipulated in 192.619(a)(3) as noted in sub-part (e) above.
- g. Until the additional research mentioned above is completed, the daily send out cannot be calculated for part c and d.
- h. Below are the summer and winter daily maximum flow rate for lines 1012, 1014, and 1040.
- 1012 = 44 MMCFD at 285 psig / 28 MMCFD at 250 psig
 - 1014 = 85 MMCFD at 290 psig / 52 MMCFD at 290 psig
 - 1040 = 52 MMCFD at 395 psig / 31 MMCFD at 345 psig

Request #: 305

Page 1 of 3

MPSC AUDIT REQUEST

CASE NO: U-17882

DATE OF REQUEST: 10/26/2015

NO. CLC-9

REQUESTED BY: Cindy L Creisher

DATE OF RESPONSE: 11/19/15

RESPONDENT: Sarah H. Bowers

Question:

With reference to audit response #275 regarding the MAOP projects included in the Regulatory Compliance Program:

4. For the remaining segments comprising Lines 1012, 1014, and 1040 that are coated and wrapped steel, as described in the March 29, 2013 letter provided as part of audit response #275, please provide the following ((provide the completed Excel spreadsheet with response):
 - a. The normal winter range of operating pressures
 - b. The normal summer range of operating pressures
 - c. The design pressure of the weakest element in the segment determined in accordance with Rule 192.619(a)(1)
 - d. The pressure obtained by dividing the pressure to which the segment was tested after construction by the appropriate factor in accordance with Rule 192.619(a)(2). Include the date of the test.
 - e. The highest actual operating pressure to which the segment was subjected between July 1, 1965, and July 1, 1970, in accordance with Rule 192.619(a)(3), if applicable
 - f. The pressure determined by the company to be the maximum safe pressure after considering the history of the segment in accordance with Rule 192.619(a)(4)
 - g. If any of the calculated pressures in (c) through (f) are unknown or do not meet the desired MAOP requirements, please describe what issues restrict the pressure.

Answer:

4. The information requested in this audit that is readily available is shown on the attachment. It would take an indeterminate amount of time to research this information for all the remaining segments of Lines 1012, 1014, and 1040. If the Staff would like the Company to continue to pursue the rest of this information, please respond in the affirmative and the Company will endeavor to secure the resources necessary to provide this information.
 - a. The attachment to audit #305 contains the information from our most recent system planning model.
 - b. The attachment to audit #305 contains the information from our most recent system planning model.
 - c. The information requested is not readily available. To obtain this information would require extensive research of each of the design elements and materials constructed for each of the work orders along the line. It would take an indeterminate amount of time to research this information. If the Staff would like the Company to continue to pursue the rest of this information, please respond in the affirmative and the Company will endeavor to secure the resources necessary to provide this information.

Request #: 305
Page 2 of 3

- d. The information requested is not readily available. To obtain this information would require extensive research of each construction package from the original installation for each of the work orders along the line. It would take an indeterminate amount of time to research this information. If the Staff would like the Company to continue to pursue the rest of this information, please respond in the affirmative and the Company will endeavor to secure the resources necessary to provide this information. The factor for class three and class four areas is 1.4 for any pipeline installed before 1970.
- e. The information requested is not readily available. To obtain this information by individual segments would require additional research and would take an indeterminate amount of time to research this information. If the Staff would like the Company to continue to pursue the rest of this information, please respond in the affirmative and the Company will endeavor to secure the resources necessary to provide this information.

For line 1012- the highest operating pressure between July 1, 1965 and July 1, 1970 occurred on October 27, 1969 and November 1969 at 275 psig. The projects shown in the response to audit #275 are required to resolve the noncompliance that the documented highest actual operating pressure between July 1, 1965 and July 1, 1970 (275 psig) but which is below the operating MAOP required to serve our customers on peak day. An operational pressure test, under normal operating condition, did occur on October 30, 1970 for approximately four hours at a pressure of 325 psig.

For line 1014 - the highest operating pressure between July 1, 1965 and July 1, 1970 occurred on October 27, 1969 at 275 psig. The projects shown in the response to audit #275 are required to resolve the noncompliance that the documented highest actual operating pressure between July 1, 1965 and July 1, 1970 (275 psig) but which is below the operating MAOP required to serve our customers on peak day. An operational pressure test, under normal operating condition, did occur on December 1, 1964 and on October 30, 1970 at a pressure of 325 psig.

For line 1040 - the highest operating pressure between July 1, 1965 and July 1, 1970 occurred on December 1, 1966 at 375 psig. The projects shown in the response to audit #275 are required to resolve the noncompliance that the documented highest actual operating pressure between July 1, 1965 and July 1, 1970 (375 psig) but which is below the operating MAOP required to serve our customers on peak day. An operational pressure test, under normal operating condition, did occur on October 20, 1970 at a pressure of 400 psig.

- f. The attachment to audit #305 shows the pressures which the Company has safely operated these lines. Based on the available operational pressure test documentation and operating history, these lines have been safely operated since the highest actual operating pressure was established over 40 years ago. Consumers Energy maintains that continued operation of Lines 1012, 1014, and 1040 within the normal range of operating pressures does not constitute a threat to the integrity of the distribution system. MAOP documentation of the highest actual operating pressure existing for these three lines, however, are a few months outside of the July 1, 1965 to July 1, 1970 dates stipulated in 192.619(a)(3) as noted in sub-part (e) above.
- g. Lowering the MAOP of the 1012, 1014, and 1040 lines to the highest operating pressure between July 1, 1965 and July 1, 1970 would result in the Detroit metropolitan high pressure system having a low point of 136 psig and multiple main segments with pressures lower than 200psig. These pressures are below the minimum required pressure at many regulator stations within the metro system, thus negatively impacting our ability to deliver gas to customers and potential for outages.

Request #: 305
Page **3** of **3**

Additionally, there may be a need to segregate the systems or run the risk of exceeding MAOP during warmer weather.

Project Name	4(a)	4(b)	4(c)	4(d)			4(e)	4(f)
	Normal winter range of operating pressure (psig)	Normal summer range of operating pressure (psig)	Design pressure 192.619(a)(1) (psig)	Test pressure 192.619(a)(2) (psig)	Class Location Factor 192.619(a)(2)	Test Pressure / Factor 192.619(a)(2) (psig)	Highest actual pressure 192.619(a)(3) (psig)	Safe operating pressure 192.619(a)(4) (psig)
Line 1012	285	250	not readily available		1.4			300
Line 1014	290	250	not readily available		1.4			300
Line 1040	395	345	not readily available		1.4			400
Comments	This is the winter CG presure setting feeding this line. Due to pressure drop the pressure will not be this high throughout the entire system but varies based on load	This is the summer CG presure setting feeding this line. Due to pressure drop the pressure will not be this high throughout the entire system but varies based on load			Assumed class 3 and 4 for majority of line installed before 1970			This is the system MAOP.

Request #: 306
Page 1 of 2

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/26/2015
NO. CLC-9
REQUESTED BY: Cindy L Creisher
DATE OF RESPONSE: 11/12/15
RESPONDENT: Sarah H. Bowers

Question:

With reference to audit response #275 regarding the MAOP projects included in the Regulatory Compliance Program:

5. For each project detailed in audit response #275:
 - a. Based on the copy of the March 29, 2013 letter provided as part of audit response #275, confirm the material type of the segment is bare steel (provide material type if not bare steel) and if necessary, provide other reason for considering the segment to be high risk.
 - b. Provide the current risk ranking for each of the pipeline segments included in the list of MAOP projects provided in audit response #275.
 - c. Provide the high and low risk ranking levels for the projects included in the 2015 EIRP.
 - d. Provide the high and low risk ranking levels for the projects planned to be included in the 2016 EIRP.
 - e. Provide the high and low risk ranking levels for the projects expected to be included in the 2017 EIRP.
 - f. Provide the overall high and low risk rankings for risk all currently ranked pipeline segments

Answer:

5.
 - a. As stated in the letter provided in the response to audit #275, there are bare steel and other unknown vintage pipe segments.
 - b. MAOP project planning was not based on risk ranking, but rather replaced due to the documentation issues mentioned in the letter.
 - c. See attached.
 - d. The Company will be providing the 2016 risk rankings per the order in MPSC Case No. U-17643 in that docket by December 31, 2015 when the plan is finalized. Filing the risk ranking of future projects before the annual plans have been finalized may cause undue public concern.
 - e. EIRP projects are selected using a computer risk model coupled with Subject Matter Expert (SME) review. Due to the fact that piping system risk characteristics can change from year to year the Company only selects projects one year in advance. The risk model will be run again in the spring of 2016 to select 2017 projects. This process will be repeated each year until we have eliminated the targeted EIRP pipe from our gas system.
 - f. The information requested in this audit is too voluminous to provide in a response as it is contained within the Company's GIS based software called Mains Replacement Prioritization model. The model does not contain plastic pipe. Consumers Energy would

Request #: 306
Page 2 of 2

like to offer to the MPSC Staff the opportunity to review the model at the Company's
Parnall complex.

U-17882 MPSC Staff Audit #306

Attachment

DAPP#	Srv Area	2015 Project Name	Total Est.	Reason for Project Selection	Total Pipe Retired	CI	Coated/Wrappe d	Baresteel	Threaded	Wrought Iron	X-Tube	Copper	Plastic	Code 3	L Side (SVC)	S Side (SVC)	Tie-Over
4697	Eastern	Josephine-Odette-Stockdale St (SME)	\$319,996	SME	12,917	12,796	-	99	-	-	-	-	22	8,050	47	67	68
8082	Eastern	Lapeer Rd TOD	\$4,664,931	SME - Related to Pipeline Integrity Digs	19,825	-	16,472	3,353	-	-	-	-	-	-	-	-	-
8557	Eastern	Franklin Ave	\$484,424	SME	3,020	2,180	-	840	-	-	-	-	-	-	27	20	-
8553	Bay Central	Mott & Weadock St	\$159,120	SME	953	953	-	-	-	-	-	-	-	-	3	2	3
5122	Macomb	Flower, Fern, Rosebud, Phlox, Forest, Bell, Stephens (MRP# 6)	\$2,228,917	1	12,529	-	2,095	10,434	-	-	-	-	-	-	204	201	-
2088	Royal Oak	(SME) Southfield Road	\$992,744	SME	4,905	-	1,645	3,140	-	-	-	120	-	-	8	31	25
7466	MidState	Mt Hope Ave	\$1,517,324	SME - Related to Augment Project	5,789	5,041	748	-	-	-	-	-	-	-	-	30	43
6775	Macomb	Cushing, Donald, Rausch, David, Saxony MRP#10	\$5,770,637	4, 12	33,575	-	3,478	29,427	670	-	-	-	-	-	532	626	-
4214	Southwestern	CI Replacement Phase 3 - Cork & Emerald	\$1,769,757	SME	17,410	6,910	7,815	2,685	-	-	-	-	-	-	112	112	-
2123	Royal Oak	(SME) W 12 Mile Rd-Woodward to Crooks	\$2,340,657	SME	6,650	-	6,650	-	-	-	-	-	-	6,650	65	65	-
4913	Southwestern	W Michigan Ave at Burrows (MRP#31)	\$153,518	31	1,115	470	535	-	-	-	-	-	110	460	1	-	1
4817	Royal Oak	(MRP#24) George and Muir Ave	\$700,012	3	6,889	-	746	5,516	627	-	-	-	-	-	44	88	20
4218	Southwestern	CI Replacement Phase 4 - Portage & Cameron	\$1,700,663	SME	15,085	14,665	420	-	-	-	-	-	-	-	159	159	-
4956	Royal Oak	(SME) Trafford Rd	\$205,827	SME	703	-	-	703	-	-	-	-	-	-	15	9	3
4620	MidState	Wesley Place (MRP)	\$457,883	SME - Related to water infiltration	1,039	708	210	-	-	-	-	-	121	-	5	10	7
6722	Royal Oak	(SME) Pembroke EIRP	\$1,930,109	5	10,538	-	-	-	-	10,258	-	-	280	-	160	143	33
4205	Eastern	(Phase 5) W Atherton Rd Station (SME)	\$2,575,339	SME - Related to water infiltration	11,399	11,222	-	177	-	-	-	-	-	-	147	132	6
8081	MidState	M-71	\$1,612,047	SME - Unable to repair leak	7,000	-	-	7,000	-	-	-	-	-	-	-	-	-
6767	Macomb	Garfield, Utica, Roemary, Gordon, Kingston, Erin MRP#65	\$3,585,182	22	22,995	-	9,183	8,485	5,284	-	-	-	43	-	166	212	-
6951	Royal Oak	Pontiac Cast Iron S.E. Woodward Ave - Part 1	\$6,501,725	SME - Related to water infiltration	48,980	41,333	2,380	2,886	-	-	-	-	2,381	-	208	233	149
4539	Bay Central	Columbian-SME	\$578,684	SME	4,697	3,645	930	-	-	-	-	-	122	-	37	32	-
2089	Royal Oak	(SME) S Campbell Rd	\$2,009,325	SME	4,375	-	-	4,375	-	-	-	-	-	-	25	37	46
4535	Bay Central	Main St - SME	\$323,101	SME	2,804	-	1,031	-	1,773	-	-	-	-	-	6	11	16
6846	Macomb	Boulder, Pleasant, Melrose, etc. MRP#9 ph.2	\$2,259,048	4, 12	15,432	-	-	13,721	1,711	-	-	-	-	-	220	284	-
4621	MidState	W. Ionia St, Carey St, Bartlett St (MRP)	\$441,454	SME	1,440	630	-	-	-	690	-	-	120	-	9	6	31
8050	Bay Central	13th, 14 th, 15 th	\$523,514	SME - Water Issues winter of 2014-15	4,686	4,142	544	-	-	-	-	-	-	-	42	43	-
5106	MidState	E. Willard Ave. & S. Park Blvd. (SME)	\$243,651	SME	1,170	1,140	-	-	-	-	-	-	30	-	-	18	11
6798	MidState	Lansing and Cross (SME)	\$1,419,436	SME	6,168	3,726	309	944	-	913	-	-	276	450	7	53	68
4850	Bay Central	Franklin Street - 2014 MRP #115	\$380,994	SME - Water issues winter of 2014-15	2,548	2,384	101	-	-	-	-	-	63	-	12	21	4
6697	Macomb	Yale, Erben, Alexander, Centennial, Walton, Manhatan MRP#7	\$3,174,211	7	19,627	-	4,238	8,831	6,291	-	-	-	267	-	276	293	-
4979	Royal Oak	(MRP#9) Brockton, Dallas, Barrett	\$1,354,880	9	8,740	-	-	8,610	-	-	-	130	-	-	145	135	33
6723	Royal Oak	(MRP) Linwood Ave EIRP	\$1,930,783	8	10,518	-	-	-	10,518	-	-	-	-	-	134	167	48
4633	Cascades	M-50 / Chicago Blvd - East of Evans (SME)	\$1,612,447	SME	10,050	-	200	-	9,850	-	-	-	-	-	35	35	30
5924	Eastern	Carpenter Rd Phase 1 (SME)	\$1,218,675	SME	15,112	4,515	5,084	465	1,820	-	-	-	3,228	-	30	68	28
1699	Bay Central	CSX RR at TRW	\$721,206	SME	1,847	-	678	1,169	-	-	-	-	-	-	-	-	1
6596	Howell	Kissane Ave (SME)	\$308,088	SME	1,355	-	-	285	1,070	-	-	-	-	-	6	15	-
5126	Macomb	Sherman, Sarsfield, Marie MRP#114	\$764,685	SME	9,751	-	-	9,751	-	-	-	-	-	-	99	75	129
6840	Eastern	Carpenter Rd Phase 2 (SME)	\$907,831	SME	7,245	7,245	-	-	-	-	-	-	-	-	7	24	22
4907	Bay Central	W End, Iowa and Orchard St - SME	\$251,569	SME	2,408	-	535	-	1,873	-	-	-	-	-	8	13	10
4219	Southwestern	CI Replacement Phase 5 - Palmer & Cameron (MRP# 166)	\$1,573,023	SME	13,575	13,025	550	-	-	-	-	-	-	-	126	126	-
4912	Southwestern	Jefferson (MRP#123)	\$71,132	SME	850	800	-	-	-	-	-	-	50	-	-	3	3
6841	Eastern	Carpenter Rd Phase 3 (SME)	\$833,353	SME	7,590	1,700	2,120	1,745	995	-	-	-	1,030	-	17	25	10
5408	Bay Central	Tittibawassee River Xing at the Tridge	\$1,081,582	SME - Related to Pipeline Integrity Digs	1,698	-	620	1,078	-	-	-	-	-	-	-	3	-
5007	Royal Oak	(MRP#35) Borgman Ave & Talbot Ave	\$1,114,392	35	9,586	-	-	7,102	2,484	-	-	-	-	1,910	111	37	90
8885	Wayne	Newberg Rd Dam HP	\$1,156,790	SME - Related to Pipeline Integrity Digs	1,823	-	1,823	-	-	-	-	-	-	-	-	-	-
4985	Southwestern	Bond & Michigan (MRP#129	\$234,015	SME	1,998	1,872	126	-	-	-	-	-	-	-	14	4	5
4909	Bay Central	Iowa Street - SME	\$245,536	SME	1,483	-	661	-	822	-	-	-	-	-	9	11	15
6774	Macomb	Crescentwood, Chestnut, Ash, Virginia MRP#9	\$2,271,236	4, 12	13,843	-	2,329	9,933	1,393	-	-	-	188	-	197	182	-
4611	Southwestern	St Joseph & Brown St (SME MRP# 198)	\$319,996	SME	2,863	-	523	102	2,238	-	-	-	-	-	11	13	14
9686	Eastern	Walker St Mt Morris	\$214,620	SME - Leak compliance date driven	1,620	-	-	1,170	450	-	-	-	-	-	7	10	-
9668	Macomb	Benjamin St	\$445,704	SME	2,027	-	691	1,336	-	-	-	-	-	-	11	31	-
			\$69,655,773		432,245	141,102	74,947	136,032	57,484	14,099	-	250	8,331	17,520	3,504	3,915	972

Request #: 307

Page 1 of 2

MPSC AUDIT REQUEST

CASE NO: U-17882

DATE OF REQUEST: 10/26/2015

NO. CLC-9

REQUESTED BY: Cindy L Creisher

DATE OF RESPONSE: 11/12/15

RESPONDENT: Sarah H. Bowers

Question:

With reference to audit response #275 regarding the MAOP projects included in the Regulatory Compliance Program:

6. Discuss any implications of operating each of the pipeline systems (Line 1012, Line 1014, and Line 1040) at a pressure less than the Current MAOP as stated in Table 1 attached to the March 29, 2013 letter provided as part of audit response #275.

Answer:

6. The implications would be the loss and or curtailment of service to customers fed from those lines. The approximate number of customers and major/key customers for each line are described below.

Line 1012 – Feeds from Pontiac Adams CG west to Royal Oak regulator Station #1 (Wesson St)

- Feeds key customers in the Pontiac area such as Trinity Health, Pontiac General Hospital, GM Pontiac Assembly, Heat Treat in Pontiac, St Mary's College, Midwest Baptist College
- Feeds about 27,000 customers

Line 1014 – Feeds from Plymouth CG and Orion CG east to Royal Oak regulator Station #1 (Wesson St)

- Feeds key customers in West Bloomfield and Lake Orion areas such as Orion Assembly, Henry Ford Hospital, Palace of Auburn Hills, GM North and Orion assembly
- Feeds about 54,000 customers

Additionally, both Line 1012 and Line 1014 are common systems in that they also are joined with the larger metro system feeding Macomb, Warren, Sterling Heights, St. Clair Shores, East Pointe, Royal Oak, and Madison Heights. This larger system includes Selfridge Airforce Base among many other large customers. To lower the MAOP would affect the ability to serve that whole area as well.

Line 1040 – Feeds from Williamston CG east past Howell CG

- Feeds key customers in Howell, Fowlerville, and Webberville such as Meridian Automotive and Magna international.

Request #: 307
Page 2 of 2

- Feeds about 32,000 customers

Line 1040 is common with the Lansing HP system so the Company would be unable to serve MSU with their minimum required pressure. This would also affect key customers such as Lansing Board of Water & Light and others on the Lansing system.

MICHIGAN PUBLIC SERVICE COMMISSION INSPECTION FORM

Operator Inspected: Consumers Energy

Operator Office Location: Pontiac

Personnel involved during the inspection: Joe Ault MPSC, Brent Keskin, Amanda Ward, Jeff George

Description and General Comments:

MAOP records inspection at the Lansing service center. Jackson, Pontiac and Royal Oak records were reviewed during this inspection.

OPERATOR	130	UNIT	TPO	DATE	4-26-2010	INSP. TYPE	01	INSP.	JA	DAYS	0.3
----------	-----	------	-----	------	-----------	---------------	----	-------	----	------	-----

LOCATION Lansing

CODE	619									
RULES										

NON-COMPLIANCE ISSUED?	Yes	FILE No.	2010-04JA		
------------------------	-----	----------	-----------	--	--

Reviewed By: Entered By: [Signature]

Gas Safety Engineer: Joseph Ault [Signature]

MICHIGAN PUBLIC SERVICE COMMISSION
INSPECTION FORM

Operator Inspected: Consumers Energy

Operator Office Location: Pontiac

Personnel involved during the inspection: Joe Ault MPSC, Brent Keskin, Amanda Ward, Jeff George

Description and General Comments:

MAOP records inspection at the Lansing service center. Jackson, Pontiac and Royal Oak records were reviewed during this inspection.

OPERATOR	130	UNIT	PON	DATE	4-26-2010	INSP. TYPE	01	INSP.	JA	DAYS	0.1
----------	-----	------	-----	------	-----------	------------	----	-------	----	------	-----

LOCATION Lansing

CODE	619										
RULES											

NON-COMPLIANCE ISSUED? Yes FILE No. 2010-04JA

Reviewed By:

Entered By:

Gas Safety Engineer: Joseph Ault

MICHIGAN PUBLIC SERVICE COMMISSION GAS SAFETY RULES <u>NON-COMPLIANCE REPORT</u>			
OPERATOR: Consumers Energy		LOCATION: Pontiac & Lansing	
FILE NUMBER: 2010-04JA			
OPERATOR CODE: 130	INSP. UNIT: PON / LAN	NC DATE: April 26, 2010	
NC LOCATION: Lansing		ON SITE? Yes	
MGS RULE: N/A		PART 192: 619	
RULE TITLE: Maximum Allowable Operating Pressure: Steel or Plastic Pipelines.			
ASSOCIATED RULES: N/A			
OPERATOR CONTACT: David Montague		DATE CONTACTED: April 26, 2010	
RESOLVED?		DATE RESOLVED:	
LETTER SENT: 5-28-2010	RESPONSE DUE: 7-16-2010	DATE RECEIVED: 7-21-2010	
PSC FOLLOW-UP? Yes		COMPLETED: Various	
INCIDENT INVEST.? INVESTIGATION? N/A	INCIDENT DATE: N/A	INCIDENT FILE NO: N/A	
DISCIPLINARY ACTION:			
		DATE CLOSED:	
DESCRIPTION OF NON-COMPLIANCE: On April 26 and May 24, 2010, Gas Safety Engineer Mr. Joseph Ault conducted a pipeline safety records inspection at Consumers Energy (Consumers) Lansing Service Center. As a result of this inspection, it appears that Consumers has committed a probable violation of Michigan Gas Safety Standard (MGSS) Rule 192.619 entitled, "Maximum allowable operating pressure: Steel or plastic pipelines." During the inspections, Mr. Ault determined that pipeline segment #1014 was operating with a MAOP of 300 psig, but the highest actual operating pressure from July 1, 1965 to July 1, 1970 was 275 psig. Upon further inspection, this was found to be the case with pipeline segment #1012 as well. Pipeline segment #1040 was found to be operating at a MAOP of 400 psig, but the highest actual operating pressure from July 1, 1965 to July 1, 1970 was 375 psig. Between 1999 and 2000, the MAOP was raised from 375 psig to 400 psig without any substantiating documentation. These issues are violations of MGSS 192.619.			
Gas Safety Engineer: Joseph Ault <i>Joe Ault</i>		Date: June 1, 2010	
Reviewed By:		Entered By:	

April 26, 2010

Consumers – Pontiac

1st Half MAOP (Rule 192.619)

MPSC: Joe Ault

Consumers: Jeff George, Amanda Ward, Brent Keskin

*****Resulted in NC2010-04JA*****

Segment 1013:

- Reviewed test records for medium pressure lines running off of this system. All checked out good.
- MAOP for system 375 psig established by the highest operating pressure on November 15, 1966 for three hours.
- Pressure reduced back to 200 psig at Flint #1 and 240 psig at Orion city gate.
- See Attachment A for system review sheet.

Segment 1012:

- Current MAOP is 300 psig. Documented high pressure run at 325 psig occurred on October 30, 1970 which is outside of the five year window. Consumers also did a high pressure run in 1964 which is before the five year window.
- Consumers realized this internally on July 12, 2006 and wrote the following recommendation on the system review sheet:
“Recommendation: Seek a waiver from the MPSC to continue the 300 psig MAOP rating. The waiver would be based on the successful system operation (30 plus years), a present winter operational pressure of 300 psig and the October 1970 operational test of 325 psig.”
- Highest allowable pressure per code is 275 psig – highest pressure during five year window. See Attachment B.

Segment 1014:

- Listed MAOP is 300 psig. There was a high pressure run conducted in October of 1970 at 330 psig which is outside of the five year window.
- The highest operating pressure in the five year window was 275 psig conducted October 27, 1969.
- Current operational pressure is 300 psig during the winter.
- Again, this was realized internally by Consumers in 2006 and was not acted upon. Internal recommendation made to seek an MPSC waiver to continue operating the pipeline at the current 300 psig MAOP.
- See Attachment C for documentation on this.

#5
ATTACHMENT A

HP System Review - MAOP

Segment Number: 1013

Present MAOP: 375 psig

System Description: Orion City gate (Oakland County) Northward into Genesee County. Feeds Segment 1041.

HP Study Number: 207

Review Date: June 6, 2006

History:

- 1) The Segment has pipe installed before July 1, 1970; therefore, the system MAOP was established by the highest operating pressure between July 1, 1965 and July 1, 1970.
- 2) On November 15, 1966, the outlet pressure from Flint #1 and Orion City Gate was raised to 375 psig for a 3 hour period. Capac telemeter indicated an inlet pressure of 360 psig. *→ confirmed w/ wheel logs.*
- 3) The pressure was lowered back to 200 psig at Flint #1 and 240 psig at Orion City Gate.
- 4) The listed MAOP is 375 psig.

GWRichards

#6
ATTACHMENT B

HP System Review - MAOP

Segment Number: 1012

Present MAOP: 300 psig

System Description: From Adams Rd CG to South Blvd to Wesson Street station.
Segment fed by Adams Rd City Gate and ties to Segment 1014. Oakland County

HP Study Number: 217

Review Date: July 12, 2006

History:

- 1) System has pipe installed before July 1, 1965; therefore, system MAOP established by highest operating pressure between July 1, 1965 and July 1, 1970.
- 2) On October 30, 1970, Pontiac CG, Adams Rd and Plymouth CG were raised to 325 psig for a 3 hour period.
- 3) After testing, the outlet pressure was lowered back to 235 psig.
- 4) The present MAOP of the Segment is 300 psig.

Note: The 325 psig operational test was done after July 1, 1970. The Company has operated the system as a 300 psig MAOP since 1970.

Recommendation: Seek a wavier from the MPSC to continue the 300 psig MAOP rating. The wavier would be based on the successful system operation (30 plus years), a present winter operational pressure of 300 psig and the October 1970 operational test of 325 psig.

GWRichards

(#7)
ATTACHMENT C

HP System Review - MAOP

Segment Number: 1014

Present MAOP: 300 psig

System Description: Oakland County. Segment serves West Bloomfield Twp, Pontiac Twp and Waterford Twp. The segment is fed by Plymouth CG and Orion City Gate and ties to Segment 1012.

HP Study Number: 217

Review Date: July 12, 2006

History:

- 1) System has pipe installed before July 1, 1965; therefore, the MAOP was established by the highest operating pressure between July 1, 1965 and July 1, 1970.
- 2) On October 30, 1970, the Plymouth CG was raised to 330 psig for a 3 hour period.
- 3) After test, CG was lowered to 235 psig.
- 4) The present MAOP of the Segment is 300 psig.

Note: The 330 psig operational test was done after July 1, 1970. The Company has operated the system as a 300 psig MAOP since 1970.

Recommendation: Seek a wavier from the MPSC to continue the 300 psig MAOP rating. The wavier would be based on the successful system operation (30 plus years), a present winter operational pressure of 300 psig and the October 1970 operational test of 330 psig.

GWRichards

HPSystemReview(MAOP)-2006.1014

FORM 871-2M-11-56

HIGH-PRESSURE MAIN QUALIFICATION RECORD

Division Southeast Area District Pontiac - W. Wayne Line No. K

Line Identification Plymouth Metering Sta. 6" north line & Orion Metering Station
8" Pontiac line.

Location (if partial addition or replacement) _____

Outside Dia. _____ Wall Thickness _____ Type _____ Mill Test _____

Date Installed _____ Design Press. _____ Max. Proposed Oper. Press. _____

Certification of Test Pressure Made at Time of Installation:

On _____ (date) this main was tested in
 accordance with Gas Department Standard No. 2-500, and no
 leakage was indicated.

Signed _____ Date _____

NOTE—Attach original pressure recording chart.

Requalification Tests (See Standard No. 14-300)

LAST TEST		CURRENT TEST							
Date	Pressure	Date	Last Winter M.O.P.	Est. Next Winter M.O.P.	% of Yield	Test P. Required	TEST PERFORMED		
							Press.	By	Date
9/54	185	10/55	105	125		150	200	DA	10/55
10/55	200	12/60					290	WB	12/60
12/60	290	11/63	260	260		Note	300	GRH	11/63
11/63	300	1/64	250	300		325	325	GRH	12/1/64
12/64	325	10/69	230	230		255	275	JF	10/27/69
10/69	275	10/70	230	230		280	325	JF	10/70

Remarks: 11/63 test made because of new construction in Orchard Lake Rd.
 10/70 Tested common with ORION & ADAMS
 NO OTHER RECORDS AVAILABLE

MICHIGAN PUBLIC SERVICE COMMISSION
INSPECTION FORM

Operator Inspected: Consumers Energy

Operator Office Location: Lansing

Personnel involved during the inspection: Joe Ault MPSC, Brent Keskin, John Roberts, Jen Rodgers

Description and General Comments:

1st half inspection of Lansing service area. This included MAOP documentation.

****Segment #1040 had its MAOP raised from 375# to 400# without any substantiating documentation. No uprate was performed. This item was added to NC2010-04JA****

Michigan Rule 322 & 323 checked

Rule 609 & 611 N/A due to no pipe operating above 40% SMYS

OPERATOR	130	UNIT	LAN	DATE	5-24-2010	INSP.	01	INSP.	JA	DAYS	0.5
						TYPE					

LOCATION Lansing

CODE	605	609	611	619	621	623	625			
RULES										

NON-COMPLIANCE ISSUED?

No

FILE No.

Reviewed By:

Entered By:

Gas Safety Engineer:

Joseph Ault

MICHIGAN PUBLIC SERVICE COMMISSION
INSPECTION FORM

Operator Inspected: Consumers Energy

Operator Office Location: Lansing

Personnel involved during the inspection: Joe Ault MPSC, Brent Keskin, John Roberts, Jen Rodgers

Description and General Comments:

1st half inspection of Lansing service area. This included MAOP documentation.

****Segment #1040 had its MAOP raised from 375# to 400# without any substantiating documentation. No uprate was performed. This item was added to NC2010-04JA****

Michigan Rule 322 & 323 checked

Rule 609 & 611 N/A due to no pipe operating above 40% SMYS

OPERATOR	130	UNIT	TLA	DATE	5-24-2010	INSP.	01	INSP.	JA	DAYS	0.5
						TYPE					

LOCATION Lansing

CODE	605	609	611	619	621	623	625			
RULES										

NON-COMPLIANCE ISSUED?

No

FILE No.

Reviewed By:

Entered By:

Gas Safety Engineer: Joseph Ault

May 24, 2010

Consumers – Lansing

1st Half Inspection

MPSC: Joe Ault

Consumers: Brent Keskin, John Roberts, Jen Rodgers

See **Attachment A** for the first half form. Details of each section outlined below.

192.605 - Satisfactory

Consumers has provisions in their O&M manuals for basic start up and shut down of facilities but most procedures are written specifically for the job by engineering. Gas Distribution standards 1-17 and 17-17 deal with this. Gas Distribution Engineering standard 2-170 and T&S standard 7.1-1-5 and 6 deal with this as well.

192.609 & 611 – N/A

Lansing does not have any pipe that operates greater than 40% SMYS

192.619 - Unsatisfactory

Started this section with Line #1048. This was one of the lines thought to be out of compliance after Consumers conducted an internal review brought about by NC2010-04JA. Upon further search, a 1973 pressure test was located that would allow the MAOP to run at 400 psig. See **Attachment B** for the wheel log and documentation of this pressure run. The listed MAOP for this line is 350 psig so this segment is good to go.

The next system that was reviewed was segment #1046. The listed MAOP for this segment is 175 psig, however an internal review conducted in 2006 found no substantiating documentation to back this up. The highest operating pressure during the five year window was 120 psig. There was talk of uprating the segment in 1974 but no documentation saying whether or not it was completed. This was identified as a segment needing further attention after NC2010-04JA was issued. See **Attachment C** for details.

The next segment reviewed was segment #1025. The listed MAOP is 144 psig which is based on relief equipment capacity at the Marsh Rd. Station. Maximum operating pressure during the five year window was 100 psig (which is roughly what the operating pressure is today). An operational test was performed in 2004 raising the pressure to 350 psig with no leaks being identified. ***No uprating form was submitted to MPSC per R460.20315*** All old pipe has been replaced with new pipe being pressure tested at 600 psig. See **Attachment D** for breakdown of events on the segment.

The next segment reviewed was segment #1040. Listed MAOP is 400 psig although there is no documentation supporting this. The listed MAOP was 375 psig until 2000 when it was bumped for no reason. The highest actual operating pressure was 375 psig

during the five year window which had been the limiting factor since 1970. See Attachment E for further details. ***This will be added to NC2010-04JA***

Segment #1102 was reviewed next. There was a lack of any documentation to substantiate any operating pressure. The listed MAOP is 122 psig. There is a single mention of a 105 psig test being performed in 1958 on the 1048 line, which is connected to it.

192.621

Reviewed equipment report records for farm taps in Lansing, Owosso and Greenville with no issues being identified in the reliefs etc. All regular service lines operate at 60 psig or lower.

192.623

Lansing picked up monitoring responsibilities for Flint and Saginaw's SCADA systems from midnight to 8 a.m. in the first part of May. Currently need authorization to operate at a pressure higher than 16" of water column. Alarms in SCADA are set at 20" (high) and 6" (low). SCADA readings from this past winter were reviewed to check for low pressure points. No low pressure problems identified.

192.625

All gas is odorized regardless of whether it is on a high pressure line or not. Records were reviewed with a few reports of imperceptible odors. These were tracked down to being operator error and corrected. 0.60 lbs / MMcf is the optimum odorant injection rate.

ATTACHMENT
A

COMPREHENSIVE INSPECTION FORM
 FIRST HALF/2010

COMPANY: Consumers Energy
 OPERATOR CODE/UNIT: 130 / LFA

INSPECTOR: JOE AULT
 DATE: May 24, 2010

Rule

192.605 (b) (5) Does the operator's O&M include procedures to start up and shut down any part of the pipeline to assure operation within MAOP plus allowable buildup? Gas Dist. 1-17 + 17-17

S	U	N/A	N/C
X			

Gas Dist. Eng. 2-170
T+S 7.1-1-5 + 6

192.609 Whenever there is a change in class location for a pipeline segment operating at >40% SMYS or the MAOP for a segment is not commensurate with its class location, does the operator make a study to determine the following for the segment:

		X	
--	--	---	--

(a) Present class location. NO > 40% SMYS PIPE

(b) Original design, construction, and testing procedures compared with those required for the present class location.

--	--	--	--

(c) Physical condition.

--	--	--	--

(d) Operating and maintenance history.

--	--	--	--

(e) Maximum actual operating pressure and corresponding operating hoop stress.

--	--	--	--

(f) Actual area affected by the population and factors that may limit further expansion.

--	--	--	--

192.611 (a) If the hoop stress for the established MAOP is not commensurate with the class location and the segment is in satisfactory condition, is the MAOP confirmed according to this Rule? No > 40% SMYS pipe

		X	
--	--	---	--

(b) Verify that the MAOP confirmed in (a) does not exceed the MAOP previously established.

--	--	--	--

(c) Verify that the confirmation or revision of the MAOP does not preclude the application of 192.553 and 192.555.

--	--	--	--

(d) Is the confirmation or revision of the MAOP completed within 24 months of the change in the class location?

--	--	--	--

192.619 (a) Does the operator limit the MAOP of a pipeline to the lowest of the following:

X		
---	--	--

(1) Design pressure of the weakest element.

X		
---	--	--

FIRST HALF 2010

Page 2 of 3

Rule

Rule	S	U	N/A	N/C										
192.619 (a) (2) Test pressure divided by the appropriate factor.		X												
(i) For plastic, a factor of 1.5			X											
(ii) For steel operating at a pressure ≥ 100 psig, the appropriate class location factor.		X												
(3) The highest actual operating pressure during the 5 years preceding the applicable date in the second column, unless the segment was tested by the standards in 192.619(a)(2) after the applicable date in the third column, or was uprated.		X												
<table><tr><th>Pipeline Segment</th><th>Pressure Date</th><th>Test Date</th></tr><tr><td>- Onshore gathering line that first became subject to this part (other than §192.612) after April 13, 2006</td><td rowspan="2">March 15, 2006, or date line becomes subject to this part, whichever is later</td><td rowspan="2">5 years preceding applicable date in second column</td></tr><tr><td>- Onshore transmission line that was a gathering line not subject to this part before March 16, 2006</td></tr><tr><td>All other pipelines</td><td>July 1, 1970</td><td>July 1, 1965</td></tr></table>					Pipeline Segment	Pressure Date	Test Date	- Onshore gathering line that first became subject to this part (other than §192.612) after April 13, 2006	March 15, 2006, or date line becomes subject to this part, whichever is later	5 years preceding applicable date in second column	- Onshore transmission line that was a gathering line not subject to this part before March 16, 2006	All other pipelines	July 1, 1970	July 1, 1965
Pipeline Segment	Pressure Date	Test Date												
- Onshore gathering line that first became subject to this part (other than §192.612) after April 13, 2006	March 15, 2006, or date line becomes subject to this part, whichever is later	5 years preceding applicable date in second column												
- Onshore transmission line that was a gathering line not subject to this part before March 16, 2006														
All other pipelines	July 1, 1970	July 1, 1965												
(4) The pressure determined by operator to be safe after considering the segment history. (over-pressure required if 619(a)(4) is applicable)			X											
192.621 (a) Does the operator limit the MAOP of high pressure distribution systems to the lowest of the following:	X													
(1) Design pressure of the weakest element.	X													
(2) 60 psig, unless service lines are equipped with pressure limiting devices that meet the requirements of 192.197(c).	X													
(5) The pressure determined by the operator to be safe after considering the segment history. (These systems require over-pressure protection per 192.621(b).)	X													
322* (R460.20322) Does the operator limit MAOP to 10 psig for cast iron pipelines containing unreinforced bell and spigot joints?	X													
1psi max on cast iron lines														
192.623 (a) Does the operator limit the pressure in low-pressure distribution systems to the highest pressure that can be safely applied to properly adjusted gas burning equipment?	X													

FIRST HALF 2010

Page 3 of 3

Rule

192.623 (b) Does the operator maintain the pressure in low-pressure distribution systems above the minimum pressure that can assure the safe and continuing operation of properly adjusted gas burning equipment?

S	U	N/A	N/C
X			

6.00" W.C. or higher.

192.625 (a) Does the operator odorize gas in distribution pipelines?

X			
---	--	--	--

(b) Does the operator odorize gas in transmission pipelines located in Class 3 or 4 locations (as applicable according to this Rule)?

X			
---	--	--	--

All odorized.

(e) Does equipment for odorization introduce odorant without wide variations in the level of odorant?

X			
---	--	--	--

(f) Does the operator conduct periodic sampling of combustible gases using an instrument capable of determining the percentage of gas in air at which the odor becomes readily detectable?

X			
---	--	--	--

323* (R460.20323) Does the operator maintain records of the quantity of odorant used per million cubic feet of gas and sampling to determine the effectiveness of odorization?

X			
---	--	--	--

~~HAZ~~

ATTACHMENT
B

HP System Review - MAOP

Segment Number: 1048

Present MAOP: 350 psig

System Description: Ovid City Gate (Clinton County) and Bancroft CG. Segment includes communities of Ovid, Elsie, Owosso, Corunna, Bancroft and Durand..

Note: This System originally included Flint – Bristol Rd CG and Flint – Torrey CG serving West Flint, Flushing and Swartz Creek. The system was split in 1992, and the main between Swartz Creek and Durand was converted to Medium pressure.

Segment 1048 feeds Segment 1050, 1097, 1098 and 1102.

HP Study Number: 206

Review Date: July 12, 2006

History:

- 1) System has pipe installed before July 1, 1965; therefore, system MAOP established by highest operating pressure between July 1, 1965 and July 1, 1970.
- 2) The system pressure was raised to 350 psig on 10-29-1968 for a three hour period.
- 3) Inlet pressures were recorded at Durand, Ovid and Tile Works (near Corunna) and varied from 350 to 335 psig.
- 4) The listed MAOP is 350 psig.

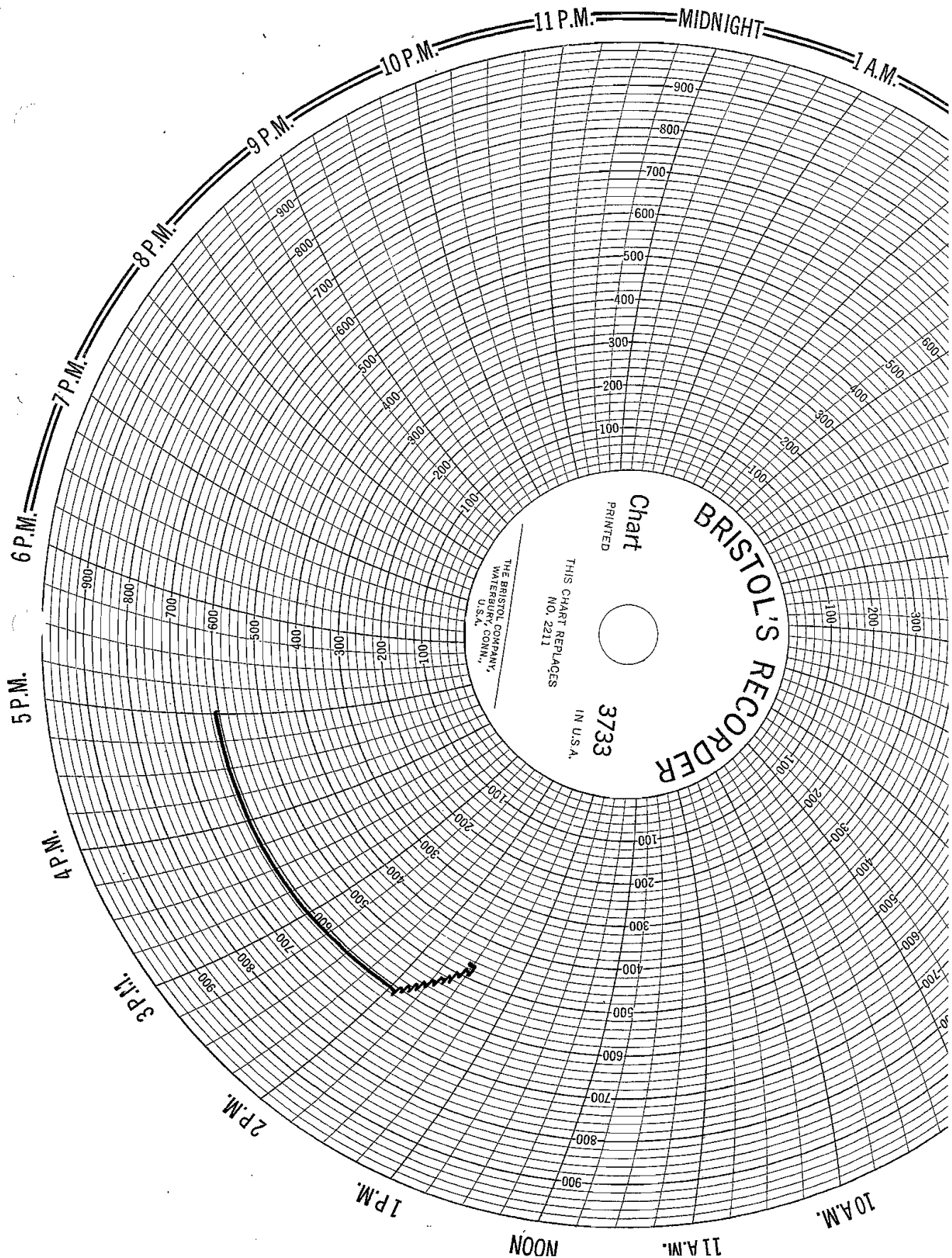
Note: The system has a section of main in Ovid that was installed in 1958 to serve the Michigan Milk Producers. The main had regulation at M-21 that lowered the gas pressure. In 1973, new regulation was built at Front Street, and the old regulation at M-21 removed. There is no indication that the section of main between M-21 and Front Street was tested at the higher operating pressure. .

Recommendation: Seek a wavier from the MPSC to continue the 350 psig MAOP rating. The wavier would be based on the successful system operation after the regulator was relocated (30 plus years) and a present winter operational pressure of 320 psig.

GWRichards

- Not necessary.

Remarks: The above listed items are the most common items found in the above mentioned locations. The following items are also found in the above mentioned locations.



M. W. Rollins 451
DN 1130 PM 5-24-73
WF at 5:02 PM
600 psig +
Navy's fact.
W. J. C. Allen
5-24-73

#3
ATTACHMENT C

HP System Review - MAOP

Segment Number: 1046

Present MAOP: 175 psig

System Description: From the East Side of St Johns (Clinton County) to the West side of St Johns. Segment is fed by Scott Road Regulation (Segment 1096).

HP Study Number: 206

Review Date: July 12, 2006

History:

- 1) Part of the HP system has piping installed by the Michigan Federated Utilities in 1929. Consumers Energy purchased the system in 1934.
- 2) In 1949, the piping was reconditioned (leaks repaired and pipe wrapped).
- 3) A pit was installed at the East end of town to reduce the HP coming into town.
- 4) Much of the system is pipe installed before 1965 and no test records are available.
- 5) System has pipe installed before July 1, 1965; therefore, system MAOP established by highest operating pressure between July 1, 1965 and July 1, 1970.
- 6) The highest operating pressure indicated was 120 psig in 1969. This data came from the 1973 winter operating study.
- 7) In 1974, an uprating action was considered. There is no evidence of completing an uprating plan.
- 8) The listed MAOP is 175 psig and the system is being operated at 165 psig.

Note: No operational test data is available.

Recommendation: Uprate the segment. An uprating pressure of 263 psig is required to have a 175 psig MAOP. ($263 \text{ psig} / 1.5 = 175 \text{ psig}$)

GWRichards

SEE 1046
H-4206
(DOES NOT MEET
175 PPM MAOP)

HWTom, Room 207

RFBsmith

July 3, 1974

Upgrading 3.27 Mi. H.P. Main - St. Johns

ELDoss, 120

LEJones, 120

Under ideal conditions and assuming no leakage, this upgrading can be completed in four (4) increments of 23 lbs - 23 lbs - 23 lbs - and 21 lbs raising our MOAP from the now 120# limit to 140#. This would require the use of approximately eight (8) men and equipment 14 hours to complete.

CONCLUSION: No Problems - 14 hours to complete upgrading, using 8 men and equipment, approximately \$1,000 to complete.

PROBLEMS: From past experience it has been found that we more than likely will have leakage. This is on an old system and the possibility of the service tees being saddled to the main is quite likely. If this be true, our cost for upgrading this system could more than triple.

BFS:sed

#4
ATTACHMENT C

HP System Review - MAOP

Segment Number: 1025

Present MAOP: 144 psig

Segment Description: From Marsh Rd reg sta, South of Grand River, Northward to Haslett Rd reg sta. The Segment is fed by Segment 1026.

HP Study Number: 214

Review Date: July 12, 2006

History:

- 1) The segment has pipe installed before July 1, 1965; therefore, the system MAOP was established by the highest operating pressure between July 1, 1965 and July 1, 1970 or actual construction pressure test data.
- 2) Main replacements occurred in 1964 and 1969 and both sections were pressure tested at 600 psig.
- 3) The segment was operated at 100 psig (based on the 1973 Winter Operating Report) during the 1965 – 1970 time frames.
- 4) In November 2004, the vintage 1930 main was replaced. The newly installed main was pressure tested at 600 psig.
- 5) An operational test of the whole system was done in December, 2004 at 350 psig.
- 6) The MAOP of 144 psig is based on relief equipment capacity at the Marsh Rd Station.

Note: The operational test of 2004 raised the pressure to 350 psig. No leaks were found, and the station outlet was brought back to 100 psig. A review of the uprating forms indicated that the document was not submitted to the MPSC.

→ No report filed per R 460.20315

Recommendation: Uprated the segment. An uprating pressure of 225 psig is required to have a 150 psig MAOP. ($225 \text{ psig} / 1.5 = 150 \text{ psig}$)

GWRichards

#5
ATTACHMENT

HP System Review - MAOP

Segment Number: 1040

Present MAOP: 400 psig

System Description: Grand River Ave from Williamston CG (Ingham County) Eastward to Brighton Area (Howell CG). Includes communities of Webberville, Fowlerville, Howell and Brighton. System is fed from Williamston CG and Howell CG. This segment is tied into Segment 1024.

Note: Originally, the East end of the segment was fed by Brighton CG. The Brighton CG was replaced by the Howell CG in 2000.

HP Study Number: 214

Review Date: July 19, 2006

History:

- 1) System has pipe installed before July 1, 1965; therefore, the system MAOP was established by the highest operating pressure between July 1, 1965 and July 1, 1970.
- 2) During the 1965 to 1970 time period, the Company had a Distribution regulation facility at the Williamston CG that delivered two outlet pressures (East Line and West line).
- 3) On December 1, 1966, the outlet pressure on the East line was raised to 375 for an operational test.
- 4) On November 25, 1969, the outlet pressure on the West line was raised to 400 psig for three hours.
- 5) On October 20, 1970, the outlet pressure on the East line was raised to 400 psig for an operational test. There are no pressure charts verifying the test.
- 6) The Winter Operating study of December 3, 1973 indicated that the East line had an MAOP of 375 psig based on the 1966 test. The MAOP – Distribution System Main Summary Report, dated 3/22/1977 indicated that the MAOP is 375 psig based on a 1969 uprating.
- 7) In the 1970's, the distribution regulators were removed and the East and West line began to operate at the same pressure.
- 8) There is no timely documentation to verify the listed MAOP of 400 psig.

Continued on next page.

Note: The 400 psig operational test was done after July 1, 1970. The Company has operated the system as a 400 psig MAOP since 1999. The current outlet pressures at Williamston CG and Howell CG are 390 psig. The segment contains approx 7.5 miles of 4" 1928 vintage pipe and 4.1 miles of 6" 1950's vintage pipe. The total segment is 26 miles.

Recommendation: Seek a wavier from the MPSC to continue the 400 psig MAOP rating. The wavier would be based on the successful system operation after the regulators were removed (30 plus years ago), a present winter operational pressure of 390 psig and the October 1970 operational test of 400 psig.

GWRichards

DISTRIBUTION SUPPLY SYSTEM
 Maximum Allowable Operating Pressures (Contd)

Location	MAOP	Operating Pressure 1973-1974	Highest Test Pressure Test Year	Design Pressure	Remarks
<u>Kalamazoo Division (Contd)</u>					
Kalamazoo City Gate, "M" Ave	400 Psi	275 Psi	400 Psi 1969		
East-West Line	200 Psi	175 Psi	225 Psi 1969	200 Psi	(980 Psi, 1970, 16" & 12"
Lorraine St Line	200 Psi	175 Psi	225 Psi 1969	200 Psi	(Line Out of "M" Ave
City Loop Line			980 Psi 1970		(1,235 Psi, 1969, 12" Line
Schoolcraft City Gate, "VW" Ave	400 Psi	275 Psi	400 Psi 1969		(Out of Schoolcraft
			1,235 Psi		
<u>Lansing Division</u>					
Lansing City Gate, DeWitt Rd	400 Psi	345 Psi	400 Psi 1969		
Lansing City Gate, Airport Rd	400 Psi	345 Psi	400 Psi 1969		
Williamston City Gate, Grand River Ave					
West Line	400 Psi	345 Psi	400 Psi 1969		
East Line	375 Psi	345 Psi	375 Psi 1966		
	400 Psi	345 Psi	400 Psi 1970		
Charlotte City Gate, Benton Rd	375 Psi	345 Psi	425 Psi 1966	400 Psi	
Brighton City Gate, Hilton Rd	400 Psi	345 Psi	375 Psi 1969		
Woodbury City Gate, M-66 Hwy	400 Psi	345 Psi	400 Psi 1970		
Lansing Industrial System	175 Psi	125 Psi	400 Psi 1969		
St Johns Line, Scott Rd Pkt	345 Psi	315 Psi	264 Psi 1972	175 Psi	
St Johns Line, Gas Plant	120 Psi	120 Psi	345 Psi 1967		
Okemos-Haslett Line	100 Psi	100 Psi	400 Psi 1970		
			No Test	175 Psi	
					Operating Pressure 120 Psi - 1969
					Operating Pressure 100 Psi - 1969

MAOP = 375 until replaced
 by Howell city gate in
 2000

High Pressure Main between Williamston CG and Brighton Area

- Data taken from Winter Operating Studies

<u>Winter</u>	<u>Line MAOP</u>	<u>Williamston CG Outlet</u>	<u>Howell CG Outlet</u>	<u>Brighton CG Outlet</u>
2005-06	400 psig	390 psig	390 psig	Retired
2004-05	400 psig	390 psig	390 psig	Retired
2003-04	400 psig	390 psig	390 psig	Retired
2002-03	400 psig	380 psig	380 psig	Retired
2001-02	400 psig	380 psig	380 psig	Retired
2000-01	400 psig	370 psig		370 psig
1999-00	375 psig	370 psig		370 psig
1998-99	375 psig	370 psig		370 psig
1997-98	375 psig	370 psig		370 psig

Nothing to back this up.

GWRichards
July 17, 2006

Consumers Energy

A CMS Energy Company

July 19, 2010

Mr. John King
Michigan Public Service Commission
6545 Mercantile Way
PO Box 30221
Lansing, MI 48909-7721

RECEIVED
MICHIGAN PUBLIC SERVICE COMMISSION

JUL 21 2010

OPERATIONS & WHOLESALE
MARKETS DIVISION

RE: Non-Compliance 2010-04JA

Mr. King:

In response to the Staff's June 2, 2010, Non-Compliance 2010-04JA letter of probable violation of Michigan Gas Safety Standard (MGSS) Rule 192.619 entitled, "Maximum allowable operating pressure: Steel or plastic pipelines," Consumers Energy requests that the Staff take the following information into consideration.

The applicable part of Michigan Gas Safety Standard Rule 192.619 requires the operator to limit MAOP to the highest actual operating pressure to which the segment was subjected from July 1, 1965 to July 1, 1970.

During pipeline safety records inspections performed on April 26 and May 24, 2010, Gas Safety Engineer Mr. Joseph Ault identified that Consumers Energy pipeline segments 1012, 1014 and 1040 were operating at MAOPs greater than the highest actual operating pressure from July 1, 1965 to July 1, 1970. Consumers Energy agrees this is a probable violation of MGSS Rule 192.619.

Segments 1012, 1014 and 1040

In July 2006, Consumers Energy recognized that MAOP documentation for portions of segments 1012, 1014 and 1040 did not meet the MGSS. This recognition occurred when high pressure (HP) main data was being reviewed for another purpose. The MAOP data issues were documented in a written summary that was placed in each segment's load study file. The intent was to finish the primary project and come back later to resolve the MAOP data issues.

At the end of the HP main data review project (approximately July 2006), MAOP documentation issues remained unresolved for segments 1012, 1014 and 1040. We are not sure why work did not commence at that time to resolve the issues, but believe it had to do with employee retirement and loss of project continuity.

Also for consideration, there was activity in October 1970 to establish the MAOP for each of these segments by documenting the highest actual operating pressure. It is not known why the highest actual operating pressure was documented approximately four months after the July 1, 1970 date. Each of these segments has been safely operated since the highest actual operating pressure was established almost 40 years ago.

To resolve the documentation issues for segments 1012, 1014 and 1040, we propose to seek a waiver to continue the MAOP currently in use for each segment. We will submit the waiver

request by October 29, 2010. Based on the operating history of these segments, we believe continued operation within the normal range of day to day operating pressures does not cause a threat to pipeline integrity.

Additional Segments

In response to the inspection findings, we examined the HP Main data review project records and found eight additional segments with MAOP documentation issues. To resolve the documentation issues with these segments, we propose to:

- seek a waiver for segments 1025 and 1099 by October 29, 2010,
- uprate segments 1046, 1047, 1102, 1103, and 1104 by December 31, 2010, and
- uprate segment 1098 by October 31, 2011.

Based on the operating history of these segments, we believe continued operation within the normal range of day to day operating pressures does not cause a threat to pipeline integrity.

To assure compliance with Rule 192.619 company-wide, we propose to undertake the following:

- Gas Distribution Facilities – Processes were improved for collecting MAOP data over the years and we do not anticipate any additional historical MAOP documentation issues. Therefore, we will continue the current process of collecting and maintaining Gas Distribution MAOP data when we update our Geospatial Information System and our Service Information Management System. This process includes a quality review to identify and acquire any missing documentation at the completion of construction or modification,
- Gas Transmission and Storage (T&S) Facilities:
 - By June 30, 2011 evaluate the process, standards and procedures for the collection and maintenance of Gas T&S MAOP data to assess their effectiveness, and
 - By October 31, 2011, if necessary, revise the process, standards and procedures for the collection and maintenance of Gas T&S MAOP data, and conduct training on any revisions.

Please call me if you have any questions or comments.

Thank you,



David M Montague
Compliance Programs Director
Consumers Energy
1945 W Parnall Road, P23-423
Jackson, MI 49201
517.788.0277
dmmontague@cmsenergy.com

CC: DJMalone, P26-135B
RJFord, P25-137A
RDGladney, P26-336A
WWLynn, P25-343A
BGOtt, Midland Service Center
SBBeachum, P23-325
GFEwert, P23-421
Joseph Ault, MPSC

Consumers Energy

A CMS Energy Company
October 26, 2010

Mr. John King
Michigan Public Service Commission
6545 Mercantile Way
PO Box 30221
Lansing, MI 48909-7721

RECEIVED
MICHIGAN PUBLIC SERVICE COMMISSION

OCT 29 2010

OPERATIONS & WHOLESALE
MARKETS DIVISION

RE: Non-Compliance 2010-04JA

Mr. King:

On July 19, 2010 Consumers Energy responded to the Staff's June 2, 2010, Non-Compliance 2010-04JA letter of probable violation of Michigan Gas Safety Standard (MGSS) Rule 192.619 entitled, "Maximum allowable operating pressure: steel or plastic pipelines."

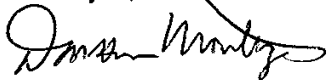
In our response, we committed to resolve the documentation issues for Lines 1012, 1014, 1025, 1040 and 1099 by submitting a waiver request by October 29, 2010. The pipeline specific information for the waiver request has been assembled. We believe we have adequate documentation to support the current MAOP for these lines.

However, assembling the complete waiver request is taking longer than we anticipated. We also would like to obtain feedback from Staff, on the request, before it is submitted. Accordingly, we propose deferring submittal of the waiver request to no later than December 31, 2010.

Based on the operating history of these lines, we believe deferring the waiver submittal, with continued operation within the normal range of day to day operating pressures, does not pose a threat to pipeline integrity. The additional time will also help assure the waiver request adequately addresses the MAOP issue with these lines.

Please let us know if deferring submittal of the waiver request to no later than December 31, 2010 is satisfactory. Please call me if you have any questions or comments.

Thank you,



David M Montague
Compliance Programs Director
Consumers Energy
1945 W Parnall Road, P23-423
Jackson, MI 49201
517.788.0277
dmmontague@cmsenergy.com

CC: DJMalone, P26-135B
RDGladney, P26-336A
GJRochow, P26-336B
WWLynn, P25-343A
BGott, Midland Service Center
SBBeachum, P23-325
GFEwert, P23-421
Brian Ballinger, MPSC
Joseph Ault, MPSC



A CMS Energy Company

December 13, 2010

Ms. Kristin Brock
Michigan Public Service Commission
6545 Mercantile Way
PO Box 30221
Lansing, MI 48909-7721

RECEIVED
MICHIGAN PUBLIC SERVICE COMMISSION

DEC 15 2010

OPERATIONS & WHOLESALE
MARKETS DIVISION

RE: Non-Compliance 2010-04JA

Ms. Brock:

On July 19, 2010 Consumers Energy responded to Staff's June 2, 2010, Non-Compliance 2010-04JA letter of probable violation of Michigan Gas Safety Standard (MGSS) Rule 192.619 entitled, "Maximum allowable operating pressure: steel or plastic pipelines." In our response, we committed to resolve the documentation issues by submitting a waiver request by October 29, 2010.

On October 26, 2010, we explained our status and the need to postpone the submittal of the waiver request to no later than December 31, 2010. At that time we also planned a meeting for December 8, 2010 with Staff to review our documentation. At the meeting Staff reviewed packets for each proposed waiver and discussed some changes in the draft that would improve our submittal. We have learned since the December 8, 2010 meeting that the filing aspects for a waiver are more challenging than we anticipated. Therefore, we request an extension of the response date to January 13, 2011.

Based on the operating history of these lines, we believe deferring the waiver submittal, with continued operation within the normal range of day to day operating pressures, does not pose a threat to pipeline integrity.

A verbal concurrence was provided to us by Mr. Joe Ault on December 9, 2010. We plan to file the waiver documents no later than January 13, 2011, and request a written confirmation of the verbal concurrence. Please call me if you have any questions or comments.

Thank you,

A handwritten signature in dark ink, appearing to read "David M. Montague".

David M Montague
Compliance Programs Director
Consumers Energy
1945 W Parnall Road, P23-423
Jackson, MI 49201
517.788.0277
dmmontague@cmsenergy.com

CC: DJMalone, EP12-220
RDGladney, P26-336A
GJRochow, P26-336B
WWLynn, P25-343A
BGott, Midland Service Center
SBBeachum, P23-325
GFEwert, P23-421
TDDaniels, Flint
EVLuoma, EP11-441
Brian Ballinger, MPSC
Joseph Ault, MPSC



Consumers Energy

A CMS Energy Company

February 14, 2011

Ms. Kristin Brock
Michigan Public Service Commission
6545 Mercantile Way
PO Box 30221
Lansing, MI 48909-7721

RECEIVED
MICHIGAN PUBLIC SERVICE COMMISSION

FEB 16 2011

OPERATIONS & WHOLESALE
MARKETS DIVISION

RE: Non-Compliance 2010-04JA

Ms. Brock:

On July 19, 2010 Consumers Energy responded to Staff's June 2, 2010, Non-Compliance 2010-04JA letter of probable violation of Michigan Gas Safety Standard (MGSS) Rule 192.619 entitled, "Maximum allowable operating pressure: steel or plastic pipelines." In our response, we committed to resolve the documentation issues by submitting a waiver request by October 29, 2010. By letter dated December 13, 2010, we requested an extension of the submittal of the waiver request to January 13, 2011. Staff granted this request by letter dated December 17, 2010.

We have continued to research options for establishing the MAOP for Lines 1012, 1014 and 1040. In early January, an alternate to submitting a waiver request was discussed with Mr. Joseph Ault. The alternate would establish the MAOP for these lines in accordance with PHMSA instructions for Determination of Maximum Allowable Operating Pressure in Natural Gas Pipelines. These instructions are posted on the PHMSA website and include instructions for establishing the MAOP in accordance with 49 CFR 192.619(a)(4). During the discussion, it was agreed that the submittal of the waiver request would be deferred pending our research of this option. We have completed this research and believe it to be a viable alternative to the submittal of a waiver.

This letter serves to document the verbal agreement to defer the waiver request submittal. We also request continued deferral of the waiver request, pending a review of the alternative with the representatives of the MPSC Gas Safety Staff. We proposed that this review be conducted after our March 8, 2011 Communications Meeting. Based on Staff's input at that time, a date for submittal of the waiver request or the alternate materials will be established.

This letter also documents our identification, during our December 8, 2010 meeting, that we were investigating the possibility Line 1010 did not have complete documentation for its MAOP. We have confirmed this is the case. We propose to include review of Line 1010 in our March 8, 2011 meeting. Submittal of Line 1010 materials would also be made by the date established in this meeting.

Based on the operating history of these lines, we believe continued deferral of the MAOP materials, with continued operation within the normal range of day to day operating pressures, does not pose a threat to pipeline integrity.

Please call me if you have any questions or comments.

Thank you,



David M Montague
Compliance Programs Director
Consumers Energy
1945 W Parnall Road, P23-423
Jackson, MI 49201
517.788.0277
dmmontague@cmsenergy.com

CC: RDGladney, P26-336A
GJRochow, P26-336B
WWLynn, P25-343A
BGott, Midland Service Center
SBBeachum, P23-325
GFEwert, P23-421
TDDaniels, Flint
EVLuoma, EP11-441
Brian Ballinger, MPSC
Joseph Ault, MPSC



A CMS Energy Company

December 7, 2011

Mr. Davis Chislea
Michigan Public Service Commission
6545 Mercantile Way
PO Box 30221
Lansing, MI 48909-7721

RECEIVED
MICHIGAN PUBLIC SERVICE COMMISSION

DEC 14 2011

OPERATIONS & WHOLESALE
MARKETS DIVISION

RE: Non-Compliance 2010-04JA – Status Update

Mr. Chislea:

This letter provides a status update on our continuing efforts to resolve MAOP documentation issues for Consumers Energy gas distribution lines as summarized on the attached table and discussed below.

On July 19, 2010 Consumers Energy responded to Staff's June 2, 2010, Non-Compliance 2010-04JA letter of probable violation of Michigan Gas Safety Standard (MGSS) Rule 192.619 entitled, "Maximum allowable operating pressure: steel or plastic pipelines." In our response, we committed to resolve the documentation issues by submitting a waiver request by October 29, 2010. By letter dated December 13, 2010, we requested an extension of the submittal of the waiver request to January 13, 2011. Staff granted this request by letter dated December 17, 2010.

In early January 2011 we discussed an alternate method for establishing the MAOP and agreed to a further deferral pending our research of this alternate. By letter dated February 14, 2011, we documented the agreement to defer the submittal and proposed that we review the results of the research after the March 8, 2011 First Half Communications meeting. We also documented that Line 1010 has similar MAOP documentation issues.

On March 8, 2011 we reviewed the results of our alternate method research. Since March 8, 2011 we have continued to develop the waiver materials for establishing the MAOP for Lines 1012, 1014 and 1040. Development of materials for Lines 1010, WO4557 and 1047a have also been started. Line WO4557 was added as the result of research for Line 1010. It was added to the Consumers Energy system at the same time as Line 1010, operates at medium pressure and has the same documentation issues as Line 1010. Line 1047a was added as a result of our August 29, 2011 status review

meeting. Portions of this line were purchased from PEPL and have MAOP documentation issues similar to the other lines.

We continue to develop the MAOP waiver requests for these lines and plan to submit based on continued discussion regarding process optimization with the Gas Safety Staff. Based on the operating history of these lines, we believe continued operation within the normal range of day to day operating pressures, does not pose a threat to pipeline integrity.

Please call me if you have any questions or comments.

Thank you,

A handwritten signature in black ink, appearing to read "David Montague", with a stylized flourish at the end.

David M Montague
Compliance Programs Director
Consumers Energy
1945 W Parnall Road, P23-423
Jackson, MI 49201
517.788.0277
dmmontague@cmsenergy.com

Attachment: Noncompliance 2010-04JA Status Table

CC: MAKirkland, P26-336A
GJRochow, P26-336B
BGott, Midland Training Center
KRSauer, P25-137B
SBBeachum, P23-325
GFEwert, P23-421
LMHilbert, P25-135
EVLuoma, EP11-441
Kristin Brock, MPSC

Noncompliance 2010-04JA Status

Field Area	Segment Number	Current MAOP (psig)	Pressure Test or Historical Data (psig)	Pressure Test Date	Proposed Action to Resolve	Status
Oakland and Macomb	1010 HP	300	Not available	Not supplied at time of purchase	Request waiver – Identified during December 8, 2010 meeting	<ul style="list-style-type: none"> Waiver request based on most recent 5 year operating history in development
Macomb	WO 4557	60	Not available	Not supplied at time of purchase	Request – Identified during December 8, 2010 meeting	<ul style="list-style-type: none"> Waiver request based on most recent 5 year operating history in development
Oakland	1012	300	325 (OP)	12/01/1964 10/30/1970	Request waiver	<ul style="list-style-type: none"> Waiver request based on historical operating pressure data as reinforced by most recent 5 year operating history in development
Oakland	1014	300	325 (OP)	12/01/1964 10/30/1970	Request waiver	<ul style="list-style-type: none"> Waiver request based on historical operating pressure data as reinforced by most recent 5 year operating history in development
Mid State	1025	144 (system limit)	600 (CT) 350 (OP)	10/16/1964 12/20/2004	Request waiver	<ul style="list-style-type: none"> Uprating letter submitted 12/14/2010
Mid State and Wayne	1040	400	400 (OP)	10/20/1970	Request waiver	<ul style="list-style-type: none"> Waiver request based on historical operating pressure data as reinforced by most recent 5 year operating history in development

12/06/2011

Field Area	Segment Number	Current MAOP (psig)	Pressure Test or Historical Data (psig)	Pressure Test Date	Proposed Action to Resolve	Status
Mid State	1046	175	120 (OP)	1973 winter study	Construction alternate	<ul style="list-style-type: none"> • Letter outlining construction alternate submitted 07/12/2011 • Complete construction alternate by December 2012. • Until completed leak survey every six months.
Wayne	1047a	400	400 (OP) 600 (CT)	1998 construction	Request waiver – Added as a result of research for Line 1010	<ul style="list-style-type: none"> • Waiver request based most recent 5 year operating history and 1998 construction pressure test documentation in development
Mid State	1098	90	80 (OP)	10/29/1968	Uprate	<ul style="list-style-type: none"> • Pressure reduction letter submitted 07/12/2011 - documenting MAOP of 80 and operating pressure of 70
Wayne	1099	400	600 (CT)	08/13/1956 1964	Request waiver	<ul style="list-style-type: none"> • Uprating letter submitted 12/14/2010
Mid Sate	1102	122	Unable to locate	Unable to locate	Uprate	<ul style="list-style-type: none"> • Uprated 09/30/2010
Southern	1103	275	Unable to locate	Unable to locate	Uprate	<ul style="list-style-type: none"> • Uprated 10/20/2010
Southern	1104	175	Unable to locate	Unable to locate	Uprate	<ul style="list-style-type: none"> • Uprated 10/20/2010

12/06/2011



Consumers Energy

A CMS Energy Company

April 18, 2012

RECEIVED
MICHIGAN PUBLIC SERVICE COMMISSION

APR 19 2012

OPERATIONS & WHOLESALE
MARKETS DIVISION

Mr. David Chislea
Michigan Public Service Commission
6545 Mercantile Way
PO Box 30221
Lansing, MI 48909-7721

RE: Non-Compliance 2010-04JA – Status Update

Mr. Chislea:

This letter provides the status of our continuing efforts to resolve MAOP documentation issues for Consumers Energy gas distribution lines as cited in Noncompliance 2010-04JA and as self-disclosed.

On July 19, 2010 Consumers Energy responded to Staff's June 2, 2010, Non-Compliance 2010-04JA letter of probable violation of Michigan Gas Safety Standard (MGSS) Rule 192.619 entitled, "Maximum allowable operating pressure: steel or plastic pipelines." In our response, we committed to resolve the MAOP documentation issues by submitting a waiver request for noncompliant Lines 1012, 1014 and 1040 identified in the letter of probable violation. After research and discussion with staff we understand that submittal of a waiver is not a viable option for these lines. Accordingly we plan to investigate uprating and other alternates to resolve the MAOP documentation issues for these three lines. The investigation will be completed by March 29, 2013. The results will be presented to staff along with a proposed plan to resolve the MAOP documentation issues for these three lines.

In our response we also self-disclosed MAOP documentation issues for eight additional lines. During meetings on December 8, 2010 and March 8, 2011 we identified there were MAOP documentation issues for two additional lines. Action to resolve the MAOP documentation issues for six of these ten lines (1025, 1098, 1099, 1102, 1103 and 1104) has been completed. Action to resolve the documentation issues for Line 1046 is underway. Resolution of MAOP documentation issues for the remaining three lines (1010, WO4557 and 1047a) will be included in our MAOP Records Remediation Project.

Please call me if you have any questions or comments.

Thank you,



David M Montague
Compliance Programs Director
Consumers Energy
1945 W Parnall Road, P23-423
Jackson, MI 49201
517.788.0277
dmmontague@cmsenergy.com

CC: MAKirkland, P26-336A
GJRochow, P26-336B
BGott, Midland Training Center
KRSauer, P25-137B
JTHutek, P23-400
TAGoble, P23-421
GFEwert, P23-118
SCScripps, Grand Rapids
EVLuoma, EP11-441



A CMS ENERGY COMPANY

March 29, 2013

Mr. David Chislea
Michigan Public Service Commission
4300 W. Saginaw Highway
PO Box 30221
Lansing, MI 48909-7721

RECEIVED
MICHIGAN PUBLIC SERVICE COMMISSION
APR - 5 2013
OPERATIONS & WHOLESALE
MARKETS DIVISION

RE: Non-Compliance 2010-04JA – Lines 1012, 1014, and 1040 Remediation Plan

Mr. Chislea:

This letter proposes a remediation plan to address Maximum Allowable Operating Pressure (MAOP) documentation issues for Consumers Energy gas distribution lines, designated as Lines 1012, 1014 and 1040, cited in Non-compliance 2010-04JA.

Background

On July 19, 2010 Consumers Energy provided written response to Michigan Public Service Commission (MPSC) June 2, 2010 letter of probable violation of Michigan Gas Safety Standard (MGSS) Rule 192.619 entitled, "Maximum allowable operating pressure: steel or plastic pipelines." The July 19, 2010 response letter recognized MAOP documentation for portions of Lines 1012, 1014 and 1040 did not meet Rule 192.619(a)(3) requiring operators to limit MAOP to the highest actual operating pressure between July 1, 1965 and July 1, 1970. MAOP documentation of the highest actual operating pressure exists for these three lines; however, the dates of this documentation are a few months outside of the July 1, 1965 to July 1, 1970 dates stipulated in 192.619(a)(3).

Consumers Energy's July 19, 2010 letter proposed submittal of a waiver request as resolution to MAOP documentation issues for Lines 1012, 1014 and 1040. Subsequent discussions with MPSC Gas Safety Staff (Staff) determined a waiver request would not be considered a viable option to resolve MAOP documentation issues. Accordingly, Consumers Energy agreed to evaluate alternative measures to resolve MAOP documentation issues for these three lines by March 29, 2013.

Remediation Plan

Consumers Energy is proposing a phased remediation plan for Lines 1012, 1014, and 1040. This proposed phased remediation plan, as outlined in herein, is consistent with risk-based pipe replacement principles utilized for both the Distribution Integrity Management Program (DIMP) and Enhanced Infrastructure Replacement Program (EIRP). In the first phase of the proposed remediation plan, replacement of bare steel pipe segments and pipe segments with unknown installation dates for each of these lines will be completed. Bare steel and unknown vintage pipe segments are generally considered as higher-risk piping under DIMP. Lines 1012, 1014, and 1040 are comprised of multiple pipe segments of bare steel installed prior to approximately 1950. The table provided on the last page of this letter summarizes the location, MAOP basis history, and total and proposed replacement lengths for each of

the subject lines. Replacement of the bare steel and unknown vintage pipe segments for Lines 1012, 1014 and 1040 will be completed by December 31, 2017.

The remaining pipe segments comprising Lines 1012, 1014, and 1040 are coated and wrapped steel (CW-S) segments. These remaining segments do not represent a risk to the integrity of the distribution system and have been safely operated since the highest actual operating pressure was established over 40 years ago. Federal rulemaking, pursuant to the Section 23 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, is expected later in 2013 and is anticipated to provide measures to address MAOPs established under 192.619(a)(3). In consideration of pending rulemaking, Consumers Energy requests the MSPC defer remediation on the remaining CW-S segments comprising Lines 1012, 1014, and 1040 until a time when alternatives consistent with future operating requirements can be fully evaluated. Consumers Energy maintains that continued operation of Lines 1012, 1014 and 1040 within the normal range of operating pressures does not constitute a threat to the integrity of the distribution system.

In summary, Consumers Energy is requesting approval to proceed with a phased approach to address MAOP documentation for Lines 1012, 1014 and 1040. The first phase of this remediation plan consists of replacement of bare steel and unknown vintage pipe line segments by December 31, 2017. The second phase of this remediation plan will be finalized at a later date following evaluation of potential alternatives pursuant to expected federal rules for pipe segments with MAOPs previously established under 192.619(a)(3).

If you have any questions or comments regarding the phased remediation approach for Lines 1012, 1014 and 1040, please feel free to contact me.

Thank you,



Tracy A. Goble
Manager of Regulatory Compliance
Consumers Energy
1945 W Parnall Road, P23-421
Jackson, MI 49201
517.768.3187
tracy.goble@cmsenergy.com

CC: GJRochow, P26-336B
MAKirkland, P26-336A
MPPalkovich, P23-100
MRomein, Livonia
PMWolven, Flint
AMChichester, P23-118
LAFobes, P14-201
NMiller, MPSC
JLivingston, MPSC

Table 1. Lines 1012, 1014 and 1040 Information Summary

Line Number	Field Area	Current MAOP (psig)	Historical Operating Test (psig)	Historical Operating Test Date	Length of Line ⁱ (miles)	Length of Bare Steel Segments ⁱⁱ
1012	Oakland	300	325	12/01/1964 10/30/1970	12.0	Approximately 1 mile
1014	Oakland	300	325	12/01/1964 10/30/1970	19.4	Approximately 6 miles
1040	Mid-State and Wayne	400	400	10/20/1970	16.3	Approximately 6 miles

ⁱ Total length of segments listed corresponds to operating test date provided in the adjacent column. Pipe lengths listed above were obtained from GIS data in 2010. Actual pipe segment lengths installed may have changes slightly due to physical system changes. There are segments within each of these lines (and not reported in the lengths in this column) that were installed after July 1970 of which pressure test documentation exists to establish the MAOP in accordance with 192.619(a)(2) requirements.

ⁱⁱ Actual replacement pipe lengths for the first phase of the proposed remediation plan may exceed the mileage provided in this column based on field and construction conditions.

provisions of Federal transit laws (49 U.S.C. 5323(b), and 5324), the project-level air quality conformity regulation of the U.S. Environmental Protection Agency (EPA) (40 CFR part 93), the section 404(b)(1) guidelines of EPA (40 CFR part 230), the regulation implementing section 106 of the National Historic Preservation Act (36 CFR part 800), the regulation implementing section 7 of the Endangered Species Act (50 CFR part 402), section 4(f) of the Department of Transportation Act (23 CFR part 774), and Executive Orders 12898 on environmental justice, 11988 on floodplain management, and 11990 on the protection of the wetlands.

The FTA regulations implementing NEPA, as well as provisions of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), requires that FTA and METRO (1) invite other Federal and non-Federal agencies and Native American Tribes that may have an interest in the proposed project to become "participating agencies;" (2) provide an opportunity for involvement by participating agencies and the public to help define the purpose and need, and the range of alternatives for consideration; and (3) establish a plan for coordinating public and agency participation in, and comment on, the environmental review. It is possible that FTA and METRO will not be able to identify all Federal and non-Federal agencies and Native American Tribes that may have such an interest. Any Federal or non-Federal agency or Native American Tribe interested in the proposed project that does not receive an invitation to become a participating agency should notify at the earliest opportunity the Project Manager identified above under **ADDRESSES**.

Paperwork Reduction

The Paperwork Reduction Act seeks, in part, to minimize the cost to the taxpayer of the creation, collection, maintenance, use, dissemination, and disposition of information. Consistent with this goal and with principles of economy and efficiency in government, it is FTA policy to limit insofar as possible distribution of complete printed sets of environmental documents. Accordingly, unless a specific request for a complete printed set of environmental documents is received (preferably in advance of printing), FTA and its grantees will distribute only the executive summary of the environmental document together with a Compact Disc of the complete environmental document. A complete printed set of the environmental

document will be available for review at the libraries and governments offices in the project area; an electronic copy of the complete environmental document will also be available on the project Web site at <http://www.ridemetro.org>.

Blas M. Uribe,
FTA Deputy Regional Administrator.

[FR Doc. 2011-149 Filed 1-7-11; 8:45 am]

BILLING CODE P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA-2010-0381]

Pipeline Safety: Establishing Maximum Allowable Operating Pressure or Maximum Operating Pressure Using Record Evidence, and Integrity Management Risk Identification, Assessment, Prevention, and Mitigation

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA); DOT.

ACTION: Notice; issuance of Advisory Bulletin.

SUMMARY: PHMSA is issuing an Advisory Bulletin to remind operators of gas and hazardous liquid pipeline facilities of their responsibilities, under Federal integrity management (IM) regulations, to perform detailed threat and risk analyses that integrate accurate data and information from their entire pipeline system, especially when calculating Maximum Allowable Operating Pressure (MAOP) or Maximum Operating Pressure (MOP), and to utilize these risk analyses in the identification of appropriate assessment methods, and preventive and mitigative measures.

FOR FURTHER INFORMATION CONTACT: Alan Mayberry by phone at 202-366-5124 or by e-mail at alan.mayberry@dot.gov. All materials in this docket may be accessed electronically at <http://www.regulations.gov>. General information about the PHMSA Office of Pipeline Safety (OPS) can be obtained by accessing OPS's Internet home page at <http://www.phmsa.dot.gov/pipeline>.

SUPPLEMENTARY INFORMATION:

Background

PHMSA's goal is to improve the overall integrity of pipeline systems and reduce risks. To adequately evaluate risk, it is necessary to identify and evaluate the physical and operational characteristics of each individual

pipeline system. To that end, the Hazardous Liquid and Gas Transmission Pipeline Integrity Management (IM) Programs were created with the following objectives:

- Ensuring the quality of pipeline integrity in areas with a higher potential for adverse consequences (high consequence areas or HCAs);
- Promoting a more rigorous and systematic management of pipeline integrity and risk by operators;
- Maintaining the government's prominent role in the oversight of pipeline operator integrity plans and programs; and
- Increasing the public's confidence in the safe operation of the nation's pipeline network.

The IM regulations supplement PHMSA's prescriptive safety regulations with requirements that are intelligent, performance based and process-oriented. One of the fundamental tenets of the IM program is that pipeline operators must be aware of the physical attributes of their pipeline as well as the physical environment that it transverses. These programs reflect the recognition that each pipeline is unique and has its own specific risk profile that is dependent upon the pipelines attributes, its geographical location, design, operating environment, the commodity being transported, and many other factors. This information is a vital component in an operator's ability to identify and evaluate the risks to its pipeline and identify the appropriate assessment tools, set the schedule for assessments of the integrity of the pipeline segments and identify the need for additional preventive and mitigative measures such as lowering operating pressures. If this information is unknown, or unknowable, a more conservative approach to operations is dictated.

An IM program must go beyond simply assessing pipeline segments and repairing defects. Improving operator IM programs, the analytical processes involved in identifying and responding to risk, and the application of assessment and development of preventive and mitigative measures is also a critical objective. In addition, the ability to integrate and analyze threat and integrity related data from many sources is essential for enhanced safety and proactive integrity management. However, some operators are not sufficiently aware of their pipeline attributes nor are they adequately or consistently assessing threats and risks as a part of their IM programs.

Over the past several years, PHMSA inspections and investigations have revealed deficiencies in individual

operators' risk analysis approaches, the integration of data into these risk assessments, the abilities to adequately support the selection of assessment methods, identification and implementation of preventive and mitigative measures, and maintenance of up-to-date risk information and findings about their pipeline segments. In particular, operators' programs fail to adequately address stress corrosion cracking, seam failure, or internal corrosion in their threat identification and risk assessments. The actual use of threat and risk information to determine assessment methods, to evaluate other preventive and mitigative measures, and to use those measures during periodic evaluation have been found to be deficient. Inspections and investigations have revealed examples where assessment methods, specific tools, and schedules were not based on a rigorous assessment of the type of threats posed by the pipeline segment, including consideration of the age, design, pipe material including seam type, coating, welding technique, cathodic protection, soil type, surrounding environment, operational history, or other relevant factors. Finally, inspections and investigations indicate that efforts to collect and integrate risk information can be inappropriately narrow, lack verification and fail to take into account relevant risk information and lessons learned from other parts of their system.

In recent pipeline accident investigations, NTSB and PHMSA have discovered indications that operator oversight of IM programs has been lacking and thereby failed to detect flaws and deficiencies in their programs. The level of self-evaluation and oversight currently being exercised by some pipeline operators is not uniformly applied. The NTSB is also concerned that pipeline operators throughout the United States may have discrepancies in their records that could potentially compromise the safe operation of their pipelines. NTSB has recommended that operators diligently and objectively scrutinize the effectiveness of their programs, identify areas for improvement, and implement corrective measures.

On January 3, 2011, NTSB recommended that PHMSA inform the pipeline industry of the circumstances leading up to and the consequences of the September 9, 2010, pipeline rupture in San Bruno, California, to ensure that both PHMSA and NTSB findings and recommendations with respect to the verification of records used to establish or adjust MAOP or MOP are expeditiously incorporated into the IM programs for pipeline operators. The

pipeline rupture in San Bruno, CA involved a 30-inch-diameter natural gas transmission pipeline owned and operated by Pacific Gas and Electric Company (PG&E). The rupture occurred in a residential area killing eight people, injuring many more, and causing substantial property damage. The rupture created a crater about 72 feet long by 26 feet wide. A ruptured pipe segment about 28 feet long was found about 100 feet away from the crater. The resulting fire destroyed 37 homes and damaged 18. NTSB's preliminary findings indicate that the pipeline operator did not have an accurate basis for the MAOP calculation.

There are several methods available for establishing MAOP or MOP. A hydrostatic pressure test that stresses the pipe to a designated percent of the desired MAOP or MOP, without failure, is generally the most effective method. Hydrostatic testing requirements and restrictions for natural gas pipelines are specified in Title 49 CFR Part 192, Subpart J. Similar requirements for hazardous liquid pipelines are found in 49 CFR Part 195, Subpart E. Although hydrostatic testing is recognized to be the most direct and effective methodology for validating a MAOP or MOP, its implementation requires that operating lines be shut down, which may adversely affect customers dependent on the natural gas supplied by the pipeline, particularly if the pipe fails during the test, which could necessitate a protracted shutdown. Consequently, operators prefer to use available design, construction, inspection, testing, and other related records to calculate the valid MAOP or MOP. However, this method is susceptible to error if pipeline records are inaccurate. With respect to the portion of the pipeline that failed in the September 9, 2010, San Bruno incident, PG&E used available design, construction, inspection, testing, and other related records to calculate the MAOP. The NTSB's examination of the ruptured pipe segment and review of PG&E records revealed that although the as-built drawings and alignment sheets mark the pipe as seamless API 5L Grade X42 pipe, the pipeline in the area of the rupture was constructed with longitudinal seam-welded pipe. The ruptured pipe segment was constructed of five sections of pipe, some of which were short pieces measuring about four feet long, containing different longitudinal seam welds of various types, including single- and double-sided welds. Consequently, the short pieces of pipe of unknown specifications in the ruptured pipe

segment may not have been as strong as the seamless API 5L Grade X42 steel pipe listed in PG&E's records. PG&E's records also identify Consolidated Western Steel Corporation as the manufacturer of the accident segment of Line 132. However, after physical inspection of the ruptured section, investigators were unable to confirm the manufacturing source of some of the pieces of ruptured pipe.

Integrity Management Regulatory Provisions

For hazardous liquid pipelines, § 195.452 establishes requirements for IM programs in HCAs. Section 195.452(b)(1) requires that each operator of a hazardous liquid pipeline "develop a written IM program that addresses the risks on each segment of pipeline." Section 195.452(e) defines the minimum list of risk factors that must be included in the risk assessments used to schedule segment assessments. Appendix C provides additional guidance on these risk factors. Section 195.452(f) defines the required elements of an IM program. These elements include an analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure, including data gathered during previous integrity assessments and data gathered in conjunction with other maintenance inspections and investigations. These elements also include an identification of additional preventive and mitigative measures to protect the HCAs (§ 195.452(i)), including conducting a risk analysis in which an operator must evaluate the likelihood of a pipeline release and how it could affect the HCAs. Preventive and mitigative measures to be evaluated based on risk factors include, but are not limited to, leak detection system modifications and installation of additional Emergency Flow Restricting Devices.

For natural gas pipelines, Subpart O of 49 CFR Part 192 establishes the requirements for IM programs in HCAs. Section 192.911(c) requires that IM programs include "[a]n identification of threats to each covered pipeline segment, which must include data integration and a risk assessment." This section further requires "[a]n operator must use the threat identification and risk assessment to prioritize covered segments for assessment (§ 192.917) and to evaluate the merits of additional preventive and mitigative measures (§ 192.935) for each covered segment." Section 192.917(b) requires an operator to integrate existing data and information on the entire pipeline that could be relevant to a covered segment. In performing this data gathering and

integration, an operator must follow the requirements in ASME/ANSI B31.8S, section 4. At a minimum, an operator must gather and evaluate the set of data specified in Appendix A to ASME/ANSI B31.8S, and consider both on the covered segment and similar non-covered segments, past incident history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, internal inspection records, operating stress levels, past pressure test information, soil characteristics, and all other conditions specific to each pipeline. Section 192.917(c) states that an operator must conduct a risk assessment that follows ASME/ANSI B31.8S, section 5, and considers the identified threats for each covered segment. An operator must use the risk assessment to prioritize the covered segments for the baseline and periodic reassessments, and to determine what additional preventive and mitigative measures are needed for the covered segment. Sections 192.919 and 192.921(a) further require that the operator explain why the particular assessment method for each segment was selected to address the identified threats to each covered segment. Specifically, § 192.921(a) requires the operator to select the method or methods best suited to address the identified threats to the covered segment (pipeline), which include internal inspection tool[s], pressure test, direct assessment, or other technology that an operator demonstrates can provide an equivalent understanding of the condition of the pipeline. More than one assessment method may be required to address all the threats to the covered pipeline segment. Section 192.935 requires that an operator take additional measures beyond those already required by Part 192 to prevent a pipeline failure and to mitigate the consequences of a pipeline failure in a HCA. An operator must base the additional measures on the threats the operator has identified to each pipeline segment. This section requires that an operator conduct, in accordance with one of the risk assessment approaches in ASME/ANSI B31.8S, section 5, a risk analysis of its pipeline to identify additional measures to protect the HCA and enhance public safety.

Advisory Bulletin (ADB-11-01)

To: Owners and Operators of Hazardous Liquid and Gas Pipeline Systems.

Subject: Establishing Maximum Allowable Operating Pressure or Maximum Operating Pressure Using Record Evidence, and Integrity

Management Risk Identification, Assessment, Prevention, and Mitigation.

Advisory: To further enhance the Department's safety efforts and implement the NTSB's January 3, 2011, recommendation to PHMSA [P-10-1], PHMSA is issuing this Advisory Bulletin concerning establishing MAOP and MOP using record evidence and integrity management; threat and risk identification; risk assessment; risk information collection, accuracy and integration, and identification and implementation of preventive and mitigative measures.

I. Establishing MAOP or MOP Using Record Evidence

As PHMSA and NTSB recommended, operators relying on the review of design, construction, inspection, testing and other related data to calculate MAOP or MOP must assure that the records used are reliable. An operator must diligently search, review and scrutinize documents and records, including but not limited to, all as-built drawings, alignment sheets, and specifications, and all design, construction, inspection, testing, maintenance, manufacturer, and other related records. These records shall be traceable, verifiable, and complete. If such a document and records search, review, and verification cannot be satisfactorily completed, the operator cannot rely on this method for calculating MAOP or MOP. Copies of the recommendations issued by NTSB to PHMSA, PG&E, and the California Public Utilities Commission, are available in the public docket and at PHMSA's Web site: <http://www.phmsa.dot.gov/pipeline/regs/ntsb>.

II. Performing Risk Identification, Assessment, Data Accuracy, Prevention, and Mitigation

Pipeline operators are reminded of their responsibilities to identify pipeline integrity threats, perform rigorous risk analyses, integrate information, and identify, evaluate, and implement preventive and mitigative measures as required by the Federal pipeline safety regulations. Operators should thoroughly review their current IM programs and make any changes necessary to become fully compliant with the Federal pipeline safety regulations. Future, PHMSA inspections will place emphasis on the areas noted in this Advisory Bulletin.

Operators are also advised that PHMSA and its State partners intend to sponsor a public workshop on threat and risk identification, risk assessment, risk information collection and integration, and identification of

preventive and mitigative measures. The purpose of the workshop will be to expand the industry's knowledge base about effective IM programs. At this workshop, PHMSA will discuss the progress it has seen and the challenges remaining. Operators with demonstrably effective programs will be invited to share information. Public participation will be encouraged.

A. Risk and Threat Identification

PHMSA emphasizes the need for operators to be fully cognizant of the physical and operational characteristics of their systems, understand the threats to their systems, and the risks posed by their systems. Each operator is ultimately responsible for identifying all risk factors and cannot rely solely on the factors in § 195.452(e) and Appendix C of Part 195 or § 192.917. Any operator of a hazardous liquid or gas transmission pipeline that is not fully cognizant of the location, pipe material and seam type, coating, cathodic protection history, repair history, previous pressure testing, or operational pressure history, and other assessment information, incident data, soil type and environment, operational history, or other key risk factors of a pipeline operating at or above 30% SMYS should (1) institute an aggressive program as soon as possible to obtain this information, (2) assess the risks, and (3) take the proper mitigative measures based upon the operator's IM program risk findings. In addition, if these operators do not have verified information on key risk factors, an immediate and interim mitigation measure that should be strongly considered is a pressure reduction to 80 percent of the operating pressure for the previous month, hydro testing the pipeline or creating a remediation program to identify threat risks. Operators of transmission pipelines operating below 30% SMYS should also conduct an integrity threat and risk review of these pipelines to ensure safety in HCAs. PHMSA will require an operator that has not adequately identified all threats to take mitigative measures.

B. Risk Assessment

Operators are advised to re-examine the basis for their IM assessment, as well as their MAOP or MOP calculations and documentation to meet Federal regulations in 49 CFR Parts 192 and 195. Operators must consider all significant risk factors in their risk assessments; conduct risk assessments capable of supporting identification of preventive and mitigative measures; integrate into their threat and risk

assessments all relevant risk information from prior integrity assessments, inspections, investigations, and incidents with design, construction, operational and maintenance data; to critically analyze the integrated data and incorporate the analysis into their risk assessments and integrity-related decision making; update and maintain their risk information; and to ensure that the risk information is made available throughout the organization in a form that can effectively support decisions on integrity assessment methods, tools, process and procedure changes, and schedule during the required periodic evaluations of pipeline integrity. PHMSA and its State partners intend to verify that operators have taken these actions during the course of future pipeline safety inspections and investigations.

C. Data Accuracy

Operators must review and scrutinize pipeline infrastructure documents and records, including but not limited to, all as-built drawings, alignment sheets, specifications, and all design, construction, inspection, testing, material manufacturer, operational maintenance data, and other related records, to ensure company records accurately reflect the pipeline's physical and operational characteristics. These records should be traceable, verifiable, and complete to meet §§ 192.619 and 195.302. Incomplete or partial records are not an adequate basis for establishing MAOP or MOP using this method. If such a document and records search, review, and verification cannot be satisfactorily completed, the operator may need to conduct other activities such as in-situ examination, pressure testing, and nondestructive testing or otherwise verify the characteristics of the pipeline when identifying and assessing threats or risks.

D. Risk Mitigation and Prevention

PHMSA advises operators to implement a robust IM process that includes methods best suited to address the threats and risks identified (§ 192.921(a) and § 195.452(f)). Operators must use post assessment and continuing evaluation processes to evaluate program effectiveness in identifying threats, addressing threat preventative and mitigative measures, and providing internal IM program feedback of assessment findings so the assessment process can be updated based upon threat findings.

Issued in Washington, DC, on January 4, 2011.

Jeffrey D. Wiese,

Associate Administrator for Pipeline Safety.

[FR Doc. 2011-208 Filed 1-7-11; 8:45 am]

BILLING CODE 4910-60-P

DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

Release of Waybill Data

The Surface Transportation Board has received a request from Michael Behe representing FRN, LLC (WB604-9-1/03/11) for permission to use certain data from the Board's 2009 Carload Waybill Sample. A copy of this request may be obtained from the Office of Economics.

The waybill sample contains confidential railroad and shipper data; therefore, if any parties object to these requests, they should file their objections with the Director of the Board's Office of Economics within 14 calendar days of the date of this notice. The rules for release of waybill data are codified at 49 CFR 1244.9.

Contact: Scott Decker, (202) 245-0330.

Andrea Pope-Matheson,

Clearance Clerk.

[FR Doc. 2011-155 Filed 1-7-11; 8:45 am]

BILLING CODE 4915-01-P

DEPARTMENT OF THE TREASURY

Departmental Offices; Privacy Act of 1974, as Amended

AGENCY: Departmental Offices, Treasury.

ACTION: Notice of Proposed Privacy Act System of Records.

SUMMARY: In accordance with the Privacy Act of 1974, as amended, the Departmental Offices, U.S. Department of the Treasury ("Treasury") gives notice of the establishment of a Privacy Act System of Records.

DATES: Comments must be received no later than February 9, 2011. The new system of records will be effective February 9, 2011 unless the comments received result in a contrary determination.

ADDRESSES: Comments should be sent to Claire Stapleton, Consumer Financial Protection Bureau Implementation Team, 1801 L Street, NW., Washington, DC 20036. Comments will be made available for inspection upon written request. Treasury will make such comments available for public

inspection and copying in Treasury's Library, Room 1428, Main Treasury Building, 1500 Pennsylvania Avenue, NW., Washington, DC 20220, on official business days between the hours of 10 a.m. and 5 p.m. Eastern Time. You can make an appointment to inspect comments by telephoning (202) 622-0990. All comments, including attachments and other supporting materials, will become part of the public record and subject to public disclosure. You should submit only information that you wish to make available publicly.

FOR FURTHER INFORMATION CONTACT:

Claire Stapleton, Consumer Financial Protection Bureau Implementation Team, 1801 L Street, NW., Washington, DC 20036, (202) 435-7220.

SUPPLEMENTARY INFORMATION: The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Act"), Public Law 111-203, Title X, established the Consumer Financial Protection Bureau (CFPB). Once fully operational, CFPB will administer, enforce and implement Federal consumer financial protection laws, and, among other powers, will have authority to protect consumers from unfair, deceptive, and abusive practices when obtaining consumer financial products or services. The Act grants Treasury certain "interim authority" to help stand up the agency. The CFPB implementation team, currently within Treasury, will maintain the records covered by this notice.

The new systems of records described in this notice, Treasury/DO.315—CFPB Implementation Team Consumer Inquiry and Complaint Database, will be used to collect, respond to, and refer consumer inquiries and complaints concerning consumer financial products and services. A description of the new system of records follows this Notice.

The report of a new system of records has been submitted to the Committee on Oversight and Government Reform of the House of Representatives, the Committee on Homeland Security and Governmental Affairs of the Senate, and the Office of Management and Budget, pursuant to Appendix I to OMB Circular A-130, "Federal Agency Responsibilities for Maintaining Records About Individuals," dated November 30, 2000, and the Privacy Act, 5 U.S.C. 552a(r).

The system of records entitled, "Treasury/DO.315—CFPB Implementation Team Consumer Inquiry and Complaint Database" is published in its entirety below.



26822

Federal Register / Vol. 77, No. 88 / Monday, May 7, 2012 / Notices

criteria given in § 388.4 of MARAD's regulations at 46 CFR part 388.

Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78).

By Order of the Maritime Administrator.

Dated: April 26, 2012.

Julie P. Agarwal,

Secretary, Maritime Administration.

[FR Doc. 2012–10864 Filed 5–4–12; 8:45 am]

BILLING CODE 4910–81–P

DEPARTMENT OF TRANSPORTATION

Maritime Administration

[Docket No. MARAD–2012–0056]

Requested Administrative Waiver of the Coastwise Trade Laws: Vessel LONGWOOD BATEAU; Invitation for Public Comments

AGENCY: Maritime Administration, Department of Transportation.

ACTION: Notice.

SUMMARY: As authorized by 46 U.S.C. 12121, the Secretary of Transportation, as represented by the Maritime Administration (MARAD), is authorized to grant waivers of the U.S.-build requirement of the coastwise laws under certain circumstances. A request for such a waiver has been received by MARAD. The vessel, and a brief description of the proposed service, is listed below.

DATES: Submit comments on or before June 6, 2012.

ADDRESSES: Comments should refer to docket number MARAD–2012–0056. Written comments may be submitted by hand or by mail to the Docket Clerk, U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590. You may also send comments electronically via the Internet at <http://www.regulations.gov>. All comments will become part of this docket and will be available for inspection and copying at the above address between 10 a.m. and 5 p.m., E.T., Monday through Friday, except federal holidays. An electronic version of this document and all documents

entered into this docket is available on the World Wide Web at <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT:

Joann Spittle, U.S. Department of Transportation, Maritime Administration, 1200 New Jersey Avenue SE., Room W21–203, Washington, DC 20590. Telephone 202–366–5979, Email Joann.Spittle@dot.gov.

SUPPLEMENTARY INFORMATION:

As described by the applicant the intended service of the vessel LONGWOOD BATEAU is: INTENDED COMMERCIAL USE OF VESSEL: “Day outings, harbor cruises and sightseeing cruises for no more than six passengers with one licensed captain on a seasonal basis.” GEOGRAPHIC REGION: “Massachusetts, Rhode Island, Connecticut and New York.”

The complete application is given in DOT docket MARAD–2012–0056 at <http://www.regulations.gov>. Interested parties may comment on the effect this action may have on U.S. vessel builders or businesses in the U.S. that use U.S.-flag vessels. If MARAD determines, in accordance with 46 U.S.C. 12121 and MARAD's regulations at 46 CFR Part 388, that the issuance of the waiver will have an unduly adverse effect on a U.S.-vessel builder or a business that uses U.S.-flag vessels in that business, a waiver will not be granted. Comments should refer to the docket number of this notice and the vessel name in order for MARAD to properly consider the comments. Comments should also state the commenter's interest in the waiver application, and address the waiver criteria given in § 388.4 of MARAD's regulations at 46 CFR Part 388.

Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78).

By Order of the Maritime Administrator.

Dated: April 26, 2012.

Julie P. Agarwal,

Secretary, Maritime Administration.

[FR Doc. 2012–10867 Filed 5–4–12; 8:45 am]

BILLING CODE 4910–81–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA–2012–0068]

Pipeline Safety: Verification of Records

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Notice; Issuance of Advisory Bulletin.

SUMMARY: PHMSA is issuing an Advisory Bulletin to remind operators of gas and hazardous liquid pipeline facilities to verify their records relating to operating specifications for maximum allowable operating pressure (MAOP) required by 49 CFR 192.517 and maximum operating pressure (MOP) required by 49 CFR 195.310. This Advisory Bulletin informs gas operators of anticipated changes in annual reporting requirements to document the confirmation of MAOP, how they will be required to report total mileage and mileage with adequate records, when they must report, and what PHMSA considers an adequate record. In addition, this Advisory Bulletin informs hazardous liquid operators of adequate records for the confirmation of MOP.

FOR FURTHER INFORMATION CONTACT: John Gale by phone at 202–366–0434 or by email at john.gale@dot.gov. Information about PHMSA may be found at <http://phmsa.dot.gov>.

SUPPLEMENTARY INFORMATION:

Background

On January 10, 2011, PHMSA issued Advisory Bulletin 11–01. This Advisory Bulletin reminded operators that if they are relying on the review of design, construction, inspection, testing and other related data to establish MAOP and MOP, they must ensure that the records used are reliable, traceable, verifiable, and complete. If such a document and records search, review, and verification cannot be satisfactorily completed, the operator cannot rely on this method for calculating MAOP or MOP and must instead rely on another method as allowed in 49 CFR 192.619 or 49 CFR 195.406.

Section 192.619 currently contains four methods for establishing MAOP: (1) The design pressure of the weakest element in the segment; (2) pressure testing; (3) the highest actual operating pressure in the five years prior to the segment becoming subject to regulation under Part 192; and (4) the maximum safe pressure considering the history of the segment, particularly known corrosion and the actual operating

pressure. The third method, often referred to as the "grandfather clause," allows pipelines that had safely operated prior to the pipeline safety MAOP regulations to continue to operate under similar conditions without retroactively applying recordkeeping requirements or requiring pressure tests.

Many of the pipelines being newly subjected to safety regulation in the 1970's were relatively new and had demonstrated a safe operating history. PHMSA is now considering whether these pipelines should be pressure tested to verify continued safe MAOP. In its August 20, 2011, accident investigation report on the September 9, 2010, Pacific Gas and Electric Company natural gas transmission pipeline rupture and fire, the National Transportation Safety Board (NTSB) recommended that PHMSA should:

Amend Title 49 CFR 192.619 to delete the grandfather clause and require that all gas transmission pipelines constructed before 1970 be subjected to a hydrostatic pressure test that incorporates a spike test. (P-11-14)

PHMSA will be addressing this recommendation in a future rulemaking.

On January 3, 2012, President Obama signed the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 (Act), which requires PHMSA to direct each owner or operator of a gas transmission pipeline and associated facilities to provide verification that their records accurately reflect MAOP of their pipelines within Class 3 and Class 4 locations and in Class 1 and Class 2 locations in High Consequence Areas (HCAs). Beginning in 2013, PHMSA intends to require operators to submit data regarding verification of records in these class locations via the Gas Transmission and Gathering Systems Annual Report.

Operators of both gas and hazardous liquid pipelines should review their records to determine whether they are adequate to support operating parameters and conditions on their pipeline systems or if additional action is needed to confirm those parameters and assure safety. The Research and Special Programs Administration and the Materials Transportation Bureau, PHMSA's predecessor agencies, recognized the importance of verifying MAOP. Prior to 1996, there was a regulatory requirement titled: "Initial Determination of Class Location and Confirmation or Establishment of Maximum Allowable Operating Pressure" at 49 CFR 192.607. This regulation required operators to confirm the MAOP on their systems relative to class locations no later than January 1,

1973. The regulatory requirement was removed in 1996 because the compliance dates had long since passed. PHMSA believes documentation that was used to confirm MAOP in compliance with this requirement may be useful in the current verification effort.

Advisory Bulletin (ADB-2012-06)

To: Owners and Operators of Gas and Hazardous Liquid Pipeline Systems.

Subject: Verification of Records Establishing MAOP and MOP.

Advisory: As directed in the Act, PHMSA will require each owner or operator of a gas transmission pipeline and associated facilities to verify that their records confirm MAOP of their pipelines within Class 3 and Class 4 locations and in Class 1 and Class 2 locations in HCAs.

PHMSA intends to require gas pipeline operators to submit data regarding mileage of pipelines with verifiable records and mileage of pipelines without records in the annual reporting cycle for 2013. On April 13, 2012, (77 FR 22387) PHMSA published a **Federal Register** Notice titled: "Information Collection Activities, Revision to Gas Transmission and Gathering Pipeline Systems Annual Report, Gas Transmission and Gathering Pipeline Systems Incident Report, and Hazardous Liquid Pipelines Systems Accident Report." PHMSA plans to use information from the 2013 Gas Transmission and Gathering Pipeline Systems Annual Report to develop potential rulemaking for cases in which the records of the owner or operator are insufficient to confirm the established MAOP of a pipeline segment within Class 3 and Class 4 locations and in Class 1 and Class 2 locations in HCAs. Owners and operators should consider the guidance in this advisory for all pipeline segments and take action as appropriate to assure that all MAOP and MOP are supported by records that are traceable, verifiable and complete.

Information needed to support establishment of MAOP and MOP is identified in § 192.619, § 192.620 and § 195.406. An owner or operator of a pipeline must meet the recordkeeping requirements of Part 192 and Part 195 in support of MAOP and MOP determination.

Traceable records are those which can be clearly linked to original information about a pipeline segment or facility. Traceable records might include pipe mill records, purchase requisition, or as-built documentation indicating minimum pipe yield strength, seam type, wall thickness and diameter. Careful attention should be given to

records transcribed from original documents as they may contain errors. Information from a transcribed document, in many cases, should be verified with complementary or supporting documents.

Verifiable records are those in which information is confirmed by other complementary, but separate, documentation. Verifiable records might include contract specifications for a pressure test of a line segment complemented by pressure charts or field logs. Another example might include a purchase order to a pipe mill with pipe specifications verified by a metallurgical test of a coupon pulled from the same pipe segment. In general, the only acceptable use of an affidavit would be as a complementary document, prepared and signed at the time of the test or inspection by an individual who would have reason to be familiar with the test or inspection.

Complete records are those in which the record is finalized as evidenced by a signature, date or other appropriate marking. For example, a complete pressure testing record should identify a specific segment of pipe, who conducted the test, the duration of the test, the test medium, temperatures, accurate pressure readings, and elevation information as applicable. An incomplete record might reflect that the pressure test was initiated, failed and restarted without conclusive indication of a successful test. A record that cannot be specifically linked to an individual pipe segment is not a complete record for that segment. Incomplete or partial records are not an adequate basis for establishing MAOP or MOP. If records are unknown or unknowable, a more conservative approach is indicated.

PHMSA is aware that other types of records may be acceptable and that certain state programs may have additional requirements. Operators should ensure all records establish confidence in the validity of the records. If a document and records search, review, and verification cannot be satisfactorily completed to meet the need for traceable, verifiable, and complete records, the operator may need to conduct other activities such as in-situ examination, measuring yield and tensile strength, pressure testing, and nondestructive testing or otherwise verify the characteristics of the pipeline to support a MAOP or MOP determination.

PHMSA is supportive of the use of alternative technologies to verify pipe characteristics. Owners and operators seeking to use alternative or non-traditional technologies in the determination of MAOP or MOP, or to

meet other regulatory requirements, should first discuss the proposed approach with the appropriate state or Federal regulatory agencies to determine its acceptability under regulatory requirements.

PHMSA will issue more direction regarding how operators will be required to bring into compliance gas and hazardous liquid pipelines without verifiable records for the entire mileage of the pipeline. Further details will also be provided on the manner in which PHMSA intends to require operators to reestablish MAOP as discussed in Section 23(a) of the Act.

Finally, PHMSA notes that on September 26, 2011, NTSB issued Recommendation P-11-14: Eliminating Grandfather Clause. Section 192.619(a)(3) allows gas transmission operators to establish MAOP of pipe installed before July 1, 1970, by use of records noting the highest actual operating pressure to which the segment was subjected during the five years preceding July 1, 1970. NTSB Recommendation P-11-14 requests that PHMSA delete § 192.619(a)(3), also known as the "grandfather clause," and require gas transmission pipeline operators to reestablish MAOP using hydrostatic pressure testing. PHMSA reminds operators that this recommendation will be acted upon following the collection of data, including information from the 2013 Gas Transmission and Gathering Pipeline Systems Annual Report, which will allow PHMSA to determine the impact of the requested change on the public and industry in conformance with our statutory obligations.

Issued in Washington, DC, on May 1, 2012.

Alan K. Mayberry,
Deputy Associate Administrator for Field Operations.

[FR Doc. 2012-10866 Filed 5-4-12; 8:45 am]

BILLING CODE 4910-60-P

DEPARTMENT OF TRANSPORTATION

Research & Innovative Technology Administration

[Docket ID Number RITA 2008-0002]

Agency Information Collection; Activity Under OMB Review; Reporting Required for International Civil Aviation Organization (ICAO)

AGENCY: Research & Innovative Technology Administration (RITA), Bureau of Transportation Statistics (BTS), DOT.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), this notice announces that the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for extension of currently approved collections. The ICR describes the nature of the information collection and its expected burden. The **Federal Register** Notice with a 60-day comment period soliciting comments on the following collection of information was published on February 29, 2012 (77 FR 12364). No comments were received.

DATES: Written comments should be submitted by June 6, 2012.

FOR FURTHER INFORMATION CONTACT: Jeff Gorham, Office of Airline Information, RTS-42, Room E34, RITA, BTS, 1200 New Jersey Avenue SE., Washington, DC 20590-0001, Telephone Number (202) 366-4406, Fax Number (202) 366-3383 or Email jeff.gorham@dot.gov.

Comments: Send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725-17th Street NW., Washington, DC 20503, Attention: RITA/BTS Desk Officer.

SUPPLEMENTARY INFORMATION:

OMB Approval No.: 2138-0039.

Title: Reporting Required for International Civil Aviation Organization (ICAO).

Form No.: BTS Form EF.

Type of Review: Extension of a currently approved collection.

Respondents: Large certificated air carriers.

Number of Respondents: 40.

Number of Responses: 40.

Total Annual Burden: 26 hours.

Needs and Uses: As a party to the Convention on International Civil Aviation (Treaty), the United States is obligated to provide ICAO with financial and statistical data on operations of U.S. air carriers. Over 99% of the data filed with ICAO is extracted from the air carriers' Form 41 submissions to BTS. BTS Form EF is the means by which BTS supplies the remaining 1% of the air carrier data to ICAO.

The Confidential Information Protection and Statistical Efficiency Act of 2002 (44 U.S.C. 3501), requires a statistical agency to clearly identify information it collects for non-statistical purposes. BTS hereby notifies the respondents and the public that BTS uses the information it collects under this OMB approval for non-statistical purposes including, but not limited to, publication of both Respondent's identity and its data, submission of the

information to agencies outside BTS for review, analysis and possible use in regulatory and other administrative matters.

Comments are invited on: Whether the proposed collection of information is necessary for the proper performance of the functions of the Department concerning consumer protection. Comments should address whether the information will have practical utility; the accuracy of the Department's estimate of the burden of the proposed information collection; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Issued in Washington, DC on May 1, 2012.

Pat Hu,

Director, Bureau of Transportation Statistics, Research and Innovative Technology Administration.

[FR Doc. 2012-10909 Filed 5-4-12; 8:45 am]

BILLING CODE 4910-HY-P

DEPARTMENT OF TRANSPORTATION

Research & Innovative Technology Administration

[Docket ID Number RITA 2008-0002]

Agency Information Collection; Activity Under OMB Review; Submission of Audit Reports—Part 248

AGENCY: Research & Innovative Technology Administration (RITA), Bureau of Transportation Statistics (BTS), DOT.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), this notice announces that the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for extension of currently approved collections. The ICR describes the nature of the information collection and its expected burden. The **Federal Register** Notice with a 60-day comment period soliciting comments on the following collection of information was published on February 29, 2012 (77 FR 12365). No comments were received.

DATES: Written comments should be submitted by June 6, 2012.

FOR FURTHER INFORMATION CONTACT: Jeff Gorham, Office of Airline Information, RTS-42, Room E34, RITA, BTS, 1200 New Jersey Avenue SE., Washington,

Request #: 278
Page 1 of 2

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/5/2015
NO. CLC-5
REQUESTED BY: Cindy L. Creisher
DATE OF RESPONSE: 10/21/15
RESPONDENT: Sarah H. Bowers

Question:

With reference to the testimony of Ms. Bowers and Company Exhibit A-24, Summary of Actual and Projected Gas Capital Expenditures – Material Condition Program,

1. Describe the scope of work to be completed in 2015 through 2019 for each of the programs detailed on Company Exhibit A-24. Provide further detail for any major projects included in any of these programs.

Answer:

6. The scope of work for Lines one and two of Exhibit A-24 (SHB-11) is described in my direct testimony beginning on page 42, line 9 through page 44, line 5. The response to MPSC Staff Audit Request #279 provides details concerning the main replacement miles for the EIRP Distribution Program. The response to MPSC Staff Audit Request #281 provides details concerning major projects in the EIRP T&S Program. The attachments labeled U-17882 MPSC Staff Audit #278 Attachments A & B to this response provides the 2015 projects and the projects selected for 2016 as described below. The amounts shown on these attachments do not include project carry over costs as project expenditures typically span more than one year.

EIRP projects are selected using a computer risk model coupled with Subject Matter Expert (SME) review. Due to the fact that piping system risk characteristics can change from year to year the Company only selects projects one year in advance. The risk model to select the 2016 projects was run in the early first quarter of 2015. A list of the projects selected from that model run is attached. Those projects are currently being surveyed and designed for 2016 construction. The Company may make adjustments to the 2016 projects based upon changes in system conditions. The risk model will be run again in the spring of 2016 to select 2017 projects. This process will be repeated each year until we have eliminated the targeted EIRP pipe from our gas system.

MC Non-Modeled – The expenditures in this program are related to gas distribution facility replacements/retirements due to system leaks/damages and Company initiated operational issues. This program typically includes over one hundred small projects annually that are emergent in nature and would include:

- Damage and Leak Repairs: Immediate retirements directly related to a system damages and immediate replacements/retirements related to leaks. This includes retirements of main, services,

Request #: 278

Page 2 of 2

and meter stands. These leak replacements and retirements are directly related to immediate action gas leaks on gas main and service caused by material issues or third party damages.

- Company Initiated: Emergent issues that need to be resolved to comply with regulations or to ensure public and/or employee safety. Projects include issues associated with a) Leak mitigation program (ex. Main or service replacements due to active gas main leaks or temporary leak repairs that need to be resolved within the year), b) safety situations (ex. saddle tee replacements), c) cathodic issues (ex. cathodic shorts and atmospheric corrosion) , or d) company initiated work to resolve standard's discrepancies (ex. copper service replacements).

Field Measurement Upgrades - The expenditures in this program are for installation and/or upgrade to measurement equipment in order to improve gas measurement accuracy. This program would include installation of ultrasonic meters and Gas Chromatographs on high gas volume city gates

U-17882 MPSC Staff Audit #278

Attachment A

DAPP#	Srv Area	2015 Project Name	Total Est.	Total Pipe Retired	CI	Coated/Wrappe d	Baresteel	Threaded	Wrought Iron	X-Tube	Copper	Plastic	Code 3	L Side (SVC)	S Side (SVC)	Tie-Overs
4697	Eastern	Josephine-Odette-Stockdale St (SME)	\$319,996	12,917	12,796	-	99	-	-	-	-	22	8,050	47	67	68
8082	Eastern	Lapeer Rd TOD	\$4,664,931	19,825	-	16,472	3,353	-	-	-	-	-	-	-	-	-
8557	Eastern	Franklin Ave	\$484,424	3,020	2,180	-	840	-	-	-	-	-	-	27	20	-
8553	Bay Central	Mott & Weadock St	\$159,120	953	953	-	-	-	-	-	-	-	-	3	2	3
5122	Macomb	Flower,Fern,Rosebud,Phlox,Forest,Bell,Stevens (MRP# 6)	\$2,228,917	12,529	-	2,095	10,434	-	-	-	-	-	-	204	201	-
2088	Royal Oak	(SME) Southfield Road	\$992,744	4,905	-	1,645	3,140	-	-	-	120	-	-	8	31	25
7466	MidState	Mt Hope Ave	\$1,517,324	5,789	5,041	748	-	-	-	-	-	-	-	-	30	43
6775	Macomb	Cushing, Donald, Rausch, David, Saxony MRP#10	\$5,770,637	33,575	-	3,478	29,427	670	-	-	-	-	-	532	626	-
4214	Southwestern	CI Replacement Phase 3 - Cork & Emerald	\$1,769,757	17,410	6,910	7,815	2,685	-	-	-	-	-	-	112	112	-
2123	Royal Oak	(SME) W 12 Mile Rd-Woodward to Crooks	\$2,340,657	6,650	-	6,650	-	-	-	-	-	-	6,650	65	65	-
4913	Southwestern	W Michigan Ave at Burrows (MRP#31)	\$153,518	1,115	470	535	-	-	-	-	-	110	460	1	-	1
4817	Royal Oak	(MRP#24) George and Muir Ave	\$700,012	6,889	-	746	5,516	627	-	-	-	-	-	44	88	20
4218	Southwestern	CI Replacement Phase 4 - Portage & Cameron	\$1,700,663	15,085	14,665	420	-	-	-	-	-	-	-	159	159	-
4956	Royal Oak	(SME) Trafford Rd	\$205,827	703	-	-	703	-	-	-	-	-	-	15	9	3
4620	MidState	Wesley Place (MRP)	\$457,883	1,039	708	210	-	-	-	-	-	121	-	5	10	7
6722	Royal Oak	(MRP) Pembroke EIRP	\$1,930,109	10,538	-	-	-	-	10,258	-	-	280	-	160	143	33
4205	Eastern	(Phase 5) W Atherton Rd Station (SME)	\$2,575,339	11,399	11,222	-	177	-	-	-	-	-	-	147	132	6
8081	MidState	M-71	\$1,612,047	7,000	-	-	7,000	-	-	-	-	-	-	-	-	-
6767	Macomb	Garfield, Utica, Roemary, Gordon, Kingston, Erin MRP#65	\$3,585,182	22,995	-	9,183	8,485	5,284	-	-	-	43	-	166	212	-
6951	Royal Oak	Pontiac Cast Iron S.E. Woodward Ave - Part 1	\$6,501,725	48,980	41,333	2,380	2,886	-	-	-	-	2,381	-	208	233	149
4539	Bay Central	Columbian-SME	\$578,684	4,697	3,645	930	-	-	-	-	-	122	-	37	32	-
2089	Royal Oak	(SME) S Campbell Rd	\$2,009,325	4,375	-	-	4,375	-	-	-	-	-	-	25	37	46
4535	Bay Central	Main St - SME	\$323,101	2,804	-	1,031	-	1,773	-	-	-	-	-	6	11	16
6846	Macomb	Boulder, Pleasant, Melrose, etc. MRP#9 ph.2	\$2,259,048	15,432	-	-	13,721	1,711	-	-	-	-	-	220	284	-
4621	MidState	W. Ionia St, Carey St, Bartlett St (MRP)	\$441,454	1,440	630	-	-	-	690	-	-	120	-	9	6	31
8050	Bay Central	13th, 14 th, 15 th	\$523,514	4,686	4,142	544	-	-	-	-	-	-	-	42	43	-
5106	MidState	E. Willard Ave. & S. Park Blvd. (SME)	\$243,651	1,170	1,140	-	-	-	-	-	-	30	-	-	18	11
6798	MidState	Lansing and Cross (SME)	\$1,419,436	6,168	3,726	309	944	-	913	-	-	276	450	7	53	68
4850	Bay Central	Franklin Street - 2014 MRP #115	\$380,994	2,548	2,384	101	-	-	-	-	-	63	-	12	21	4
6697	Macomb	Yale, Erben, Centennial, Walton, Manhattan MRP#7	\$3,174,211	19,627	-	4,238	8,831	6,291	-	-	-	267	-	276	293	-
4979	Royal Oak	(MRP#9) Brockton, Dallas, Barrett	\$1,354,880	8,740	-	-	8,610	-	-	-	130	-	-	145	135	33
6723	Royal Oak	(MRP) Linwood Ave EIRP	\$1,930,783	10,518	-	-	-	10,518	-	-	-	-	-	134	167	48
4633	Cascades	M-50 / Chicago Blvd - East of Evans (SME)	\$1,612,447	10,050	-	200	-	9,850	-	-	-	-	-	35	35	30
5924	Eastern	Carpenter Rd Phase 1 (SME)	\$1,218,675	15,112	4,515	5,084	465	1,820	-	-	-	3,228	-	30	68	28
1699	Bay Central	CSX RR at TRW	\$721,206	1,847	-	678	1,169	-	-	-	-	-	-	-	-	1
6596	Howell	Kissane Ave (SME)	\$308,088	1,355	-	-	285	1,070	-	-	-	-	-	6	15	-
5126	Macomb	Sherman, Sarsfield, Marie MRP#114	\$764,685	9,751	-	-	9,751	-	-	-	-	-	-	99	75	129
6840	Eastern	Carpenter Rd Phase 2 (SME)	\$907,831	7,245	7,245	-	-	-	-	-	-	-	-	7	24	22
4907	Bay Central	W End, Iowa and Orchard St - SME	\$251,569	2,408	-	535	-	1,873	-	-	-	-	-	8	13	10
4219	Southwestern	CI Replacement Phase 5 - Palmer & Cameron (MRP# 166)	\$1,573,023	13,575	13,025	550	-	-	-	-	-	-	-	126	126	-
4912	Southwestern	Jefferson (MRP#123)	\$71,132	850	800	-	-	-	-	-	-	50	-	-	3	3
6841	Eastern	Carpenter Rd Phase 3 (SME)	\$833,353	7,590	1,700	2,120	1,745	995	-	-	-	1,030	-	17	25	10
5408	Bay Central	Tittibawassee River Xing at the Tridge	\$1,081,582	1,698	-	620	1,078	-	-	-	-	-	-	-	3	-
5007	Royal Oak	(MRP#35) Borgman Ave & Talbot Ave	\$1,114,392	9,586	-	-	7,102	2,484	-	-	-	-	1,910	111	37	90
8885	Wayne	Newberg Rd Dam HP	\$1,156,790	1,823	-	1,823	-	-	-	-	-	-	-	-	-	-
4985	Southwestern	Bond & Michigan (MRP#129	\$234,015	1,998	1,872	126	-	-	-	-	-	-	-	14	4	5
4909	Bay Central	Iowa Street - SME	\$245,536	1,483	-	661	-	822	-	-	-	-	-	9	11	15
6774	Macomb	Crescentwood, Chestnut, Ash, Virginia MRP#9	\$2,271,236	13,843	-	2,329	9,933	1,393	-	-	-	188	-	197	182	-
4611	Southwestern	St Joseph & Brown St (SME MRP# 198)	\$319,996	2,863	-	-	523	102	2,238	-	-	-	-	11	13	14
9686	Eastern	Walker St Mt Morris	\$214,620	1,620	-	-	1,170	450	-	-	-	-	-	7	10	-
9668	Macomb	Benjamin St	\$445,704	2,027	-	691	1,336	-	-	-	-	-	-	11	31	-
			\$69,655,773	432,245	141,102	74,947	136,032	57,484	14,099	-	250	8,331	17,520	3,504	3,915	972

U-17882 MPSC Staff Audit #278

DAPP#	Srv Area	2016 Project Name	Total Est.	Total Pipe Retired	CI	Coated/Wrap ped	Baresteel	Threaded	Wrought Iron	X-Tube	Copper	Plastic	Code 3	L Side (SVC)	S Side (SVC)	Tie-Over
1522	Livonia	Fleet St	\$115,384	713	596	49						68		10	-	5
4527	Southwestern	Vine & Davis	\$1,492,458	12,975	12,345	540	90							153	163	-
4538	Royal Oak	(SME) Adams Rd (Big Beaver to Watties)	\$762,965	5,551		4,551	1,000						4,551	17	5	13
4630	Southwestern	Park & Burr Oak (SME & MRP #179, 187)	\$669,170	6,879	4,545	2,198						136		41	73	52
4632	Cascades	M-50 - Chicago Blvd - West of Evans (SME)	\$699,127	8,283		75		8,208					6,030	20	56	28
4687	Groveland	School St (SME)	\$153,544	1,835				1,835						5	15	5
4800	Royal Oak	(MRP#36) Livernois Ave	\$674,325	5,037		1,382	3,655						5,005	98	103	10
4818	Royal Oak	Coy Ave (John R to Couzens) (SME)	\$381,991	2,426		726	1,700						1,177	55	55	-
4846	Bay Central	21st Street-MRP#53	\$547,090	4,556	4,556									39	37	35
4853	Bay Central	Hosmer St - MRP#61	\$202,284	1,760	1,760									20	19	2
4861	Bay Central	Sanford Ave - 2014 MRP#54 & #103	\$260,508	2,732				2,732						25	27	-
4879	Royal Oak	MRP#95 Webster, Camden, Chesterfield, Bennett	\$811,827	7,276		3,329	3,947						5,447	95	54	40
4882	Southwestern	Shepard Linden (SME) MRP#126	\$1,030,776	9,557			5,535	246	3,348			428	9,129	33	42	51
4941	Livonia	Pearl St (MRP#134)	\$109,608	1,180		355	725					100		5	4	10
4959	Royal Oak	MRP#8 Garfield, Mapledale, Shelvin, Coy, Mahan, Lenox, Chester, Edgeworth, Kenwood	\$1,857,784	13,731		677	12,499	555					6,850	192	214	94
4966	Royal Oak	(MRP#71) Larkmoor & Harvard	\$1,057,296	10,167		303	7,031	2,833					858	126	157	-
4970	Royal Oak	(MRP#37) Minerva, Horton, Inman, Paxton, Wolcott, Burdette	\$1,260,180	16,666		2,611	13,940					115	12,000	103	134	92
4978	Royal Oak	Edgewood, Wiltshire, Mortenson, Ferris, Brookline	\$1,047,950	8,962		846	7,449	667					7,045	80	80	11
4981	Royal Oak	(MRP#22) Glenhurst, Westchester larchlea, Midvale, Merritt	\$816,085	7,887		1,365	5,931	591					5,952	62	64	45
5043	Royal Oak	(MRP#38) Cambourne, Breckenridge, Withington, Woodward	\$1,537,829	21,219		3,706	17,513						19,181	121	151	48
5102	Greenville	M-46 - Howard City Rd (SME)	\$121,297	1,800		1,800								1	2	-
5103	Midstate	Cochran Rd (SME)	\$486,597	3,953	2,887	230	653					183	717	7	49	13
5107	Midstate	Sycamore, Maple, Ash St (MRP)	\$364,240	2,875		2,325		550					1,575	30	30	14
5130	Macomb	Cunningham, Eureka, Masch (MRP#14)	\$1,515,306	11,858		3,531		8,327						155	148	-
5139	Midstate	Hagadorn Rd & Oakland Dr (MRP)	\$616,158	4,900		700	4,200						4,900	30	30	15
5152	Midstate	Hollywood & Cynwood (MRP)	\$712,737	5,375	1,955	2,220	1,150					50	1,150	10	51	25
5237	Royal Oak	(MRP) Wide Track CI Replacement	\$941,124	9,429	9,429									32	83	10
5803	Flint	N Chevrolet Ave - Phase 1 (SME)	\$2,904,618	29,739	28,648		29	112				950	112	275	410	107
5805	Eastern	N Chevrolet Ave - Phase 2 (SME)	\$2,846,932	22,000	22,000									354	354	25
6639	Macomb	Lincoln, Veronica, Raven, Collinsor Eastpointe	\$2,547,649	11,221		2,524	2,793	5,904						160	168	-
6640	Macomb	Sprenger, Collinson, Crusade, Jean, Lincoln (MRP#23 and #32)	\$1,513,574	10,860		4,264	3,273	3,323						158	180	-
6707	Royal Oak	(MRP) Fourth St. to Lincoln Ave	\$2,825,009	14,932		4,457	9,811	664					9,679	123	139	-
6712	Royal Oak	Belle Ct & Albert Ave Apts	\$393,550	3,469		3,021		448						-	90	-
6713	Royal Oak	Eleven Mile Rd (SME)	\$2,231,250	10,369		5,247	5,122						5,528	70	84	-
6740	Cascades	Brighton Rd, Essex Heights (SME)	\$666,469	3,690	3,480							210		19	26	10
6771	Macomb	Rosedale, Avalon, Sunnyside, Shady Ln (MRP#63)	\$5,067,828	22,296		3,764	16,263	2,269						407	361	-
6773	Macomb	Jane, Coolidge, Ursuline (MRP#79)	\$2,049,321	16,814		670	5,487	10,657						194	187	192
6777	Midstate	Flamingo (MRP)	\$1,447,459	14,125		1,525		12,600						41	100	50
6779	Midstate	Walnut St (MRP)	\$300,394	3,400		200	2,750	450						3	3	3
6803	Midstate	Line 1027 TOD Replacement	\$10,066,746	15,630		15,630								-	-	-
6804	Midstate	Wick & Lantern Hill (MRP)	\$260,052	2,700			2,700							18	12	10
6807	Midstate	Washington & Water (MRP)	\$850,831	4,800	3,650	1,150								29	29	17
6958	Midstate	Mary Ave Phase 1 (MRP)	\$1,951,206	12,050		1,525	8,975	1,550					5,525	10	164	93
8781	Eastern	Orchard Haven Sub	\$1,361,140	15,400				15,400						100	110	-
8894	Southwestern	Oakland & Winchell	\$1,281,257	14,300	14,300									50	50	50
8932	Cascades	Rockwell	\$191,119	2,000	2,000									6	14	6
9015	Royal Oak	Wilson & Connecticut (SME)	\$824,802	5,892		1,486	3,960	411				35		110	110	20
9239	Midstate	Garfield St (XT Rpl)	\$64,355	380	80			300						4	5	1
9419	Southwestern	Bronson Ave	\$60,851	570			190		380					2	3	-
9420	Southwestern	Keyes Dr	\$202,048	2,085				1,025	1,060					12	24	-
9640	Midstate	Saginaw (M43)	\$3,229,523	8,700		8,700								-	-	-
9656	Wayne	Second St Copper Replacement	\$38,089	530							530			-	2	1
9657	Wayne	Kingslane Ct Copper Replacement	\$89,120	155							155			-	4	1
9658	Wayne	Haggerty Rd Copper Replacement	\$60,775	327							327			-	2	1
9659	Wayne	Botany Glen Copper Replacement	\$67,079	890							890			-	2	2
9670	Southwestern	Marshall St	\$102,868	-										-	-	-
TBD1		SME Placeholder	\$1,500,000	-												
TBD2		SME Placeholder	\$1,000,000	-												
			\$68,241,554	438,906	112,231	87,682	148,371	81,657	4,788	-	1,902	2,275	112,411	3,710	4,479	1,207

Request #: 279
 Page 1 of 1

MPSC AUDIT REQUEST

CASE NO: U-17882
 DATE OF REQUEST: 10/5/2015
 NO. CLC-5
 REQUESTED BY: Cindy L. Creisher
 DATE OF RESPONSE: 10/21/15
 RESPONDENT: Sarah H. Bowers

Question:

With reference to the testimony of Ms. Bowers and Company Exhibit A-24, Summary of Actual and Projected Gas Capital Expenditures – Material Condition Program,

- Provide a list of all pipe materials included in the scope of the EIRP – Distribution program and the corresponding amount of distribution miles to be replaced for each pipe type from the beginning of program in 2012, miles currently remaining, and the projected miles to be impacted in years 2015 through 2019.

Answer:

- Please see my direct testimony on page 43, lines 15 through 20 for the pipe material types included and the scope of the EIRP-Distribution program. The chart below provides the remaining information sought in this interrogatory including the EIRP projections in this filing for 2015-19. Specific EIRP projects are not selected more than one year in advance.

Pipe Type	Miles Existing in 2012	Miles replaced under EIRP program ¹			Miles expected to be replaced under the EIRP Program ¹					Miles remaining as of
		2012	2013	2014	2015	2016 ²	2017 ²	2018 ²	2019 ²	
Cast iron	580.0	5.3	29.9	28.7	27.5	21.3				504.1
Bare steel	1033.4	5.04	16.9	12.9	25.8	28.2				959.5
Coated and wrapped	Note 2	1.1	10.7	11.3	14.2	16.6				Note 2
Threaded and couple	1061.7	0.98	5.6	10.3	10.9	15.5				1018.8
Wrought iron	21.6	0.0	0.15	0.8	2.7	0.9				19.9
X-trube	0.9	0.0	0.9	0	0	0				0.03
Copper	1.6	0.02	0.17	0	0	0.4				1.2
Total	2699.2	12.4	64.3	64.0	81.1	82.9	80	80	80	2503.5

	Miles remaining as of
Code 3 ⁴	10/14/2015
Bare Steel	202.1
Coated and wrapped	311.2
Total	513.3

Notes:

- Does not include miles of EIRP pipe type that were replaced as part of other programs like Civic Improvement or Emergent CE Initiated.
- It is necessary to replace some coated and wrapped pipe as part of EIRP projects due to the configuration of the system, project constructability or code 3 condition but coated and wrapped is not an EIRP targeted pipe type.
- Cannot provide specific pipe types for replacement in 2017, 18 or 19 because risk based project selection is only done 1 year in advance.
- Code 3 pipe is not a material type. It is a condition in which the pipe cannot be cathodically protected against corrosion. It could be bare steel or coated and wrapped pipe. Through 2015 EIRP will have replaced 18.7 miles of Code 3 pipe in a combination of bare and coated and wrapped

Request #: 280
Page 1 of 3

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/5/2015
NO. CLC-5
REQUESTED BY: Cindy L. Creisher
DATE OF RESPONSE: 10/21/15
RESPONDENT: Sarah H. Bowers

Question:

With reference to the testimony of Ms. Bowers and Company Exhibit A-24, Summary of Actual and Projected Gas Capital Expenditures – Material Condition Program,

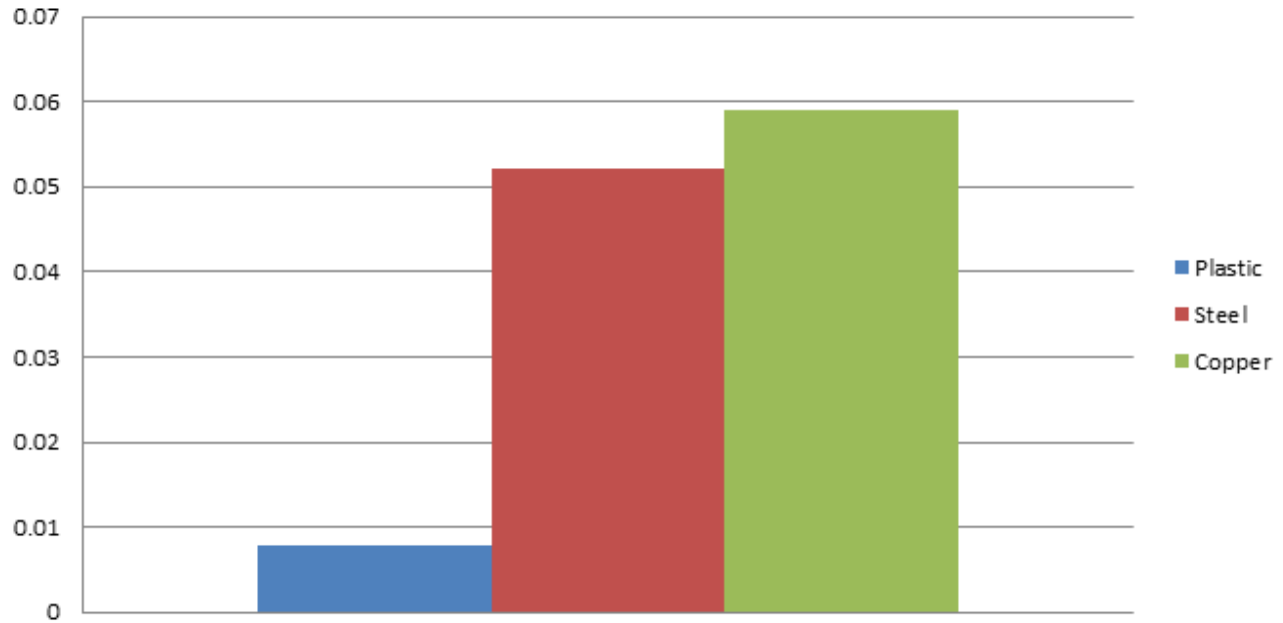
3. Regarding Ms. Bower’s testimony regarding the EIRP scope (page 43), the addition of “replacement of vintage service materials” is a change in the scope of the EIRP from Case No. U-17643.
 - a. Please describe what vintage service materials are included in the EIRP.
 - b. Provide data to support the higher leak percentage for each vintage material type.
 - c. By service material type, identify the number of services currently remaining and the projected services to be impacted in years 2015 through 2019.

Answer:

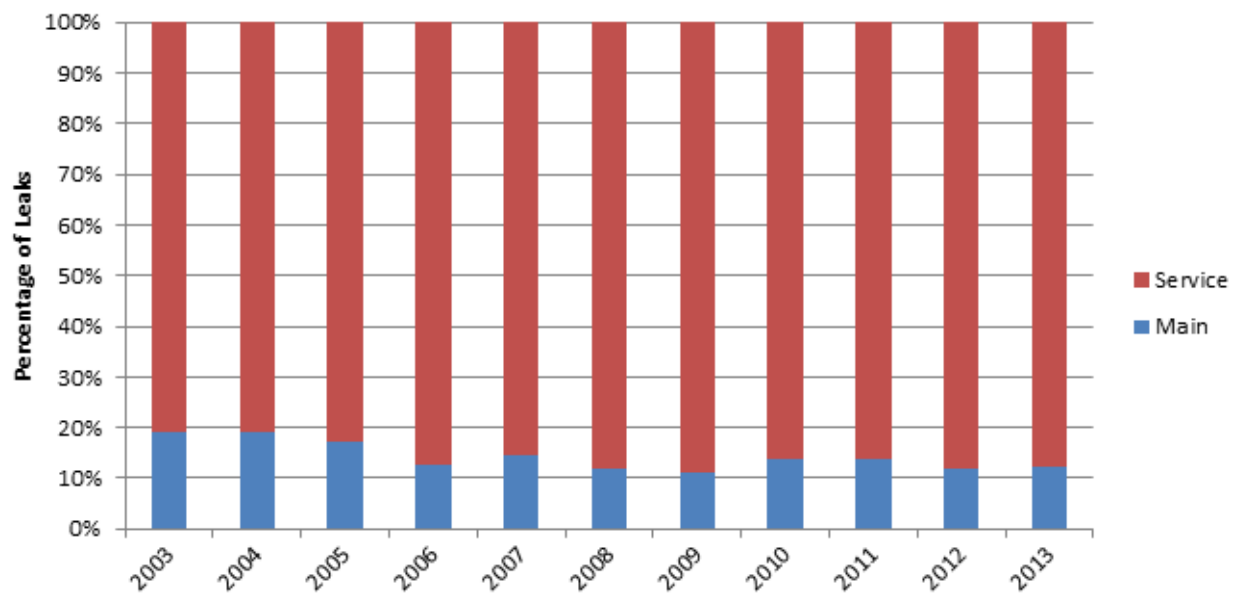
3.
 - a. Copper as well as Bare, X-Trube and Coated/Wrapped Steel (pre 1965).
 - b. The chart below (Below Grade Leaks per Service) shows there is a significantly higher leak repair percentage on steel and copper services than on plastic services. Additionally, as shown in the second chart (Service and Main Leaks Repaired) the percentage of leaks repaired on services far exceeds the number of leaks repaired on mains. This demonstrates the necessity of inclusion of the replacement of vintage services as part of the EIRP Program.

Request #: 280
Page 2 of 3

Below Grade Leaks per Service (2003 - 2013)



Service and Main Leaks Repaired (Below Grade)




Request #: 280
Page **3** of **3**

- c. As part of the EIRP program the Company has been replacing vintage services that fall within the main projects selected for the year. The projection in this filing is that in 2015 the Company would replace 7,419 vintage services within main projects and projects the replacement of 8,189 in 2016 within main projects. Beginning in 2017 the Company would analyze service only replacement areas and include them in the EIRP plan based upon distribution integrity management. The total number of vintage services is shown below.

Service Material	Number of Services (May 2015)
Bare Steel	13,539
C&W Steel	265,676
X-Trube	106,980
Copper	165,167

NOTICE: This report is required by 49 CFR Part 191. Failure to report can result in a civil penalty not to exceed 100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed \$1,000,000 as provided in 49 USC 60122.

OMB NO: 2137-0522
 EXPIRATION DATE: 10/31/2016

 U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration	Initial Date Submitted:	03/15/2015
	Form Type:	INITIAL
	Date Submitted:	

ANNUAL REPORT FOR CALENDAR YEAR 2014 GAS DISTRIBUTION SYSTEM

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0522. Public reporting for this collection of information is estimated to be approximately 16 hours per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

PART A - OPERATOR INFORMATION	(DOT use only)	20154246-24845
--------------------------------------	-----------------------	-----------------------

1. Name of Operator	CONSUMERS ENERGY CO
2. LOCATION OF OFFICE (WHERE ADDITIONAL INFORMATION MAY BE OBTAINED)	
2a. Street Address	1945 W. Parnall Road
2b. City and County	JacksonJackson
2c. State	MI
2d. Zip Code	49201
3. OPERATOR'S 5 DIGIT IDENTIFICATION NUMBER	2748
4. HEADQUARTERS NAME & ADDRESS	
4a. Street Address	ONE ENERGY PLAZA
4b. City and County	JACKSON
4c. State	MI
4d. Zip Code	49201
5. STATE IN WHICH SYSTEM OPERATES	MI

PART B - SYSTEM DESCRIPTION

1.GENERAL										
	STEEL				PLASTIC	CAST/ WROUGHT IRON	DUCTILE IRON	COPPER	OTHER	SYSTEM TOTAL
	UNPROTECTED		CATHODICALLY PROTECTED							
	BARE	COATED	BARE	COATED						
MILES OF MAIN	189.790	337.537	733.135	11921.813	13081.537	527.869	0	1.273	4.979	26797.933
NO. OF SERVICES	1676	21778	12292	352043	986125	0	0	165680	11713	1551307

2.MILES OF MAINS IN SYSTEM AT END OF YEAR											
MATERIAL	UNKNOWN	2" OR LESS	OVER 2" THRU 4"	OVER 4" THRU 8"	OVER 8" THRU 12"	OVER 12"	SYSTEM TOTALS				
STEEL	0	7036.238	2575.781	3418.876	135.765	15.615	13,182.28				
DUCTILE IRON	0	0	0	0	0	0	0.00				
COPPER	0	1.273	0	0	0	0	1.27				
CAST/WROUGHT IRON	0	17.913	279.726	189.298	38.107	2.825	527.87				
PLASTIC PVC	0	0	0	0	0	0	0.00				
PLASTIC PE	.003	10403.279	1998.493	679.762	0	0	13,081.54				
PLASTIC ABS	0	0	0	0	0	0	0.00				
PLASTIC OTHER	0	0	0	0	0	0	0.00				
OTHER	0	3.871	1.075	.033	0	0	4.98				
TOTAL	0.00	17,462.57	4,855.08	4,287.97	173.87	18.44	26,797.93				
3.NUMBER OF SERVICES IN SYSTEM AT END OF YEAR					AVERAGE SERVICE LENGTH: 81						
MATERIAL	UNKNOWN	1" OR LESS	OVER 1" THRU 2"	OVER 2" THRU 4"	OVER 4" THRU 8"	OVER 8"	SYSTEM TOTALS				
STEEL	42	353252	33342	998	152	3	387789				
DUCTILE IRON	0	0	0	0	0	0	0				
COPPER	16	147952	17711	1	0	0	165680				
CAST/WROUGHT IRON	0	0	0	0	0	0	0				
PLASTIC PVC	0	0	0	0	0	0	0				
PLASTIC PE	53	869221	116216	603	31	1	986125				
PLASTIC ABS	0	0	0	0	0	0	0				
PLASTIC OTHER	0	0	0	0	0	0	0				
OTHER	6996	3023	1683	10	1	0	11713				
TOTAL	7107	1373448	168952	1612	184	4	1551307				
4.MILES OF MAIN AND NUMBER OF SERVICES BY DECADE OF INSTALLATION											
	UNKNOWN	PRE-1940	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019	TOTAL
MILES OF MAIN	111.704	711.500	510.714	3108.873	7682.460	2751.040	2276.959	5272.775	3279.924	1091.984	26797.933
NUMBER OF SERVICES	17222	4835	17407	154812	294439	283744	199754	293584	218617	66893	1551307

PART C - TOTAL LEAKS AND HAZARDOUS LEAKS ELIMINATED/REPAIRED DURING THE YEAR				
CAUSE OF LEAK	MAINS		SERVICES	
	TOTAL	HAZARDOUS	TOTAL	HAZARDOUS
CORROSION	260	99	1321	873
NATURAL FORCES	231	150	781	474
EXCAVATION DAMAGE	199	199	1374	1374
OTHER OUTSIDE FORCE DAMAGE	2	2	60	55
MATERIAL OR WELDS	4	2	15	10
EQUIPMENT	111	38	1275	695
INCORRECT OPERATIONS	35	13	69	42
OTHER	136	74	1669	1047
NUMBER OF KNOWN SYSTEM LEAKS AT END OF YEAR SCHEDULED FOR REPAIR : 856				
PART D - EXCAVATION DAMAGE			PART E-EXCESS FLOW VALUE(EFV) DATA	
NUMBER OF EXCAVATION DAMAGES: <u>1651</u>			NUMBER OF EFV'S INSTALLED THIS CALENDER YEAR ON SINGLE FAMILY RESIDENTIAL SERVICES: <u>6392</u>	
NUMBER OF EXCAVATION TICKETS : <u>383534</u>			ESTIMATED NUMBER OF EFV'S IN SYSTEM AT THE END OF YEAR: <u>264633</u>	
PART F - LEAKS ON FEDERAL LAND			PART G-PERCENT OF UNACCOUNTED FOR GAS	
TOTAL NUMBER OF LEAKS ON FEDERAL LAND REPAIRED OR SCHEDULED TO REPAIR: <u>1</u>			UNACCOUNTED FOR GAS AS A PERCENT OF TOTAL INPUT FOR THE 12 MONTHS ENDING JUNE 30 OF THE REPORTING YEAR. INPUT FOR YEAR ENDING 6/30: <u>0.0%</u>	
PART H - ADDITIONAL INFORMATION				
PART I - PREPARER AND AUTHORIZED SIGNATURE				
<u>Alan Chichester, Gas Regulatory Svcs Engineer</u> (Preparer's Name and Title)			<u>(989)791-5841</u> (Area Code and Telephone Number)	
<u>alan.chichester@cmsenergy.com</u> (Preparer's email address)			_____ (Area Code and Facsimile Number)	

Request #: 284
Page 1 of 3

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/5/2015
NO. CLC-6
REQUESTED BY: Cindy L. Creisher
DATE OF RESPONSE: 10/21/15
RESPONDENT: Sarah H. Bowers

Question:

With reference to the testimony of Ms. Bowers and Company Exhibit A-25, Summary of Actual and Projected Gas Capital Expenditures – Capacity/Deliverability Program,

1. Describe the scope of work to be completed in 2015 through 2019 for the following programs detailed on Company Exhibit A-25. Provide further detail for any major projects included in any of these programs and the amount of capital expenditures allocated to each project by year.
 - a. Line No.1 – Augment
 - b. Line No. 11 – Deliverability Base Maintenance
 - c. Line No. 12 – Regulator Stations – Distribution
 - d. Line No. 13 – T&S City Gates
 - e. Line No. 14 – Transmission Enhancements for Deliverability – Integrity (TED-I)

Answer:

- a. Augment - the distribution system periodically requires augmentation to adjust for capacity requirements based on current and future gas needs. These projects are identified and prioritized based on a computer gas load analysis program that evaluates system requirements by combining weather conditions (temperature) with known consumption data and system pressures. If the analysis reveals low pressures, an augment project is initiated to reinforce the system, bringing additional capacity or pressure from other parts of the system, to prevent outages or load restrictions to customers. In general system augmentation projects are not planned more than one heating season in advance as they are based upon the system load analysis mentioned above. At the time of this filing, the 2015 major projects include Huron-Tuscola compression project \$2 million and Mt. Hope augment \$7 million. For 2016 major projects include Huron-Tuscola compression project \$8 million and E. Davison Lake Rd \$1.2 million.
- b. Deliverability Base Maintenance The projected scope of work to be completed under Deliverability Base Maintenance includes compressor engine rebuilds, engine turbo rebuilds, control panel upgrades, upgrades to compressor engine jacket water and oil systems, valve and valve operator replacements, installation of a liquids collection system and filter separator, dehydration system upgrades and various foundation replacements around the compressor stations. Also included are storage additions or replacements needed to address failure, obsolescence, upgrades, deterioration, increased maintenance, defects and

Request #: 284
Page 2 of 3

deliverability risks on the system. Other project work in this program involves the installation of meter facilities to validate delivery volumes from interstate suppliers. Work of this nature is taking place on the ANR supply line to the White Pigeon Compressor Station in 2015 and is planned for the Trunkline supply line in 2016. These projects will help ensure improved measurement accuracy of volumes received. Field measurement projects associated with remote gas monitoring (RTU's), gas metering, gas quality measurement, gas sampling systems, and other ancillary equipment that directly impacts our ability to conform to MPSC requirements are also included.

The attached file labeled U-17882 MPSC Staff Audit #284 Attachment contains a list of the major projects for the years shown on Line No. 11 of Exhibit A-25 (SHB-12) at the time of this filing.

- c. Regulation Stations-Distribution -The expenditures in this program are aimed at maintaining the integrity of over 700 regulator stations and approximately 100 odorizers on the gas distribution system. Projects are in response to system capacity concerns, compliance enhancements and emergent issues. There are typically dozens of projects in a given year that involve work such as: moving below ground stations above grade, moving stations for safety reasons, upgrading odorizers due to false gas leak calls, installing heaters to eliminate frost heave concerns, replacing roofing and SCADA upgrades. These expenditures ensure continued safe and reliable operations of Regulator Stations. Major ongoing programs included at the time of this filing include Site Security and Safety \$3.2 million in 2015, \$2.2 million in 2016. Capacity program \$.5 million in 2015 and \$2.0 million in 2016. Station pit replacement to ensure employee safety \$6.9 million in 2015 and \$6.6 million in 2016. Separator installation and replacement program to modernize the regulator stations \$1.8 million in 2016. The remaining expenditures projected in each year are to address emergent issues. Projects will primarily be placed into service in the year of the expenditures. Please see the response to MPSC Staff Audit #114 for major projects in 2017-2019.
- d. T&S City Gates – The City Gate capacity program allows for new and the rebuilding of existing City Gate facilities to ensure system reliability and in response to increased customer load demands. This program also includes expenditures for heater and separator reliability projects that ensure that the highest quality natural gas reaches our customers. The program also includes funding for emergent issues as the years progress. The city gate major projects projected at the time of this filing are; 2015 –Pontiac City Gate \$5.2 million and heater and separator programs \$1.4 million. 2016- Materials and prep work for Plymouth City Gate rebuild \$1.5 million and Red Run City Gate rebuild \$5.2 million. Please see the response to MPSC Staff Audit #114 for major projects in 2017-2019.
- e. The scope of the TED-I program is discussed in my direct testimony beginning on page 47, line 17. Major projects in 2015 are replacement of Line 100A from Freedom to Chelsea \$26.4 million. At the time of this filing, in 2016- Line 10-1 downgrade \$6.7 million and

Request #: 284

Page **3** of **3**

planning for Line 100A from Chelsea to Dansville along with further replacements of line 100A \$16.8 million. Please see the response to MPSC Staff Audit #114 for major projects in 2017-2019. Projects will be confirmed based on risk profile, system condition, and other factors prior to the expenditure year.

MPSC Audit Request 186 - Attachment 1 - Revised

Cybersecurity Capital Expenditures
Gas and Common

	#186 Original Response Actual 2013	U-17643 Previous Split for Common Projects Actual 2013	#186 Original Response Actual 2014	U-17882 CJV-3 Actual 2014	#186 Corrected Projected 2015	#186 Original Response Projected 2015	U-17882 CJV-3 Projected 2015	#186 Corrected Projected 2016	#186 Original Response Projected 2016	U-17882 CJV-3 Projected 2016	Explanations
Cyber Security Asset Refresh 2013	\$ 228,143	\$ 238,707									
Workstation Security	\$ (3,231)	\$ (3,380)									
Identity and Access Management	\$ 244,567	\$ 255,892									
DDI Implementation	\$ 118,765	\$ 124,264									
Cyber Ark Corporate Security	\$ 203,059	\$ 212,462									
Distributed Denial of Service (DDoS)	\$ 65,759	\$ 68,804									
Directory Services Enhancements	\$ 78,082	\$ 81,697									
	\$ 935,143	\$ 978,446									
Cyber Security Maturity Plan			\$ 124,948	\$ 124,948							
Identity & Access Management (IAM)			\$ 552,524	\$ 552,524							
DDI Implementation			\$ 32,795	\$ 32,795							
Directory Services Enhancements Phase II			\$ 228,049	\$ 228,049							
CyberArk Corporate			\$ 7,045	\$ 7,045							
DDOS			\$ (31,755)	\$ (31,755)							
NERC CIP Version 5-v6.0			\$ 26,353	\$ 26,353							
			\$ 913,607	\$ 939,959							
ARP-Cyber Security			\$ 264,820	\$ 183,698	\$ 273,878						
Dell Identity Manager			\$ 287,494	\$ 287,494	\$ 129,972						
Cyber Security Maturity Plan			\$ 2,874	\$ 2,874	\$ -						
Security Manager Portal			\$ 65,176	\$ 65,176	\$ -						
Single Sign-On Software as a Service			\$ 112,552	\$ 112,552	\$ 270,776						
Full Content Packet Capture			\$ 321,467	\$ 222,992	\$ 223,701						
NERC CIP Version 5-v6.0					\$ 493,374						
Energy Resource Security Architecture			\$ 265,734		\$ 275,901						
CIS - New Growth			\$ 32,806	\$ 32,806	\$ -						
Firewall Management Platform			\$ 165,973	\$ 115,130	\$ 166,088						
			\$ 1,518,897	\$ 1,022,723	\$ 1,833,689						
ARP - Cyber Security			\$ 246,529	\$ 171,010	\$ 246,529						
Centralized Endpoint Log Forwarding			\$ 11,596	\$ 11,596	\$ 11,596						
Cyber Threat Intelligence			\$ 131,539	\$ 131,539	\$ 131,539						
Dell Identity Manager			\$ 781,068	\$ 781,068	\$ 781,068						
Virtual Firewall Deployment			\$ 37,563	\$ 37,563	\$ 37,563						
OT Security Architecture			\$ 411,938	\$ 411,938	\$ 411,938						
			\$ 1,620,234	\$ 1,544,715	\$ 1,620,234						

Original response to Audit Request #186 is correct. Difference is due to changing Gas/Electric splits of Common projects over time

Original response to Audit Request #186 is correct. CJV-3 treated NERC CIP Version 5-v6.0 as a Common project. This is an electric only project

1) CJV-3 treated NERC CIP Version 5-v6.0 as a Common project. This is an Electric only project.

2) The original response was based on the current forecast, and treated all common projects as Software Intangible. It also excluded the Energy Resource Security Architecture project in error, as this had been mis-classified as Electric only in the forecast database. The corrected response, also based on the current forecast, includes this project and recognizes 3 other projects as Network, with a different Gas/Elec split

1) Original response based on current forecast, treated all common projects as Software Intangible in error for Gas/Elec split
2) Corrected response based on current forecast, recognizes the ARP - Cyber Security project as a Network project for Gas/Electric split

Working Capital Study

Working Capital Study

Cash from Company Exhibit A-8 (JRF-48), Schedule B4, Line 1
Reverse Company Adjustment for Normalization of Temporarily High Non Recurring Items
Total Cash and Temporary Cash Investment Balances
Remove FERC 136 Temporary Cash Investment Accounts From Company Cash Balances
Total Cash Balances on Staff's Exhibit S-2, Schedule B4, Line 1

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/21/15
NO. JSG-14
REQUESTED BY: Jay Gerken
DATE OF RESPONSE: 8/31/15
RESPONDENT: James R. Fraga and Paula M. Causie

Question:

SAP Account	FERC Account	Account Description	Total W/C	Electric	Gas	NonUtility
1361050	136.0001	Cash- UNBCA MM1D0	136,646,154	85,979,989	50,666,185	0

- Detail why this account was created and the purpose in which the Company utilizes the account.
- Detail why this account was included or excluded in the instant rate case to determine the Company's test year working capital requirement?
- Detail why this account was classified as either Investor Supplied, Electric, Gas, Plant, or Other in the working capital study.
- Detail the various types of transactions which the Company posts to this account and if these transactions generally affect other working capital balance sheet accounts, revenue or expense accounts, or both. Please notate the accounts (FERC and SAP account designations).
- If this account were to be removed from the working capital balance sheet calculation are there other corresponding accounts that would also need to be removed?
- Provide if this any return has been earned on this account, interest or otherwise, and where the interest is included in the instant rate case, if at all.

Answer:

- This account captures the balances for investments via the Union Bank money market portal.
- This account was included in the test year working capital requirement because it is related to the Company's cash accounts.
- The Company does not record separate cash account balances for each business segment; therefore, this account must allocated to the electric and gas segments. The Company uses a bank balance allocator to allocate this account to electric and gas working capital.
- Investments via the Union Bank money market portal are recorded in this GL Account. Investments are in money market funds which offer immediate access to the Company's cash. There are two types of transactions posted to the account: money market funds: purchase and redemption. Both transactions are offset with SAP account 1361055. The offsetting account is designated as temporary cash investment under Generally Accepted Accounting Principles (GAAP) and cash investment for FERC (136 FERC).

- e. No other accounts would need to be removed from the working capital balance sheet.
- f. Interest is earned on the balances in the money market funds and recorded to GL Account 7310000 and has been included in the instant rate case (please see workpaper WP-JRF-138).

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/21/15
NO. JSG-14
REQUESTED BY: Jay Gerken
DATE OF RESPONSE: 8/31/15
RESPONDENT: James R. Fraga and Paula M. Causie

Question:

SAP Account	FERC Account	Account Description	Total W/C	Electric	Gas	NonUtility
1362000	136.0001	Short Term Investment	32,307,704	20,328,530	11,979,174	0

- Detail why this account was created and the purpose in which the Company utilizes the account.
- Detail why this account was included or excluded in the instant rate case to determine the Company's test year working capital requirement?
- Detail why this account was classified as either Investor Supplied, Electric, Gas, Plant, or Other in the working capital study.
- Detail the various types of transactions which the Company posts to this account and if these transactions generally affect other working capital balance sheet accounts, revenue or expense accounts, or both. Please notate the accounts (FERC and SAP account designations).
- If this account were to be removed from the working capital balance sheet calculation are there other corresponding accounts that would also need to be removed?
- Provide if this any return has been earned on this account, interest or otherwise, and where the interest is included in the instant rate case, if at all.

Answer:

- This account captures the balances for short term investments. The company utilizes the account during certain times of the year when it may have excess cash.
- This account was included in the test year working capital requirement because it is related to the Company's cash accounts.
- The Company does not record separate cash account balances for each business segment; therefore, this account must allocated to the electric and gas segments. The Company uses a bank balance allocator to allocate this account to electric and gas working capital.

- d. The company presently uses this account to record the balance for time deposits that are completed with various banks. The term of these time deposits is generally 7 days. The account is assigned to FERC account 136.0001.

There are three types of the transactions posted to this account:

1. Cash out to invest in short term securities with an offset to accounts 135999 and 1302702. The offsetting accounts are designated as cash under Generally Accepted Accounting Principles (GAAP) and FERC (131 FERC).
 2. Cash in from the sale of short term securities with an offset to account 1302701. The offsetting account is designated as cash under GAAP and FERC (131 FERC).
 3. Interest earned on short term investments. The offsetting account is 7310000. The offsetting account is designated as interest income under GAAP and FERC (419 FERC).
- e. No other accounts would need to be removed from the working capital balance sheet.
 - f. Interest is earned on time deposits and recorded to GL Account 7310000 and has been included in the instant rate case (please see workpaper WP-JRF-138).

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 11/17/2015
NO. JSG-25
REQUESTED BY: Jay S. Gerken
DATE OF RESPONSE: 11/18/2015
RESPONDENT: Andrew Denato

Question:

1. Regarding Mr. Denato's projected cash balance adjustment provided on page 25 of his filed testimony, what specific FERC account is the \$15 million adjustment is related to?
2. Is the \$15 million adjustment discussed in question 1 above specifically the result of the Company's temporarily high balances in its FERC 136 Temporary Cash Investment Accounts?
3. Is the \$15 million adjustment discussed in question 1 above specifically the result of the Company's temporarily high balances in its FERC 131 Cash Accounts?

Answer:

The \$15 million projected cash balance adjustment relates to FERC 136 Temporary Cash Investment Accounts. This adjustment brings the projected cash balance in those accounts in line with normal cash balances expected by the Company.

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 09/30/15
NO. JSG-23 (1)
REQUESTED BY: Jay Gerken
DATE OF RESPONSE: 10/9/15
RESPONDENT: James Fraga/Amy Pittelkow

Question:

SAP	FERC	Account Description	Gas	WC Study Location
1401000	141.1000	Secured Borrowing - WPS	\$913,748	Notes Receivable

1. For each of the above accounts please provide the following:
 - a. Detail why this account was created and the purpose in which the Company utilizes the account.
 - b. Detail why this account was included or excluded in the instant rate case to determine the Company's test year working capital requirement?
 - c. Detail why this account was classified as either Investor Supplied, Electric, Gas, Plant, or Other in the working capital study.
 - d. Detail the various types of transactions which the Company posts to this account and if these transactions generally affect other working capital balance sheet accounts, revenue or expense accounts, or both. Please notate the accounts (FERC and SAP account designations).
 - e. In general are the transactions/journal entries which are posted to this account typically recurring, nonrecurring, or a mixture of both?
 - f. For illustrative purposes provide the journal entry (or entries) made to this account for the month of April 2015. The response should include the full journal entry detail (including but not limited to FERC and SAP account designations) for each item posted with all of the offsetting accounts and dollar amounts listed. Should the entry be too voluminous to provide, alternatively provide a simulated or truncated journal entry which illustrates how this account is utilized by the Company in its normal course of operations making sure to include offsetting accounts, affected balance sheet and income and revenue accounts.
 - g. If this account were to be removed from the working capital are there other corresponding or offsetting accounts that would also need to be removed.

Answer:

1.
 - a. This account was used for recording secured borrowings of our gas buy/sell program.
 - b. This account was included in gas working capital in the instant case to determine the Company's test year working capital requirement. The account has been included as

this account relates to a notes receivable of a gas utility business transaction. (See note below)

- c. This account was classified as gas working capital as it specifically relates to the gas buy/sell program which is a gas utility program.
- d. Please see the journal entry in item “f.”
- e. The transactions/journal entries which are posted to this account are typically a mixture of both recurring and nonrecurring transactions.
- f. See attached.
- g. Account 2131270 (Gas Secured Borrowings), Account 1463910 (A/R Gas Buy/Sells), and Account 1760100 (Secured Borrowings – Noncurrent) would need to be removed from gas working capital if Account 1401000 (Secured Borrowings – WPS) were removed. (see note below)

Note to response 1.b., 1.g.

Per the Settlement Agreement in Gas Case U-17643, filed on December 31, 2014 and approved by the MPSC on January 13, 2015 the Company will reflect the Buy/Sell Agreement as a GCR issue (Final Order, page 4):

“and (f) beginning April 1, 2015, Consumers will reflect miscellaneous revenues collected as a result of its buy/sell and asset management agreement transactions as a reduction to its gas cost recovery (GCR) cost of gas in the company’s annual GCR proceedings, subject to annual reconciliation pursuant to 1982 PA 304; MCL 460.6h et seq., instead of treating those revenues as an offset to the company’s revenue requirement for purposes of calculating the company’s base natural gas rates.”

Based on this settlement agreement, the Buy/Sell balance sheet accounts should have been excluded from the Company’s gas working capital. The amounts to be excluded are shown below and are April 2015 13-month average amounts which can be found in the Company’s response to audit request #2.

SAP Account	FERC Account	Description	Amount
1401000	141.1000	Secured Borrowing - WPS	\$913,748.23
1463910	142.1000	Accounts Receivable Gas Buy/Sell	\$12,978.23
1760100	141.1000	Secured Borrowing - Noncurrent	\$0.00
2131270	232.1000	Gas Secured Borrowings	(\$913,538.46)
Net Amount			\$13,188.00

REVISED RESPONSE – October 30, 2015

Request #: 252
Page 1 of 2

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 09/30/15
NO. JSG-23 (4)
REQUESTED BY: Jay Gerken
DATE OF RESPONSE: 10/30/15
RESPONDENT: James Fraga/Jason Keys

Question:

SAP	FERC	Account Description	Gas	WC Study Location
1690200	186.1000	I/C Prepaid Fees Current Asset	\$37,729	Deferred DR

1. For each of the above accounts please provide the following:
 - a. Detail why this account was created and the purpose in which the Company utilizes the account.
 - b. Detail why this account was included or excluded in the instant rate case to determine the Company's test year working capital requirement?
 - c. Detail why this account was classified as either Investor Supplied, Electric, Gas, Plant, or Other in the working capital study.
 - d. Detail the various types of transactions which the Company posts to this account and if these transactions generally affect other working capital balance sheet accounts, revenue or expense accounts, or both. Please notate the accounts (FERC and SAP account designations).
 - e. In general are the transactions/journal entries which are posted to this account typically recurring, nonrecurring, or a mixture of both?
 - f. For illustrative purposes provide the journal entry (or entries) made to this account for the month of April 2015. The response should include the full journal entry detail (including but not limited to FERC and SAP account designations) for each item posted with all of the offsetting accounts and dollar amounts listed. Should the entry be too voluminous to provide, alternatively provide a simulated or truncated journal entry which illustrates how this account is utilized by the Company in its normal course of operations making sure to include offsetting accounts, affected balance sheet and income and revenue accounts.
 - g. If this account were to be removed from the working capital are there other corresponding or offsetting accounts that would also need to be removed.

REVISED RESPONSE – October 30, 2015

Request #: 252
Page 2 of 2

Answer:

1.

- a. The purpose for Account 1690200 (FERC 186) "I/C Prepaid Fees Current Asset" is to record prepayment of commitment fees to Scotia Bank associated with the \$250,000,000 revolving line of credit available for short term borrowing. The prepayment is amortized monthly over a period of 24 months.
- b. REVISED: This account was incorrectly included in the Company's test year working capital requirement. This account should be allocated to investor supplied because the account reflects intercompany activity with a subsidiary and does not have an offsetting balance sheet account in CE's general ledger. The offset for Account 1690200 resides on the general ledger of the CRFII subsidiary.
- c. REVISED: This account was allocated to electric, gas, and non-utility working capital as the account activity, but should have been allocated to investor supplied. See response (b) above.
- d. Manual journal entries are posted to this account.
- e. In general, the transactions/journal entries which are posted to this account are recurring in nature.
- f. There is one entry posted to this SAP account each month: This entry is recording the monthly amortized expense for fees associated with the revolving line of credit through Scotia Bank.

June 2014

Debit SAP - 5900001 Inter Co. Other Operating Exp (FERC 930.2)	\$10,650.11
Credit SAP – 1690200 Prepayment (FERC 186)	\$10,650.11

- g. No other balance sheet accounts would have to be removed from working capital.

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 09/30/15
NO. JSG-22
REQUESTED BY: Jay Gerken
DATE OF RESPONSE: October 9, 2015
RESPONDENT: James Fraga

Question:

- Staff understands that the working capital account #2134500 for the projected test year should be a credit balance of \$4,665,054 instead of \$3,072,854 as provided in the Company's audit response #2 to Staff. If correct, this would require an adjustment to decrease Consumers' projected test year working capital by \$1,592,200. Does Consumers agree that this adjustment should be made in the instant case? If not, please explain why.

Answer:

- In the attachment to the Company's response to audit request #2, the SAP account 2134500 had a formula error which incorrectly calculated the gas allocated portion of the account. This resulted in gas allocated working capital of (\$3,072,854). When corrected, the gas allocated working capital should be (\$4,665,054). Snapshots of the account before and after the correction are pasted below.

In isolation, this adjustment would reduce gas working capital by \$1,592,200. However, this adjustment would have to be considered along with other adjustments that may increase or decrease gas working capital.

AS FILED:

CONSUMERS ENERGY COMPANY									
Working Capital Study									
Deferred Credit Accounts									
April 30, 2015									
SAP Account	FERC Account	Account Description	Total W/C	Electric	Gas	Non Utility	Tab Location	Allocation Method	
		DEFERRED CREDITS, SUBTOTAL							
2134500	253.10000	AR Customer Credit Reclass Liability	(13,668,337)	(9,003,283)	(3,072,854)	(1,592,200)	Deferred CR	Revenue	

Case No.: U-17882
Witness: JSGerken
Exhibit: S-9.7
Date: December 4, 2015

ADJUSTED:

CONSUMERS ENERGY COMPANY								
Working Capital Study								
Deferred Credit Accounts								
April 30, 2015								
SAP Account	FERC Account	Account Description	Total W/C	Electric	Gas	Non Utility	Tab Location	Allocation Method
		DEFERRED CREDITS, SUBTOTAL						
2134500	253.10000	AR Customer Credit Reclass Liability	(13,668,337)	(9,003,283)	(4,665,054)	-	Deferred CR	Revenue

CONSUMERS ENERGY COMPANY

Working Capital Study
CE Receivable Funding Accounts
April 30, 2015

SAP Account	FERC Account	Account Description	Total	CECo	Subs	Electric	Gas	MGP	Non Utility	Total W/C	Electric	Gas	Non Utility
1230000	123.1000	Investment in Sub	756,581,014	-	-	-	-	-	-	756,581,014	502,442,159	254,138,855	-
1231400	123.1000	Invest in Sub-Cash Infusion	11,199,651	-	-	-	-	-	-	11,199,651	7,437,640	3,762,012	-
TOTAL CE RECBL FUND			767,780,665	-	-	-	-	-	-	767,780,665	509,879,799	257,900,866	-

CONSUMERS ENERGY COMPANY

Working Capital Study
Sale of Receivable Accounts
April 30, 2015

Account	Account	Account Description	Total	CECo	Subs	Electric	Gas	MGP	Non Utility	Total W/C	Electric	Gas	Non Utility
1502000	144.2000	Sale of Receivables - Contra	(427,120,112)	-	-	-	-	-	-	(427,120,112)	(281,342,439)	(145,777,673)	-
TOTAL SALE OF ACCOUNT RECEIVABLES			(427,120,112)	-	-	-	-	-	-	(427,120,112)	(281,342,439)	(145,777,673)	-

CONSUMERS ENERGY COMPANY

Working Capital Study
Sale of Accrued Revenue Accounts
April 30, 2015

Account	Account	Account Description	Total	CECo	Subs	Electric	Gas	MGP	Non Utility	Total W/C	Electric	Gas	Non Utility
1600000	173.0010	Unbilled Revenue Sold-Electric	(225,050,132)	-	-	-	-	-	-	(225,050,132)	(225,050,132)	-	-
1600100	173.0020	Unbilled Revenue Sold-Gas	(110,359,328)	-	-	-	-	-	-	(110,359,328)	-	(110,359,328)	-
TOTAL SALE OF ACCRUED REVENUE			(335,409,461)	-	-	-	-	-	-	(335,409,461)	(225,050,132)	(110,359,328)	-

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/10/15
NO. JSG-10
REQUESTED BY: Jay S. Gerken
DATE OF RESPONSE: 8/13/15
RESPONDENT: James R. Fraga

Question:

2. Does the Company's net gas working capital requirement for its projected test year (test year 2016) Exhibit A-8 (JRF-46) include any items that are receiving a return, interest or otherwise? If any such items are included please list each item, the dollar amount, the FERC and SAP account designations, and the specific reason each item is included, and the corresponding return and or interest dollar amount. Additionally, detail the Company's treatment of these returns and or interest.

Answer:

2. The Company has included FERC 136 accounts in its working capital requirement due to the highly liquid nature of these accounts. These accounts are properly included in working capital consistent with the Commission's June 11, 1985 directive in Case No. U-7350 and previous Commission orders approving working capital balances for ratemaking purposes that include these accounts. Please see below for FERC account 136 balances as of April 2015. WP-JRF-138 details the interest earned on these accounts for 2014 and Exhibit A-9 (JRF-51), Schedule C5, line 27 reflects the offset to O&M expense for the interest earned.

SAP Account	FERC Account	Account Description	Gas
1360001	136.1001	Temporary Cash Cap Ratio-Sender	\$ (5,603,706)
1360002	136.1001	Temporary Cash Cap Ratio-Receiver	5,603,706
1361050	136.0001	Cash-UNBCA MM1D0	50,666,185
1362000	136.0001	Short Term Investment	11,979,174

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/17/15
NO. NBQ-1
REQUESTED BY: Nora B. Quilico
DATE OF RESPONSE: 08/20/15
RESPONDENT: DSPelmear

Question:

Referring to Deborah Pelmear's direct testimony regarding average cost of gas sold and Exhibit A-53 (DSP-1) regarding average cost of gas in storage:

2. Ms. Pelmear states on page 4 of her testimony that "the Company is projecting an average cost of gas sold for 2016 of \$3.660/Mcf (\$824,928/225,399). *"The Company's cost of gas sold reflects locational pricing differences between NYMEX (Henry Hub) and other supply locations (basis), transportation costs, unused reservation charges, and GCR accounting treatment of net system uses."* It also reflects the net cost of gas from storage. Please update this figure using the most current information including but not limited to updated storage cost of gas figures, and updated supply costs using more current NYMEX market pricing.

Answer:

2. Based on the August 2015 Cost of Gas forecast, booked values through July 2015 and NYMEX prices for the first five trading days of August 2015, the Company is currently projecting an average cost of gas sold for 2016 of \$3.583/Mcf (\$807,651/225,399).

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/17/15
NO. NBQ-1
REQUESTED BY: Nora B. Quilico
DATE OF RESPONSE: 08/20/15
RESPONDENT: DSPelmear

Question:

Referring to Deborah Pelmear's direct testimony regarding average cost of gas sold and Exhibit A-53(DSP-1) regarding average cost of gas in storage:

1. Please update Exhibit A-53 (DSP-1) including all booked months that are currently available, and more current NYMEX market pricing.

Answer:

1. Please see attached update, which is based on the August 2015 Cost of Gas Forecast, booked values through July 2015 and NYMEX prices for the first five trading days of August 2015.

Case No.: U-17882
Exhibit: S-10.2
Witness: NBQuilico
Date: December 4, 2015

Request #: 66
Page 2 of 2

BOOKED ACTUALS THROUGH JULY 2015											
STORAGE FIELDS											
MONTH END SUMMARY											
VOLUMES @ 14.65 PSIA DRY											
Line No.	MONTH		GCR			GCC			COMBINED		
			VOL - MMCF	\$000	\$ / MCF	VOL - MMCF	\$000	\$ / MCF	VOL - MMCF	\$000	\$ / MCF
1	Dec-13	Booked	121,833	579,925	4.760	13,927	73,383	5.269	135,760	653,308	4.812
2	Jan-14	Booked	94,621	450,397	4.760	7,191	37,888	5.269	101,812	488,285	4.796
3	Feb-14	Booked	81,823	389,562	4.761	198	1,046	5.270	82,022	390,608	4.762
4	Mar-14	Booked	71,950	345,750	4.805	-3,607	-19,008	5.270	68,344	326,742	4.781
5	Apr-14	Booked	80,081	384,685	4.804	-1,727	-9,100	5.270	78,354	375,585	4.793
6	May-14	Booked	98,494	475,761	4.830	-818	-4,265	5.212	97,676	471,496	4.827
7	Jun-14	Booked	118,319	567,630	4.797	2,413	14,489	6.004	120,733	582,120	4.822
8	Jul-14	Booked	134,384	642,574	4.782	6,294	37,741	5.996	140,678	680,315	4.836
9	Aug-14	Booked	150,624	708,645	4.705	10,189	60,467	5.934	160,813	769,112	4.783
10	Sep-14	Booked	160,733	751,640	4.676	13,858	81,486	5.880	174,590	833,126	4.772
11	Oct-14	Booked	160,331	749,280	4.673	17,197	100,531	5.846	177,529	849,811	4.787
12	Nov-14	Booked	139,401	651,380	4.673	18,563	108,285	5.833	157,964	759,665	4.809
13	Dec-14	Booked	124,438	581,473	4.673	17,098	99,742	5.833	141,536	681,215	4.813
14	13 Month Avg		118,233	559,900	4.736	7,752	44,822	5.782	125,985	604,722	4.800
15	Dec-14	Booked	124,438	581,473	4.673	17,098	99,742	5.833	141,536	681,215	4.813
16	Jan-15	Booked	97,058	453,469	4.672	12,881	75,141	5.833	109,939	528,609	4.808
17	Feb-15	Booked	70,295	328,351	4.671	6,790	39,611	5.833	77,085	367,962	4.773
18	Mar-15	Booked	65,365	302,513	4.628	4,350	25,373	5.833	69,715	327,886	4.703
19	Apr-15	Booked	74,013	325,187	4.394	-882	-5,148	5.834	73,131	320,039	4.376
20	May-15	Booked	91,091	373,253	4.098	1,299	5,542	4.267	92,390	378,795	4.100
21	Jun-15	Booked	108,070	424,560	3.929	4,919	22,835	4.642	112,989	447,394	3.960
22	Jul-15	Booked	125,643	477,146	3.798	8,719	40,827	4.683	134,362	517,973	3.855
23	Aug-15	F'cast	141,404	526,330	3.722	12,672	59,841	4.722	154,076	586,171	3.804
24	Sep-15	F'cast	153,803	563,928	3.667	16,504	78,265	4.742	170,306	642,193	3.771
25	Oct-15	F'cast	155,286	568,495	3.661	19,810	94,166	4.753	175,096	662,660	3.785
26	Nov-15	F'cast	143,131	523,997	3.661	20,772	98,793	4.756	163,904	622,791	3.800
27	Dec-15	F'cast	120,150	439,863	3.661	18,643	88,667	4.756	138,793	528,530	3.808
28	13 Month Avg		113,058	452,966	4.007	11,044	55,666	5.040	124,102	508,632	4.099
29	Dec-15	F'cast	120,150	439,863	3.661	18,643	88,667	4.756	138,793	528,530	3.808
30	Jan-16	F'cast	95,610	350,022	3.661	13,989	66,531	4.756	109,598	416,553	3.801
31	Feb-16	F'cast	75,381	275,968	3.661	9,701	46,138	4.756	85,082	322,106	3.786
32	Mar-16	F'cast	62,978	230,558	3.661	6,669	31,720	4.756	69,647	262,278	3.766
33	Apr-16	F'cast	75,608	269,851	3.569	-189	-690	3.654	75,419	269,161	3.569
34	May-16	F'cast	90,433	315,257	3.486	2,092	7,646	3.654	92,525	322,903	3.490
35	Jun-16	F'cast	106,176	363,480	3.423	5,277	19,283	3.654	111,453	382,763	3.434
36	Jul-16	F'cast	122,847	414,747	3.376	8,987	32,839	3.654	131,835	447,586	3.395
37	Aug-16	F'cast	139,521	466,344	3.342	12,748	46,582	3.654	152,270	512,926	3.369
38	Sep-16	F'cast	153,774	510,219	3.318	16,363	59,791	3.654	170,137	570,009	3.350
39	Oct-16	F'cast	155,607	516,027	3.316	19,493	71,226	3.654	175,100	587,253	3.354
40	Nov-16	F'cast	143,501	475,879	3.316	20,383	74,478	3.654	163,884	550,358	3.358
41	Dec-16	F'cast	120,327	399,030	3.316	18,378	67,150	3.654	138,704	466,180	3.361
42	13 Month Avg		112,455	386,711	3.439	11,734	47,028	4.008	124,188	433,739	3.493

MICHIGAN PUBLIC SERVICE COMMISSION**Consumers Energy Company**

Summary of Insurance Credits & Refunds

Case No: U-17882

Exhibit: S-11.0

Witness: RFNichols

Date: 12/4/15

Page 1 of 1

Insurance Credits & Refunds

Line	Description	2010*	2011*	2012*	2013*	2014*	5-yr Average
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	FM Property Credit	\$ (96,079)	\$ -	\$ -	\$ (101,508)	\$ (105,476)	\$ (60,613)
2	AEGIS Gen Public Liab Credit	-	-	(67,695)	(60,754)	-	(25,690)
3	EIM Distribution	-	-	-	(286,779)	(299,145)	(117,185)
4	Total	\$ -	\$ -	\$ -	\$ (286,779)	\$ (299,145)	\$ (203,487)

Notes:

*Source: Exhibit S-11.7, page 4

MICHIGAN PUBLIC SERVICE COMMISSION

Case No: U-17882

Exhibit: S-11.1

Consumers Energy Company

Witness: RFNichols

Summary of Advertising Expense

Date: 12/4/15

Page 1 of 1

Advertising Expense

Line	Description	2010 Total Gas Utility*	2011 Total Gas Utility*	2012 Total Gas Utility*	2013 Total Gas Utility*	2014 Total Gas Utility*	2010 - 2012 Average	2016 Consumers Projection	Staff Adjustment	Staff Projection
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Energy Assistance Program									
2	Economic Development									
3	Provision To Educational Institutions					\$ 6,764		\$ 6,764		\$ 6,764
4	Energy Efficient Appliances							0		0
5	Required By Law	\$ 20,160	\$ 53,755	\$ 72,413	\$ 60,417	74,554		74,554		74,554
6	Customer Information	178,792	161,147	155,172	1,139,593	1,519,831	\$ 165,037	1,519,831	\$ (1,354,794)	165,037
7	Employment Opportunity	15,437	13,074	62,934	71,127	100,479		100,479		100,479
8	Conservation Of Energy									
9	Explanation Of Billing									
10	Subtotal	214,389	227,976	290,519	1,271,137	1,701,628		1,701,628	(1,354,794)	346,834
11	Other Advertising Programs	2,337								
12	Total	\$ 216,726	\$ 227,976	\$ 290,519	\$ 1,271,137	\$ 1,701,628		\$ 1,701,628 **	\$ (1,354,794)	\$ 346,834

Notes:

*Source: Exhibit S-11.10, page 3

**Source: Exhibit S-11.8, page 2

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Summary of BTS/IT O&M Expenses
(\$000)

Case No: U-17882
Exhibit: S-11.2
Witness: RFNichols
Date: 12/4/15
Page 1 of 1

BTS / Information Technology Department

Line	Program Description (a)	2010 Actual** (b)	2011 Actual** (c)	2012 Actual** (d)	2013 Actual** (e)	2014 Actual** (f)	U-17643	U-17882		2011-2014 Average (j)	Staff Adjustment (k)	Staff Projection (l)
							2015 Request*** (g)	2015 Projected (h)	2016 Consumers Projected (i)			
1	Operations	na*	20,296	22,794	23,971	25,437	26,270	23,782	24,041	23,125	-	24,041
2	Investments	na*	3,724	8,265	4,431	8,214	7,570	3,761	8,891	6,159	(2,733)	6,159
3	Total	22,851	24,020	31,060	28,402	33,652	33,840	27,543	32,933	29,283	(2,733)	30,200

Notes:

*In 2010 O&M expenses were broken down by organization and not by Operations and Investments.

**Source: Exhibit S-11.9, page 2

***Source: U-17643, Exhibit A-63 (CJV-2)

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Summary of Active Healthcare O&M Expenses
For the years 2014, 2015, and 2016
(000)

Case No: U-17882
Exhibit: S-11.3
Witness: RFNichols
Date: 12/4/15
Page 1 of 1

Active Healthcare

Line	Program Description (a)	Consumers Rate Case Projection			2015 Projection as of 10/14/15* (e)	6% Health Increase for 2016 (f)	Staff Projection 2016 (g)	Staff Adjustment (h)
		2014 Actual (b)	2015 Projected (c)	2016 Projected (d)				
1	Active Health Care/Life Insurance/LTD	\$ 15,553	\$ 16,357	\$ 17,296	\$ 15,892	\$ 954	\$ 16,846	\$ (450)
2	TOTAL EXPENSE	\$ 15,553	\$ 16,357	\$ 17,296	\$ 15,892	\$ 954	\$ 16,846	\$ (450)

Notes:

*Source: Exhibit S-11.16, page 2

MICHIGAN PUBLIC SERVICE COMMISSION**Consumers Energy Company**

Summary of Easy Pay

Projected Test Year Revenue & Expense

Case No: U-17882

Exhibit: S-11.4

Witness: RFNichols

Date: 12/4/15

Page 1 of 1

Easy Pay

Line	Date	Description	Transaction Volume**	Transaction Avg Cost**	Extended Cost**	49 % Gas O&M *
	(a)	(b)	(c)	(d)	(e)	(f)
1	Jan - June	Easy Pay (One time Payment)	844,893	\$ 3.07	\$ 2,593,724	\$ 1,270,925
2	Jan - June	Recurring Credit Cards	844,893	0.97	816,327	400,000
3					3,410,050	1,670,925
4	July - Dec	Monthly Flat Fee (six months)	6	\$ 600,000	3,600,000	1,764,000
5	Full Year					3,434,925
6	Less:	Revenue Collected Outside of Rates	844,893	\$ 6.25 ***	\$ 5,280,581	(2,587,485)
7		Projected Test Year Revenue Requirement in Rates				\$ 847,440
8	Jan-Dec	Consumers Easy Pay Expense Included in the Projected Test Year				3,434,925
9		Staff Adjustment				(2,587,485)
10		Allowable Expense in Rates				\$ 847,440

Notes:

* The Customer Gas split was used in the calculation

**Source: Exhibit S-11.12, page 2

***Source: Exhibit S-11.14

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Summary of Uncollectible Expense

(000)

Case No: U-17882

Exhibit: S-11.5

Witness: RFNichols

Date: 12/4/15

Page 1 of 2

Uncollectible Expense

Line	Description	2014 Actual	2015 Projected	2016 Consumers Projected	Staff Adjustment	Staff Projection
	(a)	(b)	(c)	(d)	(e)	(f)
1	Uncollectible Accounts Expense	\$ 34,920 ¹	\$ 28,500	\$ 25,097 ¹	\$ (606)	\$ 24,491 ³
2	Gas Smart Grid Program Benefits	0	0	(307) ²	-	(307)
3	Test-Year Total Uncollectible Accounts Expense	\$ 34,920	\$ 28,500	\$ 24,790	\$ (606)	\$ 24,184

Notes:

¹ Exhibit A-43 (DLH-3) Page 1

² Exhibit A-64 (LDW-3) Page 3 of 6

³ Exhibit S-11.5 page 2

MICHIGAN PUBLIC SERVICE COMMISSION**Consumers Energy Company**

Summary of Uncollectible Expense
(000)

Case No: U-17882

Exhibit: S-11.5

Witness: RFNichols

Date: 12/4/15

Page 2 of 2

Uncollectible Expense

Line	Description	Gross Write-offs	Collections	Net Write-offs	Gas Service Revenues	BDLR (Col. (d)/Col. (e))
	(a)	(b)	(c)	(d)	(e)	(f)
1	2010 Actual	\$ 43,506	\$ 15,835	\$ 27,671	2,218,232	1.247%
2	2011 Actual	47,553	15,701	31,852	2,176,053	1.464%
3	2012 Actual	39,136	12,530	26,606	1,802,605	1.476%
4	2013 Actual	38,557	9,526	29,031	1,980,025	1.466%
5	2014 Actual	42,516	9,404	33,112	2,166,922	1.528%
6	5 year average			29,654	2,068,767	1.436%
Test-Year Total Sales & Transport Revenue						
Exhibit A-11 (JMS-13) Schedule E-13, Page 1 of 1						
7	Row 10, Column (j) - Row 10, Column (c).				\$ 1,705,171	
8	5-Year Avg. BDLR					1.436%
9	Test Year Gross Uncollectible Expense				<u>\$ 24,491</u>	

Notes:

Source: Exhibit S-11.13

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Summary of ASP Revenue and Expense
For the Years 2010 through 2016
(\$000)

Case No: U-17882
Exhibit: S-11.6
Witness: RFNichols
Date: 12/4/15
Page 1 of 1

Appliance Service Plan Program

Line	Description	2010	2011	2012	2013	2014	Consumers Rate Case Projection		Consumers 2015 Projection as of 10/22/15**	Staff Adjustment	2016 Staff Projection
		Actual*	Actual*	Actual*	Actual*	Actual*	2015	2016	2015		
		(a)	(b)	(c)	(d)	(e)	Projected	Projected	Projected	(i)	(j)
1	ASP Revenues	44,047	45,493	46,919	52,658	60,462	60,462	60,462	66,947	6,485	66,947
2	ASP Direct Expense	24,558	26,259	28,040	33,750	39,772	39,772	39,772	35,108	(4,664)	35,108
3	ASP Direct Margin	19,489	19,234	18,879	18,908	20,691	20,691	20,691	31,840	11,149	31,840

Notes:

*Source: Exhibit S-11.15, page 2

*Source: Exhibit S-11.15, page 3

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/06/15
NO. RFN-6
REQUESTED BY: Bob F. Nichols
DATE OF RESPONSE: 8/14/15
RESPONDENT: Daniel L. Harry

Question:

Please provide the following documents or data. If the requested item is already included in the Company's filing, please provide a reference to its location (exhibit, workpaper, etc.)

5. Regarding Insurance Expense:
- Please provide a list containing each insurance expense included in the projected test year and a brief description of each.
 - For each year 2010 through 2014, please provide the actual premiums paid for each insurance policy and break out the gas portion.
 - For each year 2010 through 2014, please provide the actual refunds, credits and distributions received for each insurance policy and break out the gas portion.

Answer:

5.a.

Insurance Program	Expense (\$)	Description
Property	941,676	Covers the cost to repair loss or damage to compressor stations, service centers, and office buildings.
Gas in Storage	138,999	Covers the cost to replace the loss of natural gas stored in underground gas storage fields.
Fidelity / Crime	29,436	Covers the loss of money and other property from theft. Includes employee benefit plans as required by ERISA.
D&O Liability	820,071	Covers the cost of claims alleging wrongful acts, errors, or omissions by directors and officers.
Public General Liability	4,878,646	Covers the cost from accidents which cause bodily injury or property damage to members of the public.
Professional Liability	91,910	Covers the cost of non-bodily injury or property damage claims from performing professional services for others (i.e. meter reading, etc.).
Cyber Liability	80,044	Covers the cost from loss of personally identifiable

information and network security liability.

Fiduciary Liability	381,690	Covers the cost of claims made against fiduciaries of employee benefit plans for a breach of their fiduciary duties.
Workers Compensation	784,507	Covers payments due employees under MI work comp law who are injured in a workplace accident.
Non-Owned Aircraft Liability	28,606	Covers the cost from aircraft accidents which cause bodily injury or property damage to members of the public.
Mail	0	Covers the cost of replacing stock certificates lost during mailing. This policy was cancelled in Feb. 2015.
Total	8,175,585	

The Company also maintains a travel accident insurance program which covers employees injured while traveling on Company business and an automobile insurance program that covers employees in an automobile accident for the \$500,000 deductible (Self-Insured Retention) under the Public General Liability policy if the Company fails to pay the deductible. The total for both of these programs in 2016 is estimated at \$13,444. These amounts are allocated in SAP. The electric/gas split is not readily available.

5b. See attached spreadsheet.

5c. See attached spreadsheet.

With the exception of the AEGIS D&O Liability Credit, which is received annually, 2016 projected gas insurance expense does not include an assumption that these credits or distributions will be received due to the uncertainty that they will be received on a regular basis. Because the AEGIS D&O Liability is received annually the 2016 insurance projection includes an assumption that this credit will be received at amounts similar to history.

U-17882
 MPSC Audit Request #49 attachment

Answer 5. b. Amounts **paid** for insurance at the time the policies were renewed in the year shown and how much of the policy period premium was allocated to gas. These premiums are on a 12 month policy period basis and not calendar year. For example, a policy that renews August 31, 2012 the premium shown would be for the policy period beginning August 31, 2012 and ending August 31, 2013.

	<u>2010 renewal</u>		<u>2011 renewal</u>		<u>2012 renewal</u>		<u>2013 renewal</u>		<u>2014 renewal</u>	
	<u>Total Paid</u>	<u>Gas Portion</u>	<u>Total Paid</u>	<u>Gas Portion</u>	<u>Total Paid</u>	<u>Gas Portion</u>	<u>Total Paid</u>	<u>Gas Portion</u>	<u>Total Paid</u>	<u>Gas Portion</u>
Property	6,668,651	541,386	7,602,052	751,944	8,003,749	821,864	6,813,729	693,420	7,395,709	784,071
Gas in Storage	303,016	303,016	263,588	263,588	257,157	257,157	197,313	197,313	136,940	136,940
Fidelity / Crime	55,931	26,666	55,931	26,666	53,135	25,903	53,135	25,850	54,463	26,523
D&O Liability	2,305,962	1,121,809	1,546,059	752,117	1,418,510	691,444	1,714,928	834,244	1,682,415	819,262
Public General Liability	5,572,271	2,615,401	6,065,360	2,911,484	6,461,157	3,153,139	8,229,629	4,097,562	9,469,179	4,707,204
Professional Liability	Incl Above	Incl Above	Incl Above	Incl Above	Incl Above	Incl Above	183,191	89,122	183,191	89,214
Cyber Liability	-	-	-	-	-	-	162,975	76,116	166,224	77,713
Fiduciary Liability	974,130	464,436	826,740	394,165	787,903	376,420	787,903	375,649	787,903	376,034
Workers Compensation	790,652	395,325	800,880	400,440	839,997	419,418	921,853	460,926	986,265	493,133
Non-Owned Aircraft Liability	49,500	970	49,500	970	49,500	970	29,040	14,230	28,380	13,906
Mail	4,500	2,250	4,500	2,250	4,500	2,250	4,500	2,250	1,800	900
Total	16,724,613	5,471,259	17,214,610	5,503,624	17,875,608	5,748,565	19,098,196	6,866,682	20,892,469	7,524,900

amounts are net of credits shown on invoices

Answer 5. b. Amounts **expensed** in the year shown for insurance premiums allocated to gas. Since insurance policies are renewed throughout the year the write-off amount would include that portion of the premium that provided coverage in the year shown. For example, a policy with a August 31, 2012 to August 31, 2013 policy period would have its premium allocated 33% in 2012 and 67% in 2013.

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
	<u>Gas Expense</u>	<u>Gas Expense</u>	<u>Gas Expense</u>	<u>Gas Expense</u>	<u>Gas Expense</u>
Property	472,119	609,508	775,286	780,398	730,105
Gas in Storage	309,060	276,395	257,159	227,235	162,095
Fidelity / Crime	26,562	26,676	26,091	25,862	26,355
D&O Liability	1,420,827	1,121,792	751,691	691,443	834,243
Public General Liability	2,607,756	2,772,373	3,025,714	3,618,863	4,322,986
Professional Liability	Incl Above	Incl Above	Incl Above	Incl Above	Incl Above
Cyber Liability					76,116
Fiduciary Liability	511,850	429,305	385,290	382,566	369,316
Workers Compensation	395,318	397,887	410,180	440,451	477,163
Non-Owned Aircraft Liability	978	970	970	4,285	14,151
Mail	2,109	2,256	2,232	2,268	825
Total	5,746,579	5,637,162	5,634,613	6,173,371	7,013,355

amounts are net of credits shown on invoices

U-17882
 MPSC Audit Request #49 attachment

Answer 5. c. Credits received for renewals in the year shown and which reduce the amount of premium paid. These amounts are reflected in the premiums shown in Answer 1. b.

	<u>2010 renewal</u>		<u>2011 renewal</u>		<u>2012 renewal</u>		<u>2013 renewal</u>		<u>2014 renewal</u>	
	<u>Total</u>	<u>Gas Portion</u>	<u>Total</u>	<u>Gas Portion</u>	<u>Total</u>	<u>Gas Portion</u>	<u>Total</u>	<u>Gas Portion</u>	<u>Total</u>	<u>Gas Portion</u>
FM Property Credit	(998,767)	(96,079)	-	-	-	-	(997,442)	(101,508)	(964,275)	(105,476)
AEGIS Gen Public Liab Credit	-	-	-	-	(138,862)	(67,695)	(124,879)	(60,754)	-	-
AEGIS D&O Liability Credit	(405,231)	(197,145)	(768,954)	(374,096)	(860,278)	(419,386)	(451,455)	(219,633)	(460,858)	(224,438)
Total	(1,403,998)	(293,224)	(768,954)	(374,096)	(999,140)	(487,081)	(1,573,776)	(381,895)	(1,425,133)	(329,914)

Answer 5. c. Distributions received in the form of a check and shown in the year received. These amounts are not reflected in the premiums shown in Answer 1. b.

	<u>2010</u>		<u>2011</u>		<u>2012</u>		<u>2013</u>		<u>2014</u>	
	<u>Total</u>	<u>Gas Portion</u>	<u>Total</u>	<u>Gas Portion</u>	<u>Total</u>	<u>Gas Portion</u>	<u>Total</u>	<u>Gas Portion</u>	<u>Total</u>	<u>Gas Portion</u>
EIM Distribution	-	-	-	-	-	-	(573,558)	(286,779)	(614,893)	(299,145)
Total	-	-	-	-	-	-	(573,558)	(286,779)	(614,893)	(299,145)

With the exception of the AEGIS D&O Liability Credit, which is received annually, 2016 projected gas insurance expense does not include an assumption that these credits or distributions are received due to the uncertainty that they will be received on a regular basis. Because the AEGIS D&O Liability is received annually the 2016 insurance projection includes an assumption this credit will be received at amounts similar to historical amounts.

MPSC AUDIT REQUEST

CASE NO: U-17882

DATE OF REQUEST: 08/14/15

NO. RFN-16

REQUESTED BY: Robert F. Nichols II

DATE OF RESPONSE: 8/24/15

RESPONDENT: James R. Fraga

Question:

1. Please provide five years of actuals 2010 through 2014 for each and provide the gas / electric split. Additionally please provide the amount of each included in the projected test year and the amount that has been removed from the projected test year:
 - a. Donations
 - b. Lobbying
 - c. Advertising

Answer:

1. Please see the attached document "U-17882 MPSC Staff Audit Rqst 64 – Attachment."

Consumers Energy Company

Gas Rate Case U-17882

Audit Request #64

Dues/Donations, Lobbying, and Advertising - 2010-2014

(\$000)

	2010				2011			
	Electric		Gas		Electric		Gas	
	Allowable	Not Allowable	Allowable	Not Allowable	Allowable	Not Allowable	Allowable	Not Allowable
Dues/Donations	790,104	275,904	550,580	167,219	810,738	160,847	554,826	124,567
Lobbying	-	358,978	-	46,497	-	237,988	-	58,727
Advertising	1,107,170	-	216,727	-	1,173,436	-	227,975	-
Total	1,897,274	634,883	767,306	213,716	1,984,174	398,835	782,802	183,294

	2012				2013			
	Electric		Gas		Electric		Gas	
	Allowable	Not Allowable	Allowable	Not Allowable	Allowable	Not Allowable	Allowable	Not Allowable
Dues/Donations	756,308	237,669	568,403	153,182	820,672	215,758	531,010	162,766
Lobbying	-	261,874	-	45,828	-	257,724	-	39,569
Advertising	1,223,047	-	290,519	-	3,431,547	-	1,271,138	-
Total	1,979,355	499,543	858,922	199,010	4,252,219	473,482	1,802,147	202,335

	2014				2016 Projected Test Year	
	Electric		Gas		Gas	
	Allowable	Not Allowable	Allowable	Not Allowable	Allowable ¹	Not Allowable
Dues/Donations	1,014,412	116,899	549,537	74,163	549,537	143,094
Lobbying	-	66,543	-	27,832	-	53,700
Advertising	3,485,174	-	1,701,628	-	1,701,628	-
Total	4,499,586	183,442	2,251,165	101,994	2,251,165	196,793

NOTE: Amounts provided are in gross dollars.

¹ Allowable costs are not specifically projected in the test year. Dues/donations and advertising are included within corporate O&M expense.

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/26/15
NO. RFN-20
REQUESTED BY: Robert Nichols
DATE OF RESPONSE: 08/31/15
RESPONDENT: Christoper Varvatos

Question:

1. Regarding A-59 (CJV-2) IT: Please provide 5 years actuals, 2010 through 2014, the 2015 estimate, and the amount included in the projected test year for BTS/IT broke out by:
 - a. Operations
 - b. Investment
 - c. Total

Answer:

1. Please refer to Attachment A to this response for the IT O&M breakdown into Operations and Investments for the years 2011 through 2016. Note that only the total IT O&M is provided for the year 2010, as O&M was broken down by organization in 2010 and not by Operations and Investments.

MPSC Staff Audit Request 102 - Attachment A

Consumers Energy Company
Summary of Projected Gas & Common O&M Expenses
For the years 2010, 2011, 2012, 2013, 2014, 2015 and 2016
(\$000)

Case No: U-17882
Exhibit: A-59 (CJV-2)
Witness: CJVarvatos
Date: July 2015
Page 1 of 1

Information Technology Department

Line No.	Program Description	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Projected	2016 Projected
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Operations	na*	20,296	22,794	23,971	25,437	23,782	24,041
2	Investments	na*	3,724	8,265	4,431	8,214	3,761	8,891
3	TOTAL O&M EXPENSES	22,851	24,020	31,060	28,402	33,652	27,543	32,933

*In 2010 O&M expenses were broken down by organization and not by Operations and Investments.

MPSC AUDIT REQUEST

CASE NO: U-17882

DATE OF REQUEST: 09/8/15

NO. RFN-25

REQUESTED BY: Robert F. Nichols II

DATE OF RESPONSE: 9/14/15

RESPONDENT: James R. Fraga/Saudia Santure

Question:

1. Regarding Advertising and audit response #64, For Gas Allowable Advertising Expense:

- a. Please provide the dollar amount that relates to safety/education for each year 2010 through 2014.
- b. Please provide the dollar amount that relates to energy efficiency for each year 2010 through 2014.
- c. Please provide the dollar amount that relates to self-promotion for each year 2010 through 2014.
- d. Please provide a breakdown of the 2014 amount of \$1,701,628 by media type.
- e. Please provide the five largest contract amounts for 2014 and the documents that show what was contained in the advertisements.
- f. Was there a particular driver that caused advertising expense to increase significantly over the 2012 to 2014 time period?

Answer:

1. a.-c. See "U-17882 MPSC Staff Audit Request 158 – Attachment A.xlsx" for a response. This includes all classifications of advertising expense for 2010-2014.

d. Please refer to workpaper WP-JRF-109 for a breakout of advertising expense by media type.

e. In 2014, Consumers Energy was in the third year of a single Agency of Record contract with Lowe-Campbell Ewald (LCE). LCE managed all aspects of our paid media during this time. Their overall contract was for \$12 million annually, and performed work for programs including Energy Efficiency, Customer Engagement (CVI budget), and Green Generation.

Examples of the advertisements are included in attachment "U-17882 MPSC Staff Audit Request 158 – Attachment B.pdf".

In September 2014, as a normal part of our business, the Company issued an RFP for advertising agencies. In late 2014/ early 2015, we moved to new agencies and realigned the way we manage this work. Instead of having a single Agency of Record (AOR), we are currently operating with three Agencies of Record. This has led to efficiencies within the agencies, as well as within the company as the agencies are focused on their areas of strength. The new agencies are:

- Duffey-Petrosky, Farmington Hills, is our AOR for both Creative and Research. Contract was signed February 2, 2015 for two years, \$4,890,000 is the total contract.
- LEAD Marketing, Grand Rapids, is our AOR for Media Buy. Contract was signed January 1, 2015 for two years, \$18 million is the total contract.

- Allied Company, Ferndale, is our AOR for Print Production and Fulfillment. Contract was signed February 2, 2015 for two years, \$3 million is the total contract.
- f. Yes, the main driver causing advertising expenses to increase in this case is the Company's increased focus on better and increased overall customer communication, particularly through the Company's Customer Value Initiative program. Consumers Energy has set a goal as a company to increase customer satisfaction in areas, such as customer communication, in which previous JD Power surveys showed potential for improvement. The Company is seeking recovery for only advertising expenses that have a specific customer benefit. This advertising was identified as customer communication efforts related to natural gas and electric safety, service restoration, service interruptions, natural gas pricing options, conservation and payment options.

See "U-17882 MPSC Staff Audit Request 158 – Attachment C.xlsx" for a detail comparison of line 6, Customer Information of "U-17882 MPSC Staff Audit Request 158 – Attachment A.xlsx"

CONSUMERS ENERGY COMPANY

Gas Case U-17882

Audit Request # 158

ADVERTISING EXPENSES

12 MONTHS ENDED DECEMBER 31

(000)

Line	Description	2010 Total Gas Utility	2011 Total Gas Utility	2012 Total Gas Utility	2013 Total Gas Utility	2014 Total Gas Utility
	(a)					(b)
1	Energy Assistance Program					
2	Economic Development					
3	Provision To Educational Institutions					6,764
4	Energy Efficient Appliances					
5	Required By Law	20,160	53,755	72,413	60,417	74,554
6	Customer Information	178,792	161,147	155,172	1,139,593	1,519,831
7	Employment Opportunity	15,437	13,074	62,934	71,127	100,479
8	Conservation Of Energy					
9	Explanation Of Billing					
10	Subtotal	214,389	227,976	290,519	1,271,137	1,701,628
11	Other Advertising Programs	2,337				
12	Total	216,726	227,976	290,519	1,271,137	1,701,628

Source: Rates Department Annual Gas Advertising Summary EXCEL files

S:\PSC\psc_energy_share\Current Rate Cases\U-17882 - Consumers Gas Rate Case\COMPANY RESPONSES\RFN-25 01\U-17882 MPSC Staff Audit Rost 158 - Attachment C

2014

Classification Code	Field2	Description	Month	Field71
35	423-Electrical & Natural Gas Safety World Website	6	269.50	
36	311-Cold Weather	6	9,868.75	
37	310-Management Fee - Customer Engagement	6	16,129.30	
38	311a-Cold Weather	7	122.50	
39	314-Safety	7	(19.56)	
40	315-Safety	7	940.35	
41	316-Safety	7	(947.68)	
42	312-Management Fee - Customer Engagement	7	16,129.30	
43	426-Slow Down, Go Around - Safety	7	1,133.03	
44	313-Cold Weather	7	1,443.66	
45	424-Electrical & Natural Gas Safety World Website	7	269.50	
46	402-Guide to Our Services	7	11,125.45	
47	425-Safety	8	257.95	
48	414-Carge Vigorem Newsletter	8	444.48	
49	317-Customer Engagement	8	4,704.00	
50	318-Management Fee - Customer Engagement	8	16,129.30	
51	319-Safety Online	8	(1,152.26)	
52	324-Customer Research	9	4,704.00	
53	398-Newsline	9	14,180.11	
54	320-Customer Engagement Online	9	9,532.50	
55	321-Customer Engagement Online	9	84.14	
56	323-Safety_Cold Weather	9	799.96	
57	322-Management Fee - Customer Engagement	9	16,129.30	
58	327-Customer Engagement Online	10	7,114.53	
59	408-Home Heating Credit Customer Information	10	2,084.95	
60	325-Management Fee - Customer Research - Business	10	3,871.00	
61	326-Customer Engagement Online	10	64.49	
62	405-Engineering Door Hanger for Customers	10	367.95	
63	386-Gas Cap Packets	10	3,737.95	
64	392-Gas Cap November Kits	11	8,612.16	
65	404-ASP Postcards for Customers	11	2,138.85	
66	399-Assistance Brochure Insert November	11	21,679.56	
67	396a-Natural Gas Safety Resource Guide	11	5,249.00	
68	416-ASP Brochure for Customers	11	1,307.23	
69	417-ASP Brochure for Customers	11	757.08	
70	406-Engineering Door Hanger for Customers	11	666.40	
71	328-Customer Engagement Online	11	3,207.60	
72	388-Reprint Gas Cap Postcards	11	560.00	
73	387-Gas Cap Postcards	11	612.87	
74	332-Management Fee - Customer Engagement-Mess	11	6,443.50	
75	331-Management Fee - Customer Engagement	11	16,129.30	
76	330-Customer Engagement Online	11	(8.45)	
77	329-Customer Engagement Online	11	(243.71)	
78	393-Gas Distribution Non Customer Safety Letter	12	10,560.00	
79	418-ASP Brochure for Customers	12	1,950.20	
80	407-Guide to our Services	12	13,854.75	
81	377-Management Fee - Customer Engagement	12	16,127.75	
82	394-Natural Gas Pipeline Safety Information	12	898.48	
83	389-Gas Cap Letter/Brouchure	12	1,684.89	
84	395-Natural Gas Pipeline Safety Information	12	2,028.74	
Total				581,105.59

2013

Classification Code	Field21	Description	Month	Field71
35	46-Software for Customer Engagement Search Engine	6	48.51	
36	38-Software for Customer Engagement Ad Search Engine	7	48.51	
37	Guide to our Services Booklet15 - JohnnieOnTheSpot	7	11,546.85	
38	Home Heating Credit Form16 - JohnnieOnTheSpot	7	156.80	
39	18-Safe spot talent cost and expense for Customer Engagement Filming	7	8,922.91	
40	24-Online Video for Customer	7	(1,477.82)	
41	26-Gas Safety Recoverable Online Video for Customers	7	9,180.00	
42	29-Mgmt Fee for Gas Safety Ads	7	4,661.00	
43	35-Mgmt Fees for research, Pting etc. for Ads	7	13,720.00	
44	32-Mgmt Fees for Gas Safety Radio Ads	7	9,625.00	
45	30-Customer Engagement Management Fees	8	11,490.50	
46	22-Safe Spot Online Video for Customers	8	16,525.25	
47	Newsline 3	8	14,180.00	
48	25-Gas Safety Recoverable Online Video for Customers	8	820.00	
49	Gas Cap Brouchure6-JohnnieOnThe Spot	8	1,630.00	
50	12-Safe Spot Online Video for Customers	8	(1,570.78)	
51	Gas CapPocket Folder7-JohnnieOnThe Spot	8	3,553.20	
52	19-Safe Spot Mgmt Fees	9	13,548.00	
53	16-Software search engine for our safe ads	9	48.51	
54	21-Safe Spot online Video work	9	16,525.25	
55	75-Management fees	10	13,548.00	
56	5-Photoshoot for Brochures for customers	10	223.62	
57	74-Management fees for social media	10	7,742.00	
58	73-Safe Spot Audio Visual, Misc	10	19,158.78	
59	Newsline 5 - Assistance Brochure	10	21,680.00	
60	3-Software for online adds	10	145.53	
61	8-Safe Spot Online Video	11	16,525.25	
62	6-Management fees for Safe Spot processing	11	13,548.00	
63	9-Safe Spot Mgmt Fee for Customer web, online etc.	11	10,064.60	
64	78-Online media software charge	12	45.51	
65	76-Management fees	12	13,548.00	
66	77-Management fees social media digital files	12	7,740.00	
67	80-Photoshoot for brochures, website	12	11,776.81	
68	Insert #403 - 3 R's Brochure-Natural Gas Safety	12	29,460.00	
69	Neighbors Brochures-Natural Gas Pipeline Safety	12	22,625.00	
70	92-Safe TV Spot Talent Holding Fees	12	2,407.98	
71	88-Online Media Safe Spot	12	300.64	
72	90-Customer Video Editing	12	17,444.00	
73	87-Online Media Safe Spot	12	2,266.26	
74	89-Online Media Safe Spot	12	26,008.93	
75	93-Incremental video assets, website, YouTube, misc uses, public use/customer	12	2,969.40	
Total				626,549.00

2012

Classification Code	Field2	Description	Month	Field71
				75

2014					2013					2012				
Classification Code	Field2	Description	Month	Field71	Classification Code	Field21	Description	Month	Field71	Classification Code	ield2	Description	Month	Field71
Newspaper					Radio									
Customer Information					Customer Information									
	1	334-Customer Engagement - Cold Weather	3	111,884.33		1	54-Radio ads	4	89.25					
	2	335-Cold Weather	4	452.76		2	37-Radio License of Sync Master Perf rights for Hear and Smell Ad	4	747.89					
				2		3	55-Radio ads for Customer Engagement for misc stations	5	52,772.25					
		Total		112,337.09		4	43-Radio Ads for Customer Engagement misc stations	5	(7,607.91)					
						5	59-Radio ads for misc stations	5	566.22					
						6	31-Radio Ads for Gas Safety Misc Stations	5	552.50					
						7	47-Audio, Visual and new media for misc production of Customer Engagem	6	1,865.00					
						8	44-Safety Radio Ads on Customer Engagement	6	57,630.00					
						9	23-Safety Hear & Smell Radio ads for misc stations	7	159.11					
						10	33-Radio Ads on Gas Safety misc stations	7	123,073.20					
						11	15-Radio Other, Misc Production Customer Engagement	9	40.18					
						12	70-Safe Spot Radio Ads	10	18,701.68					
						13	13-Safe Spot Ads for various radio stations	11	9,350.84					
						14	7-Safe Spot Radio Ad	11	284.55					
						15	85-Radio ads for Hear & Smell - Gas Safety	12	52.70					
						16	86-Radio ads for Hear & Smell - Gas Safety	12	56,527.55					
							Total		16					
									314,805.01					
Radio					Television									
Customer Information					Customer Information									
	1	190-Extreme Weather	2	3,449.60		1	1 - Safe Spot Filming and expenses	7	15,232.78					
	2	184-Customer Engagement	3	1,785.58		2	36-TV Ads Customer Engagement Broadcast	7	39,762.77					
	3	192-Customer Engagement Cold Weather	3	65,992.34		3	10-Safet Spot TV Ads	8	606.01					
	4	193-Customer Engagement Cold Weather	3	1,551.99		4	14-Safe spot Audio, Production Customer Engagement	9	11,573.00					
	5	195-Cold Weather	4	26,712.64		5	72-Safe Spot TV Ads	10	40,073.55					
	6	194-Cold Weather	4	(345.70)		6	4-Safe Spot Customer Engagement Summer Broadcast	10	454.72					
	7	191-Extreme Weather	5	6,762.00		7	11-Safe Spot TV Ads	11	38,774.48					
	8	197-Hear and Smell	5	97,795.87		8	84-Television ads for Safe Spot	12	(122.45)					
	9	196-Hear & Smell	5	927.02		9	83-Television ads for Safe Spot	12	(256.15)					
	10	198-Cold Weather	6	(42.90)		10	82-Television ads for Safe Spot	12	38,211.38					
	11	185-Hear-Smell	6	3,327.75		11	81a-Television ads for Safe Spot	12	(465.23)					
	12	186-Hear & Smell	6	60,881.25					11					
	13	187-Hear & Smell	6	(85.00)										
	14	188-Hear & Smell	6	22,373.70										
	15	199-Safety	7	(1,978.37)										
	16	202-Small Business	9	68,219.78										
	17	201-Small Business	9	13,518.76										
	18	200-Safety	9	920.88										
	19	204-Small Business	9	2,470.67										
	20	203-Safety	9	17,661.68										
	21	205-Small Business	10	(9,746.10)										
	22	206-Small Business	10	92,500.48										
	23	207-Small Business	11	2,990.47										
	24	209-Safety	11	68.72										
	25	208-Small Business	11	72,979.96										
	26	375-Safety	12	41,832.28										
	27	379-Safety	12	1,809.57										
	28	376-Safety	12	783.95										
				28										
		Total		595,118.87			Total		183,844.86					
Television					Educational Resources									
Customer Information					Customer information									
	1	237-All Seasons	3	50,691.03		1	Respect the Flag Activity Book	3	5,875.00					
	2	183-Customer Engagement	3	24,282.67		2	Safety Calendar Elementary Students	8	3,133.67					
	3	243-Cold Weather	4	32,541.03		3	Safety Catalogs for schools and Customers	8	5,385.59					
	4	242-Cold Weather	4	23,930.33					3					
	5	241-Cold Weather	4	73,281.27										
	6	238-Safe Spot	7	2,368.11										
	7	244-Cold Weather	8	(2,208.79)										
	8	239-All Seasons	8	(381.93)										
	9	240-Safe Spot	9	25,442.51										
	10	378-Extreme Weather	12	1,323.00										
				10										
		Total		231,269.23										
		Grand Total		1,519,830.78			Grand Total		1,139,593.13					

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 09/16/15
NO. RFN-27
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 9/23/15
RESPONDENT: James Fraga/Saudia Santure

Question:

1. Regarding Advertising, and audit response # 64 and #158:
 - a. Audit Response #64 indicates that there were zero dollars spent in 2014 that would not be allowable in rates, but audit response #158, part F indicates that for the test year only specific advertising with a customer benefit would be asked to be included in rates. Please clarify what type and dollar amount of advertising the Company specifically excludes as not recoverable in rates for 2014 and for the projected test year.
 - b. My understanding of audit response #158 is that advertising from 2010 through 2012, the three year average for Customer Information was \$165,037 and that in 2013 it jumped 7.7 times to \$1,271,137 and to \$1,701,628 for 2014, which is or a 10.3x greater than the 2010 to 2012 average. This was apparently done to increase customer satisfaction as measured by the JD Power Survey. Is this correct? Has the Company seen any measurable change in customer satisfaction due to increased advertising beginning in 2013?

Answer:

- a. The Company reviews its advertising invoices to determine if the expense should be recorded as recoverable per the guidelines for allowable advertising set forth in MPSC Commission Order U-6490 and U-8455 issued on April 29, 1986. Advertising expenses that are recorded below-the-line or that do not directly benefit customers are excluded from rates. Examples of advertising that are not recoverable in rates include advertising for goodwill, brand identity, and political/promotional advertising requirement (see workpaper WP-JRF-109 for additional detail regarding allowable advertising expenses).
- b. First, the \$165,037 stated in the question refers to line 6 of Attachment A of Audit Response #158 whereas the \$1,271,137 and \$1,701,628 for 2013 and 2014 respectively refer to line 10 of said attachment. Replacing the 2013 and 2014 amounts with the amount from line 6 shows 2013 expenses of \$1,139,593 and 2014 expenses of \$1,519,831. This results in increases of 6.9 x the 2010-2012 average for 2013 and 9.2x increase for 2014.

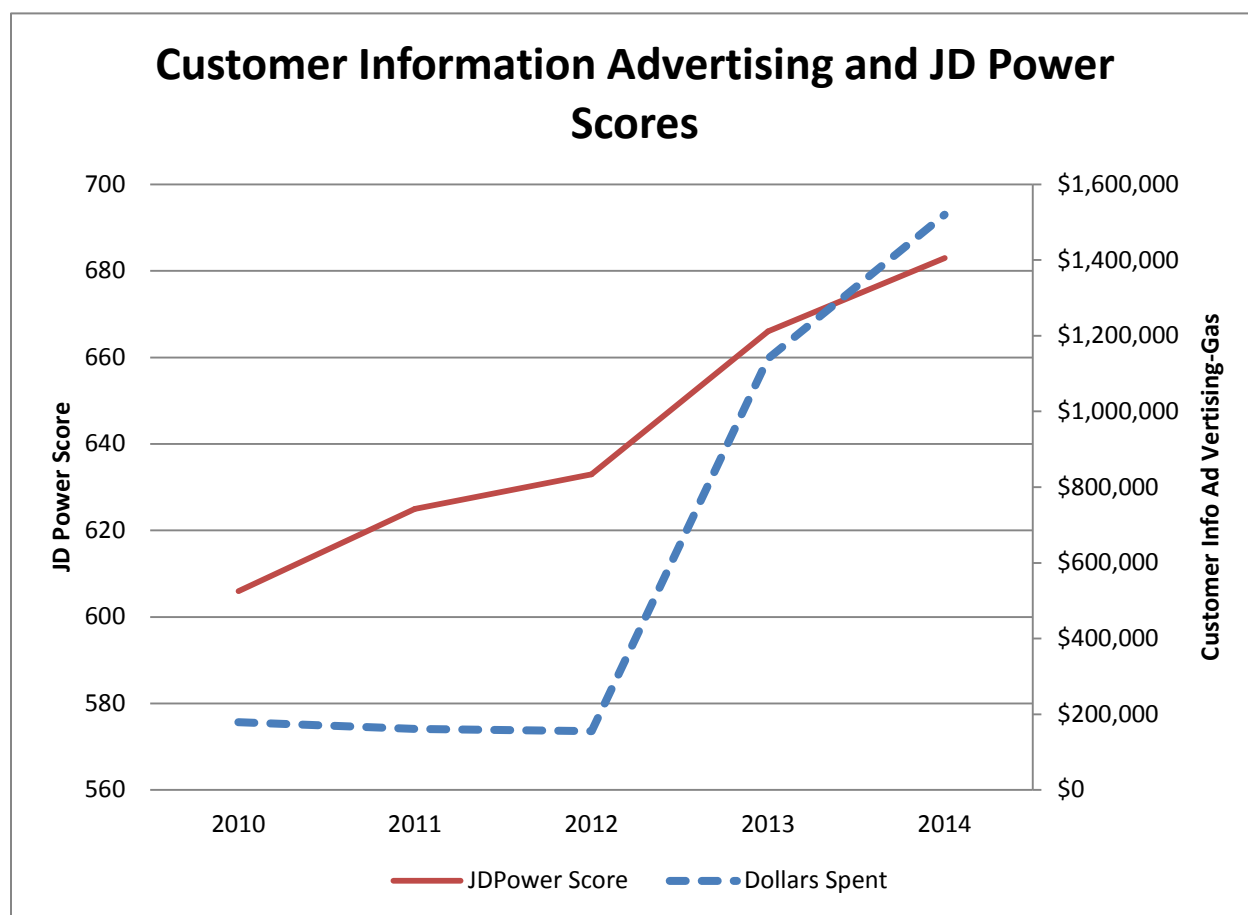
Second, it is correct that the increase in expense was done to increase the Company's customer satisfaction. The Company has increased focus on better and increased overall customer communication, particularly through the Company's Customer Value Initiative program. Consumers Energy has set a goal as a company to increase customer satisfaction in areas, such as customer communication, in which previous JD Power surveys showed potential for improvement. According to our JDPower scores in Residential Gas survey, over the past several years, our scores have seen substantial increase among our peer group, MidWest. This is the

area we are placed in the JD Power scoring. The chart below shows the scores beginning in 2011 through 2015. Each year the Company's scores increased and the Company is currently at 683 points, and 3rd in the MidWest in terms of customer satisfaction.

Residential Gas JD Power Scores	2011	2012	2013	2014	2015
Consumers Energy Score	606	625	633	666	683
Rank	13/17	11/17	10/17	2/17	3/15
Quartile	4 th	3 rd	3 rd	1 st	1 st

NOTE: JD Power survey changed MidWest peer group from 17 to 15 in 2015.

The chart below compares the JD Power score to the amount of spending on customer information advertising in the previous year.



MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 09/16/15
NO. RFN-27
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 9/23/15
RESPONDENT: Sarah H. Bowers

Question:

2. Regarding Easy Pay:
- Please provide five years actuals of easy pay amounts:
 - Collected from customers outside of rates (i.e. the \$6.25 charge portion)
 - Collected in rates (any portion in rates)
 - Total
 - Please provide the workpapers that show the calculation of the \$3,435,000 easy pay expense included in the projected test year.

Answer:

2. a. For clarification purposes, my testimony (page 27, line 1 through page 28, line 18) discusses all Customer Payment Programs of which Easy Pay is a subset (at present). The Company is proposing to move the Easy Pay program into rates along with the recurring card payment expenses that are already in rates as it moves to a vendor that will handle all customer credit card payments for a monthly fee
- The table below shows the gas utility portion of the amounts collected from customers for Easy Pay payments for the last five years.

	2010	2011	2012	2013	2014
Easy Pay Customer Payments	3,633,711	4,115,133	3,592,833	3,609,455	4,048,154

- There was nothing collected in rates for Easy Pay in the last five years as the Company was reimbursed by customers for Easy Pay transactions.
 - See i. above.
- b. The \$3,435,000 amount is for all Customer Payment Programs of which Easy Pay is a subset. There is no workpaper that shows the calculation. Attached is a spreadsheet showing how the \$3,435,000 Customer Payment Program expenses (Easy Pay and recurring) was calculated. The Company projects to move to the monthly fee for all transactions in July of 2016. So January through June would have \$1,270,925 for Easy Pay Expenses and \$400,000 for Recurring Payment expenses. July through December would be \$1,764,000 which is 49% of the \$600,000 monthly fee (for six months). The 49% represents the percentage of gas customers.

MPSC Audit Request #162 Attachment

Year	Months	O&M	Vendor	Pricing Model
2016	Jan - June	\$ 1,670,925 (1)	HP	Transaction Based
2016	Jul - Dec	1,764,000 (2)	Paymentus	Flat Fee
2016	Full Year	<u>3,434,925</u>		

January - June:

		(1)			
		Transaction Volume	Transaction Avg Cost	Extended Cost	49 % Gas *
Jan - June	Easy Pay (One time Payment)	844,893	3.07	2,593,724	1,270,925
Jan - June	Recurring Credit Cards	844,893	0.97	816,327	400,000
				<u>3,410,050</u>	<u>1,670,925</u>

July - December:

		(2)		
		Monthly Fee	July-Dec Total O&M	49 % Gas *
July - Dec	Monthly Flat Fee	600,000	3,600,000	1,764,000

* The Customer Gas split was used in the calculation

	Uncollectible Accounts Expense									
	Gas Portion \$(000)									
						<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
a.	Gross Write-offs					\$ 43,506	\$ 47,553	\$ 39,136	\$ 38,557	\$ 42,516
b.	Collections					<u>15,835</u>	<u>15,701</u>	<u>12,530</u>	<u>9,526</u>	<u>9,404</u>
c.	Net Write-offs					\$ 27,671	\$ 31,852	\$ 26,606	\$ 29,031	\$ 33,112
d.	Gas Service Revenues					\$2,218,232	\$2,176,053	\$1,802,605	\$1,980,025	\$2,166,922
e.	BDLR (row c./row d.)					1.247%	1.464%	1.476%	1.466%	1.528%

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 09/23/15
NO. RFN-31
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 9/30/15
RESPONDENT: Sarah H. Bowers

Question:

1. Regarding Easy Pay, audit response #162:

To clarify, it is my understanding that the Easy Pay expense included in the projected test year ask is \$3,434,925, which includes all expense from January through December, but from January through June of the projected test year Consumers will continue to collect the \$6.25 surcharge from customers until the program changes over in July, and the gas portion of those revenues collected directly from customers outside of rates from January through June is $\$6.25 \times 844,893 \text{ transactions} \times 49\% = \$2,587,485$. Therefore, for the gas portion, if \$3,434,925 is included in rates for 2016 and \$2,587,485 is collected directly from customers in 2016, Consumers Gas will collect \$6,022,410 in total Easy Pay revenue for the projected test year, but will have only \$3,434,925 total Easy Pay expenses for the projected test year. Is this correct? There is an assumption made that the charge continues to be \$6.25 per transaction, but the cost is only \$3.07 per transaction as stated in the response. Is this correct? If, not please provide the correct amounts.

Answer:

1. No, the above scenario is not correct. The Company's filing assumes that the expenses related to Customer Payment Programs will go into customer rates upon a final order; in this case that will be July 2016. Therefore, in 2016 the Company will collect in rates approximately half of the annual revenue requirement, or \$1,717,462 ($\$3,434,925/2$). If there is an order prior to July, 2016 that approves this Customer Payment Program proposal the Company will stop charging for Easy Pay payments as soon as reasonably possible.

As with any change of this nature that does not occur on January 1 there is expected to be a transition period during a year such that the year will have a period of time under the old program and a period of time under the new program. Customers are not billed annually for the amount in rates on January 1. Rather they are billed monthly and are pro-rated for any changes that occur in rate structure during that month. On the date that the new rates take effect, customers will benefit from the Customer Payment Program as described in my direct testimony beginning on page 27, line 1. The Company should then be able to collect the amount projected in this filing in rates beginning on the day the new rates take effect.

The Company currently is provided an annual gross margin of around \$5 million from the Easy Pay program, which will be eliminated, once the Company stops charging for the Easy Pay program. Upon approval to move all Customer Payment Program gas expenses into gas rates, the Company will stop collecting the \$6.25 fee from all customers (gas and electric). Since the Easy Pay portion of Customer Payment programs is not in electric rates the Company will not be reimbursed for those expenses until it applies for and gets an order in a future electric rate case. Thus, there is no financial windfall to the Company from this projection. The decision to move away from this model to a "pass through" expense is not one easily made. However, the Company feels this program will be a benefit to its customers,

Request #: 204

Page **2** of **2**

especially those most vulnerable to shut-off, and as such believes the expense amount projected in this filing is fair and should be approved by the Commission.

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/13/2015
NO. RFN-40
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 10/22/15
RESPONDENT: Sarah H. Bowers

Question:

1. Regarding ASP, audit response #184:
 - a. Please provide the 9+3 2015 ASP Pro-forma forecast
 - b. Please provide the 10+2 2015 ASP Pro-forma forecast when it is available

Answer:

1.

As demonstrated in the response to MPSC Staff Audit #103 in this docket and as shown below, the direct program revenue and expenses have increased over time, however, the direct program margin has remained relatively stable in the \$19 million to \$20 million range over the last five years which is why utilization of the 2014 margin for the test year is a reasonable forward looking expectation. There are many drivers that could cause ASP revenues and/or expenses to stop increasing in the foreseeable future. These include:

 - In 2015 the Company amortized marketing expenses which provides a \$3 million benefit to program margin this year but will decline to a \$0 benefit over the next two years.
 - The introduction of outbound and direct sales to increase participation in premium plans in 2014 has resulted in margin growth in 2015 that is not expected to be repeated in 2016.
 - Revenue has increased as customers move to premium plans (mentioned above) but this will likely cause increases in repair expenses over time as more appliances are now being covered.
 - Market acquisition costs are expected to continue to rise as we near market saturation with the current program offerings. The Company had 199,431 contracts at year end 2014 and currently has 196,937 contracts.
 - Mild winters and cool summers or harsh winters and warm summers can result in fewer or more repair costs due to weather effects on frequency of heating and air-conditioner appliance failures. In 2015, the Company has experienced a cool summer which has resulted in fewer air conditioning repairs.
 - Company labor, Contractor expenses, parts, fleet and other costs typically increase due to inflationary pressures. But the Company has to keep price increases in check as they result in contract (customer) erosion.

For these reasons and as demonstrated in the attachment to MPSC Audit request #103 and as shown below, the program margin projected by the Company in the test year is a reasonable expectation of program performance and ratepayer benefit.

- a. See the attachment for the most current (9 + 3) year end 2015 ASP Pro-forma forecast. (Please note that the beginning in 2015, the format has changed from the historical format so that the direct margin amount is shown.) As explained above there can be variability in revenue and expenses over time. In 2015, the program has seen an increase in margin due to the amortization of marketing costs, decreased air conditioning repairs as a result of cool summer weather and a decrease in bad debt as the Company disqualified a number of customers from the program for not keeping up with payments. As mentioned above there are many factors effecting both revenue and expense levels. Given the historical expenses and revenues shown below, the 2016 amounts projected in this filing are reasonable.

(\$000)							
Appliance Service Plan Program							
	2010	2011	2012	2013	2014	2015	2016
Description	Actual	Actual	Actual	Actual	Actual	Projected	Projected
ASP Program Revenues	44,047	45,493	46,919	52,658	60,462	60,462	60,462
ASP Program Expenses	24,558	26,259	28,040	33,750	39,772	39,772	39,772
ASP Margin	19,489	19,234	18,879	18,908	20,691	20,691	20,691

- b. The 10+2, 2015 ASP Pro-forma forecast is not available.

APPLIANCE SERVICE PLAN

9+3

2015

2015 Forecasted Proforma	
	Forecast
Revenue	
Plan Gross Revenues	\$ 66,988,535
ASP Plan Revenues	\$ 66,245,123
SC Revenue	\$ 13
Incentive Revenue	\$ 732,390
Less: Incentives	\$ 41,168
Net Revenues (RDS)	\$ 66,947,366
Direct Expenses:	
Direct Cost of Goods Sold	
CE Expense	\$ 9,191,142
Contractor Expense	\$ 13,910,911
ACAP Expense	\$ 3,223,275
Field Expense (Payout)	\$ 14,710
Total Direct Cost of Goods Sold	\$ 26,340,037
Direct Operational Expense	
Schedule, Control & Dispatch	\$ 368,554
Solution Center Costs	\$ 2,364,110
ASP Services Org & Office Admin	\$ 1,460,060
Program Amends	\$ 50,629
Total Direct Operational Expense	\$ 4,243,352
Direct Marketing Expense	
Promotional Program & Research	\$ 1,863,680
Marketing Supervision	\$ 1,014,747
Point Plus	\$ 110,382
Direct Mail	\$ 58,590
Total Direct Marketing Expense	\$ 3,047,398
Total Direct Expenses	\$ 33,630,787
Bad Debt - Uncollectibles	\$ 1,476,787
Total Direct Expenses including UA's	\$ 35,107,575
ASP Direct Margin (DCO)	\$ 31,839,791
Direct Margin as % of Net Revenue	48%
Indirect Expenses:	
Indirect Operational Expense	
Small Tools	\$ 1,500
Training Labor & Materials	\$ 196,049
Consumer Affairs - Complaints	\$ 31,163
Total Indirect Operational Expense	\$ 228,712
Indirect Marketing Expense	
Customer Insights Allocation	\$ -
Billing Allocation	\$ 233,752
CMR Allocation	\$ 210,445
Total Indirect Marketing Expense	\$ 444,197
Infrastructure - Indirect Expense	
SAP	\$ 203,873
MDSI	\$ 183,485
Level II Chargebacks - Radio & Tele	\$ 150,552
Total Infrastructure Indirect Expense	\$ 537,910
Corporate Expense	
Labor Related Loadings	\$ 2,901,297
Other Corporate Loadings	\$ 2,939,924
Total Corporate Expense	\$ 5,841,222
Total Indirect Expenses	\$ 7,052,040
ASP Indirect Margin (PTOI)	\$ 24,787,751
PTOI as % of Net Revenue	
Indirect Margin as % of Net Revenue	37%
Total Direct and Indirect Expense	\$ 42,159,614

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/13/2015
NO. RFN-41
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 10/14/2015
RESPONDENT: Philip Clifford

Question:

1. Regarding active healthcare/insurance/LTD for CE Gas, audit response #248:
 - a. Please provide the response with an additional line item showing the gas fidelity fees

Answer:

1. The spreadsheet attached: "U-17882.Audit request.299" has the most recent actuals; January through September, 2015 by month. The remaining months in 2015; October – December are forecasted based on the current actual trend in Active Healthcare. The attached also contains the gas fidelity fees.

Active Health Care
Gas

	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Actual
Month/Year	January 2015	February 2015	March 2015	April 2015	May 2015	June 2015	July 2015	August 2015	September 2015	October 2016	November 2016	December 2016	Overall Result
	\$	\$	\$	\$	\$	\$	\$	\$	\$				\$
ACTIVE HEALTHCARE	1,366,889.45	1,172,630.94	1,199,542.92	1,333,936.76	1,114,549.33	1,479,890.68	1,203,731.47	1,003,238.67	1,238,406.04	1,234,757.36	1,234,757.36	1,234,757.36	14,817,088.35
FIDELITY FEE	46,090.18	30,486.68	36,941.88	32,112.95	31,700.23	31,810.09	30,411.42	30,479.31	31,576.08	33,512.09	33,512.09	33,512.09	402,145.09
LIFE INSURANCE	55,423.64	56,503.83	51,695.59	58,685.97	53,343.14	59,633.76	58,988.64	51,982.29	58,331.06	56,065.32	56,065.32	56,065.32	672,783.89
	1,468,403.27	1,259,621.45	1,288,180.39	1,424,735.68	1,199,592.70	1,571,334.53	1,293,131.53	1,085,700.27	1,328,313.18	1,324,334.78	1,324,334.78	1,324,334.78	15,892,017.33

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/04/15
NO. RFN-1
REQUESTED BY: Robert F. Nichols
DATE OF RESPONSE: August 21, 2015
RESPONDENT: Andy Denato, Jason Shore

Question:

Please provide the following documents or data. If the requested item is already included in the Company's filing, please provide a reference to its location (exhibit, workpaper, etc.)

1. Regarding the C5:
 - a. Please complete the provided Excel attachment "C5 Worksheet Attachment." It appears some line items change from year to year, so please add line items if required.
 - b. Additionally, please provide a reconciliation of the bottom line "Projected Other O&M Expense" on the C5 worksheet to the non-normalized amount for each year in the Budget Data Book/Actual (i.e. provide a line item for each of the items removed/changed that are not in general rates to reconcile line 31 to the non-normalized total) (similar to what was done in U-17735 Audit Response #103 which reconciled line 20 to line 39)

Answer:

1. Please see attached.

MICHIGAN PUBLIC SERVICE COMMISSION

Schedule C5 - with additional data

Case No: U-17882
Exhibit: A-9 (JRF-51)
Audit Request RFN-1 - C5 Worksheet Attachment
Witness: JRFraga
Date: July 2015
Page 1 of 1

Consumers Energy Company
Projected Other O&M Expense
Test Year 2016
(000)

Line	Description (a)	Board Reviewed Budget							Actual					U-17643		U-17882
		2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	Requested 2015	Settled Amount	Requested 2016
		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(q)	(r)	(s)
1	Gas Division Expenses	\$ 135,848	\$ 142,853	\$ 139,672	\$ 142,107	\$ 143,122	\$ 155,626	\$ 155,512	\$138,839	\$ 153,313	\$156,294	\$ 153,529	\$159,842	\$ 173,491	\$ 169,059	\$ 157,551
2	Pipeline Integrity Inspections and Remediation	12,747	13,860	7,144	7,190	7,056	19,082	11,857	7,541	7,403	5,994	5,046	7,508	9,219	8,004	11,857
3	Regulation & Measurement Inspection & Maintenance						-							16,638	13,831	-
4	Storage Well Logging and Maintenance	1,000	1,336	963	-	500	750	3,000	672	995	1	750	391	5,188	750	3,011
5	Gas Meter Reading						-							11,028	10,104	-
6	EIRP O&M Expenses				-		-							3,700	2,600	-
7	Technology Improvements Expenses						-							944	1,497	-
8	ASP Program	22,499	24,182	26,566	28,885	35,215	38,935	45,754	24,558	26,259	28,040	33,750	39,772	-	-	39,772
9	Leak Repair and Survey	7,079	7,475	7,726	6,466	7,753	12,984	15,441	6,775	8,437	7,862	10,805	15,511	-	-	15,400
10	Cross Bore Investigations						200	7,100					10	-	-	7,074
11	Right of Way Clearing	263	531	458	460	460	485	1,985	463	660	448	471	478	-	-	1,985
12	Easy Pay (Customer Payment Programs (above the line))	312	382	352	466	579	783	400	254	330	438	595	617	-	-	3,435
	Customer Value Initiative											-		1,395	1,395	-
13	LAUF	31,602	28,698	24,106	21,777	20,610	23,368	18,343	24,261	29,481	13,447	25,071	32,926	22,115	21,848	17,443
14	Company Use	9,376	6,339	5,377	3,442	2,947	2,429	4,060	5,482	4,641	4,151	4,715	2,291	2,235	4,076	1,477
15	Business Technology Solutions	23,736	23,952	25,704	29,921	29,571	28,030	29,145	23,190	24,060	31,099	28,673	33,138	33,839	30,930	32,933
16	Smart Energy Program	1,080	478	966	371	12	187	2,653	143	73	132	42	11	1,543	-	1,447
17	Pension	28,419	25,804	22,950	28,578	17,287	25,466	26,895	27,360	24,052	23,617	26,898	13,863	19,635	19,635	21,610
18	SERP	1,235	2,081	2,127	2,940	3,007	3,893	3,532	1,236	2,258	2,687	3,228	2,749	2,361	-	2,348
19	Defined Company Contribution Plan	1,250	1,962	1,892	2,309	2,612			1,146	1,589	1,825	2,195	2,800	3,095	3,134	3,938
20	DC SERP	13	35	33					30	80	85			83	-	100
21	401 (K) Savings Plan	3,835	4,064	3,934	4,104	4,148	4,180	4,016	3,662	3,820	3,834	3,867	3,939	4,036	4,293	4,138
22	Active Health Care/ Insurance/ LTD	18,738	19,086	18,963	19,146	17,428	15,935	17,637	17,130	17,601	16,905	15,244	15,659	17,988	18,431	17,296
23	Retiree Health Care and Life Insurance	30,248	25,768	18,176	14,968	(8,011)	(5,113)	(4,926)	27,096	21,039	18,598	4,043	(10,304)	(5,813)	(5,813)	(4,926)
24	Corporate	27,763	24,629	23,194	27,262	27,626	29,175	27,483	21,708	22,482	20,952	32,438	33,287	30,975	30,792	29,993
25	Uncollectibles (as defined in Financials for 2010-2012)	31,361	25,329	36,539	23,684	24,740	24,882	22,874	28,935	35,236	26,780	26,762	34,920	27,522	25,091	24,790
26	Injuries & Damages	2,464	2,845	3,583	2,785	2,785	2,725	1,824	2,285	2,606	1,022	2,051	1,214	2,426	2,725	1,824
27	MGP - Direct Management Costs	1,000	1,000	838	1,170	1,206	1,164	970	643	792	852	1,144	1,033	1,149	1,149	970
28	Accounts Receivable Sale Costs	1,219	935	887	521	527	378	372	926	599	473	451	376	355	381	376
29	Incentive Compensation (As currently defined)	3,769	4,252	4,678	4,672	4,871	5,771	7,635	5,101	2,557	4,881	4,630	5,132	5,856	-	7,635
30	Jobwork Expense	2,546	2,087	2,152	911	903	710	950	2,675	2,292	1,844	879	706	879	1,671	645
30 a	LIEEF/VHWF	17,427	17,427	17,427	-	-	-	-	17,427	17,427	8,335	-	-			
31	Interest Income on Cash Equivalents													-	-	(19)
32	Other	2,624	3,700	2,291					3,386	2,070	2,161			-	1,407	-
33	Projected Other O&M Expense	\$ 419,453	\$ 411,090	\$ 398,699	\$ 374,135	\$ 346,954	\$ 392,024	\$ 404,512	\$392,924	\$ 412,152	\$382,756	\$ 387,277	\$397,868	\$ 391,882	\$ 366,990	\$ 404,103
	Less:															
34	LAUF	31,602	28,698	24,106	21,777	20,610	23,368	18,343	24,261	29,481	13,447	25,071	32,926	22,115	21,848	17,443
35	Company Use	9,376	6,339	5,377	3,442	2,947	2,429	4,060	5,482	4,641	4,151	4,715	2,291	2,235	4,076	1,477
36	Projected Other O&M Expense	\$ 378,475	\$ 376,053	\$ 369,215	\$ 348,916	\$ 323,397	\$ 366,228	\$ 382,109	\$363,181	\$ 378,030	\$365,158	\$ 357,491	\$362,651	\$ 367,532	\$ 341,066	\$ 385,183

Note: Budget O&M dollars are reviewed by the Board of Directors. Budget and Actual dollars were adjusted to conform to the O&M format provided in the audit question. Adjustment include removal of items not in general rates, as reconciled below.
Note: Settled amounts for U-17643 based on the case record.

Reconciliation to Data Book

Add MGP Amortization (incl in depr for rate cases, but in databook O&M)	3,415	3,503	5,258	5,610	5,323	5,392	5,610	3,366	3,312	5,139	5,257	5,286
Add EO	22,716	48,589	48,700	47,403	40,748	41,772	40,136	22,591	48,337	48,551	47,788	40,570
Add Storage Reg Asset Amortization, (In LAUF but not subtotal O&M)	2,361	2,156	1,405	2,181	2,181	5,359	4,701	2,150	2,595	1,903	2,153	2,181
Exclusions Top 6 Restricted Stock	1,602	1,543	1,957	1,897	1,837	2,871	3,131	1,602	1,543	1,957	2,435	1,967
Exclusions Top 6 EICP	1,037	843	862	970	883	741	1,000	1,037	843	862	970	883
Exclusions Top 6 SERP	114	12	102					114	12	102		
Add back Corp Exclusions	219	268	268			216	219	219	268	268		
Add back VSP								4,239	-	3,799		
Exclude A/R Financing not in for 2010-2012	1,219	935	887					926	599	473	-	-
Unresolved Task							(20,000)					
Data Book O&M	418,096	438,370	432,257	410,419	377,316	425,007	420,966	403,055	438,982	431,416	420,810	415,829

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 09/16/15
NO. RFN-27
REQUESTED BY: Robert Nichols
DATE OF RESPONSE: 9/28/15
RESPONDENT: Andrew Denato

Question:

8. Please provide Income statement budget and actual data for each year 2010 through 2016 by populating the attached Income Statement worksheet.

Answer:

8. See attached.

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Income Statement Worksheet
(000)

Case No.: U-17882
Audit Request RFN-27
Income Statement Worksheet Attachment
Date: September, 2015
Page 1 of 1

Line	Description	Board Reviewed Budget									Actual				
		2010	2011	2012	2013	2014	Board Reviewed Budget 1/15/15		Budget Book Update 7/27/15						
							2015	2016	2015	2016	2010	2011	2012	2013	2014
1	Revenue	2,541.6	2,383.9	2,216.7	1,966.4	1,953.2	1,975.2	1,959.8	2,043.0	1,850.3	2,353.9	2,339.6	1,982.0	2,147.8	2,363.1
2	Power Supply Cost	(1,696.4)	(1,482.4)	(1,296.8)	(1,048.2)	(1,039.3)	(998.5)	(923.4)	(1,013.4)	(813.5)	(1,516.3)	(1,438.2)	(1,110.0)	(1,187.2)	(1,374.6)
3	Gross Margin	845.2	901.5	919.9	918.2	913.9	976.8	1,036.4	1,029.5	1,036.8	837.6	901.4	872.0	960.6	988.6
4	O&M Expense	(418.1)	(438.4)	(432.3)	(410.4)	(377.3)	(400.4)	(421.7)	(425.0)	(420.9)	(403.0)	(439.0)	(431.4)	(420.5)	(415.5)
5	Depreciation Expense	(123.4)	(130.5)	(135.4)	(138.7)	(152.5)	(175.3)	(194.0)	(176.7)	(196.4)	(121.5)	(129.5)	(133.6)	(137.7)	(155.9)
6	General Taxes	(61.5)	(65.8)	(66.6)	(68.6)	(74.5)	(81.5)	(88.5)	(82.5)	(89.4)	(57.6)	(60.5)	(67.2)	(68.8)	(74.6)
7	Total Expenses	(603.0)	(634.7)	(634.3)	(617.7)	(604.3)	(657.2)	(704.1)	(684.3)	(706.7)	(582.1)	(629.0)	(632.2)	(627.0)	(645.9)
8	Pretax Operating Income	242.2	266.8	285.6	300.5	309.6	319.5	332.3	345.3	330.1	255.5	272.4	239.8	333.6	342.6
9	Other Income/(Deduction)	19.7	12.7	8.3	6.0	(0.8)	5.2	5.2	7.9	2.8	17.1	5.7	8.0	2.6	(1.8)
10	Earnings Before Interest & Tax	261.9	279.5	293.9	306.5	308.8	324.7	337.4	353.1	332.9	272.6	278.1	247.8	336.2	340.8
11	Fixed Charges	(71.4)	(69.4)	(64.9)	(67.7)	(70.5)	(72.4)	(77.0)	(70.7)	(76.1)	(74.0)	(71.5)	(63.2)	(64.6)	(67.4)
12	Income Taxes	(67.1)	(80.1)	(89.0)	(92.2)	(80.4)	(86.4)	(90.2)	(98.8)	(88.9)	(68.7)	(76.6)	(71.7)	(104.0)	(94.6)
13	Adjusted Net Income	123.4	130.0	140.0	146.6	157.9	165.9	170.3	183.7	167.9	129.9	130.0	112.9	167.6	178.9
14	Restructuring Costs	(2.8)	-	-	-	-	-	-	-	-	(2.8)	-	(2.5)	-	-
15	Reported Net Income - GAAP	120.6	130.0	140.0	146.6	157.9	165.9	170.3	183.7	167.9	127.1	130.0	110.4	167.6	178.9
16	ROE - Ratemaking	10.0%	10.9%	10.5%	10.7%	10.9%	10.3%	10.3%	11.9%	10.3%	11.4%	10.1%	8.8%	12.9%	13.0%

MPSC AUDIT REQUEST

CASE NO: U-17882
 DATE OF REQUEST: 08/21/15
 NO. RFN-18
 REQUESTED BY: Bob Nichols
 DATE OF RESPONSE: 08/31/2015
 RESPONDENT: Philip Clifford

Question:

4. Please provide the 2015 and 2016 pension expense projection included in the most recent SEC communication such as a 10-K. Please provide the electric / gas split. Please add the additional fees and line items attributable to the gas portion rate case expense and provide the gas portion pension rate case expense for the projected test year based on the most recent SEC communication pension expense.

Answer:

	2015 <u>July Fcst</u>	2016 <u>Plan</u>
**Pensions	105,572	95,800
Consumers	102,772	93,000
Additional PBGC	0	200
PBGC	700	700
Fees	100	100
Consumers Resp	103,572	94,000
 *Electric (63% / 62%)	 64,733	 58,280
Electric Cap (40% / 43%)	26,864	25,060
 Electric I.S.	 37,869	 33,220
 *Gas (37% / 38%)	 38,840	 35,720
Gas Capital (42% / 43%)	16,507	15,360
 Gas I.S.	 22,333	 20,360
 Total Consumers I.S.	 60,201	 53,580

*Elec / Gas splits are applied to both years with the current rates; 63% / 37% current for 2016 and effective July 1, 2015 so applied to half year in 2015.

**Reference CMS Energy Corp Form 10-K, for period ending 12/31/14, page 78.

MPSC AUDIT REQUEST

CASE NO: U-17882
 DATE OF REQUEST: 08/21/15
 NO. RFN-18
 REQUESTED BY: Bob Nichols
 DATE OF RESPONSE: 8/31/2015
 RESPONDENT: Philip Clifford

Question:

5. Please provide the 2015 and 2016 OPEB/Retiree health care expense projection included in the most recent SEC communication such as a 10-K. Please provide the electric / gas split. Please add the additional fees and line items attributable to the gas portion rate case expense and provide the gas portion OPEB/Retiree health care rate case expense for the projected test year based on the most recent SEC communication pension expense.

Answer:

	2015 <u>July Fcst</u>	2016 <u>Plan</u>
**Retiree Health & Life	(28,039)	(32,000)
Consumers	(23,039)	(26,000)
 Net Changes	 (23,039)	 (26,000)
Fees; Admin Trans.Reinsur.Fee	130	130
	(22,909)	(25,870)
 *Electric	 (13,708)	 (15,080)
Electric Cap	(5,689)	(6,484)
Fees	77	75
 Electric I.S.	 (7,942)	 (8,520)
 *Gas	 (9,331)	 (10,920)
Gas Capital	(3,966)	(4,696)
Fees	53	55
 Gas I.S.	 (5,312)	 (6,170)
 Total Consumers I.S.	 (13,254)	 (14,690)

*Elec / Gas splits are applied to both years with the current rates; 63% / 37% current for 2016 and effective July 1, 2015 so applied to half year in 2015.

**Reference CMS Energy Corp Form 10-K, for period ending 12/31/14, page 78

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/06/15
NO. RFN-3
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 8/11/15
RESPONDENT: Amy Conrad

Question:

1. Relating to incentive compensation, if no financial metrics are achieved and all other non-financial metrics are achieved at target, what would the total officer and non-officer projected test year payout be? (Only the amount reflected in the revenue requirement.)

Answer:

1. The total officer and non-officer projected test year annual incentive compensation would be as follows for the test year payout if no financial metrics were achieved and all other non-financial metrics were achieved at target:

Officer	\$0
Non-Officer	\$1,245,700

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/19/2015
NO. RFN-42
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 10/26/15
RESPONDENT: Amy Conrad

Question:

1. Regarding Total Compensation, Amy Conrad testimony page 3-4, states "Total compensation is targeted at approximately the market median (50th percentile)."
 - a. Please provide supporting market research, reports, studies, workpapers, etc. that demonstrate Consumers "total compensation is targeted at approximately the market median." Please provide the actual reports created by independent consultants in full.
 - b. Please provide the total compensation included in the historic test year and the workpapers that demonstrate that these amounts are calculated based upon compensation which is approximately equal to market median.
 - c. Please provide the total compensation included in the projected test year and the workpapers that demonstrate that these amounts are calculated based upon compensation which is approximately equal to market median.

Answer:

1. The information being requested is confidential, proprietary, and commercially sensitive in nature. Making non-officer and officer compensation information available in the manner requested would result in a violation of employees' reasonable expectations to privacy, would result in an unreasonable invasion of privacy of Consumers Energy's employees, and would result in violation of copyright agreements entered into with the market data survey providers. Consumers Energy is willing to discuss with Staff ways that market data analysis information might be made available to Staff to view this data at Company offices in connection with Staff's regulatory responsibilities in Case U-17882 in a way that would protect the confidential, proprietary, and commercially sensitive nature of the information and privacy expectations of employees.

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/06/15
NO. RFN-5
REQUESTED BY: Bob F. Nichols
DATE OF RESPONSE: 08/13/15
RESPONDENT: Daniel L. Harry

Question:

Please provide the following documents or data. If the requested item is already included in the Company's filing, please provide a reference to its location (exhibit, workpaper, etc.)

1. Please provide the total payroll including incentives and benefits for each of the historic year and the projected test year. Please break out the O&M, Capital, and Total for each year.

Answer:

1. Please refer to the annual MPSC Reports (P-521-2) page 354-355 for historical payroll information by year. All information for salaries and wages is reported on these pages broken down between O&M and Capital as well as Electric and Gas business segments. Historical pension and benefits can be found in the annual MPSC Reports (P-521) page 323 and (P-522) page 325. Projected test year information is not available in the format requested.

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/06/15
NO. RFN-5
REQUESTED BY: Bob F. Nichols
DATE OF RESPONSE: 8/13/15
RESPONDENT: Daniel L. Harry

Question:

Please provide the following documents or data. If the requested item is already included in the Company's filing, please provide a reference to its location (exhibit, workpaper, etc.)

2. Please provide a high level reconciliation of the 2014 historic payroll to the amount found in the P-521/522 for 2014.

Answer:

2. Generally, labor dollars are not provided as separate component of rate case O&M expense. A reconciliation of rate case historical detail to the payroll detail found in the P-521-2 does not exist.

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/14/15
NO. RFN-15
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 8/24/15
RESPONDENT: Daniel Harry

Question:

1. Regarding payroll and audit response # 41: "Projected test year information is not available in the format requested."
 - a. Please provide projected test year payroll information in the format in which it is available.

Answer:

- 1.a. The information requested is not available. Budget projections are based on overall capital and O&M targets broken down by department and program. While payroll is a component of capital and O&M it is not isolated in the budgeting process and therefore, cannot be extracted. Further, there is no separate reconciliation of the payroll component in the Company's budget to the capital and O&M projections found in the rate case projected test-year.

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/06/15
NO. RFN-5
REQUESTED BY: Bob F. Nichols
DATE OF RESPONSE: 08/13/15
RESPONDENT: Daniel L. Harry

Question:

Please provide the following documents or data. If the requested item is already included in the Company's filing, please provide a reference to its location (exhibit, workpaper, etc.)

3. Please provide the number of employees in the historic and the estimate for the projected test year. Please provide Full Time Employees and if possible, Full Time Equivalents for each year.

Answer:

3. Please see MPSC Annual Reports (P-521) page 323 and (P-522) page 325 for historical employee numbers. Projected test-year estimates of employee numbers are not readily available.

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 09/23/15
NO. RFN-30
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 9/29/15
RESPONDENT: Sarah H. Bowers

Question:

1. Regarding ASP, audit response #159:
 - a. To clarify my understanding, is it true that there is a \$14.3 million revenue requirement benefit to ratepayers by including ASP revenues and expenses in rates for the projected test year based on carrying forward 2014 actuals?
 - b. Is there any driver that would cause ASP revenues and expenses to stop increasing and flatten out at 2014 levels for the foreseeable future including the test year?
 - c. What is the most up to date 2015 projected ASP PTOI based on actuals through the most recent month with projections for the rest of the year?

Answer:

1.
 - a. No. The \$20.7 million of gross margin as shown for 2014 in the attachment to the response to Audit #103 (and shown below) is the direct benefit that ratepayers would see for the inclusion of the ASP program in rates. The \$14.3 million PTOI would include expenses that would be included within other areas of the Company's overall gas utility operations if the ASP program did not exist. The PTOI analysis is meant to approximate the program margin if ASP was a stand-alone entity and is for internal management purposes.

An additional benefit of the ASP program is the availability of additional Company employees to respond to gas leak calls and other emergencies. Having additional resources is a key driver in the Company meeting its goal of an under 30 minute average response time on gas leak calls which is a huge benefit to public safety.
 - b. As demonstrated on the response to MPSC Staff Audit #103 in this docket and as shown in part (c) below, the direct program revenue and expenses have increased over time, however, the direct program margin has remained relatively stable in the \$19 million to \$20 million range over the last five years which is why utilization of the 2014 margin for the test year is a reasonable forward looking expectation. There are many drivers that could cause ASP revenues and/or expenses to stop increasing in the foreseeable future. These include:
 - In 2015 the Company amortized marketing expenses which provides a \$3 million benefit to program margin this year but will decline to a \$0 benefit over the next two years.

- The introduction of outbound and direct sales to increase participation in premium plans in 2014 has resulted in margin growth in 2015 that is not expected to be repeated in 2016.
- Revenue has increased as customers move to premium plans (mentioned above) but this will likely cause increases in repair expenses over time as more appliances are now being covered.
- Market acquisition costs are expected to continue to rise as we near market saturation with the current program offerings. The Company had 199,431 contracts at year end 2014 and currently has 196,937 contracts.
- Mild winters and cool summers or harsh winters and warm summers can result in fewer or more repair costs due to weather effects on frequency of heating and air-conditioner appliance failures. In 2015, the Company has experienced a cool summer which has resulted in fewer air conditioning repairs.
- Company labor, Contractor expenses, parts, fleet and other costs typically increase due to inflationary pressures. But the Company has to keep price increases in check as they result in contract (customer) erosion.

For these reasons and as demonstrated in the attachment to MPSC Audit request #103 and as shown below, the program margin projected by the Company in the test year is a reasonable expectation of program performance and ratepayer benefit.

- c. See the attachment for the most current year end 2015 ASP Pro-forma forecast. (Please note that the beginning in 2015 the format has changed from the historical format so that the direct margin amount is shown.) As explained above in part (b) there can be variability in revenue and expenses over time. In 2015 the program has seen an increase in margin due to the amortization of marketing costs, decreased air conditioning repairs as a result of cool summer weather and a decrease in bad debt as the Company disqualified a number of customers from the program for not keeping up with payments. As mentioned in part (b) there are many factors effecting both revenue and expense levels. Given the historical expenses and revenues shown below, the 2016 amounts projected in this filing are reasonable.

(\$000)							
Appliance Service Plan Program							
Description	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Projected	2016 Projected
ASP Program Revenues	44,047	45,493	46,919	52,658	60,462	60,462	60,462
ASP Program Expenses	24,558	26,259	28,040	33,750	39,772	39,772	39,772
ASP Margin	19,489	19,234	18,879	18,908	20,691	20,691	20,691

APPLIANCE SERVICE PLAN
8+4
2015

17882 MPSC Staff
 Audit #184
 Attachment

Case: U-17882
 Witness: RFNichols
 Exhibit: S-11.27
 Date: 12/4/15
 Page: 3 of 3

2015 Forecasted Proforma	Forecast
Revenue	
Plan Gross Revenues	\$ 68,349,219
ASP Plan Revenues	\$ 67,639,176
SC Revenue	\$ 13
Incentive Revenue	\$ 703,077
Less: Incentives	\$ 39,355
Net Revenues (RDS)	\$ 68,309,863
Direct Expenses:	
Direct Cost of Goods Sold	
CE Expense	\$ 10,435,143
Contractor Expense	\$ 13,851,007
ACAP Expense	\$ 3,217,133
Field Expense (Payout)	\$ 12,627
Total Direct Cost of Goods Sold	\$ 27,515,910
Direct Operational Expense	
Schedule, Control & Dispatch	\$ 366,781
Solution Center Costs	\$ 2,534,169
ASP Services Org & Office Admin	\$ 1,446,646
Program Amends	\$ 56,390
Total Direct Operational Expense	\$ 4,403,986
Direct Marketing Expense	
Promotional Program & Research	\$ 1,802,010
Marketing Supervision	\$ 1,066,858
Point Plus	\$ 118,467
Direct Mail	\$ 59,134
Total Direct Marketing Expense	\$ 3,046,469
Total Direct Expenses	\$ 34,966,366
Bad Debt - Uncollectibles	\$ 1,476,787
Total Direct Expenses including UA's	\$ 36,443,153
ASP Direct Margin (DCO)	\$ 31,866,710
Direct Margin as % of Net Revenue	47%
Indirect Expenses:	
Indirect Operational Expense	
Small Tools	\$ 2,000
Training Labor & Materials	\$ 207,542
Consumer Affairs - Complaints	\$ 26,536
Total Indirect Operational Expense	\$ 236,078
Indirect Marketing Expense	
Customer Insights Allocation	\$ -
Billing Allocation	\$ 233,752
CMR Allocation	\$ 210,445
Total Indirect Marketing Expense	\$ 444,197
Infrastructure - Indirect Expense	
SAP	\$ 203,873
MDSI	\$ 183,485
Level II Chargebacks - Radio & Tele	\$ 150,552
Total Infrastructure Indirect Expense	\$ 537,910
Corporate Expense	
Labor Related Loadings	\$ 2,953,569
Other Corporate Loadings	\$ 2,992,090
Total Corporate Expense	\$ 5,945,659
Total Indirect Expenses	\$ 7,163,843
ASP Indirect Margin (PTOI)	\$ 24,702,867
PTOI as % of Net Revenue	
Indirect Margin as % of Net Revenue	36%
Total Direct and Indirect Expense	\$ 43,606,996

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 09/8/15
NO. RFN-26
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 9/18/15
RESPONDENT: Sarah H. Bowers

Question:

1. Regarding ASP and audit response #103: The response states “Please see the attached spread sheet for the 2010 through 2014 actual and 2015 through 2016 rate case projections for ASP revenue, ASP expense and margin. Note that the expenses shown are the direct program expenses only and do not include expenses that are allocated to the ASP program such as call center, IT, billing, mailing and salaries when determining the overall margin level.”
 - a. For each year 2010 through 2016, please provide the indirect expense amounts and descriptions that are allocated to ASP and explain where they show up in the rate case.

Answer:

1.
 - a. Attached are the Appliance Service Plan (ASP) program actual “Pro-forma” pre-tax operating income analyses for 2010-2014. This analysis is done to gauge the overall profitability of the ASP program when taking into account direct program expenses (as shown in the response to MPSC Staff Audit #103 in this docket), revenue (as shown in Audit #103), the direct allocation of expenses and indirect allocation of expenses and other corporate costs. The items that were included in the attachment to Audit #103 are noted in the descriptions. Payroll taxes were not included in Audit #103. Included on the historical test year 2014 sheet are the witnesses whose rate case areas contain the expenses mentioned in the description. The 2015 and 2016 amounts were not projected in this format for purposes of this rate case but are projected to be the same as the 2014 historical test year.

APPLIANCE SERVICE PLAN PRO-FORMA

<u>Expense</u>	<u>2010 Actual</u>	<u>Description</u>
Gross Revenues	44,321,753	Gross Revenues from plans
Less Incentives	274,380	Customer incentive payments
Net Revenues (RDS)	44,047,373	Net Revenues from plans
Cost of Goods Sold	18,535,920	Parts, labor and expenses associated with performing repairs on appliances plus payroll tax on labor
Gross Margin	25,511,453	
DIRECT EXPENSE:		
Operational:		
Schedule, Control & Dispatch	391,213	Dispatchers and their supervision to schedule and dispatch work out to field employees plus payroll tax on labor
Consumer Affairs - Complaints	20,721	The cost for Consumer Affairs to handle and log complaints related to ASP based upon number of complaints
Call Center - Service	795,931	The cost for the CE call center to take repair calls. Solution Center now takes calls Includes salaries and expenses of the direct field supervision and management of the operations. It also includes program amends which are given to customers when a mistake is made by the program plus payroll tax on labor
ASP Services Org & Office Admin	1,728,102	These are the costs associated with Upper Managments involvement in the overseeing of daily operations of the field portion of the program. Now included in ASP Services
Field Manager Org	219,996	Organization
ACAP Expense	701,384	Cost associated with cash allowances on Gold Plan customers when there appliance is not repairable.
Small Tools	20,400	The value of the purchase of small hand tools that are used predominantly for repair work on appliances.
Training Labor & Materials	458,193	Training for the ASP direct supervision staff and the operating employee (field workers) plus payroll tax on labor
Gas/Elec Adjustment	(502,842)	Allocation (credit) of ASP related allocations to Electric Operations. Accounts for expense items shared between gas and electric (ie. Consumer Affairs, call center etc.)
Total Operational Expense	3,833,096	
Marketing		
Promotional Program & Research	907,666	Expenses associated with acquiring ASP contracts and promoting the plan plus payroll tax on labor.
Marketing Supervision	346,691	The cost of labor associated with marketing the program and obtaining new customers plus payroll tax on labor.
Core Group	707,167	Cost of a select group of customer service representatives to handle customer inquires/issues associated with ASP. Now done in Solution Center
Bad Debt	846,716	Cost of uncollectables for customers who do not pay for the plan as they have been billed.
Point Plus	512,421	Incentives for the Consumers Energy Call Center reps for selling ASP plans.
Direct Mail	773,892	Costs associated with obtaining contracts from Direct Mail
Total Marketing	4,094,554	
Billing Allocation	201,000	Expense for the lines used on customer bills associated with ASP.
CMR Allocation	18,384	Costs associated with the processing of payments made by customers for their ASP plan.
Total Marketing Expense	4,313,938	
Infrastructure		
SAP	183,000	Cost associated for the ASP programs use of SAP system for plan data and repair work order history.
MDSI	166,000	Costs associated with use of the OMAR system for the ASP orders dispatched to techs
Level II Chargebacks - Radio & Tele	136,000	Costs associated with use of telephones and the 800 Mz system for dispatching ASP orders
Total Infrastructure Expense	484,999	
Total Direct Expense	8,632,034	
Program Margin	16,879,419	
Margin as % of Net Revenue	38.3%	
INDIRECT EXPENSE:		
Corporate Cost	10,411,420	Allocation of overhead costs to ASP for PTOI analysis. Includes Administrative and General Salaries, expenses and outside services; Property insurance; Injuries and damages; Pension & Benefits, Rents, Facilities and General office property taxes.
Total Indirect Expense	10,411,420	
PTOI	6,468,000	
PTOI as % of Net Revenue	14.7%	
Total Expense	37,579,373	

APPLIANCE SERVICE PLAN PRO-FORMA

<u>Expense</u>	<u>2011 Actual</u>	<u>Description</u>
Gross Revenues	45,846,142	Gross Revenues from plans
Less Incentives	353,445	Customer incentive payments
Net Revenues (RDS)	45,492,697	Net Revenues from plans
Cost of Goods Sold	19,251,820	Parts, labor and expenses associated with performing repairs on appliances plus payroll tax on labor
Gross Margin	26,240,877	
DIRECT EXPENSE:		
Operational:		
Schedule, Control & Dispatch	458,957	Dispatchers and their supervision to schedule and dispatch work out to field employees plus payroll tax on labor
Consumer Affairs - Complaints	16,743	The cost for Consumer Affairs to handle and log complaints related to ASP based upon number of complaints
Call Center - Service	846,410	The cost for the CE call center to take repair calls. Solution Center now takes calls
ASP Services Org & Office Admin	1,783,422	Includes salaries and expenses of the direct field supervision and management of the operations. It also includes program amends which are given to customers when a mistake is made by the program plus payroll tax on labor
Field Manager Org	581,656	These are the costs associated with Upper Managements involvement in the overseeing of daily operations of the field portion of the program. Now included in ASP Services Organization
ACAP Expense	878,200	Cost associated with cash allowances on Gold Plan customers when there appliance is not repairable.
Small Tools	20,400	The value of the purchase of small hand tools that are used predominantly for repair work on appliances.
Training Labor & Materials	1,117,906	Training for the ASP direct supervision staff and the operating employee (field workers) plus payroll tax on labor
Gas/Elec Adjustment	(527,380)	Allocation (credit) of ASP related allocations to Electric Operations. Accounts for expense items shared between gas and electric (ie. Consumer Affairs, call center etc.)
Total Operational Expense	5,176,314	
Marketing		
Promotional Program & Research	1,027,154	Expenses associated with acquiring ASP contracts and promoting the plan plus payroll tax on labor.
Marketing Supervision	316,684	The cost of labor associated with marketing the program and obtaining new customers plus payroll tax on labor.
Core Group	662,173	Cost of a select group of customer service representatives to handle customer inquires/issues associated with ASP. Now done in Solution Center
Bad Debt	1,112,945	Cost of uncollectables for customers who do not pay for the plan as they have been billed.
Point Plus	612,559	Incentives for the Consumers Energy Call Center reps for selling ASP plans.
Direct Mail	961,841	Costs associated with obtaining contracts from Direct Mail
Total Marketing	4,693,355	
Billing Allocation	204,997	Expense for the lines used on customer bills associated with ASP.
CMR Allocation	18,376	Costs associated with the processing of payments made by customers for their ASP plan.
Total Marketing Expense	4,916,728	
Infrastructure		
SAP	188,000	Cost associated for the ASP programs use of SAP system for plan data and repair work order history.
MDSI	169,000	Costs associated with use of the OMAR system for the ASP orders dispatched to techs
Level II Chargebacks - Radio & Tele	139,000	Costs associated with use of telephones and the 800 Mz system for dispatching ASP orders
Total Infrastructure Expense	496,000	
Total Direct Expense	10,589,042	
Program Margin	15,651,835	
Margin as % of Net Revenue	34.4%	
INDIRECT EXPENSE:		
Corporate Cost	8,995,479	Allocation of overhead costs to ASP for PTOI analysis. Includes Administrative and General Salaries, expenses and outside services; Property insurance; Injuries and damages; Pension & Benefits, Rents, Facilities and General office property taxes.
Total Indirect Expense	8,995,479	
PTOI	6,656,356	
PTOI as % of Net Revenue	14.6%	
Total Expense	38,836,341	

APPLIANCE SERVICE PLAN PRO-FORMA

<u>Expense</u>	<u>2012 Actual</u>	<u>Description</u>
Gross Revenues	47,351,636	Gross Revenues from plans
Less Incentives	432,588	Customer incentive payments
Net Revenues (RDS)	46,919,048	Net Revenues from plans
Cost of Goods Sold	19,368,212	Parts, labor and expenses associated with preforming repairs on appliances plus payroll tax on labor
Gross Margin	27,550,836	
DIRECT EXPENSE:		
Operational:		
Schedule, Control & Dispatch	482,939	Dispatchers and their supervision to schedule and dispatch work out to field employees plus payroll tax on labor
Consumer Affairs - Complaints	32,051	The cost for Consumer Affairs to handle and log complaints related to ASP based upon number of complaints
Call Center - Service	826,639	The cost for the CE call center to take repair calls. Solution Center now takes calls Includes salaries and expenses of the direct field supervision and management of the operations. It also includes program amends which are given to customers when a mistake is made by the program plus payroll tax on labor
ASP Services Org & Office Admin	1,807,790	
Field Manager Org	591,146	These are the costs assocaited with Upper Managments involvement in the overseeing of daily operations of the field portion of the program. Now included in ASP Services Organization
ACAP Expense	1,349,575	Cost associated with cash allowances on Gold Plan customers when there appliance is not repairable.
Small Tools	9,252	The value of the purchase of small hand tools that are used predominantly for repair work on appliances.
Training Labor & Materials	785,926	Training for the ASP direct supervision staff and the operating employee (field workers) plus payroll tax on labor
Gas/Elec Adjustment	(528,260)	Allocation (credit) of ASP related allocations to Electric Operations. Accounts for expense items shared between gas and electric (ie. Consumer Affairs, call center etc.)
Total Operational Expense	5,357,058	
Marketing		
Promotional Program & Research	1,522,067	Expenses associated with acquiring ASP contracts and promoting the plan plus payroll tax on labor.
Marketing Supervision	303,911	The cost of labor associated with marketing the program and obtaining new customers plus payroll tax on labor.
Core Group	928,069	Cost of a select group of customer service representatives to handle customer inquires/issues associated with ASP. Now done in Solution Center
Bad Debt	1,250,513	Cost of uncollectables for customers who do not pay for the plan as they have been billed.
Collection Agency Fees	2,680	Cost associated with receiving services from Collection Agencies.
Point Plus	785,338	Incentives for the Consumers Energy Call Center reps for selling ASP plans.
Direct Mail	983,814	Costs associated with obtaining contracts from Direct Mail
Total Marketing	5,776,392	
CE&O Additional Salary Allocations	11,489	Allocation from Customer Experience and Quality (formerly Customer Experience & Operations) employees assisting on thought/ideas/research to help grow and expand the program plus payroll tax on labor.
Billing Allocation	209,000	Expense for the lines used on customer bills associated with ASP.
CMR Allocation	18,952	Costs associated with the processing of payments made by customers for their ASP plan.
Total Marketing Expense	6,015,833	
Infrastructure		
SAP	191,000	Cost associated for the ASP programs use of SAP system for plan data and repair work order history.
MDSI	172,000	Costs associated with use of the OMAR system for the ASP orders dispatched to techs
Level II Chargebacks - Radio & Tele	141,000	Costs associated with use of telephones and the 800 Mz system for dispatching ASP orders
Capital Expenditures	100,000	Cost of building the ASP room
Total Infrastructure Expense	604,000	
Total Direct Expense	11,976,891	
Program Margin	15,573,945	
Margin as % of Net Revenue	33.2%	
INDIRECT EXPENSE:		
Corporate Cost	9,033,469	Allocation of overhead costs to ASP for PTOI analysis. Includes Administrative and General Salaries, expenses and outside services; Property insurance; Injuries and damages; Pension & Benefits, Rents, Facilities and General office property taxes.
Corporate Cost & CE&O labor allocations	19,206	Allocation from Customer Experience and Quality (formerly Customer Experience & Operations) employees assisting on thought/ideas/research to help grow and expand the program plus payroll tax on labor.
Total Indirect Expense	9,052,675	
PTOI	6,521,270	
PTOI as % of Net Revenue	13.9%	
<i>Total Expense</i>	<i>40,397,778</i>	

APPLIANCE SERVICE PLAN PRO-FORMA

<u>Expense</u>	<u>2013 Actual</u>	<u>Description</u>
Plan Gross Revenues	53,008,436	Gross Revenues from plans
SC Revenue	0	
Less Incentives	350,165	Customer incentive payments
Net Revenues (RDS)	52,658,271	Net Revenues from plans
		Parts, labor and expenses associated with performing repairs on appliances plus payroll tax on labor
Cost of Goods Sold	21,129,772	
Gross Margin	31,528,499	
DIRECT EXPENSE:		
Operational:		
Schedule, Control & Dispatch	399,830	Dispatchers and their supervision to schedule and dispatch work out to field employees plus payroll tax on labor
Consumer Affairs - Complaints	11,772	The cost for Consumer Affairs to handle and log complaints related to ASP based upon number of complaints
Call Center - Service	113,638	The cost for the CE call center to take repair calls. Solution Center now takes calls
Solution Center Costs	2,670,406	ASP Solution Center (call center) taking repair calls
		Includes salaries and expenses of the direct field supervision and management of the operations. It also includes program amends which are given to customers when a mistake is made by the program plus payroll tax on labor
ASP Services Org & Office Admin	1,590,899	Cost associated with cash allowances on Gold Plan customers when there appliance is not repairable.
ACAP Expense	2,093,326	The value of the purchase of small hand tools that are used predominantly for repair work on appliances.
Small Tools	15,320	Training for the ASP direct supervision staff and the operating employee (field workers) plus payroll tax on labor
Training Labor & Materials	350,075	
		Allocation (credit) of ASP related allocations to Electric Operations. Accounts for expense items shared between gas and electric (ie. Consumer Affairs, call center etc.)
Gas/Elec Adjustment	(179,234)	
Total Operational Expense	7,066,032	
Marketing		
Promotional Program & Research	1,691,308	Expenses associated with acquiring ASP contracts and promoting the plan plus payroll tax on labor.
Marketing Supervision	951,219	The cost of labor associated with marketing the program and obtaining new customers plus payroll tax on labor.
Core Group	9,941	Cost of a select group of customer service representatives to handle customer inquires/issues associated with ASP. Now done in Solution Center
Bad Debt	2,609,521	Cost of uncollectables for customers who do not pay for the plan as they have been billed.
Collection Agency Fees	0	Cost associated with receiving services from Collection Agencies.
Point Plus	555,635	Incentives for the Consumers Energy Call Center reps for selling ASP plans.
Direct Mail	842,739	Costs associated with obtaining contracts from Direct Mail
Total Marketing	6,660,365	
		Allocation from Customer Experience and Quality employees assisting on thought/ideas/research to help grow and expand the program plus payroll tax on labor.
Customer Insites Allocation	79,654	
Billing Allocation	214,981	Expense for the lines used on customer bills associated with ASP.
CMR Allocation	19,500	Costs associated with the processing of payments made by customers for their ASP plan.
Total Marketing Expense	6,974,500	
Infrastructure		
SAP	195,000	Cost associated for the ASP programs use of SAP system for plan data and repair work order history.
MDSI	175,500	Costs associated with use of the OMAR system for the ASP orders dispatched to techs
Level II Chargebacks - Radio & Tele	144,000	Costs associated with use of telephones and the 800 Mz system for dispatching ASP orders
Capital Expenditures	(20,000)	Cost of building the ASP room
Total Infrastructure Expense	494,500	
Total Direct Expense	14,535,032	
Program Margin	16,993,467	
Margin as % of Net Revenue	32.3%	
INDIRECT EXPENSE:		
		Allocation of overhead costs to ASP for PTOI analysis. Includes Administrative and General Salaries, expenses and outside services; Property insurance; Injuries and damages; Pension & Benefits, Rents, Facilities and General office property taxes.
Corporate Cost	7,989,444	
Total Indirect Expense	7,989,444	
PTOI	9,004,023	
PTOI as % of Net Revenue	17.1%	
<i>Total Expense</i>	<i>43,654,248</i>	

APPLIANCE SERVICE PLAN PRO-FORMA

<u>Expense</u>	<u>2014 Actual</u>	<u>Description</u>	<u>Rate Case Witness</u>
Plan Gross Revenues	60,839,041	Gross Revenues from plans	Witness J. Fraga, Misc Revenues (was included in revenue shown on Audit #103)
SC Revenue	39	Revenues from additional items sold by the ASP Solutions Center i.e Furnance Filters	Witness J. Fraga, Misc Revenues (was included in revenue shown on Audit #103)
Less Incentives	376,765	Customer incentive payments	Witness J. Fraga, Misc Revenues (was included in revenue shown on Audit #103)
Net Revenues (RDS)	60,462,314	Net Revenues from plans	Witness J. Fraga, Misc Revenues (was included in revenue shown on Audit #103)
Cost of Goods Sold	22,431,084	Parts, labor and expenses associated with preforming repairs on appliances plus payroll tax on labor	Witness S. Bowers - Parts, labor, expenses (was included in expenses shown on Audit #103). Witness J. Fraga - Payroll tax
Gross Margin	38,031,230		
DIRECT EXPENSE:			
Operational:			
Schedule, Control & Dispatch	411,792	Dispatchers and their supervision to schedule and dispatch work out to field employees plus payroll tax on labor	Witness S. Bowers - Dispatch and Supervision (was included in expenses shown on Audit #103). Witness J. Fraga - Payroll tax
Consumer Affairs - Complaints	14,474	The cost for Consumer Affairs to handle and log complaints related to ASP based upon number of complaints	Witness S. Bowers
Solution Center Costs	2,370,644	ASP Solution Center (call center) taking repair calls	Witness S. Bowers (was included in expenses shown on Audit #103)
ASP Services Org & Office Admin	1,719,871	Includes salaries and expenses of the direct field supervision and management of the operations. It also includes program amends which are given to customers when a mistake is made by the program plus payroll tax on labor	Witness S. Bowers - Salaries and expenses (was included in expenses shown on Audit #103). Witness J. Fraga - Payroll tax
ACAP Expense	2,862,432	Cost associated with cash allowances on Gold Plan customers when there appliance is not repairable.	Witness S. Bowers (was included in expenses shown on Audit #103)
Small Tools	12,649	The value of the purchase of small hand tools that are used predominantly for repair work on appliances.	Witness S. Bowers
Training Labor & Materials	335,468	Training for the ASP direct supervision staff and the operating employee (field workers) plus payroll tax on labor	Witness S. Bowers - Labor and expense. Witness J. Fraga - Payroll tax
Gas/Electric Adjustment	(233,739)	Allocation (credit) of ASP related allocations to Electric Operations. Accounts for expense items shared between gas and electric (ie. Consumer Affairs, call center etc.)	Witness S. Bowers
Total Operational Expense	7,493,591		
Marketing			
Promotional Program & Research	3,764,499	Expenses associated with acquiring ASP contracts and promoting the plan plus payroll tax on labor.	Witness S. Bowers - Labor and expense (was included in expenses shown on Audit #103). Witness J. Fraga - Payroll tax
Marketing Supervision	1,167,032	The cost of labor associated with marketing the program and obtaining new customers plus payroll tax on labor.	Witness S. Bowers - Labor and expense (was included in expenses shown on Audit #103). Witness J. Fraga - Payroll tax
Bad Debt	3,506,881	Cost of uncollectables for customers who do not pay for the plan as they have been billed.	Witness S. Bowers (was included in expenses shown on Audit #103)
Collection Agency Fees	0	Cost associated with receiving services from Collection Agencies.	Witness S. Bowers
Point Plus	1,137,241	Incentives for the Consumers Energy Call Center reps for selling ASP plans.	Witness S. Bowers (was included in expenses shown on Audit #103)
Direct Mail	1,015,186	Costs associated with obtaining contracts from Direct Mail	Witness S. Bowers (was included in expenses shown on Audit #103)
Total Marketing	10,590,838		
Customer Insights Allocation	43,364	Allocation from Customer Experience and Quality employees assisting on thought/ideas/research to help grow and expand the program plus payroll tax on labor.	Witness S. Bowers - Labor and expense. Witness J. Fraga - Payroll tax
Billing Allocation	226,944	Expense for the lines used on customer bills associated with ASP.	Witness S. Bowers
CMR Allocation	217,398	Costs associated with the processing of payments made by customers for their ASP plan.	Witness D.Harry
Total Marketing Expense	11,078,544		
Infrastructure			
SAP	198,900	Cost associated for the ASP programs use of SAP system for plan data and repair work order history.	Witness C. Varvatos
MDSI	179,000	Costs associated with use of the OMAR system for the ASP orders dispatched to techs	Witness C. Varvatos
Level II Chargebacks - Radio & Tele	146,900	Costs associated with use of telephones and the 800 Mz system for dispatching ASP orders	Witness C. Varvatos
Total Infrastructure Expense	524,800		
Total Direct Expense	19,096,935		
Program Margin	18,934,295		
Margin as % of Net Revenue	31.3%		
INDIRECT EXPENSE:			
Corporate Cost	4,624,928	Allocation of overhead costs to ASP for PTOI analysis. Includes Administrative and General Salaries, expenses and outside services; Property insurance; Injuries and damages; Pension & Benefits, Rents, Facilities and General office property taxes.	Witnesses D. Harry,H. Kops, A. Conrad, S. Bowers, J. Fraga
Total Indirect Expense	4,624,928		
PTOI	14,309,366		
PTOI as % of Net Revenue	23.7%		
Total Expense	46,152,948		

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 08/14/15
NO. RFN-15
REQUESTED BY: Robert F. Nichols II
DATE OF REVISED RESPONSE: 11/20/2015
RESPONDENT: Daniel Harry

Question:

1. Regarding payroll and audit response # 41: "Projected test year information is not available in the format requested."
 - a. Please provide projected test year payroll information in the format in which it is available.

Answer:

- 1.a. The information was not available at the time requested. Financial plan projections are based on overall capital and O&M targets broken down by department and program. Total payroll budget detail did not become available until late in the 2016 budget process. Further, there is no separate reconciliation of the payroll component in the Company's budget to the capital and O&M projections found in the rate case projected test-year. Please find the Total Company Payroll and Benefits (excluding pension and healthcare) detail below. Columns (b) and (c) do not include the impacts of normal attrition or other headcount additions or reductions. Please note, the merit budget is 3% overall and 0.2% for high performers for a total of 3.2%. Electric and Gas split for the projected year is not available for this level of detail.

Total Labor and Benefits (Excluding Pension and Health Care)	(a)	(b)	(c)	(d)
		Projected 2015	Projected 2016	2016
	31-Dec-14	(2014 x 3.2% Merit Inc.)	(2015 x 3.2% Merit Inc.)	Budget
1 Annual Base Salary Non-Officers Non-Union EX and NEX Actively Employed on 12/31/2014	361,064,803			
2 Base Salary Non-Union Paid less Annual Base Salary EX & NEX (Line 1) *	-1,272,717			
3 Premium Time Non-Union EX & NEX	4,289,820			
4 Annual Base Salary Non-Officer Union Actively Employed on 12/31/2014	222,575,079			
5 Base Salary Non-Officers Union Paid less Annual Base Salary Non-Officers Union (Line 4) **	13,830,963			
6 Premium Time Non-Officers Union	7,118,370			
7 Labor Overtime EX, NEX, OM&C	102,584,789			
8 Labor Incentives/Severance/Accrued/Other	5,291,855			
9 Workers Compensation Payroll	2,337,441			
10 EICP accrued	12,644,964			
11 Restricted Stock	13,086,488			
12 TOTAL SALARIES AND WAGES, LINE 85, 2014 MPSC FORM P-521, Page 355	743,551,855	767,345,514	791,900,571	779,588,824
* Includes \$8m of officers' base pay				
** Includes EIRP employees not actively employed on 12/31/2014				

MPSC AUDIT REQUEST

CASE NO: U-17882
DATE OF REQUEST: 10/6/2015
NO. RFN-38
REQUESTED BY: Robert F. Nichols II
DATE OF RESPONSE: 10/22/2015
RESPONDENT: Andrew Denato and Jason Shore

Question:

1. Regarding Bonus Depreciation (Please use the Excel template provided in "Formal Request BAW CE 1" as a starting point to calculate Revenue Requirement Impacts):
 - a. What is the impact on Revenue Requirement in this gas case if:
 - i. Bonus Depreciation in its current form is extended for 2015 and:
 1. The Company uses the proceeds to buy down debt and equity in equal proportion?
 2. The Company uses the proceeds to invest in plant? Please provide a list of uses that would provide ratepayer benefit, but are not included in the rate case Capital Expenditure projections.
 - b. What is the impact on Revenue Requirement in this gas case if:
 - i. Bonus Depreciation in its current form is extended for 2015 & 2016 and:
 1. The Company uses the proceeds to buy down debt and equity in equal proportion?
 2. The Company uses the proceeds to invest in plant? Please provide a list of uses that would provide ratepayer benefit, but are not included in the rate case Capital Expenditure projections.

Answer:

1. For all cases, the Company modeled the impact of bonus depreciation on deferred taxes in the capital structure and accrued taxes in working capital. The model assumes that for the first year of bonus depreciation, working capital is increased for the impact of accrued tax receivables for 10 months of the year. After the cash is received in November of 2016, we have modeled the requested scenarios. For the second year of bonus depreciation, the model assumes that deferred taxes and cash available for investment come in evenly throughout the year, with no offset in accrued taxes.
 - a.
 - i.
 1. Please see attached, the projected revenue requirement is reduced by \$368,000 in this scenario.
 2. Please see attached, under this scenario, we would invest \$40 million into our pension fund rather than reducing debt and equity. Our pension fund is currently underfunded and we would look for opportunities to raise funding closer to 100%. The projected revenue requirement is increased by \$655,000 in this scenario.

b.

i.

1. Please see attached, the projected revenue requirement is reduced by \$4,067,000 in this scenario. Under this scenario, it may be necessary for the Company to issue additional debt and / or receive addition equity contributions from CMS Energy in order to address pension underfunding. This would offset any revenue requirement decrease resulting from buying down debt and equity with proceeds under this scenario.
2. Please see attached, under this scenario we would invest \$170 million into our pension fund rather than reducing debt and equity. Our pension fund is currently underfunded and we would look for opportunities to raise funding closer to 100%. The projected revenue requirement is decreased by \$946,000 in this scenario.

At this time, the Company does not believe that the buy down of debt and equity under scenarios a. i. 1. and b. i. 1. would be the best use of proceeds. The Company's current plan would be to fund its pension plans, as opposed to reducing reduce debt and equity. Scenarios a. i. 2. and b. i. 2. are fully supported by the Company in the event that bonus depreciation is extended. In the future, however, circumstances could arise that require incremental capital investment or working capital funding.

Consumers Energy
2015 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

Revenue requirement

Company Rate Base	4,014,528	Exhibit A-7 (JRF-38), Schedule A1, line 1
Change in Pre-Tax WACC	<u>-0.12%</u>	
Change In Rev Req	(4,819)	
Change in Rate Base	47,815	
New Pre-Tax WACC	<u>9.14%</u>	
New Rev Req	<u>4,369</u>	
Sub-Total	(450)	
Impact on Net Income	50	
Revenue Factor	<u>1.6367</u>	
Revenue Req Impact	<u>82</u>	
Total Revenue Requirement	(368)	

Consumers Energy
2015 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

Net operating income (NOI)

	As Filed	Adjustments for Bonus Depreciation	Adjusted Amount
Federal Income Taxes	42,310	40	42,350
State & Local Income Taxes	13,799	10	13,809
Total decrease to NOI		50	

State & Local Income Taxes

Reduction to interest expense	112
State Tax Rates	6.00%
State & Local Income Taxes	10

Federal Income Taxes

Reduction to interest expense	112
Increase in State & Local Income Taxes	(10)
Increase in Taxable Income	102
Federal Tax Rate	35%
Federal Income Taxes	40

Change in Pension Expense -

Adjustments to Pro-Forma Interest Expense

	As Filed	Adjustments	Adjusted Amount
Rate Base	4,014,528	47,815	4,062,343
Wghtd Cost of Debt	1.95%	-0.03%	1.92%
Pro-Forma Interest	78,209	(112)	78,097

Attachment 1.a.i.1

Consumers Energy
2015 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016
(\$000)

Deferred taxes included in capital structure:

Capital Structure	As Filed	Adjustments for Bonus Depreciation	Adjusted Balance	Percentage of Total Capital	Per Brief	Adjustments for Bonus Depreciation	Adjusted Balance	Cost Rate
Long Term Debt	5,192,400	(20,000)	5,172,400	Long Term Debt	37.28%		36.78%	5.04%
Preferred Stock	37,315		37,315	Preferred Stock	0.27%		0.27%	4.50%
Common equity	5,769,506	(20,000)	5,749,506	Common equity	41.42%		40.89%	10.70%
Total Permanent Capital	10,999,221	(40,000)	10,959,221	Total Permanent Capital	78.97%		77.93%	
Short Term Debt	178,200	-	178,200	Short Term Debt	1.28%		1.27%	3.03%
Customer Deposits	31,633		31,633	Customer Deposits	0.23%		0.22%	7.00%
Other Interest Bearing Accounts	24,169		24,169	Other Interest Bearing Accounts	0.17%		0.17%	3.25%
Deferred Taxes	2,642,037	173,624	2,815,661	Deferred Taxes	18.97%		20.02%	0.00%
JDITC - Debt	25,004		25,004	JDITC - Debt	0.18%		0.18%	5.04%
JDITC - Pref	192		192	JDITC - Pref	0.00%		0.00%	4.50%
JDITC - Com Equity	28,490		28,490	JDITC - Com Equity	0.20%		0.20%	10.70%
Total Capitalization	13,928,946	133,624	14,062,570	Total Capitalization	100.00%		100.00%	
After-Tax				Pre-Tax				
Weighted Cost				Weighted Cost				
Long Term Debt	1.88%		1.85%	Long Term Debt	1.88%		1.85%	
Preferred Stock	0.01%		0.01%	Preferred Stock	0.02%		0.02%	
Common equity	4.43%		4.37%	Common equity	7.25%		7.16%	
Total Permanent Capital	6.32%		6.24%	Total Permanent Capital	9.15%		9.03%	
Short Term Debt	0.04%		0.04%	Short Term Debt	0.04%		0.04%	
Customer Deposits	0.02%		0.02%	Customer Deposits	0.02%		0.02%	
Other Interest Bearing Accounts	0.01%		0.01%	Other Interest Bearing Accounts	0.01%		0.01%	
Deferred Taxes	0.00%		0.00%	Deferred Taxes	0.00%		0.00%	
JDITC - Debt	0.01%		0.01%	JDITC - Debt	0.01%		0.01%	
JDITC - Pref	0.00%		0.00%	JDITC - Pref	0.00%		0.00%	
JDITC - Com Equity	0.02%		0.02%	JDITC - Com Equity	0.04%		0.04%	
Total Capitalization	6.41%		6.33%	Total Capitalization	9.26%	-0.12%	9.14%	

Consumers Energy
2015 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016
(\$000)

<u>Working capital & Rate Base</u>	<u>Total Company</u>	<u>Gas Allocation</u>	<u>Gas Portion</u>
Change in Pension Contribution	-	37.08%	-
Change Accrued Taxes	133,557	35.80%	47,815
Total Change in Rate Base	133,557		47,815

ALLOCATORS:

April 2015 Working Capital Study - WP-JRF-212

Cash Working Capital - Electric	71,548,400
Cash Working Capital - Total	192,965,263
Percentage Electric To Total	37.08%

Working Capital Study
Federal Income Tax Allocation
December 31, 2014

December 31, 2014

	<u>13-Month Average Accrued FIT (Acct 2300000)</u>	
Electric	(27,042,071)	59.67%
Gas	(16,225,503)	35.80%
Other	(2,053,790)	4.53%
	(45,321,364)	100.00%

A. Fox)

Consumers Energy
2015 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

Revenue requirement

Company Rate Base	4,014,528	Exhibit A-7 (JRF-38), Schedule A1, line 1
Change in Pre-Tax WACC	<u>-0.11%</u>	
Change In Rev Req	(4,576)	
Change in Pension Expense	<u>(645)</u>	
	(5,221)	
Change in Rate Base	62,646	
New Pre-Tax WACC	<u>9.14%</u>	
New Rev Req	<u>5,728</u>	
Sub-Total	507	
Impact on Net Income	90	
Revenue Factor	<u>1.6367</u>	
Revenue Req Impact	<u>147</u>	
Total Revenue Requirement	655	

Consumers Energy
2015 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

Net operating income (NOI)

	As Filed	Adjustments for Bonus Depreciation	Adjusted Amount
Federal Income Taxes	42,310	80	42,390
State & Local Income Taxes	13,799	10	13,809
Total decrease to NOI		90	

State & Local Income Taxes

Reduction to interest expense	243
State Tax Rates	6.00%
State & Local Income Taxes	10

Federal Income Taxes

Reduction to interest expense	243
Increase in State & Local Income Taxes	(10)
Increase in Taxable Income	233
Federal Tax Rate	35%
Federal Income Taxes	80

Change in Pension Expense	(645)
---------------------------	-------

Adjustments to Pro-Forma Interest Expense

	As Filed	Adjustments	Adjusted Amount
Rate Base	4,014,528	62,646	4,077,174
Wghtd Cost of Debt	1.95%	-0.02%	1.92%
Pro-Forma Interest	78,209	243	78,451

Attachment 1.a.i.2

Consumers Energy
2015 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016
(\$000)

Deferred taxes included in capital structure:

Capital Structure	As Filed	Adjustments for Bonus Depreciation	Adjusted Balance	Percentage of Total Capital	Per Brief	Adjustments for Bonus Depreciation	Adjusted Balance	Cost Rate
Long Term Debt	5,192,400	-	5,192,400	Long Term Debt	37.28%		36.82%	5.04%
Preferred Stock	37,315		37,315	Preferred Stock	0.27%		0.26%	4.50%
Common equity	5,769,506	-	5,769,506	Common equity	41.42%		40.91%	10.70%
Total Permanent Capital	10,999,221	-	10,999,221	Total Permanent Capital	78.97%		77.99%	
Short Term Debt	178,200	-	178,200	Short Term Debt	1.28%		1.26%	3.03%
Customer Deposits	31,633		31,633	Customer Deposits	0.23%		0.22%	7.00%
Other Interest Bearing Accounts	24,169		24,169	Other Interest Bearing Accounts	0.17%		0.17%	3.25%
Deferred Taxes	2,642,037	173,624	2,815,661	Deferred Taxes	18.97%		19.97%	0.00%
JDITC - Debt	25,004		25,004	JDITC - Debt	0.18%		0.18%	5.04%
JDITC - Pref	192		192	JDITC - Pref	0.00%		0.00%	4.50%
JDITC - Com Equity	28,490		28,490	JDITC - Com Equity	0.20%		0.20%	10.70%
Total Capitalization	13,928,946	173,624	14,102,570	Total Capitalization	100.00%		100.00%	
After-Tax				Pre-Tax				
Weighted Cost				Weighted Cost				
Long Term Debt	1.88%		1.86%	Long Term Debt	1.88%		1.86%	
Preferred Stock	0.01%		0.01%	Preferred Stock	0.02%		0.02%	
Common equity	4.43%		4.38%	Common equity	7.25%		7.16%	
Total Permanent Capital	6.32%		6.25%	Total Permanent Capital	9.15%		9.04%	
Short Term Debt	0.04%		0.04%	Short Term Debt	0.04%		0.04%	
Customer Deposits	0.02%		0.02%	Customer Deposits	0.02%		0.02%	
Other Interest Bearing Accounts	0.01%		0.01%	Other Interest Bearing Accounts	0.01%		0.01%	
Deferred Taxes	0.00%		0.00%	Deferred Taxes	0.00%		0.00%	
JDITC - Debt	0.01%		0.01%	JDITC - Debt	0.01%		0.01%	
JDITC - Pref	0.00%		0.00%	JDITC - Pref	0.00%		0.00%	
JDITC - Com Equity	0.02%		0.02%	JDITC - Com Equity	0.04%		0.04%	
Total Capitalization	6.41%		6.34%	Total Capitalization	9.26%	-0.11%	9.14%	

Consumers Energy
2015 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

<u>Working capital & Rate Base</u>	Total Company	Gas Allocation	Gas Portion
Change in Pension Contribution	40,000	37.08%	14,831
Change Accrued Taxes	133,557	35.80%	47,815
Total Change in Rate Base	173,557		62,646

ALLOCATORS:

April 2015 Working Capital Study - WP-JRF-212

Cash Working Capital - Electric	71,548,400
Cash Working Capital - Total	192,965,263
Percentage Electric To Total	37.08%

Working Capital Study
 Federal Income Tax Allocation
 December 31, 2014

December 31, 2014

	13-Month Average Accrued FIT (Acct 2300000)	
Electric	(27,042,071)	59.67%
Gas	(16,225,503)	35.80%
Other	(2,053,790)	4.53%
	(45,321,364)	100.00%

A. Fox)

Consumers Energy
2015 & 2016 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

Revenue requirement

Company Rate Base	4,014,528	Exhibit A-7 (JRF-38), Schedule A1, line 1
Change in Pre-Tax WACC	<u>-0.23%</u>	
Change In Rev Req	(9,057)	
Change in Rate Base	47,815	
New Pre-Tax WACC	<u>9.03%</u>	
New Rev Req	<u>4,319</u>	
Sub-Total	(4,738)	
Impact on Net Income	410	
Revenue Factor	<u>1.6367</u>	
Revenue Req Impact	<u>671</u>	
Total Revenue Requirement	(4,067)	

Consumers Energy
2015 & 2016 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

Net operating income (NOI)

	As Filed	Adjustments for Bonus Depreciation	Adjusted Amount
Federal Income Taxes	42,310	350	42,660
State & Local Income Taxes	13,799	60	13,859
Total decrease to NOI		410	

State & Local Income Taxes

Reduction to interest expense	1,070
State Tax Rates	6.00%
State & Local Income Taxes	60

Federal Income Taxes

Reduction to interest expense	1,070
Increase in State & Local Income Taxes	(60)
Increase in Taxable Income	1,010
Federal Tax Rate	35%
Federal Income Taxes	350

Change in Pension Expense -

<u>Adjustments to Pro-Forma Interest Expense</u>	As Filed	Adjustments	Adjusted Amount
Rate Base	4,014,528	47,815	4,062,343
Wghtd Cost of Debt	1.95%	-0.05%	1.90%
Pro-Forma Interest	78,209	(1,070)	77,139

Attachment 1.b.i.1

Consumers Energy
2015 & 2016 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016
(\$000)

Deferred taxes included in capital structure:

	As Filed	Adjustments for Bonus Depreciation	Adjusted Balance		Per Brief	Adjustments for Bonus Depreciation	Adjusted Balance	Cost Rate
Capital Structure				Percentage of Total Capital				
Long Term Debt	5,192,400	(86,000)	5,106,400	Long Term Debt	37.28%		36.31%	5.04%
Preferred Stock	37,315		37,315	Preferred Stock	0.27%		0.27%	4.50%
Common equity	5,769,506	(86,000)	5,683,506	Common equity	41.42%		40.42%	10.70%
Total Permanent Capital	10,999,221	(172,000)	10,827,221	Total Permanent Capital	78.97%		77.00%	
Short Term Debt	178,200	-	178,200	Short Term Debt	1.28%		1.27%	3.03%
Customer Deposits	31,633		31,633	Customer Deposits	0.23%		0.22%	7.00%
Other Interest Bearing Accounts	24,169		24,169	Other Interest Bearing Accounts	0.17%		0.17%	3.25%
Deferred Taxes	2,642,037	305,177	2,947,214	Deferred Taxes	18.97%		20.96%	0.00%
JDITC - Debt	25,004		25,004	JDITC - Debt	0.18%		0.18%	5.04%
JDITC - Pref	192		192	JDITC - Pref	0.00%		0.00%	4.50%
JDITC - Com Equity	28,490		28,490	JDITC - Com Equity	0.20%		0.20%	10.70%
Total Capitalization	13,928,946	133,177	14,062,123	Total Capitalization	100.00%		100.00%	
After-Tax				Pre-Tax				
Weighted Cost				Weighted Cost				
Long Term Debt	1.88%		1.83%	Long Term Debt	1.88%		1.83%	
Preferred Stock	0.01%		0.01%	Preferred Stock	0.02%		0.02%	
Common equity	4.43%		4.32%	Common equity	7.25%		7.08%	
Total Permanent Capital	6.32%		6.17%	Total Permanent Capital	9.15%		8.93%	
Short Term Debt	0.04%		0.04%	Short Term Debt	0.04%		0.04%	
Customer Deposits	0.02%		0.02%	Customer Deposits	0.02%		0.02%	
Other Interest Bearing Accounts	0.01%		0.01%	Other Interest Bearing Accounts	0.01%		0.01%	
Deferred Taxes	0.00%		0.00%	Deferred Taxes	0.00%		0.00%	
JDITC - Debt	0.01%		0.01%	JDITC - Debt	0.01%		0.01%	
JDITC - Pref	0.00%		0.00%	JDITC - Pref	0.00%		0.00%	
JDITC - Com Equity	0.02%		0.02%	JDITC - Com Equity	0.04%		0.04%	
Total Capitalization	6.41%		6.26%	Total Capitalization	9.26%	-0.23%	9.03%	

Consumers Energy
2015 & 2016 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

<u>Working capital & Rate Base</u>	Total Company	Gas Allocation	Gas Portion
Change in Pension Contribution	-	37.08%	-
Change Accrued Taxes	133,557	35.80%	47,815
Total Change in Rate Base	133,557		47,815

ALLOCATORS:

April 2015 Working Capital Study - WP-JRF-212

Cash Working Capital - Gas	71,548,400
Cash Working Capital - Total	192,965,263
Percentage Electric To Total	37.08%

Working Capital Study
 Federal Income Tax Allocation
 December 31, 2014

December 31, 2014

	13-Month Average Accrued FIT (Acct 2300000)	
Electric	(27,042,071)	59.67%
Gas	(16,225,503)	35.80%
Other	(2,053,790)	4.53%
	(45,321,364)	100.00%

A. Fox)

Consumers Energy
2015 & 2016 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

Revenue requirement

Company Rate Base	4,014,528	Exhibit A-7 (JRF-38), Schedule A1, line 1
Change in Pre-Tax WACC	<u>-0.20%</u>	
Change In Rev Req	(7,968)	
Change in Pension Expense	<u>(2,742)</u>	
	(10,710)	
Change in Rate Base	110,848	
New Pre-Tax WACC	<u>9.06%</u>	
New Rev Req	<u>10,042</u>	
Sub-Total	(668)	
Impact on Net Income	(170)	
Revenue Factor	<u>1.6367</u>	
Revenue Req Impact	<u>(278)</u>	
Total Revenue Requirement	(946)	

Consumers Energy
2015 & 2016 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

Net operating income (NOI)

	As Filed	Adjustments for Bonus Depreciation	Adjusted Amount
Federal Income Taxes	42,310	(140)	42,170
State & Local Income Taxes	13,799	(30)	13,769
Total decrease to NOI		(170)	

State & Local Income Taxes

Reduction to interest expense	(436)
State Tax Rates	6.00%
State & Local Income Taxes	(30)

Federal Income Taxes

Reduction to interest expense	(436)
Increase in State & Local Income Taxes	30
Increase in Taxable Income	(406)
Federal Tax Rate	35%
Federal Income Taxes	(140)

Change in Pension Expense	(2,742)
---------------------------	---------

<u>Adjustments to Pro-Forma Interest Expense</u>	As Filed	Adjustments	Adjusted Amount
Rate Base	4,014,528	110,848	4,125,376
Wghtd Cost of Debt	1.95%	-0.04%	1.91%
Pro-Forma Interest	78,209	436	78,645

Attachment 1.b.i.2

Consumers Energy
2015 & 2016 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016
(\$000)

Deferred taxes included in capital structure:

Capital Structure	As Filed	Adjustments for Bonus Depreciation	Adjusted Balance		Per Brief	Adjustments for Bonus Depreciation	Adjusted Balance	Cost Rate
				Percentage of Total Capital				
Long Term Debt	5,192,400	-	5,192,400	Long Term Debt	37.28%		36.48%	5.04%
Preferred Stock	37,315		37,315	Preferred Stock	0.27%		0.26%	4.50%
Common equity	5,769,506	-	5,769,506	Common equity	41.42%		40.53%	10.70%
Total Permanent Capital	10,999,221	-	10,999,221	Total Permanent Capital	78.97%		77.27%	
Short Term Debt	178,200	-	178,200	Short Term Debt	1.28%		1.25%	3.03%
Customer Deposits	31,633		31,633	Customer Deposits	0.23%		0.22%	7.00%
Other Interest Bearing Accounts	24,169		24,169	Other Interest Bearing Accounts	0.17%		0.17%	3.25%
Deferred Taxes	2,642,037	305,177	2,947,214	Deferred Taxes	18.97%		20.71%	0.00%
JDITC - Debt	25,004		25,004	JDITC - Debt	0.18%		0.18%	5.04%
JDITC - Pref	192		192	JDITC - Pref	0.00%		0.00%	4.50%
JDITC - Com Equity	28,490		28,490	JDITC - Com Equity	0.20%		0.20%	10.70%
Total Capitalization	13,928,946	305,177	14,234,123	Total Capitalization	100.00%		100.00%	
After-Tax				Pre-Tax				
Weighted Cost				Weighted Cost				
Long Term Debt	1.88%		1.84%	Long Term Debt	1.88%		1.84%	
Preferred Stock	0.01%		0.01%	Preferred Stock	0.02%		0.02%	
Common equity	4.43%		4.34%	Common equity	7.25%		7.10%	
Total Permanent Capital	6.32%		6.19%	Total Permanent Capital	9.15%		8.96%	
Short Term Debt	0.04%		0.04%	Short Term Debt	0.04%		0.04%	
Customer Deposits	0.02%		0.02%	Customer Deposits	0.02%		0.02%	
Other Interest Bearing Accounts	0.01%		0.01%	Other Interest Bearing Accounts	0.01%		0.01%	
Deferred Taxes	0.00%		0.00%	Deferred Taxes	0.00%		0.00%	
JDITC - Debt	0.01%		0.01%	JDITC - Debt	0.01%		0.01%	
JDITC - Pref	0.00%		0.00%	JDITC - Pref	0.00%		0.00%	
JDITC - Com Equity	0.02%		0.02%	JDITC - Com Equity	0.04%		0.04%	
Total Capitalization	6.41%		6.28%	Total Capitalization	9.26%	-0.20%	9.06%	

Consumers Energy
2015 & 2016 Bonus Depreciation Impacts
Projected Period Ending December 31, 2016

(\$000)

<u>Working capital & Rate Base</u>	Total Company	Gas Allocation	Gas Portion
Change in Pension Contribution	170,000	37.08%	63,033
Change Accrued Taxes	133,557	35.80%	47,815
Total Change in Rate Base	303,557		110,848

ALLOCATORS:

April 2015 Working Capital Study - WP-JRF-212

Cash Working Capital - Gas	71,548,400
Cash Working Capital - Total	192,965,263
Percentage Electric To Total	37.08%

Working Capital Study
 Federal Income Tax Allocation
 December 31, 2014

December 31, 2014

	13-Month Average Accrued FIT (Acct 2300000)	
Electric	(27,042,071)	59.67%
Gas	(16,225,503)	35.80%
Other	(2,053,790)	4.53%
	(45,321,364)	100.00%

A. Fox)

**Michigan Public Service Commission
Financial Analysis & Audit Division Audit
Consumers Energy Company
Case No: U-17882 Gas Rate Case**

**Auditor: Robert F. Nichols II
Audit Request No: RFN-45
Date of Request: 11-22-15
Person Responding: Daniel Harry
Date of Response: November 30, 2015
Page: 1 of 2**

Please provide the following documents or data. If the requested item is already included in the Company's filing, please provide a reference to its location (exhibit, workpaper, etc.)

323. 1. Regarding payroll/total salary & wages, audit response #63(revised). Please provide all calculation in working excel format:

a. Please provide a description of each line item #1 through #12.

#1. Annual base salaries of Non-union employees actively employed as of 12/31/2014. Officers are excluded.

#2. Paid base salary of officers, paid base salary of other Non-union employees not actively employed as of 12/31/2014. A reduction to the total reported on (#1) for employees employed only for a part of the year.

#3. Premium time paid outside of regular time, paid absence and over-time including night, weekend, holiday, extraordinary demand, temporary supervision, on-call premium pay.

#4. Annual base salaries of Union employees actively employed as of 12/31/2014.

#5. Paid base salary of Union employees not actively employed as of 12/31/2014. A reduction to the total reported on (#4) for employees employed only for a part of the year.

#6. Premium time paid outside of regular time, paid absence and over-time including night, weekend, holiday, extraordinary demand, temporary supervision, temporary promotion, instructor, bilingual, on-call premium pay.

#7. Overtime pay of exempt, non-exempt and OM&C employees.

#8. Incentives, severance paid to employees, current year vacation liabilities accrual and separation accrual.

#9. Workers' compensation paid through payroll mostly to active employees.

#10. EICP accrued based on performance target achieved accordingly to the best information we had as of 12/31/2014.

#11. Restricted stock expense charged to CE in a current year pertaining to CE employees.

#12. It is a total of all 11 items above.

b. My understanding is that the "2016 budget" column containing a bottom-line \$779.6 million total company is the payroll included in the board reviewed budget for 2016. Is this correct? Please provide the electric/gas/non-utility split of the total and the further subdivision into O&M and capital for each of the electric and gas amounts.

Yes. However, the 2016 Budget is based on overall capital and O&M targets developed at the department and program level of detail. The "2016 budget" column is the total company payroll supporting the 2016 Budget expenditures. The 2016 budget is not developed utilizing this base level of payroll detail. Accordingly, a breakdown of the payroll in the categories requested is not possible and cannot be reasonably obtained.

c. Please provide the electric/gas/non-utility split of the total for each column "a" through "d" provided. If the exact split cannot be provided, please provide an approximate split. If the split cannot be provided for a particular column, please provide the split for the remaining columns. Additionally, please provide the further subdivision of those amounts into O&M and capital for each of the electric and gas portion.

The information is only available for column (a). CE does not budget or forecast payroll at the level of detail requested.

**Michigan Public Service Commission
Financial Analysis & Audit Division Audit
Consumers Energy Company
Case No: U-17882 Gas Rate Case**

**Auditor: Robert F. Nichols II
Audit Request No: RFN-45
Date of Request: 11-22-15
Person Responding: Daniel Harry
Date of Response: November 30, 2015
Page: 2 of 2**

- d. Please provide additional side-by-side columns for each year 2010 through 2013 to the right of the 2014 actual column, please provide the detail provided in the 2014 column "a" (in working excel format) for each year 2010-2013.
 - i. Please provide additional rows at the bottom of each year to show the electric/gas/non-utility split of the total.
 - ii. Please provide additional rows at the bottom of each year (under 1.d.i info) to show the additional subdivision of the electric and gas total for each year into the capital and the O&M amount.

See attached.

- e. Please provide an additional column side-by-side for 2015 (10 months actual + 2 forecast) with the same information for 2015 as was provided for each other year in 1.d. If the detail in lines 1-11 are not available, please continue to provide the total amount and the remaining information requested.

The information is not available. CE does not forecast its O&M and Capital at this level of detail. See attachment for estimated amounts for 2015 based on escalated 2014 actual amounts by an assumed 3.2% merit increase.

- f. Is column c "projected 2016" the payroll included in the instant case, but on a total company basis? What is the gas portion included in the instant case?

No. Column C total is based on 2014 actual total CE labor for the total company adjusted to reflect 3.2% of assumed annual merit increases for the years 2015 and 2016. Columns b and c do not include the impacts of normal attrition or other headcount additions or reductions. Columns b and c are provided to show a comparison to the 2016 budget column considering a straight escalation of 2014 actual payroll. Information on the gas portion included in this total is not available. See attachment for an estimate based on 2014 actual escalated for an assumed 3.2% merit increase.

- g. Please provide the payroll included in the projected test year in the instant case.

A reconciliation of the payroll included in the projected test year in the instant case does not exist.

- h. Please provide the total payroll the company used to calculate the projected test year payroll in the instant case. Please provide the information in the same format as provided in column "a", if available, otherwise, provide the total and any additional detail that is available. Please provide the electric/gas/non-utility split and the further split used in the instant case for the gas portion O&M/capital.

The detail requested is not available. See attachment for an estimate based on escalated 2014 actual amounts by an assumed 3.2% merit increase.

U-17882 MPSC Staff Audit Rqst 323 attachment

1 d.

	2014	2013	2012	2011	2010	Projected 2015 (2014 x 3.2% Merit Inc.)	Projected 2016 (2015 x 3.2% Merit Inc.)
1 Annual Base Salary Non-Officers Non-Union EX and NEX Actively Employed on 12/31/2014	361,064,803	339,874,951	320,715,105	322,988,519	316,283,720		
2 Base Salary Non-Union Paid less Annual Base Salary EX & NEX (Line 1) *	-1,272,717	191,495	10,360,511	5,635,121	7,159,562		
3 Premium Time Non-Union EX & NEX	4,289,820	4,320,598	3,941,742	3,988,752	3,974,925		
4 Annual Base Salary Non-Officer Union Actively Employed on 12/31/2014	222,575,079	224,624,687	211,935,504	207,923,849	203,462,974		
5 Base Salary Non-Officers Union Paid less Annual Base Salary Non-Officers Union (Line 4) **	13,830,963	-4,447,878	484,655	1,809,965	3,190,105		
6 Premium Time Non-Officers Union	7,118,370	6,873,534	6,603,516	6,477,446	6,252,921		
7 Labor Overtime EX, NEX, OM&C	102,584,789	95,128,816	81,316,802	81,062,473	64,237,631		
8 Labor Incentives/Severance/Accrued/Other	5,291,855	6,698,518	13,984,463	4,197,784	5,809,581		
9 Workers Compensation Payroll	2,337,441	2,279,881	2,297,645	2,522,516	2,600,437		
10 EICP accrued	12,644,964	12,260,119	11,778,785	4,841,560	13,577,495		
11 Restricted Stock	13,086,488	13,606,053	11,324,466	9,672,422	8,562,187		
12 TOTAL SALARIES AND WAGES, MPSC FORM P-521, PAGE 355, LINE 85	743,551,855	701,410,774	674,743,194	651,120,407	635,111,538	767,345,514	791,900,571
Electric O&M	243,705,806	245,917,405	239,727,287	235,933,236	234,614,632	251,504,392	259,552,532
Gas O&M	148,801,101	144,846,617	145,986,163	142,504,743	144,813,549	153,562,736	158,476,744
Capital Electric	180,232,800	174,209,982	170,588,997	165,375,018	157,904,192	186,000,250	191,952,258
Capital Gas	110,783,967	81,266,604	67,362,616	59,349,652	60,591,553	114,329,054	117,987,584
Capital Common	16,057,705	13,761,282	10,802,419	13,309,117	11,773,390	16,571,552	17,101,841
Job-Work	2,255,445	2,401,106	2,398,764	2,492,345	3,029,360	2,327,619	2,402,103
Other income & deductions	28,209,559	26,867,004	24,454,087	15,111,436	8,873,357	29,112,265	30,043,857
Other (Balance Sheet)	13,505,472	12,140,774	13,422,861	17,044,860	13,511,505	13,937,647	14,383,652
TOTAL SALARIES AND WAGES, MPSC FORM P-521, PAGE 355, LINE 85	743,551,855	701,410,774	674,743,194	651,120,407	635,111,538	767,345,514	791,900,571

MPSC STAFF Recommended MGP Recovery

Environmental Response Activity Expenses - October, 2014 through June, 2015

Line No.	MGP SITE	COMPANY Oct. - Dec. 2014	COMPANY Jan. - Jun. 2015	COMPANY Oct. 2014 - Jun. 2015	STAFF Oct. 2014 - Jun. 2015	DIFFERENCE
1	ALMA	\$126,092	\$506,702	\$632,795	\$632,795	\$0
2	ALPENA	\$16,146	\$6,911	\$23,057	\$23,057	\$0
3	BAY CITY	\$6,182	\$13,813	\$19,995	\$19,995	\$0
4	CHARLOTTE	\$23,519	\$40,705	\$64,224	\$64,224	\$0
5	FLINT COURT STREET	\$18,671	\$35,257	\$53,928	\$53,928	\$0
6	FLINT EAST	\$259,585	\$377,292	\$636,877	\$636,877	\$0
7	GRAND LEDGE	\$50,116	-\$17,427	\$32,689	\$0	(\$32,689)
8	HASTINGS	\$13,459	\$8,486	\$21,945	\$21,945	\$0
9	IONIA	\$3,231	\$10,015	\$13,247	\$13,247	\$0
10	JACKSON	\$342,003	\$861,420	\$1,203,422	\$1,203,422	\$0
11	KALAMAZOO	\$14,888	\$32,298	\$47,186	\$47,186	\$0
12	LANSING	\$101,231	-\$36,330	\$64,901	\$0	(\$64,901)
13	MANISTEE	\$1,426,212	-\$207,896	\$1,218,316	\$1,218,316	\$0
14	MARSHALL	\$45,741	\$201,144	\$246,885	\$0	(\$246,885)
15	MT CLEMONS	\$20,837	\$10,611	\$31,447	\$31,447	\$0
16	OWOSSO	\$37,357	\$7,208	\$44,565	\$0	(\$44,565)
17	PLYMOUTH	\$27,755	\$23,240	\$50,995	\$50,995	\$0
18	PONTIAC	-\$3,927	\$88,091	\$84,164	\$84,164	\$0
19	ROYAL OAK	\$69,864	\$93	\$69,957	\$69,957	\$0
20	SAGINAW	\$5,889	\$7,120	\$13,009	\$13,009	\$0
21	ST JOHNS	\$37,913	-\$12,224	\$25,689	\$25,689	\$0
22	SAULT STE MARIE	\$4,845	\$5,300	\$10,145	\$10,145	\$0
23	ZILWAUKEE	\$554	\$1,065	\$1,618	\$1,618	\$0
24	TOTAL	\$2,648,162	\$1,962,892	\$4,611,055	\$4,222,014	(\$389,040)

U-17882 Consumers Energy Response to MPSC Audit Request # 14, Part 2
October 2014 through June 2015

KEY: = more info added
gray = advanced bookings
blue = invoices > \$10,000

line no.	Object	CO object name	frm	Year	Cost Elem.	Cost element name	Val.in RC	Purch.Doc.	Name	Name of offsetting account
1	6607751	Incremental MGP-ALMA	10	2014	5503500	Other O/S Services	17,760	4400037029	Barr	GR/IR
2	6607751	Incremental MGP-ALMA	10	2014	5503500	Other O/S Services	877	4400037802	ENV - ERG	GR/IR
3	6607751	Incremental MGP-ALMA	12	2014	5503500	Other O/S Services	27,572	4400037029	Barr	GR/IR
4	6607751	Incremental MGP-ALMA	12	2014	5503500	Other O/S Services	40,873	4400037029	Barr	GR/IR
5	6607751	Incremental MGP-ALMA	12	2014	5503500	Other O/S Services	19,011	4400037029	Barr	GR/IR
6	6607751	Incremental MGP-ALMA	12	2014	5503500	Other O/S Services	20,000			Accr Liab-Goods & Sv
7	6607751	Incremental MGP-ALMA	1	2015	5503500	Other O/S Services	-20,000			Accr Liab-Goods & Sv
8	6607751	Incremental MGP-ALMA	1	2015	5503500	Other O/S Services	11,346	4400037029	Barr	GR/IR
9	6607751	Incremental MGP-ALMA	2	2015	5503500	Other O/S Services	62,000			Accr Liab-Goods & Sv
10	6607751	Incremental MGP-ALMA	3	2015	5503500	Other O/S Services	-62,000			Accr Liab-Goods & Sv
11	6607751	Incremental MGP-ALMA	3	2015	5503500	Other O/S Services	49,019	4400037029	Barr	GR/IR
12	6607751	Incremental MGP-ALMA	3	2015	5503500	Other O/S Services	19,911	4400037029	Barr	GR/IR
13	6607751	Incremental MGP-ALMA	3	2015	5503500	Other O/S Services	4,591	4400046140	Barr	GR/IR
14	6607751	Incremental MGP-ALMA	3	2015	5503500	Other O/S Services	68,000			Accr Liab-Goods & Sv
15	6607751	Incremental MGP-ALMA	4	2015	5503500	Other O/S Services	-68,000			Accr Liab-Goods & Sv
16	6607751	Incremental MGP-ALMA	4	2015	5503500	Other O/S Services	68,429	4400037029	Barr	GR/IR
17	6607751	Incremental MGP-ALMA	5	2015	5503500	Other O/S Services	45,300			Accr Liab-Goods & Sv
18	6607751	Incremental MGP-ALMA	5	2015	5503500	Other O/S Services	64,000	\$0		Accr Liab-Goods & Sv
19	6607751	Incremental MGP-ALMA	5	2015	5503500	Other O/S Services	-45,300			Accr Liab-Goods & Sv
20	6607751	Incremental MGP-ALMA	5	2015	5503500	Other O/S Services	-64,000			Accr Liab-Goods & Sv
21	6607751	Incremental MGP-ALMA	5	2015	5503500	Other O/S Services	45,300			Accr Liab-Goods & Sv
22	6607751	Incremental MGP-ALMA	5	2015	5503500	Other O/S Services	64,000			Accr Liab-Goods & Sv
23	6607751	Incremental MGP-ALMA	5	2015	5503500	Other O/S Services	40,095	4400046140	Barr	GR/IR
24	6607751	Incremental MGP-ALMA	5	2015	5503500	Other O/S Services	14,812	4400046140	Barr	GR/IR
25	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	-64,000			Accr Liab-Goods & Sv
26	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	-45,300	\$0		Accr Liab-Goods & Sv
27	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	45,300			Accr Liab-Goods & Sv
28	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	64,000			Accr Liab-Goods & Sv
29	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	-64,000			Accr Liab-Goods & Sv
30	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	-45,300			Accr Liab-Goods & Sv
31	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	53,943	4400048815	HM Environmental	GR/IR
32	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	66,460	4400046140	Barr	GR/IR
33	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	136,098			Accr Liab-Goods & Sv
34	6607751	Incremental MGP-ALMA	6	2015	5503500	Other O/S Services	62,000			Accr Liab-Goods & Sv
35	* 6607751	Incremental MGP-ALMA					632,795			
36	6607752	Incremental MGP-ALPENA	11	2014	5503500	Other O/S Services	826	4400036787	ECT	GR/IR
37	6607752	Incremental MGP-ALPENA	11	2014	5503500	Other O/S Services	288	4400036787	ECT	GR/IR
38	6607752	Incremental MGP-ALPENA	11	2014	5503500	Other O/S Services	201	4400036787	ECT	GR/IR
39	6607752	Incremental MGP-ALPENA	12	2014	5503500	Other O/S Services	9,000			Accr Liab-Goods & Sv
40	6607752	Incremental MGP-ALPENA	1	2015	5503500	Other O/S Services	-9,000			Accr Liab-Goods & Sv
41	6607752	Incremental MGP-ALPENA	12	2014	5503500	Other O/S Services	5,832	4400036787	ECT	GR/IR
42	6607752	Incremental MGP-ALPENA	1	2015	5503500	Other O/S Services	3,405	4400036787	ECT	GR/IR
43	6607752	Incremental MGP-ALPENA	3	2015	5503500	Other O/S Services	1,472	4400036787	ECT	GR/IR
44	6607752	Incremental MGP-ALPENA	3	2015	5503500	Other O/S Services	1,073	4400036787	ECT	GR/IR
45	6607752	Incremental MGP-ALPENA	4	2015	5503500	Other O/S Services	4,662	4400036787	ECT	GR/IR
46	6607752	Incremental MGP-ALPENA	5	2015	5503500	Other O/S Services	3,013	4400036787	ECT	GR/IR
47	6607752	Incremental MGP-ALPENA	5	2015	5503500	Other O/S Services	2,286	4400046810	ECT	GR/IR
48	* 6607752	Incremental MGP-ALPENA					23,057			
49	6607753	Incremental MGP-BAY CITY	10	2014	5227000	Indirect Lbr Cr/Adj	-384		rcIs Aug Bay City Real Estate fr Incr to Non-Incr	reversal for October 2014 mischarge
50	6607753	Incremental MGP-BAY CITY	10	2014	5890000	Oth NonLbr Exp	-74		rcIs Aug Bay City Real Estate fr Incr to Non-Incr	reversal for October 2014 mischarge
51	6607753	Incremental MGP-BAY CITY	11	2014	5503500	Other O/S Services	2,125	4400036784	SME	GR/IR
52	6607753	Incremental MGP-BAY CITY	11	2014	5503500	Other O/S Services	567	4400036784	SME	GR/IR
53	6607753	Incremental MGP-BAY CITY	11	2014	M1034	Real Estate - Labor	0		BSSURVLB CORP BUS SERV SURVEY LABOR	
54	6607753	Incremental MGP-BAY CITY	11	2014	M2034	Real Estate - Non Lbr	75		CBSURVNLBCORP BUS SERV SURVEY NLBR	
55	6607753	Incremental MGP-BAY CITY	11	2014	M1034	Real Estate - Labor	313	Sum =	BSSURVLB CORP BUS SERV SURVEY LABOR	
56	6607753	Incremental MGP-BAY CITY	12	2014	5227000	Indirect Lbr Cr/Adj	-313	\$0	SURVEY LABOR-NOV POSTING	Cntrct Cst-Other
57	6607753	Incremental MGP-BAY CITY	12	2014	5890000	Oth NonLbr Exp	-75		SURVEY NON-LABOR-NOV POSTING	Cntrct Cst-Other
58	6607753	Incremental MGP-BAY CITY	12	2014	5508000	Cntrct Cst-Other	2,643		Rowe	Cntrct Cst-Other
59	6607753	Incremental MGP-BAY CITY	12	2014	5503500	Other O/S Services	811	4400036784	SME	GR/IR
60	6607753	Incremental MGP-BAY CITY	12	2014	5503500	Other O/S Services	496	4400036784	SME	GR/IR
61	6607753	Incremental MGP-BAY CITY	1	2015	5508000	Cntrct Cst-Other	280		Rowe	Cntrct Cst-Other
62	6607753	Incremental MGP-BAY CITY	1	2015	5503500	Other O/S Services	319	4400036784	SME	GR/IR
63	6607753	Incremental MGP-BAY CITY	3	2015	5503500	Other O/S Services	3,199	4400036784	SME	GR/IR
64	6607753	Incremental MGP-BAY CITY	4	2015	5503500	Other O/S Services	2,554	4400036784	SME	GR/IR
65	6607753	Incremental MGP-BAY CITY	5	2015	5503500	Other O/S Services	5,903	4400036784	SME	GR/IR
66	6607753	Incremental MGP-BAY CITY	6	2015	5508000	Cntrct Cst-Other	1,200		Rowe Survey Correction	Cntrct Cst-Other
67	6607753	Incremental MGP-BAY CITY	6	2015	5503500	Other O/S Services	358	4400046737	SME	GR/IR
68	* 6607753	Incremental MGP-BAY CITY					19,995			
69	6607754	Incremental MGP-CHARLOTTE	11	2014	5211000	Fees-General	37			CITY OF CHARLOTTE
70	6607754	Incremental MGP-CHARLOTTE	11	2014	5503500	Other O/S Services	7,764	4400036842	ECT	GR/IR
71	6607754	Incremental MGP-CHARLOTTE	12	2014	5503500	Other O/S Services	15,000			Accr Liab-Goods & Sv
72	6607754	Incremental MGP-CHARLOTTE	1	2015	5503500	Other O/S Services	-15,000			Accr Liab-Goods & Sv
73	6607754	Incremental MGP-CHARLOTTE	12	2014	5503500	Other O/S Services	2,758	4400036842	ECT	GR/IR
74	6607754	Incremental MGP-CHARLOTTE	12	2014	5210000	Fees-Regulatory/Perm	-1,000		Livingston Cty Bond Refund	I/C CRFII Dir Chg Rc
75	6607754	Incremental MGP-CHARLOTTE	12	2014	5503500	Other O/S Services	-1,040		Environmental Consulting	I/C CRFII Dir Chg Rc
76	6607754	Incremental MGP-CHARLOTTE	1	2015	5503500	Other O/S Services	2,766	4400036842	ECT	GR/IR
77	6607754	Incremental MGP-CHARLOTTE	1	2015	5210000	Fees-Regulatory/Perm	1,000		Livingston Cty Bond Dec Accr Rev	I/C CRFII Dir Chg Rc
78	6607754	Incremental MGP-CHARLOTTE	1	2015	5503500	Other O/S Services	1,040		Environmental Consult DEC Accr Rev	I/C CRFII Dir Chg Rc
79	6607754	Incremental MGP-CHARLOTTE	1	2015	5503500	Other O/S Services	-1,040			I/C CRFII Dir Chg Rc
80	6607754	Incremental MGP-CHARLOTTE	1	2015	5503500	Other O/S Services	6,500			Accr Liab-Goods & Sv
81	6607754	Incremental MGP-CHARLOTTE	2	2015	5503500	Other O/S Services	-6,500			Accr Liab-Goods & Sv
82	6607754	Incremental MGP-CHARLOTTE	2	2015	5211000	Fees-General	41			CITY OF CHARLOTTE
83	6607754	Incremental MGP-CHARLOTTE	2	2015	5503500	Other O/S Services	6,496	4400036842	ECT	GR/IR
84	6607754	Incremental MGP-CHARLOTTE	3	2015	5503500	Other O/S Services	2,911	4400036842	ECT	GR/IR
85	6607754	Incremental MGP-CHARLOTTE	4	2015	5503500	Other O/S Services	7,659	4400036842	ECT	GR/IR
86	6607754	Incremental MGP-CHARLOTTE	5	2015	5211000	Fees-General	45			CITY OF CHARLOTTE
87	6607754	Incremental MGP-CHARLOTTE	5	2015	5503500	Other O/S Services	954	4400047496	ECT	GR/IR
88	6607754	Incremental MGP-CHARLOTTE	5	2015	5503500	Other O/S Services	5,992	4400036842	ECT	GR/IR
89	6607754	Incremental MGP-CHARLOTTE	6	2015	5503500	Other O/S Services	27,841	4400047496	ECT	GR/IR
90	* 6607754	Incremental MGP-CHARLOTTE					64,224			
91	6607755	Incremental MGP-FLINT COURT STREET	11	2014	5503500	Other O/S Services	1,351	4400035805	SME	GR/IR
92	6607755	Incremental MGP-FLINT COURT STREET	12	2014	5503500	Other O/S Services	10,000			Accr Liab-Goods & Sv
93	6607755	Incremental MGP-FLINT COURT STREET	1	2015	5503500	Other O/S Services	-10,000			Accr Liab-Goods & Sv
94	6607755	Incremental MGP-FLINT COURT STREET	12	2014	5503500	Other O/S Services	7,320	4400035805	SME	GR/IR

U-17882 Consumers Energy Response to MPSC Audit Request # 14, Part 2
October 2014 through June 2015

KEY: = more info added
gray = advanced bookings
blue = invoices > \$10,000

line no.	Object	CO object name	frm	Year	Cost Elem.	Cost element name	Val.in RC	Purch.Doc.	Name	Name of offsetting account
95	6607755	Incremental MGP-FLINT COURT STREET	1	2015	5503500	Other O/S Services	518	4400043997	SME	GR/IR
96	6607755	Incremental MGP-FLINT COURT STREET	1	2015	5503500	Other O/S Services	4,130	4400035805	SME	GR/IR
97	6607755	Incremental MGP-FLINT COURT STREET	1	2015	5503500	Other O/S Services	10,061	4400035805	SME	GR/IR
98	6607755	Incremental MGP-FLINT COURT STREET	3	2015	5503500	Other O/S Services	1,118	4400035805	SME	GR/IR
99	6607755	Incremental MGP-FLINT COURT STREET	3	2015	5503500	Other O/S Services	3,308	4400043997	SME	GR/IR
100	6607755	Incremental MGP-FLINT COURT STREET	4	2015	5503500	Other O/S Services	2,404			CSX TRANSPORTATION
101	6607755	Incremental MGP-FLINT COURT STREET	4	2015	5503500	Other O/S Services	11,745	4400043997	SME	GR/IR
102	6607755	Incremental MGP-FLINT COURT STREET	5	2015	5503500	Other O/S Services	1,301	4400043997	SME	GR/IR
103	6607755	Incremental MGP-FLINT COURT STREET	6	2015	5503500	Other O/S Services	8,837	4400043997	SME	GR/IR
104	6607755	Incremental MGP-FLINT COURT STREET	6	2015	5503500	Other O/S Services	1,836	4400043997	SME	GR/IR
105	* 6607755	Incremental MGP-FLINT COURT STREET					53,928			
106	6607756	Incremental MGP-FLINT EAST	10	2014	5503500	Other O/S Services	94,910	4400037372	Barr	GR/IR
107	6607756	Incremental MGP-FLINT EAST	10	2014	5503500	Other O/S Services	8,594	4400037372	Barr	GR/IR
108	6607756	Incremental MGP-FLINT EAST	10	2014	5503500	Other O/S Services	3,141	4400037378	Barr	GR/IR
109	6607756	Incremental MGP-FLINT EAST	10	2014	5503500	Other O/S Services	458	4400037802	ENV - ERG	GR/IR
110	6607756	Incremental MGP-FLINT EAST	11	2014	5503500	Other O/S Services	82,400			Accr Liab-Goods & Sv
111	6607756	Incremental MGP-FLINT EAST	12	2014	5503500	Other O/S Services	-82,400			Accr Liab-Goods & Sv
112	6607756	Incremental MGP-FLINT EAST	11	2014	5503500	Other O/S Services	23,864	4400037372	Barr	GR/IR
113	6607756	Incremental MGP-FLINT EAST	11	2014	5503500	Other O/S Services	7,595	4400037378	Barr	GR/IR
114	6607756	Incremental MGP-FLINT EAST	11	2014	5503500	Other O/S Services	672	4400037378	BARR	GR/IR
115	6607756	Incremental MGP-FLINT EAST	12	2014	5503500	Other O/S Services	16,051	4400037378	Barr	GR/IR
116	6607756	Incremental MGP-FLINT EAST	12	2014	5503500	Other O/S Services	88,300			Accr Liab-Goods & Sv
117	6607756	Incremental MGP-FLINT EAST	12	2014	5503500	Other O/S Services	16,000			Accr Liab-Goods & Sv
118	6607756	Incremental MGP-FLINT EAST	1	2015	5503500	Other O/S Services	-88,300			Accr Liab-Goods & Sv
119	6607756	Incremental MGP-FLINT EAST	1	2015	5503500	Other O/S Services	-16,000			Accr Liab-Goods & Sv
120	6607756	Incremental MGP-FLINT EAST	1	2015	5503500	Other O/S Services	6,851	4400037372	Barr	GR/IR
121	6607756	Incremental MGP-FLINT EAST	1	2015	5503500	Other O/S Services	88,240	4400037372	Barr	GR/IR
122	6607756	Incremental MGP-FLINT EAST	1	2015	5503500	Other O/S Services	1,514	4400037378	Barr	GR/IR
123	6607756	Incremental MGP-FLINT EAST	2	2015	5503500	Other O/S Services	69,000			Accr Liab-Goods & Sv
124	6607756	Incremental MGP-FLINT EAST	3	2015	5503500	Other O/S Services	-69,000			Accr Liab-Goods & Sv
125	6607756	Incremental MGP-FLINT EAST	3	2015	5211000	Fees-General	80,000			Accr Liab-Goods & Sv
126	6607756	Incremental MGP-FLINT EAST	4	2015	5211000	Fees-General	-80,000			Accr Liab-Goods & Sv
127	6607756	Incremental MGP-FLINT EAST	3	2015	5503500	Other O/S Services	69,000			Accr Liab-Goods & Sv
128	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	-69,000			Accr Liab-Goods & Sv
129	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	6,499	4400037378	Barr	GR/IR
130	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	8,039	4400024959	Barr	GR/IR
131	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	41,193	4400037372	Barr	GR/IR
132	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	8,857	4400037378	Barr	GR/IR
133	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	4,219	4400024959	Barr	GR/IR
134	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	6,505	4400024959	Barr	GR/IR
135	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	20,640	4400037372	Barr	GR/IR
136	6607756	Incremental MGP-FLINT EAST	4	2015	5211000	Fees-General	80,000			UNIVERSITY OF MICHIGAN-FLINT
137	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	53,000			Accr Liab-Goods & Sv
138	6607756	Incremental MGP-FLINT EAST	4	2015	5503500	Other O/S Services	80,000			Accr Liab-Goods & Sv
139	6607756	Incremental MGP-FLINT EAST	5	2015	5503500	Other O/S Services	-53,000			Accr Liab-Goods & Sv
140	6607756	Incremental MGP-FLINT EAST	5	2015	5503500	Other O/S Services	-80,000			Accr Liab-Goods & Sv
141	6607756	Incremental MGP-FLINT EAST	5	2015	5503500	Other O/S Services	75,746	\$0		Accr Liab-Goods & Sv
142	6607756	Incremental MGP-FLINT EAST	5	2015	5503500	Other O/S Services	-75,746			Accr Liab-Goods & Sv
143	6607756	Incremental MGP-FLINT EAST	5	2015	5503500	Other O/S Services	75,746			Accr Liab-Goods & Sv
144	6607756	Incremental MGP-FLINT EAST	5	2015	5503500	Other O/S Services	26,456	4400037372	Barr	GR/IR
145	6607756	Incremental MGP-FLINT EAST	5	2015	5503500	Other O/S Services	6,099	4400037378	Barr	GR/IR
146	6607756	Incremental MGP-FLINT EAST	6	2015	5503500	Other O/S Services	-75,746	\$0		Accr Liab-Goods & Sv
147	6607756	Incremental MGP-FLINT EAST	6	2015	5503500	Other O/S Services	75,746			Accr Liab-Goods & Sv
148	6607756	Incremental MGP-FLINT EAST	6	2015	5503500	Other O/S Services	-75,746			Accr Liab-Goods & Sv
149	6607756	Incremental MGP-FLINT EAST	6	2015	5503500	Other O/S Services	21,655	4400037372	Barr	GR/IR
150	6607756	Incremental MGP-FLINT EAST	6	2015	5503500	Other O/S Services	30,572	4400037372	Barr	GR/IR
151	6607756	Incremental MGP-FLINT EAST	6	2015	5503500	Other O/S Services	8,513	4400037378	Barr	GR/IR
152	6607756	Incremental MGP-FLINT EAST	6	2015	5503500	Other O/S Services	75,741	4400037378	Barr	GR/IR
153	6607756	Incremental MGP-FLINT EAST	6	2015	5503500	Other O/S Services	40,000			Accr Liab-Goods & Sv
154	* 6607756	Incremental MGP-FLINT EAST					636,877			
155	6607757	Incremental MGP-GRAND LEDGE	10	2014	5503500	Other O/S Services	4,643	4400037545	AECOM	GR/IR
156	6607757	Incremental MGP-GRAND LEDGE	10	2014	5503500	Other O/S Services	2,268	4400037545	AECOM	GR/IR
157	6607757	Incremental MGP-GRAND LEDGE	11	2014	5503500	Other O/S Services	3,206	4400037545	AECOM	GR/IR
158	6607757	Incremental MGP-GRAND LEDGE	12	2014	5503500	Other O/S Services	40,000			Accr Liab-Goods & Sv
159	6607757	Incremental MGP-GRAND LEDGE	1	2015	5503500	Other O/S Services	-40,000			Accr Liab-Goods & Sv
160	6607757	Incremental MGP-GRAND LEDGE	1	2015	5503500	Other O/S Services	5,787	4400037545	AECOM	GR/IR
161	6607757	Incremental MGP-GRAND LEDGE	1	2015	5503500	Other O/S Services	4,831	4400037545	AECOM	GR/IR
162	6607757	Incremental MGP-GRAND LEDGE	2	2015	5503500	Other O/S Services	1,813			CSX TRANSPORTATION
163	6607757	Incremental MGP-GRAND LEDGE	3	2015	5503500	Other O/S Services	1,705	4400037545	AECOM	GR/IR
164	6607757	Incremental MGP-GRAND LEDGE	4	2015	5503500	Other O/S Services	1,290	4400037545	AECOM	GR/IR
165	6607757	Incremental MGP-GRAND LEDGE	5	2015	5503500	Other O/S Services	3,288	4400037545	AECOM	GR/IR
166	6607757	Incremental MGP-GRAND LEDGE	5	2015	5503500	Other O/S Services	565	4400046897	AECOM	GR/IR
167	6607757	Incremental MGP-GRAND LEDGE	6	2015	5503500	Other O/S Services	2,325	4400046897	AECOM	GR/IR
168	6607757	Incremental MGP-GRAND LEDGE	6	2015	5503500	Other O/S Services	969	4400046897	AECOM	GR/IR
169	* 6607757	Incremental MGP-GRAND LEDGE					32,689			
170	6607758	Incremental MGP-HASTINGS	10	2014	5503500	Other O/S Services	2,403	4400036969	AECOM	GR/IR
171	6607758	Incremental MGP-HASTINGS	11	2014	5503500	Other O/S Services	9,156	4400036969	AECOM	GR/IR
172	6607758	Incremental MGP-HASTINGS	12	2014	5503500	Other O/S Services	1,900			Accr Liab-Goods & Sv
173	6607758	Incremental MGP-HASTINGS	1	2015	5503500	Other O/S Services	-1,900			Accr Liab-Goods & Sv
174	6607758	Incremental MGP-HASTINGS	1	2015	5503500	Other O/S Services	1,905	4400036969	AECOM	GR/IR
175	6607758	Incremental MGP-HASTINGS	1	2015	5503500	Other O/S Services	1,894	4400036969	AECOM	GR/IR
176	6607758	Incremental MGP-HASTINGS	2	2015	5503500	Other O/S Services	2,925	4400036969	AECOM	GR/IR
177	6607758	Incremental MGP-HASTINGS	4	2015	5503500	Other O/S Services	538	4400036969	AECOM	GR/IR
178	6607758	Incremental MGP-HASTINGS	5	2015	5503500	Other O/S Services	696	4400036969	AECOM	GR/IR
179	6607758	Incremental MGP-HASTINGS	6	2015	5503500	Other O/S Services	2,428	4400036969	AECOM	GR/IR
180	* 6607758	Incremental MGP-HASTINGS					21,945			
181	6607759	Incremental MGP-IONIA	10	2014	5503500	Other O/S Services	603	4400037787	AECOM	GR/IR
182	6607759	Incremental MGP-IONIA	11	2014	5503500	Other O/S Services	2,629	4400037787	AECOM	GR/IR
183	6607759	Incremental MGP-IONIA	1	2015	5503500	Other O/S Services	1,627	4400037787	AECOM	GR/IR
184	6607759	Incremental MGP-IONIA	1	2015	5503500	Other O/S Services	4,456	4400037787	AECOM	GR/IR
185	6607759	Incremental MGP-IONIA	2	2015	5503500	Other O/S Services	802	4400037787	AECOM	GR/IR
186	6607759	Incremental MGP-IONIA	4	2015	5503500	Other O/S Services	216	4400037787	AECOM	GR/IR
187	6607759	Incremental MGP-IONIA	5	2015	5503500	Other O/S Services	316	4400037787	AECOM	GR/IR
188	6607759	Incremental MGP-IONIA	6	2015	5503500	Other O/S Services	2,598	4400037787	AECOM	GR/IR
189	* 6607759	Incremental MGP-IONIA					13,247			
190	6607760	Incremental MGP-JACKSON	10	2014	5503500	Other O/S Services	-49,000	reversal of Sept 2014		Accr Liab-Goods & Sv

U-17882 Consumers Energy Response to MPSC Audit Request # 14, Part 2
October 2014 through June 2015

KEY: = more info added
gray = advanced bookings
blue = invoices > \$10,000

line no.	Object	CO object name	frm	Year	Cost Elem.	Cost element name	Val.in RC	Purch.Doc.	Name	Name of offsetting account
191	6607760	Incremental MGP-JACKSON	10	2014	5671000	Utilities-Interdpt	85			Customer Receivables
192	6607760	Incremental MGP-JACKSON	10	2014	5503500	Other O/S Services	26,083	4400038060	K&D	GR/IR
193	6607760	Incremental MGP-JACKSON	10	2014	5503500	Other O/S Services	44,007	4400037566	Arcadis	GR/IR
194	6607760	Incremental MGP-JACKSON	10	2014	5503500	Other O/S Services	3,001	4400038060	K&D	GR/IR
195	6607760	Incremental MGP-JACKSON	10	2014	5503500	Other O/S Services	3,131	4400039534	Arcadis	GR/IR
196	6607760	Incremental MGP-JACKSON	10	2014	5503500	Other O/S Services	19,558	4400038060	K&D	GR/IR
197	6607760	Incremental MGP-JACKSON	10	2014	5503500	Other O/S Services	1,748	4400039534	Arcadis	GR/IR
198	6607760	Incremental MGP-JACKSON	10	2014	5505500	O/S Environm Svcs	499			JACKSON WATER COLLECTION
199	6607760	Incremental MGP-JACKSON	11	2014	5671000	Utilities-Interdpt	130			Customer Receivables
200	6607760	Incremental MGP-JACKSON	11	2014	5503500	Other O/S Services	1,123	4400037986	ENV - WASTE MANAGEMENT	GR/IR
201	6607760	Incremental MGP-JACKSON	11	2014	5505500	O/S Environm Svcs	708			JACKSON WATER COLLECTION
202	6607760	Incremental MGP-JACKSON	12	2014	5671000	Utilities-Interdpt	163			Customer Receivables
203	6607760	Incremental MGP-JACKSON	12	2014	5503500	Other O/S Services	1,533	4400039534	Arcadis	GR/IR
204	6607760	Incremental MGP-JACKSON	12	2014	5503500	Other O/S Services	37,505	4400037566	Arcadis	GR/IR
205	6607760	Incremental MGP-JACKSON	12	2014	5505500	O/S Environm Svcs	530			JACKSON WATER COLLECTION
206	6607760	Incremental MGP-JACKSON	12	2014	5503500	Other O/S Services	213,000			Accr Liab-Goods & Sv
207	6607760	Incremental MGP-JACKSON	12	2014	5503500	Other O/S Services	37,100			Accr Liab-Goods & Sv
208	6607760	Incremental MGP-JACKSON	12	2014	5503500	Other O/S Services	1,100			Accr Liab-Goods & Sv
209	6607760	Incremental MGP-JACKSON	1	2015	5503500	Other O/S Services	-213,000			Accr Liab-Goods & Sv
210	6607760	Incremental MGP-JACKSON	1	2015	5503500	Other O/S Services	-37,100			Accr Liab-Goods & Sv
211	6607760	Incremental MGP-JACKSON	1	2015	5503500	Other O/S Services	-1,100			Accr Liab-Goods & Sv
212	6607760	Incremental MGP-JACKSON	1	2015	5671000	Utilities-Interdpt	184			Customer Receivables
213	6607760	Incremental MGP-JACKSON	1	2015	5503500	Other O/S Services	20,205	4400039534	Arcadis	GR/IR
214	6607760	Incremental MGP-JACKSON	1	2015	5503500	Other O/S Services	312	4400039534	Arcadis	GR/IR
215	6607760	Incremental MGP-JACKSON	1	2015	5503500	Other O/S Services	45,224	4400037566	Arcadis	GR/IR
216	6607760	Incremental MGP-JACKSON	1	2015	5503500	Other O/S Services	4,016	4400037566	Arcadis	GR/IR
217	6607760	Incremental MGP-JACKSON	1	2015	5505500	O/S Environm Svcs	474			JACKSON WATER COLLECTION
218	6607760	Incremental MGP-JACKSON	2	2015	5671000	Utilities-Interdpt	166			Customer Receivables
219	6607760	Incremental MGP-JACKSON	2	2015	5503500	Other O/S Services	18,481	4400037566	Arcadis	GR/IR
220	6607760	Incremental MGP-JACKSON	2	2015	5505500	O/S Environm Svcs	583			JACKSON WATER COLLECTION
221	6607760	Incremental MGP-JACKSON	3	2015	5671000	Utilities-Interdpt	165			Customer Receivables
222	6607760	Incremental MGP-JACKSON	3	2015	5505500	O/S Environm Svcs	718			JACKSON WATER COLLECTION
223	6607760	Incremental MGP-JACKSON	3	2015	5503500	Other O/S Services	38,000			Accr Liab-Goods & Sv
224	6607760	Incremental MGP-JACKSON	3	2015	5503500	Other O/S Services	30,000			Accr Liab-Goods & Sv
225	6607760	Incremental MGP-JACKSON	4	2015	5503500	Other O/S Services	-38,000			Accr Liab-Goods & Sv
226	6607760	Incremental MGP-JACKSON	4	2015	5503500	Other O/S Services	-30,000			Accr Liab-Goods & Sv
227	6607760	Incremental MGP-JACKSON	4	2015	5671000	Utilities-Interdpt	139			Customer Receivables
228	6607760	Incremental MGP-JACKSON	4	2015	5503500	Other O/S Services	16,615	4400039534	Arcadis	GR/IR
229	6607760	Incremental MGP-JACKSON	4	2015	5503500	Other O/S Services	34,605	4400046302	Arcadis	GR/IR
230	6607760	Incremental MGP-JACKSON	4	2015	5503500	Other O/S Services	38,089	4400037566	Arcadis	GR/IR
231	6607760	Incremental MGP-JACKSON	4	2015	5503500	Other O/S Services	30,180	4400046302	Arcadis	GR/IR
232	6607760	Incremental MGP-JACKSON	4	2015	5503500	Other O/S Services	47,539	4400037566	Arcadis	GR/IR
233	6607760	Incremental MGP-JACKSON	4	2015	5505500	O/S Environm Svcs	609			JACKSON WATER COLLECTION
234	6607760	Incremental MGP-JACKSON	4	2015	5505500	O/S Environm Svcs	484			JACKSON WATER COLLECTION
235	6607760	Incremental MGP-JACKSON	4	2015	5503500	Other O/S Services	55,000			Accr Liab-Goods & Sv
236	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	-55,000			Accr Liab-Goods & Sv
237	6607760	Incremental MGP-JACKSON	5	2015	5671000	Utilities-Interdpt	101			Customer Receivables
238	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	50,262	4400046302	Arcadis	GR/IR
239	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	1,942	4400048602	Arcadis	GR/IR
240	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	50,718	4400048363	BS-CORPRATE GARAGE VEHICLE GATE INSTALL	GR/IR
241	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	63,000			Accr Liab-Goods & Sv
242	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	150,000			Accr Liab-Goods & Sv
243	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	45,600		\$0	Accr Liab-Goods & Sv
244	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	-63,000			Accr Liab-Goods & Sv
245	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	-150,000			Accr Liab-Goods & Sv
246	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	-45,600			Accr Liab-Goods & Sv
247	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	63,000			Accr Liab-Goods & Sv
248	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	150,000			Accr Liab-Goods & Sv
249	6607760	Incremental MGP-JACKSON	5	2015	5503500	Other O/S Services	45,600			Accr Liab-Goods & Sv
250	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	-63,000			Accr Liab-Goods & Sv
251	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	-150,000			Accr Liab-Goods & Sv
252	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	-45,600		\$0	Accr Liab-Goods & Sv
253	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	63,000			Accr Liab-Goods & Sv
254	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	150,000			Accr Liab-Goods & Sv
255	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	45,600			Accr Liab-Goods & Sv
256	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	-63,000			Accr Liab-Goods & Sv
257	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	-150,000			Accr Liab-Goods & Sv
258	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	-45,600			Accr Liab-Goods & Sv
259	6607760	Incremental MGP-JACKSON	6	2015	5671000	Utilities-Interdpt	82			Customer Receivables
260	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	60,226	4400046302	Arcadis	GR/IR
261	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	120,237	4400048602	Arcadis	GR/IR
262	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	1,590	4400048363	BS-CORPORATE GARAGE VEHICLE GATE INSTALL	GR/IR
263	6607760	Incremental MGP-JACKSON	6	2015	5505500	O/S Environm Svcs	673			JACKSON WATER COLLECTION
264	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	123,000		reversed in July 2015	Accr Liab-Goods & Sv
265	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	421,000		reversed in July 2015	Accr Liab-Goods & Sv
266	6607760	Incremental MGP-JACKSON	6	2015	5503500	Other O/S Services	24,000		reversed in July 2015	Accr Liab-Goods & Sv
267	* 6607760	Incremental MGP-JACKSON					1,203,422			
268	6607761	Incremental MGP-KALAMAZOO	10	2014	5503500	Other O/S Services	1,330	4400035807	SME	GR/IR
269	6607761	Incremental MGP-KALAMAZOO	12	2014	5503500	Other O/S Services	4,058	4400035807	SME	GR/IR
270	6607761	Incremental MGP-KALAMAZOO	12	2014	5503500	Other O/S Services	9,500			Accr Liab-Goods & Sv
271	6607761	Incremental MGP-KALAMAZOO	1	2015	5503500	Other O/S Services	-9,500			Accr Liab-Goods & Sv
272	6607761	Incremental MGP-KALAMAZOO	1	2015	5503500	Other O/S Services	9,439	4400035807	SME	GR/IR
273	6607761	Incremental MGP-KALAMAZOO	2	2015	5503500	Other O/S Services	4,034	4400035807	SME	GR/IR
274	6607761	Incremental MGP-KALAMAZOO	3	2015	5503500	Other O/S Services	2,037	4400043993	SME	GR/IR
275	6607761	Incremental MGP-KALAMAZOO	3	2015	5503500	Other O/S Services	7,661	4400035807	SME	GR/IR
276	6607761	Incremental MGP-KALAMAZOO	4	2015	5503500	Other O/S Services	3,783	4400035807	SME	GR/IR
277	6607761	Incremental MGP-KALAMAZOO	4	2015	5503500	Other O/S Services	2,590	4400043993	SME	GR/IR
278	6607761	Incremental MGP-KALAMAZOO	5	2015	5503500	Other O/S Services	1,848	4400043993	SME	GR/IR
279	6607761	Incremental MGP-KALAMAZOO	6	2015	5503500	Other O/S Services	10,347	4400043993	SME	GR/IR
280	6607761	Incremental MGP-KALAMAZOO	6	2015	5503500	Other O/S Services	60	4400046345	ENV - US ECOLOGY	GR/IR
281	* 6607761	Incremental MGP-KALAMAZOO					47,186			
282	6607762	Incremental MGP-LANSING	10	2014	5503500	Other O/S Services	2,969	4400036858	Arcadis	GR/IR
283	6607762	Incremental MGP-LANSING	10	2014	5503500	Other O/S Services	957	4400036858	Arcadis	GR/IR
284	6607762	Incremental MGP-LANSING	12	2014	5503500	Other O/S Services	8,306	4400036858	Arcadis	GR/IR
285	6607762	Incremental MGP-LANSING	12	2014	5503500	Other O/S Services	89,000			Accr Liab-Goods & Sv
286	6607762	Incremental MGP-LANSING	1	2015	5503500	Other O/S Services	-89,000			Accr Liab-Goods & Sv

U-17882 Consumers Energy Response to MPSC Audit Request # 14, Part 2
October 2014 through June 2015

KEY: = more info added
gray = advanced bookings
blue = invoices > \$10,000

line no.	Object	CO object name	frm	Year	Cost Elem.	Cost element name	Val.in RC	Purch.Doc.	Name	Name of offsetting account
287	6607762	Incremental MGP-LANSING	1	2015	5503500	Other O/S Services	2,207	4400036858	Arcadis	GR/IR
288	6607762	Incremental MGP-LANSING	1	2015	5503500	Other O/S Services	359	4400046274	ENV - ERG	GR/IR
289	6607762	Incremental MGP-LANSING	1	2015	5503500	Other O/S Services	234	4400037986	ENV - WASTE MANAGEMENT	GR/IR
290	6607762	Incremental MGP-LANSING	2	2015	5503500	Other O/S Services	4,324	4400036858	Arcadis	GR/IR
291	6607762	Incremental MGP-LANSING	2	2015	5503500	Other O/S Services	359	4400046348	ENV - ERG	GR/IR
292	6607762	Incremental MGP-LANSING	2	2015	5503500	Other O/S Services	-359	4400046274		K&D INDUSTRIAL SERVICES INC
293	6607762	Incremental MGP-LANSING	3	2015	5503500	Other O/S Services	2,413	4400036858	Arcadis	GR/IR
294	6607762	Incremental MGP-LANSING	3	2015	5503500	Other O/S Services	172	4400046294	Arcadis	GR/IR
295	6607762	Incremental MGP-LANSING	3	2015	5503500	Other O/S Services	6,981	4400036858	Arcadis	GR/IR
296	6607762	Incremental MGP-LANSING	5	2015	5503500	Other O/S Services	8,883	4400046294	Arcadis	GR/IR
297	6607762	Incremental MGP-LANSING	5	2015	5503500	Other O/S Services	3,501	4400036858	Arcadis	GR/IR
298	6607762	Incremental MGP-LANSING	5	2015	5503500	Other O/S Services	21,993	4400046294	Arcadis	GR/IR
299	6607762	Incremental MGP-LANSING	6	2015	5503500	Other O/S Services	1,604	4400046294	Arcadis	GR/IR
300	* 6607762	Incremental MGP-LANSING					64,901			
301	6607763	Incremental MGP-MANISTEE	10	2014	5503500	Other O/S Services	-120,000		reversal of Sept 2014	Accr Liab-Goods & Sv
302	6607763	Incremental MGP-MANISTEE	10	2014	5671000	Utilities-Interdpt	3,362			Customer Receivables
303	6607763	Incremental MGP-MANISTEE	10	2014	5503500	Other O/S Services	119,535	4400037568	Arcadis	GR/IR
304	6607763	Incremental MGP-MANISTEE	10	2014	5503500	Other O/S Services	730	4400037662	ENV - LIQUID INDUSTRIAL WASTE	GR/IR
305	6607763	Incremental MGP-MANISTEE	10	2014	5503500	Other O/S Services	140,000			Accr Liab-Goods & Sv
306	6607763	Incremental MGP-MANISTEE	11	2014	5503500	Other O/S Services	-140,000			Accr Liab-Goods & Sv
307	6607763	Incremental MGP-MANISTEE	11	2014	5671000	Utilities-Interdpt	-2,591			Customer Receivables
308	6607763	Incremental MGP-MANISTEE	11	2014	5671000	Utilities-Interdpt	2,591			Customer Receivables
309	6607763	Incremental MGP-MANISTEE	11	2014	5503500	Other O/S Services	180,000			Accr Liab-Goods & Sv
310	6607763	Incremental MGP-MANISTEE	11	2014	5503500	Other O/S Services	210,000			Accr Liab-Goods & Sv
311	6607763	Incremental MGP-MANISTEE	11	2014	5503500	Other O/S Services	353,000			Accr Liab-Goods & Sv
312	6607763	Incremental MGP-MANISTEE	12	2014	5503500	Other O/S Services	-180,000			Accr Liab-Goods & Sv
313	6607763	Incremental MGP-MANISTEE	12	2014	5503500	Other O/S Services	-210,000			Accr Liab-Goods & Sv
314	6607763	Incremental MGP-MANISTEE	12	2014	5503500	Other O/S Services	-353,000			Accr Liab-Goods & Sv
315	6607763	Incremental MGP-MANISTEE	12	2014	5671000	Utilities-Interdpt	2,777			Customer Receivables
316	6607763	Incremental MGP-MANISTEE	12	2014	5671000	Utilities-Interdpt	2,591			Customer Receivables
317	6607763	Incremental MGP-MANISTEE	12	2014	5503500	Other O/S Services	134,967	4400037568	Arcadis	GR/IR
318	6607763	Incremental MGP-MANISTEE	12	2014	5503500	Other O/S Services	438,000			Accr Liab-Goods & Sv
319	6607763	Incremental MGP-MANISTEE	12	2014	5503500	Other O/S Services	233,250			Accr Liab-Goods & Sv
320	6607763	Incremental MGP-MANISTEE	12	2014	5503500	Other O/S Services	126,750			Accr Liab-Goods & Sv
321	6607763	Incremental MGP-MANISTEE	12	2014	5503500	Other O/S Services	484,250			Accr Liab-Goods & Sv
322	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	-438,000			Accr Liab-Goods & Sv
323	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	-233,250			Accr Liab-Goods & Sv
324	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	-126,750			Accr Liab-Goods & Sv
325	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	-484,250			Accr Liab-Goods & Sv
326	6607763	Incremental MGP-MANISTEE	1	2015	5671000	Utilities-Interdpt	2,825			Customer Receivables
327	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	200,439	4400037568	Arcadis	GR/IR
328	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	11,390	4400037568	Arcadis	GR/IR
329	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	225,600	4400043521	Geosyntec	GR/IR
330	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	80,149	4400042905	Arcadis	GR/IR
331	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	485	4400037648	ENV - US ECOLOGY	GR/IR
332	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	225,600			Accr Liab-Goods & Sv
333	6607763	Incremental MGP-MANISTEE	1	2015	5503500	Other O/S Services	10,800			Accr Liab-Goods & Sv
334	6607763	Incremental MGP-MANISTEE	2	2015	5503500	Other O/S Services	-225,600			Accr Liab-Goods & Sv
335	6607763	Incremental MGP-MANISTEE	2	2015	5503500	Other O/S Services	-10,800			Accr Liab-Goods & Sv
336	6607763	Incremental MGP-MANISTEE	2	2015	5671000	Utilities-Interdpt	3,440			Customer Receivables
337	6607763	Incremental MGP-MANISTEE	2	2015	5503500	Other O/S Services	10,824	4400042905	Arcadis	GR/IR
338	6607763	Incremental MGP-MANISTEE	2	2015	5503500	Other O/S Services	225,600	4400043521	Geosyntec	GR/IR
339	6607763	Incremental MGP-MANISTEE	2	2015	5503500	Other O/S Services	32,773	4400037568	Arcadis	GR/IR
340	6607763	Incremental MGP-MANISTEE	2	2015	5503500	Other O/S Services	730	4400046348	ENV - ERG	GR/IR
341	6607763	Incremental MGP-MANISTEE	2	2015	5503500	Other O/S Services	1,683	4400046348	ENV - ERG	GR/IR
342	6607763	Incremental MGP-MANISTEE	3	2015	5671000	Utilities-Interdpt	3,480			Customer Receivables
343	6607763	Incremental MGP-MANISTEE	3	2015	5503500	Other O/S Services	44,000			Accr Liab-Goods & Sv
344	6607763	Incremental MGP-MANISTEE	4	2015	5503500	Other O/S Services	-44,000			Accr Liab-Goods & Sv
345	6607763	Incremental MGP-MANISTEE	4	2015	5671000	Utilities-Interdpt	1,979			Customer Receivables
346	6607763	Incremental MGP-MANISTEE	4	2015	5503500	Other O/S Services	3,679	4400037568	Arcadis	GR/IR
347	6607763	Incremental MGP-MANISTEE	4	2015	5503500	Other O/S Services	777	4400042905	Arcadis	GR/IR
348	6607763	Incremental MGP-MANISTEE	4	2015	5503500	Other O/S Services	31,204	4400047717	Arcadis	GR/IR
349	6607763	Incremental MGP-MANISTEE	4	2015	5503500	Other O/S Services	44,033	4400037568	Arcadis	GR/IR
350	6607763	Incremental MGP-MANISTEE	4	2015	5503500	Other O/S Services	34,946	4400042905	Arcadis	GR/IR
351	6607763	Incremental MGP-MANISTEE	5	2015	5503500	Other O/S Services	54,000	\$0		Accr Liab-Goods & Sv
352	6607763	Incremental MGP-MANISTEE	5	2015	5503500	Other O/S Services	-54,000			Accr Liab-Goods & Sv
353	6607763	Incremental MGP-MANISTEE	5	2015	5503500	Other O/S Services	54,000			Accr Liab-Goods & Sv
354	6607763	Incremental MGP-MANISTEE	5	2015	5671000	Utilities-Interdpt	2,786			Customer Receivables
355	6607763	Incremental MGP-MANISTEE	5	2015	5503500	Other O/S Services	36,953	4400047717	Arcadis	GR/IR
356	6607763	Incremental MGP-MANISTEE	6	2015	5503500	Other O/S Services	-54,000	\$0		Accr Liab-Goods & Sv
357	6607763	Incremental MGP-MANISTEE	6	2015	5503500	Other O/S Services	54,000			Accr Liab-Goods & Sv
358	6607763	Incremental MGP-MANISTEE	6	2015	5503500	Other O/S Services	-54,000			Accr Liab-Goods & Sv
359	6607763	Incremental MGP-MANISTEE	6	2015	5671000	Utilities-Interdpt	4,173			Customer Receivables
360	6607763	Incremental MGP-MANISTEE	6	2015	5503500	Other O/S Services	51,406	4400047717	Arcadis	GR/IR
361	6607763	Incremental MGP-MANISTEE	6	2015	5503500	Other O/S Services	63,000		reversed in July 2015	Accr Liab-Goods & Sv
362	* 6607763	Incremental MGP-MANISTEE					1,218,316			
363	6607764	Incremental MGP-MARSHALL	10	2014	5503500	Other O/S Services	7,144	4400037557	Arcadis	GR/IR
364	6607764	Incremental MGP-MARSHALL	12	2014	5503500	Other O/S Services	19,381	4400037557	Arcadis	GR/IR
365	6607764	Incremental MGP-MARSHALL	12	2014	5503500	Other O/S Services	9,190	4400037557	Arcadis	GR/IR
366	6607764	Incremental MGP-MARSHALL	12	2014	5503500	Other O/S Services	1,426	4400037557	Arcadis	GR/IR
367	6607764	Incremental MGP-MARSHALL	12	2014	5503500	Other O/S Services	8,600			Accr Liab-Goods & Sv
368	6607764	Incremental MGP-MARSHALL	1	2015	5503500	Other O/S Services	-8,600			Accr Liab-Goods & Sv
369	6607764	Incremental MGP-MARSHALL	1	2015	5503500	Other O/S Services	8,605	4400037557	Arcadis	GR/IR
370	6607764	Incremental MGP-MARSHALL	3	2015	5503500	Other O/S Services	8,436	4400045673	Arcadis	GR/IR
371	6607764	Incremental MGP-MARSHALL	3	2015	5503500	Other O/S Services	11,227	4400045673	Arcadis	GR/IR
372	6607764	Incremental MGP-MARSHALL	4	2015	5503500	Other O/S Services	15,137	4400045673	Arcadis	GR/IR
373	6607764	Incremental MGP-MARSHALL	5	2015	5503500	Other O/S Services	10,997	4400045673	Arcadis	GR/IR
374	6607764	Incremental MGP-MARSHALL	5	2015	5503500	Other O/S Services	92,000	\$0		Accr Liab-Goods & Sv
375	6607764	Incremental MGP-MARSHALL	5	2015	5503500	Other O/S Services	-92,000			Accr Liab-Goods & Sv
376	6607764	Incremental MGP-MARSHALL	5	2015	5503500	Other O/S Services	92,000			Accr Liab-Goods & Sv
377	6607764	Incremental MGP-MARSHALL	6	2015	5503500	Other O/S Services	-92,000	\$0		Accr Liab-Goods & Sv
378	6607764	Incremental MGP-MARSHALL	6	2015	5503500	Other O/S Services	92,000			Accr Liab-Goods & Sv
379	6607764	Incremental MGP-MARSHALL	6	2015	5503500	Other O/S Services	-92,000			Accr Liab-Goods & Sv
380	6607764	Incremental MGP-MARSHALL	5	2015	5503500	Other O/S Services	250	4400046348	ENV - ERG	GR/IR
381	6607764	Incremental MGP-MARSHALL	6	2015	5503500	Other O/S Services	23,092	4400045673	Arcadis	GR/IR
382	6607764	Incremental MGP-MARSHALL	6	2015	5503500	Other O/S Services	132,000		reversed in July 2015	Accr Liab-Goods & Sv

U-17882 Consumers Energy Response to MPSC Audit Request # 14, Part 2
October 2014 through June 2015

KEY: = more info added
gray = advanced bookings
blue = invoices > \$10,000

line no.	Object	CO object name	frm	Year	Cost Elem.	Cost element name	Val.in RC	Purch.Doc.	Name	Name of offsetting account
383	*	6607764	Incremental MGP-MARSHALL				246,885			
384		6607765	11	2014	5503500	Other O/S Services	4,124	4400036851	SME	GR/IR
385		6607765	11	2014	5503500	Other O/S Services	1,070	4400036851	SME	
386		6607765	12	2014	5503500	Other O/S Services	8,143	4400036851	SME	GR/IR
387		6607765	12	2014	5503500	Other O/S Services	7,500			Accr Liab-Goods & Sv
388		6607765	1	2015	5503500	Other O/S Services	-7,500			Accr Liab-Goods & Sv
389		6607765	1	2015	5503500	Other O/S Services	3,380	4400036851	SME	GR/IR
390		6607765	3	2015	5503500	Other O/S Services	3,523	4400036851	SME	GR/IR
391		6607765	4	2015	5503500	Other O/S Services	4,930	4400036851	SME	GR/IR
392		6607765	5	2015	5503500	Other O/S Services	3,817	4400046767	SME	GR/IR
393		6607765	5	2015	5503500	Other O/S Services	2,460	4400046767	SME	GR/IR
394	*	6607765	Incremental MGP-MT CLEMONS				31,447			
395		6607766	10	2014	5503500	Other O/S Services	3,325	4400037477	AECOM	GR/IR
396		6607766	10	2014	5503500	Other O/S Services	5,554	4400037477	AECOM	GR/IR
397		6607766	11	2014	5503500	Other O/S Services	3,478	4400037477	AECOM	GR/IR
398		6607766	12	2014	5503500	Other O/S Services	25,000			Accr Liab-Goods & Sv
399		6607766	1	2015	5503500	Other O/S Services	-25,000			Accr Liab-Goods & Sv
400		6607766	1	2015	5503500	Other O/S Services	1,041	4400037477	AECOM	GR/IR
401		6607766	1	2015	5503500	Other O/S Services	1,016	4400037477	AECOM	GR/IR
402		6607766	3	2015	5503500	Other O/S Services	10,111	4400037477	AECOM	GR/IR
403		6607766	3	2015	5503500	Other O/S Services	-3,208			I/C CRFII Dir Chg Rc
404		6607766	4	2015	5503500	Other O/S Services	8,663	4400037477	AECOM	GR/IR
405		6607766	5	2015	5503500	Other O/S Services	2,790	4400037477	AECOM	GR/IR
406		6607766	5	2015	5503500	Other O/S Services	5,584	4400047152	AECOM	GR/IR
407		6607766	6	2015	5503500	Other O/S Services	4,161	4400047152	AECOM	GR/IR
408		6607766	6	2015	5503500	Other O/S Services	2,050	4400047152	AECOM	GR/IR
409	*	6607766	Incremental MGP-OWOSSO				44,565			
410		6607767	11	2014	5503500	Other O/S Services	2,091	4400036774	SME	GR/IR
411		6607767	11	2014	5503500	Other O/S Services	705	4400036774	SME	GR/IR
412		6607767	11	2014	5503500	Other O/S Services	2,066	4400030752	SME	GR/IR
413		6607767	11	2014	5503500	Other O/S Services	390	4400036774	SME	GR/IR
414		6607767	12	2014	5503500	Other O/S Services	11,503	4400036774	SME	GR/IR
415		6607767	12	2014	5503500	Other O/S Services	11,000			Accr Liab-Goods & Sv
416		6607767	1	2015	5503500	Other O/S Services	-11,000			Accr Liab-Goods & Sv
417		6607767	1	2015	5503500	Other O/S Services	4,198	4400036774	SME	GR/IR
418		6607767	3	2015	5503500	Other O/S Services	5,446	4400036774	SME	GR/IR
419		6607767	4	2015	5503500	Other O/S Services	820	4400036774	SME	GR/IR
420		6607767	4	2015	5503500	Other O/S Services	1,925	4400036774	SME	GR/IR
421		6607767	4	2015	5503500	Other O/S Services	927		rdl PlymouthMGP_ENV-ERG waste invoice to Incr	Other O/S Services
422		6607767	5	2015	5503500	Other O/S Services	1,474	4400046812	SME	GR/IR
423		6607767	5	2015	5503500	Other O/S Services	8,683	4400036774	SME	GR/IR
424		6607767	6	2015	5503500	Other O/S Services	3,488	4400046812	SME	GR/IR
425		6607767	6	2015	5503500	Other O/S Services	7,280	4400046812	SME	GR/IR
426	*	6607767	Incremental MGP-PLYMOUTH				50,995			
427		6607768	10	2014	5503500	Other O/S Services	-28,364		rlcs 2013 Pontiac UST costs from Incr to Non-Incre	Other O/S Services
428		6607768	11	2014	5503500	Other O/S Services	2,971	4400038434	AMEC	GR/IR
429		6607768	11	2014	5503500	Other O/S Services	11,466	4400038434	AMEC	GR/IR
430		6607768	12	2014	5503500	Other O/S Services	10,000			Accr Liab-Goods & Sv
431		6607768	1	2015	5503500	Other O/S Services	-10,000			Accr Liab-Goods & Sv
432		6607768	1	2015	5503500	Other O/S Services	8,129	4400038434	AMEC	GR/IR
433		6607768	1	2015	5503500	Other O/S Services	8,811	4400038434	AMEC	GR/IR
434		6607768	3	2015	5503500	Other O/S Services	7,151	4400038434	AMEC	GR/IR
435		6607768	3	2015	5503500	Other O/S Services	10,296	4400038434	AMEC	GR/IR
436		6607768	4	2015	5503500	Other O/S Services	8,513	4400038434	AMEC	GR/IR
437		6607768	5	2015	5503500	Other O/S Services	55,000		\$0	Accr Liab-Goods & Sv
438		6607768	5	2015	5503500	Other O/S Services	-55,000			Accr Liab-Goods & Sv
439		6607768	5	2015	5503500	Other O/S Services	55,000			Accr Liab-Goods & Sv
440		6607768	6	2015	5503500	Other O/S Services	-55,000		\$0	Accr Liab-Goods & Sv
441		6607768	6	2015	5503500	Other O/S Services	55,000			Accr Liab-Goods & Sv
442		6607768	6	2015	5503500	Other O/S Services	-55,000			Accr Liab-Goods & Sv
443		6607768	6	2015	5503500	Other O/S Services	8,647	4400047574	AMEC	GR/IR
444		6607768	6	2015	5503500	Other O/S Services	46,543	4400047574	AMEC	GR/IR
445	*	6607768	Incremental MGP-PONTIAC				84,164			
446		6607769	11	2014	5503500	Other O/S Services	6,673	4400036857	Arcadis	GR/IR
447		6607769	11	2014	5503500	Other O/S Services	4,074	4400036857	Arcadis	GR/IR
448		6607769	11	2014	5503500	Other O/S Services	14,030	4400036857	Arcadis	GR/IR
449		6607769	12	2014	5503500	Other O/S Services	14,088	4400036857	Arcadis	GR/IR
450		6607769	12	2014	5503500	Other O/S Services	31,000			Accr Liab-Goods & Sv
451		6607769	1	2015	5503500	Other O/S Services	-31,000			Accr Liab-Goods & Sv
452		6607769	1	2015	5503500	Other O/S Services	25,562	4400036857	Arcadis	GR/IR
453		6607769	3	2015	5503500	Other O/S Services	4,009	4400036857	Arcadis	GR/IR
454		6607769	3	2015	5503500	Other O/S Services	379	4400036857	Arcadis	GR/IR
455		6607769	5	2015	5503500	Other O/S Services	764	4400036857	Arcadis	GR/IR
456		6607769	6	2015	5503500	Other O/S Services	380	4400046728	Arcadis	GR/IR
457	*	6607769	Incremental MGP-ROYAL OAK				69,957			
458		6607770	11	2014	5503500	Other O/S Services	4,458	4400036760	SME	GR/IR
459		6607770	12	2014	5503500	Other O/S Services	772	4400036760	SME	GR/IR
460		6607770	12	2014	5503500	Other O/S Services	660	4400036760	SME	GR/IR
461		6607770	3	2015	5503500	Other O/S Services	3,869	4400036760	SME	GR/IR
462		6607770	4	2015	5503500	Other O/S Services	3,251	4400036760	SME	GR/IR
463	*	6607770	Incremental MGO-SAGINAW				13,009			
464		6607771	10	2014	5503500	Other O/S Services	2,985	4400036027	SME	GR/IR
465		6607771	12	2014	5503500	Other O/S Services	4,928	4400036027	SME	GR/IR
466		6607771	12	2014	5503500	Other O/S Services	30,000			Accr Liab-Goods & Sv
467		6607771	1	2015	5503500	Other O/S Services	-30,000			Accr Liab-Goods & Sv
468		6607771	1	2015	5503500	Other O/S Services	2,119	4400036027	SME	GR/IR
469		6607771	1	2015	5503500	Other O/S Services	4,164	4400036027	SME	GR/IR
470		6607771	3	2015	5503500	Other O/S Services	5,266	4400036027	SME	GR/IR
471		6607771	4	2015	5503500	Other O/S Services	2,598	4400036027	SME	GR/IR
472		6607771	5	2015	5503500	Other O/S Services	1,679	4400036027	SME	GR/IR
473		6607771	5	2015	5503500	Other O/S Services	455	4400046395	SME	GR/IR
474		6607771	6	2015	5503500	Other O/S Services	1,495	4400046395	SME	GR/IR
475	*	6607771	Incremental MGP-ST JOHNS				25,689			
476		6607772	10	2014	5503500	Other O/S Services	549	4400035743	AECOM	GR/IR
477		6607772	12	2014	5508000	Cntrct Cst-Other	205		Enger	Cntrct Cst-Other
478		6607772	12	2014	5503500	Other O/S Services	2,891	4400035743	AECOM	

U-17882 Consumers Energy Response to MPSC Audit Request # 14, Part 2
October 2014 through June 2015

KEY: = more info added
gray = advanced bookings
blue = invoices > \$10,000

line no.	Object	CO object name	frm	Year	Cost Elem.	Cost element name	Val.in RC	Purch.Doc.	Name	Name of offsetting account
479	6607772	Incremental MGP-SAULT STE MARIE	12	2014	5503500	Other O/S Services	1,200			Accr Liab-Goods & Sv
480	6607772	Incremental MGP-SAULT STE MARIE	1	2015	5503500	Other O/S Services	-1,200			Accr Liab-Goods & Sv
481	6607772	Incremental MGP-SAULT STE MARIE	1	2015	5503500	Other O/S Services	2,438	4400035743	AECOM	GR/IR
482	6607772	Incremental MGP-SAULT STE MARIE	1	2015	5503500	Other O/S Services	1,137	4400035743	AECOM	GR/IR
483	6607772	Incremental MGP-SAULT STE MARIE	3	2015	5503500	Other O/S Services	261	4400035743	AECOM	GR/IR
484	6607772	Incremental MGP-SAULT STE MARIE	4	2015	5503500	Other O/S Services	285	4400035743	AECOM	GR/IR
485	6607772	Incremental MGP-SAULT STE MARIE	5	2015	5503500	Other O/S Services	1,806	4400035743	AECOM	GR/IR
486	6607772	Incremental MGP-SAULT STE MARIE	6	2015	5503500	Other O/S Services	573	4400035743	AECOM	GR/IR
487	* 6607772	Incremental MGP-SAULT STE MARIE					10,145			
488	6607773	Incremental MGP-ZILWAUKEE	11	2014	5503500	Other O/S Services	554	4400023385	SME	GR/IR
489	6607773	Incremental MGP-ZILWAUKEE	1	2015	5503500	Other O/S Services	328	4400023385	SME	GR/IR
490	6607773	Incremental MGP-ZILWAUKEE	6	2015	5503500	Other O/S Services	737	4400023385	SME	GR/IR
491	* 6607773	Incremental MGP-ZILWAUKEE					1,618			
492										
493	**						4,611,055			

Ferritto, James (DEQ)

From: Stevens, Heather <Heather.Stevens@arcadis-us.com>
Sent: Tuesday, September 23, 2014 5:08 PM
To: Ferritto, James (DEQ)
Subject: Consumers Energy Former MGP, Manistee MI STAR Pilot Test
Attachments: MDEQ STAR RAP Approval Letter.pdf; Manistee STAR Schedule rev0.pdf

Hi Jim,

We are gearing up for the STAR pilot test at the Manistee, MI site. The RAP approval letter is attached for your reference. I've also attached the schedule of activities.

Will you, Nick Swiger, or anyone else from the MDEQ will be out in person to see the pilot test in action? We would encourage you to come during one of our pre-planned viewing days, which will be between Nov 11 and Nov 14. We are anticipating a relatively large number of visitors between all the stakeholders involved (MDEQ, Consumers Energy, the MPSC, ARCADIS, City of Manistee, and Savron), so we are planning on hosting certain viewing days tailored to a particular audience where we will have people available to give guided tours of the work, which will allow the field crew to keep doing their jobs without stopping work (because as you probably recall from the work plan, the smoldering activities will be a 24/7 operation).

If you or anyone else from the MDEQ is planning to see the work in action, let me know if you have a preference for a date between Nov 11-14.

Thanks very much. I look forward to hearing from you.

Heather

Heather Stevens | Project Environmental Engineer | heather.stevens@arcadis-us.com

ARCADIS U.S., Inc. | 28550 Cabot Drive, Suite 500 | Novi, MI, 48377
T: 248 994 2266 | M: 517 214 2562 | F: 248 994 2241
Connect with us! www.arcadis-us.com | [LinkedIn](#) | [Twitter](#) | [Facebook](#)

Professional Affiliate / ARCADIS of Michigan, LLC
Professional Registration / PE-MI, 57460

ARCADIS, Imagine the result

Please consider the environment before printing this email.



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
CADILLAC DISTRICT OFFICE



DAN WYANT
DIRECTOR

May 16, 2014

RECEIVED MAY 20 2014

Mr. Roger Whiting
Consumers Energy
Environmental Services Department
1945 Parnall Road
Jackson, Michigan 49201

Dear Mr. Whiting:

SUBJECT: Notice of Approval of a Response Activity Plan for the Consumers Energy
Former Manistee Manufactured Gas Plant Site, Manistee, Manistee County
Michigan; Site ID No. 51000146


The Department of Environmental Quality (DEQ), Remediation and Redevelopment Division (RRD), has reviewed the Response Activity Plan for the 2014 Self-Sustaining Treatment for Active Remediation (STAR) Pilot Test Work Plan for the former Manistee Manufactured Gas Plant Site, which was submitted by Arcadis of Michigan, LLC on behalf of Consumers Energy on March 13, 2014, pursuant to Section 20114b(3) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Based upon representations and information contained in the submittal, the Response Activity Plan is approved.

This Response Activity Plan approval is based upon the representations and information contained in the submittal, therefore, the DEQ expresses no opinion as to whether other conditions that may exist will be adequately addressed by the response activities that are proposed. Notwithstanding this approval, if environmental contamination is found to exist that is not addressed by the Response Activity Plan and you are otherwise liable for the contamination, additional response activities may be necessary.

Please note that the Response Activity Plan for the 2014 Sediment Investigation Work Plan at the same location was approved via an email dated April 25, 2014.

If you should have further questions or concerns, please contact Mr. Jim Ferritto, RRD, Cadillac District Office, at 231-876-4454 or at ferrittoj@michigan.gov; or you may contact me.

Sincerely,


Steven Kitler, Supervisor
Cadillac District Office
Remediation and Redevelopment Division
231-876-4455
kitlers@michigan.gov

sk/jf/tl

Enclosure

cc: Mr. Robert A. Ferree, ARCADIS of Michigan, LLC
Mr. Jim Ferritto, DEQ



RECEIVED MAR 18 2014

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - REMEDIATION AND REDEVELOPMENT DIVISION
PO BOX 30426, LANSING, MICHIGAN 48909-7926, Phone 517-373-9837, Fax 517-373-2637

Request for DEQ Review of Response Activity Plan

This form is required for submittal of a request for the DEQ to review a Response Activity Plan, under Section 20114b, Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Section A: Type of Response Activity Plan being Submitted:

Remedial Investigation	<input type="checkbox"/>	Site Specific Criteria	<input type="checkbox"/>
Evaluation Plan	<input type="checkbox"/>	Mixing Zone	<input type="checkbox"/>
Feasibility Study	<input type="checkbox"/>	Section 20118(5) and (6) Request	<input type="checkbox"/>
Remedial Action Plan	<input type="checkbox"/>	Institutional Controls	<input type="checkbox"/>
Interim Response Plan	<input checked="" type="checkbox"/>	Other, Specify: <u>Pilot Test Work Plan</u>	

Section B: Facility/Property Subject to (Check all that apply):

Facility regulated under Part 201, other source, or source unknown Part 201 Site ID, if known:	<input checked="" type="checkbox"/>
Leaking Underground Storage Tank regulated pursuant to Part 213 Part 211/213. Facility ID, if known:	<input type="checkbox"/>
Oil or gas production and development regulated pursuant to Part 615 or 625	<input type="checkbox"/>
Licensed landfill regulated pursuant to Part 115	<input type="checkbox"/>
Licensed hazardous waste treatment, storage, or disposal facility regulated pursuant to Part 111	<input type="checkbox"/>
Consent Agreement or other legal agreement with the MDEQ	<input type="checkbox"/>

Section C: Facility and Locational Information:

Facility Name: Consumers Energy, Manistee Former MGP	County: Manistee
Street Address of Property: 30 Jones Street, 10 Mason Street, 16 Mason Street, and 254 River Street	City/Village/Township: Manistee
City: Manistee State: MI Zip: 49660	Town: 21N Range: 17W Section: 1 Quarter: SW Quarter-Quarter: NE
Property Tax ID (include all applicable IDs): 51-448-736-01, 51-448-702-01, 51-474-701-09, 51-474-701-01	Decimal Degrees Latitude: 44.2521 Decimal Degrees Longitude: 86.3150
Status of submitter relative to the property (check all that apply):	Reference point for latitude and longitude: Center of site <input checked="" type="checkbox"/> Main/front door <input type="checkbox"/> Front gate/main entrance <input type="checkbox"/> Other <input type="checkbox"/>
Former Current Prospective	Collection method: Survey <input type="checkbox"/> GPS <input type="checkbox"/> Interpolation <input checked="" type="checkbox"/>
Owner <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
Operator <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Section D: Submitter Information:

Entity/person requesting review: Consumers Energy Company	
Contact Person (name and title): Roger Whiting	
Submitter Address: 1945 West Parnall Road	
City: Jackson	State: MI Zip: 49201
Telephone: 517-788-2230	E-Mail: roger.whiting@cmsenergy.com
Relationship of contact person to the submitter: Employee	
Owner Name, if different from submitter:	
Company:	
Address:	
City:	State: Zip:
Telephone:	E-Mail:

Request for DEQ Review of Response Activity Plan

Section E: Are/were the following present at the facility (Check all that apply):

	Current	Previous	Unknown
Free product / Non Aqueous Phase Liquid (NAPL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil contamination above any residential criteria	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil contamination above any non-residential criteria	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil aesthetic impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater contamination above any residential criteria	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater contamination above any non-residential criteria	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater contamination above the Acute Inhalation screening level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater aesthetic impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil Gas contamination above residential vapor intrusion (VI) screening levels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soil Gas contamination above non-residential VI screening levels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Conditions immediately dangerous to life or health (IDLH)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire & Explosion hazards related to releases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contamination existing in drinking water supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Imminent threat to drinking water supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impact to Surface Water	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface Water Sediments above screening levels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section F: The following questions assist DEQ in evaluating this request:

Known or Suspected Contaminant(s) Type (Check all that apply):			
Petroleum	<input type="checkbox"/>	Volatile Organic Compounds	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>	Other	<input checked="" type="checkbox"/>
Current Site Status (Check all that apply):			
Undergoing property transfer	<input type="checkbox"/>	Active operations	<input type="checkbox"/>
Inactive operation	<input checked="" type="checkbox"/>		
Current Property Use:			
Residential/Institutional (including schools, nursing homes, hospitals, etc.)	<input type="checkbox"/>		
Non-residential	<input checked="" type="checkbox"/>		
Anticipated Property Use:			
Residential/Institutional (including schools, nursing homes, hospitals, etc.)	<input type="checkbox"/>		
Non-residential	<input checked="" type="checkbox"/>		
Estimated Area of Contamination Addressed in Response Action Plan (Cumulative):			
Currently undetermined	<input type="checkbox"/>	< 0.5 acre	<input type="checkbox"/>
> 0.5 acre	<input checked="" type="checkbox"/>		
Migration:			
Has contamination migrated beyond the property boundaries?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unknown <input type="checkbox"/>
Has the Notice of Migration been submitted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Facility Investigation Status:			
Ongoing	<input type="checkbox"/>	Complete	<input checked="" type="checkbox"/>
Facility Response Activity Status (Check all that apply):			
None	<input type="checkbox"/>	IR Implemented	<input type="checkbox"/>
Response Activity Ongoing	<input checked="" type="checkbox"/>	Response Activity Completed	<input type="checkbox"/>
Drinking Water Supply for Facility (Check all that apply):			
Municipal	<input checked="" type="checkbox"/>	Private Well(s)	<input type="checkbox"/>
No Current Water Supply	<input type="checkbox"/>	Municipal Available	<input type="checkbox"/>
On-site Well(s) (Check all that apply):			
Drinking Water	<input type="checkbox"/>	Industrial/Commercial Production	<input type="checkbox"/>
Agricultural/Irrigation	<input type="checkbox"/>	No well on-site	<input checked="" type="checkbox"/>
Approximate Depth of Well(s):			
Local Drinking Water Supply:			
Is facility in a designated Wellhead Protection Area?	Yes <input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Distance to nearest off-site drinking water well: 1,100 feet	Private	<input checked="" type="checkbox"/>	Municipal <input type="checkbox"/>

Request for DEQ Review of Response Activity Plan

Surface Water Bodies on or Adjacent to Facility (Check all that apply):			
Wetlands	<input type="checkbox"/>	Ditch	<input type="checkbox"/>
Stream/River	<input checked="" type="checkbox"/>	Lake/Pond	<input type="checkbox"/>
Local Surface Water Bodies:			
Distance to nearest wetland:	Ditch:	Stream/River: <500 feet	Lake/Pond:
Have other plans been submitted for this facility?			
Facility Name, if different than this submittal:			
Date and Name of most recent submittal: Sediment Investigation Work Plan, April 29, 2013			

Section G: Environmental Professional Signature:

With my signature below, I certify that this plan and all related materials are true, accurate, and complete to the best of my knowledge and belief.

Signature: 

Date: 3/18/14

Printed Name: Robert A. Ferree

Company of Environmental Professional: ARCADIS of Michigan, LLC

Address: 28550 Cabot Drive, Suite 500

City: Novi

State: MI

Zip: 48377

Telephone: 248-994-2240

E-mail address: rob.ferree@arcadis-us.com

Section H: Submitter Signature:

With my signature below, I certify that this plan and all related materials are true, accurate, and complete to the best of my knowledge and belief and I am legally authorized to sign for the submitter

Signature: 

Date: 3/18/14

Printed name: Roger Whiting

Title/Relationship of signatory to submitter: employee

Address: 1945 West Parnall Road

City: Jackson

State: MI

Zip: 49201

Telephone: 517-788-2230

E-Mail address: roger.whiting@cmsenergy.com

This form and the Response Activity Plan should be submitted to the MDEQ Remediation & Redevelopment Division District Office for the county in which the property is located, unless the response activity is related to a facility that is regulated by another MDEQ Division. A district map is located at www.michigan.gov/degrrd. If regulated by another division, contact should be made with that division for information on where to submit the form and plan.

September 2014

Consumers Energy
Former Manistee MGP
STAR Pilot Test Schedule
Rev 0 9/16/14

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18 Power Drop	19	20
21	22	23	24	25	26	27
28	29 Pilot Test Kickoff Meeting (tentative)	30				

October 2014

Consumers Energy Former Manistee MGP STAR Pilot Test Schedule Rev 0 9/16/14

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
28	29	30	1	2	3	4
5	6 Private Utility Locate	7 Site Prep & Well Installations – Pad Excavation	8 Site Prep & Well Installations Ignition Wells Thermocouples & Soil Vapor Probes	9 Site Prep & Well Installations Ignition Wells Thermocouples & Soil Vapor Probes	10 Site Prep & Well Installations Thermocouples & Soil Vapor Probes	11
12	13 Site Prep & Well Installations Thermocouples & Soil Vapor Probes	14 Site Prep & Well Installations Thermocouples & Soil Vapor Probes	15 Extra day to finish drilling if needed	16 Extra day to finish drilling if needed	17 General Construction Oversight SVE Piping & Pad Fill-clear stone, etc.	18
19	20 General Construction Oversight SVE Piping & Pad Fill-clear stone, etc.	21 General Construction Oversight SVE Piping & Pad Fill-clear stone, etc.	22 General Construction Oversight SVE Piping & Pad Fill-clear stone, etc.	23 General Construction Oversight SVE Piping & Pad Fill-clear stone, etc.	24 General Construction Oversight SVE Piping & Pad Fill-clear stone, etc.	25
26	27 General Construction Oversight Systems Connections	28 General Construction Oversight Systems Connections	29 General Construction Oversight Systems Connections	30 General Construction Oversight Systems Connections	31 General Construction Oversight Systems Connections	1

November 2014

Consumers Energy Former Manistee MGP STAR Pilot Test Schedule Rev 0 9/16/14

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
2	3 Shakedown Testing	4 Shakedown Testing	5 Shakedown Testing	6 Shakedown Testing	7 STAR/Combustion DNAPL	8 STAR/Combustion DNAPL
9 STAR/Combustion DNAPL	10 STAR/Combustion DNAPL	11 STAR/Combustion DNAPL	12 STAR/Combustion DNAPL	13 STAR/Combustion DNAPL	14 STAR/Combustion DNAPL	15 STAR/Combustion DNAPL
16 STAR/Combustion DNAPL	17 STAR/Combustion Switchover	18 STAR/Combustion Switchover	19 STAR/Combustion LNAPL	20 STAR/Combustion LNAPL	21 STAR/Combustion LNAPL	22 STAR/Combustion LNAPL
23 STAR/Combustion LNAPL	24 STAR/Combustion LNAPL	25 STAR/Combustion LNAPL	26 STAR/Combustion LNAPL	27 STAR/Combustion LNAPL	28 STAR/Combustion LNAPL	29
30	1	2	3	4	5	6

December 2014

Consumers Energy
Former Manistee MGP
STAR Pilot Test Schedule
Rev 0 9/16/14

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
30	1 Confirmation Soil Sampling	2 Confirmation Soil Sampling	3 Confirmation Soil Sampling	4 Confirmation Soil Sampling	5 Confirmation Soil Sampling	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Staff Calculation of Gas Loss Percentage
2009 through 2014

Case No.: U-17882
Witness: Nicholas M. Revere
Exhibit: S-14.1
Date: December 4, 2015
Page: 1 of 1

GAS OPERATIONS

Line
No.

Line No.	<u>Sendout Period</u> (a)	<u>Sendout</u> ¹ <u>MMcf</u> (b)	<u>Billed</u> <u>Throughput</u> ² <u>MMcf</u> (c)	<u>Gas Loss</u> <u>Before Inventory</u> <u>Adjustment</u> <u>MMcf</u> (d)	<u>Inventory</u> <u>Adjustment</u> <u>MMcf</u> (e)	<u>Total Gas</u> <u>Loss</u> <u>MMcf</u> (f)	<u>Gas Loss</u> ³ <u>Percentage</u> (g)
1	August 2009 - July 2010	271,801	270,154	1,647		1,647	0.6060%
2	August 2010 - July 2011	301,593	296,567	5,026	1,032	6,058 ⁴	2.0087%
3	August 2011 - July 2012	255,875	254,136	1,739	1,265	3,004 ⁵	1.1740%
4	August 2012 - July 2013	296,140	290,899	5,240	2,174	7,414 ⁶	2.5036%
5	August 2013 - July 2014	339,505	334,457	5,048		5,048	1.4868%
6	Total - August 2009 - July 2014	1,464,914	1,446,214	18,700	4,471	23,171	1.5817%

¹ Sendout for column (b) obtained from Gas Control Operations Summary report

² Billed Throughput volumes (Sales plus End - User transportation) for column (c) obtained from the Accounting Department

³ g=f/b

⁴ Includes an inventory adjustment for Lenox, Ray, Four Corners and Swan Creek of 1,032 MMcf previously approved by MPSC in Case No. U-16855

⁵ Includes an inventory adjustment of 1,265 MMcf included for losses at Ira, Lyon 29, Ray, Overisel, and Salem fields offset by a gain at Cranberry field

⁶ Includes an inventory adjustment of 2,174 MMcf for losses at Overisel and Salem fields

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Staff Calculation of Allowance for Gas Use and Losses
For the Year 2016

Case No.: U-17882
Witness: Nicholas M. Revere
Exhibit: S-14.2
Date: December 4, 2015
Page: 1 of 1

GAS OPERATIONS

Line
No.

Line	Description	(a)	Transportation Gas-In-Kind Mcf (b)	Company Use Net Of Gas-In-Kind Mcf (c)	LAUF and Company Use Adjustment Mcf (d)	Transportation Offset Mcf	Net LAUF and Company Use Mcf	Gas Rates (e)	Total LAUF and Company Use Gas Expenses (f)	Source (g)
1	Calculation of Allowance for Use & Losses									
2	Total Sendout/Throughput				301,300,000					Exhibit A-11 (JMS-6), page 1 of 3, line 13, column (k)
3	Five-Year Average LAUF Percentage				1.5817%					Exhibit A-18 (SHB-5), line 6, column (g)
4	Lost and Unaccounted for Gas Volume				4,765,756					Line 2 x Line 3
5	Lost and Unaccounted for Gas Volume				4,765,756					From line 4
6	Fuel Gas Volume				2,542,000					WP-DSP-2, line 25, column "Total"
7	Total LAUF & Fuel Gas Volume				7,307,756					Line 5 + Line 6
8										
9	Total Sendout/Throughput				301,300,000					Line 2
10										
11	Allowance for Use and Losses %				2.43%					Line 7 divided by Line 9
12										
13	Calculation of Consumers Energy LAUF & Co. Use									
14	Lost and Unaccounted for Gas Volume				4,765,756	(1,452,818)	3,312,938	\$ 3.583	* \$ 11,870,255	
15	Company Use Gas Volume			2,542,000						
16										
17	Transportation Volume		76,455,000							Exhibit A-11 (JMS-6), page 3 of 3, line 13, columns (h), (i), and (j).
18	Allowance for Use and Losses Percentage		2.43%							From Line 11
19	Transportation Gas-in-Kind Volume		1,854,346							Line 17 x Line 18
20	Other Gas-in-Kind Volume		373,389							WP-NMR-11
21	Net Company Use Gas Volume			2,542,000	2,542,000	(774,917)	1,767,083	\$ 3.583	* \$ 6,331,460	
22										
23	Total LAUF and Company Use Gas Adj				7,307,756				\$ 18,201,715	Line 14 + Line 21

* 12 month Average of Cost of Gas Sold

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Development of Rates for Transportation ATL Services

Case No.: U-17882
Exhibit: S-15.0
Witness: Rivera
Date: December 4, 2015
Page: 1 of 1

Line	Description	Transportation Revenues Requirement (\$000) ⁽¹⁾	Storage Revenues Requirement (\$000)	Transportation Throughput (MMcf) ⁽²⁾	Storage Cost per Mcf of Throughput (b / c)	Annual Contract Quantity (MMcf) ⁽³⁾
		(a)	(b)	(c)	(d)	(e)
1	Transmission Related Cost	\$21,136				
2	Storage Related Cost	\$13,797	\$13,797		\$0.1805	
3	Distribution Related Cost	<u>\$42,802</u>				
4	Total	\$77,735	\$13,797	76,455	\$0.1805	89,908

Consumers' transportation rates include storage services equal to 8.5% of the customer's ACQ. The cost of this storage is \$0.1805 per Mcf of throughput, or \$0.0212 per Mcf for each 1.0% of ACQ.

$\$0.0212 \times 89,907.763 / 76,455.064 = \0.0249 per Mcf of throughput for each 1.0% change in a transportation customer's ATL.

	ATL as a Percent of ACQ	Present U-17643 Rates	Proposed Per Mcf of Throughput Adjustment
	(f)		(g)
5	6.50%	(\$0.0532)	(\$0.0498)
6	7.50%	(\$0.0266)	(\$0.0249)
7	8.50%	\$0.0000	\$0.0000
8	9.50%	\$0.0266	\$0.0249
9	10.50%	\$0.0532	\$0.0498

Footnotes

(1) Exhibit A-6 Sch F-1, column h + i + j lines 23 - 26

(2) Exhibit A-6 Sch F-1, column h + i + j, line 27

(3) WP-3-5-ATL, line 167

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Calculation of 2016 Test-Year Discount and Carrying Cost Rates
for the Customer Attachment Program

Case No.: U-17882
Exhibit: S-15.1
Witness: Rivera
Date: December 4, 2015
Page: 1 of 1

Line No.	Description	(a)	(b)	(c)	(d)	(e)	(f)
		Capital Structure		Cost Rate	After-tax WCPC %	Pre-tax Multiplier	Pre-tax WCPC %
		Amount Outstanding	% of Permanent Capital				
		\$millions	%	%	%	decimal	%
1	Long-term Debt	\$ 5,192	47.81	0.0493	0.0236	1.0000	0.0236
2	Preferred Stock	37	0.34	0.0450	0.0002	1.6367	0.0003
3	Common Equity	<u>5,632</u>	<u>51.85</u>	<u>0.1000</u>	<u>0.0519</u>	<u>1.6367</u>	<u>0.0849</u>
4	Total Permanent Capital	<u>\$ 10,861</u>	<u>100.00</u>				
5	Discount Rate (%) ⁽¹⁾				<u>0.0756</u>		
6	Carrying Cost Rate (%) ⁽²⁾						<u>0.1087</u>

Notes

WCPC - Weighted Cost of Permanent Capital

⁽¹⁾ Weighted rate of debt, preferred stock, and common equity.

⁽²⁾ Weighted rate of debt, preferred stock, common equity, and associated taxes

Source: Exhibit: S-4, Schedule D1, Page 1 of 1

RIA Summary

Case No. U-17882
Exhibit S-15.2
Witness: Rivera
Date: December 4, 2015
Page 1 of 1

U-17882 - Response #197

Gas Income Assistance Customer Count Analysis (U-15986 Rate Order - Effective for service on and after 05/18/2010)

			BFD Query Billing Months June through December 2010													
			June	July	August	September	October	November	December	Total						
A_250	Gas Residential with Space Heating	INCOME_ASC	96,794	94,192	91,366	89,245	87,526	85,460	83,194	627,777						
A_260	Gas Residential without Space Heating	INCOME_ASC	208	212	217	215	205	201	195	1,453						
A_752	GCC Residential Service Rate A	INCOME_ASC	24,321	24,284	24,189	23,890	23,809	23,664	23,448	167,605						
	Total Income Assistance Customers		121,323	118,688	115,772	113,350	111,540	109,325	106,837	796,835						
Billing Months for 2011															Annual	
			January	February	March	April	May	June	July	August	September	October	November	December	Total	Average
A_250	Gas Residential with Space Heating	INCOME_ASC	81,128	82,662	82,446	75,281	70,939	63,360	58,118	56,485	55,556	55,735	56,032	54,642	792,384	66,032
A_260	Gas Residential without Space Heating	INCOME_ASC	192	210	239	235	244	222	211	197	190	195	195	191	2,521	210
A_752	GCC Residential Service Rate A	INCOME_ASC	23,136	23,135	22,363	19,803	18,219	16,358	14,997	14,993	15,038	15,469	16,063	16,185	215,759	17,980
	Total Income Assistance Customers		104,456	106,007	105,048	95,319	89,402	79,940	73,326	71,675	70,784	71,399	72,290	71,018	1,010,664	84,222
Billing Months for 2012															Annual	
			January	February	March	April	May	June	July	August	September	October	November	December	Total	Average
A_250	Gas Residential with Space Heating	INCOME_ASC	54,653	58,618	64,249	65,184	64,781	59,461	56,885	55,300	54,151	60,992	61,518	61,570	717,362	59,780
A_260	Gas Residential without Space Heating	INCOME_ASC	194	207	223	222	234	203	195	185	181	212	215	228	2,499	208
A_752	GCC Residential Service Rate A	INCOME_ASC	16,555	17,733	19,345	19,589	19,836	18,771	18,467	18,494	18,530	21,421	21,845	21,811	232,397	19,366
	Total Income Assistance Customers		71,402	76,558	83,817	84,995	84,851	78,435	75,547	73,979	72,862	82,625	83,578	83,609	952,258	79,354
Billing Months for 2013															Annual	
			January	February	March	April	May	June	July	August	September	October	November	December	Total	Average
A_250	Gas Residential with Space Heating	INCOME_ASC	62,645	65,769	69,229	66,555	61,444	57,374	56,854	56,501	55,908	59,900	56,498	55,491	724,168	60,347
A_260	Gas Residential without Space Heating	INCOME_ASC	241	268	307	305	315	311	320	319	319	345	323	331	3,704	309
A_752	GCC Residential Service Rate A	INCOME_ASC	22,337	23,216	23,930	22,892	21,181	19,878	19,969	20,048	20,285	21,850	20,728	20,422	256,736	21,395
	Total Income Assistance Customers		85,223	89,253	93,466	89,752	82,940	77,563	77,143	76,868	76,512	82,095	77,549	76,244	984,608	82,051
Billing Months for 2014															Annual	
			January	February	March	April	May	June	July	August	September	October	November	December	Total	Average
A_250	Gas Residential with Space Heating	INCOME_ASC	55,353	56,657	60,954	61,912	61,484	60,431	58,032	55,995	54,217	52,191	45,553	45,605	668,384	55,699
A_260	Gas Residential without Space Heating	INCOME_ASC	340	361	396	399	406	399	382	377	359	332	295	298	4,344	362
A_752	GCC Residential Service Rate A	INCOME_ASC	20,378	20,609	21,182	20,021	19,457	18,868	18,262	17,828	17,568	17,120	14,503	14,530	220,326	18,361
	Total Income Assistance Customers		76,071	77,627	82,532	82,332	81,347	79,698	76,676	74,200	72,144	69,643	60,351	60,433	893,054	74,422
Billing Months for 2015															Annual	
			January	February	March	April	May	June	July	August	September	October	November	December	Total	Average
A_250	Gas Residential with Space Heating	INCOME_ASC	45,622	49,640	59,499	64,032	67,238	65,795	63,381	61,791	0	0	0	0	476,998	39,750
A_260	Gas Residential without Space Heating	INCOME_ASC	304	353	459	494	527	517	482	465	0	0	0	0	3,601	300
A_752	GCC Residential Service Rate A	INCOME_ASC	14,384	15,027	16,966	17,633	18,254	17,917	17,407	17,181	0	0	0	0	134,769	11,231
	Total Income Assistance Customers		60,310	65,020	76,924	82,159	86,019	84,229	81,270	79,437	0	0	0	0	615,368	51,281

Source: BFD Query