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**Case No. U-20836**

**May 19, 2022**

**QUALIFICATIONS OF ELAINA M. BRAUNSCHWEIG**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is Elaina M. Braunschweig. My business address is 7109 West Saginaw  
3 Hwy, Lansing, Michigan 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or  
6 Commission) as a Departmental Analyst for the Rates and Tariff Section of the  
7 Regulated Energy Division.

8 Q. Please describe your educational background.

9 A. In 2018, I completed my Bachelor of Arts dual-major in Economics &  
10 Management and German with a minor in International Studies with honors from  
11 Albion College.

12 Q. What are your current responsibilities at the MPSC?

13 A. As an analyst, I participate in rate and tariff amendment under the direct  
14 supervision of the Rates and Tariff manager. I am also responsible for  
15 coordinating tariff-related ex-parte cases and updating the gas and electric bill  
16 comparison spreadsheets for the MPSC website. In the middle of 2020, I began  
17 liaising with the Customer Assistance Division on low-income programs and have  
18 since specialized in low-income matters—handling the section's connection to  
19 low-income energy assistance and affordability. In July 2021, I began co-leading  
20 the Affordability, Alignment, and Assistance subcommittee in the Commission's  
21 Energy Affordability and Accessibility Collaborative and continue that to-date.

22 Q. Have you attended any seminars or other training courses relating to your current  
23 role?

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1 A. Yes. In August 2021, I participated in Michigan State University's Institute of  
2 Public Utilities Annual Regulatory Studies Program Fundamentals Course. In  
3 October 2021, I attended Michigan State University's Institute of Public Utilities  
4 Advanced Cost Allocation and Rate Design Course, and in February 2022, I  
5 attended EUCI's Electric Utility Pricing Trends in Cost Recovery Course.

6  
7 Q. Q. Have you previously presented testimony or participated in utility cases before  
8 the MPSC?

9 A. Yes, I have presented testimony or otherwise participated in the following cases.

<u>MPSC Case</u>	<u>Company</u>	<u>Description</u>
U-20650	Consumers Energy—Gas	Rate Design/Low-Income
U-20757	Commission	Low-Income Covid Report
U-20907	UMERC	Budget Billing Revisions
U-20929	DTE Energy	PSP Pilot Proposal
U-21021	Consumers Energy	PIPP Pilot Proposal
U-21148	Consumers Energy—Gas	Rate Design/Low-Income

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**PART II**

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to present Staff's position on DTE Electric  
3 Company's (the Company) proposed changes to the low-income assistance credits  
4 and low-income assistance credit tariffs.

5 Q. How is your testimony structured?

6 A. My testimony is structured as follows:

7

8 1. Low-Income Assistance Credit Proposals

9 2. Low-Income Tariff Proposal

10

11 Q. Are you sponsoring any exhibits in this proceeding?

12 A. Yes, I am sponsoring the following exhibits:

13

14 Ex. S-9.0, entitled Audit Response EMB-2.1a

15 Ex. S-9.1, entitled Audit Response EMB-2.1b

16 Ex. S-9.2, entitled Audit Response EMB-2.2

17

18 Q. Were these exhibits prepared by you or under your supervision?

19 A. Yes, they were.

20

21

22

23

**DIRECT TESTIMONY OF ELAINA M. BRAUNSCHWEIG**  
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**1. Low-Income Assistance Program Proposals**

**Prioritizing 5,000 senior customers for the LIA**

Q. Does Staff agree with DTE prioritizing 5,000 senior citizen customers to receive the Low-Income Assistance Credit (LIA)?

A. Staff disagrees with this practice on the basis of maintaining equal access to the LIA credit.

Q. Why does Staff disagree with this practice?

A. The Company has not provided a compelling reason and/or supporting evidence for why senior citizen customers should be prioritized over other low-income households. It would be inappropriate to limit certain customers' access to assistance opportunities without supporting why one group should be prioritized over others. In the future, Staff recommends the Commission require the Company provide more substantial supporting evidence for such low-income proposals, including evidence for how a program change can improve upon equity, when appropriate.

Q. How does Staff propose a closer monitoring of (or more active approach to) equity in customer enrollments in the LIA?

A. Unless the Company proposes a reasonable equity framework for enrollment in future, Staff recommends enrollment in the LIA be randomized. The Company should be required to consult with Staff on any equity proposals for LIA, and after such consultation the Company should be required to file a formal request in a rate case or ex-parte case in order to make changes to how enrollment is performed for the LIA—if customer enrollment is no longer chosen at random

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1 from RIA enrollments. As described in Exhibit No. S-9.0 and S-9.1, the Company  
2 engaged in this practice prior to informing Staff in the current rate case and did  
3 not previously seek approval from the Commission. In Staff's opinion, this use of  
4 the language in the tariff allowing for the Company's discretion in the distribution  
5 of the LIA was inappropriate, and the language should therefore be changed.

6 Staff recommends including enrollment parameters in the LIA tariff language that  
7 reflects this position—as discussed later in testimony.

8 Q. Why is it important that Staff is consulted on how LIA enrollment is performed?

9 A. Staff is currently tasked with addressing affordability through the Energy  
10 Affordability and Accessibility Collaborative and Low-Income Energy Policy  
11 Board, in which Staff works collaboratively with stakeholders, policymakers,  
12 Michigan Energy Assistance Program grantees, utilities, and customer  
13 representatives to recommend improvements upon the current energy assistance  
14 framework. Because of this collaborative, Staff is able to ensure that programs are  
15 more equitably designed. However, if the utilities have unilateral control over  
16 how recipients are selected for assistance credits, Staff has less ability to know if  
17 equity principles are being upheld. If the Company must seek approval for their  
18 enrollment/selection methods, Staff can ensure any proposed changes in  
19 application of the LIA are reflective of the work performed in the collaborative.

20 **Low-income assistance credit customer count proposal**

21 Q. Does Staff agree with the Company's projection of the number of customers to  
22 receive the RIA credit of 61,745?

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A. No. Staff investigated the Company's reported enrollment figures for the RIA in Case No. U-20561 and in the present case and found that the Company did not break data down by RIA and LIA as required and instead produced a combined report under the title: "Residential Income Assistance." Staff confirmed this through an audit request, shown in Exhibit No. S-9.2, summarized below:

**Answer:** Part III for U-20561 RIA customer counts included only the annual values for the years of 2016-2018. Part III for U-20836 RIA customer counts included the average of three years of annual values. U-20836 also combined the Residential Income Assistant Credit and Special Low Income Credit customers. Below is the breakout.

		<u>Annual</u>	<u>3 Year Average</u>
2018	Residential Income Assistant Credit	160,205	
	Special Low Income Credit	372,708	
	<b>Total</b>	<b>532,913</b>	<b>743,333</b>
2017	Residential Income Assistant Credit	442,725	
	Special Low Income Credit	367,966	
	<b>Total</b>	<b>810,691</b>	<b>781,070</b>
2016	Residential Income Assistant Credit	539,256	
	Special Low Income Credit	347,139	
	<b>Total</b>	<b>886,395</b>	<b>663,390</b>

This audit response suggests that the 2020 RIA/LIA combined monthly enrollment is 64,687 (776,254/12), of which, roughly 32,000 would be LIA customers.<sup>1</sup> However, Company witness Tamara Johnson claimed that RIA enrollments alone are at 64,000 currently. The discrepancies between Company witness Johnson's testimony and what is reported in the filing requirements and by Company witness Maheen Asghar in Exhibit No. S-9.2 make it difficult for Staff to discern actual customers receiving each credit. Staff proposes in future cases, the Commission require the Company ensure their data aligns with testimony and requests.

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<sup>1</sup> LIA labeled as "Special Low Income Credit" in Exhibit No. S-9.2.

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1 Q. Does the Company have a history of over-projecting customer counts for their  
2 low-income credits?

3 A. Yes, they do. In their last rate case (U-20561), the Company projected 60,000  
4 customers would receive the RIA in the test year (May 1, 2020 through April 30,  
5 2021), but claimed their actual enrollment levels were 43,000.<sup>2</sup> However, at the  
6 time U-20561 was filed, their historical monthly enrollments were only 36,894.<sup>3</sup>  
7 The Company is perpetuating the practice of overestimation in the instant case by  
8 currently only enrolling 32,688 RIA customers monthly but estimating a monthly  
9 enrollment of 64,000 and requesting a projection of 61,745.<sup>4</sup>

10 Q. What impact does overestimating customer counts have on ratepayers?

11 A. Staff maintains its argument in the U-20561 rate case that overestimating  
12 customer counts allows the Company to retain the excess unused dollars  
13 recovered by ratepayers, absent deferred accounting for differences between  
14 actuals above or below the projection used to set rates. Even with deferred  
15 accounting, it is appropriate to utilize the most accurate and reliable forecast to set  
16 rates.

17 Q. Based on Staff's analysis, what trends are present in RIA enrollments and how  
18 should those trends dictate the projected RIA enrollment figure?

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<sup>2</sup> MPSC Case No. U-20561, May 8, 2020, Order, p. 179.

<sup>3</sup> Using 2017 total RIA enrollment from Exhibit No. S-9.2 (to control for 2018 billing errors) divided by 12: 442,725/12=36,894.

<sup>4</sup>U-20836 monthly enrollment calculation: The Company's filed RIA/LIA enrollment of 776,254 in 2020 divided by 12 to get the monthly figure and then subtracted out the 32,000 monthly LIA customers: (776,254/12)-32,000=32,688



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A. As in the last rate case, combined RIA/LIA annual enrollment figures continue to trend downward, as show below:

<b>Year</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Total Annual RIA/LIA Enrollment</b>	886,395	810,691	532,913	816,409	776,254
<b>Total Monthly RIA/LIA Enrollment</b>	73,866	67,558	44,409	68,034	64,688

The Commission should approve projections that reflect that trend to maximize accuracy.

Q. What does Staff propose for RIA and LIA enrollments in the present case?

A. Staff proposes to round up to a total monthly enrollment of 65,000 for RIA and LIA—as supported by the Company’s most recently reported enrollments. Staff proposes to retain the LIA enrollment of 32,000 and therefore proposes a projection of 33,000 for RIA enrollments. Moreover, if RIA enrollments for the test year exceed Staff’s projection, Staff expects DTE to continue enrolling all eligible customers in the RIA credit and choosing customers from the RIA credit to receive the LIA until the Company reaches the approved cap on LIA enrollment. The RIA credit is not “funded” at a certain level but utilizes a projection of the customers expected to receive it in the test year for ratemaking purposes. The credit’s availability is not contingent on anything but customers meeting the requirements, and the Company should be reminded of that by the Commission once again.

Q. What corresponding revenue adjustment is Staff proposing for the RIA customer count projection?

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1 A. Staff is proposing an upward adjustment to present sales revenue on totaling  
2 \$2,587,050. This is calculated by multiplying the customer charge by the  
3 difference in DTE's and Staff's projections and multiplied by 12 months:  
4  $(\$7.50 * (61,745 - 33,000)) * 12$ .

5 **Low-income assistance credit accounting proposal**

6 Q. Does Staff agree with DTE's proposal to switch from recording the difference in  
7 customer counts for the RIA and LIA as a regulatory asset to a mechanism in  
8 which unused credits could be used to fund assistance in the following year—as  
9 described by Company witnesses Johnson and Uzenski?

10 A. Staff does not agree. Firstly, the Company's proposal does not significantly differ  
11 from what is currently occurring and is therefore unnecessary. The proposal to  
12 record any "overages relating to serving customers...as a regulatory asset" was  
13 approved in the last DTE Electric rate case, U-20561, on the grounds of  
14 encouraging continued enrollment.<sup>5</sup> Staff proposes the Commission add a  
15 corresponding accounting treatment to that and require any underspending be  
16 recorded as a regulatory liability in order to financially protect the Company and  
17 ratepayers from any difference in projected customer counts. Secondly, as shown  
18 earlier in my testimony, the Company continually projects higher enrollment in  
19 the RIA credit year over year by over-estimating test year RIA enrollments. If the  
20 Company's projections were accurate, there would be no unspent dollars. Until

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<sup>5</sup> MPSC Case No. U-20561, May 8, 2020, Order, pp. 180-181.

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1 the Company can report consistent enrollment figures year over year that align  
2 testimony and data, Staff does not support such changes to the assistance credits.

3

4 **2. Low-Income Tariff Proposal**

5 Q. Does Staff agree with DTE's proposed changes to the Low-Income Assistance  
6 Credit (LIA) tariff?

7 A. Staff does not agree with all of the proposed changes. Staff's position is it is  
8 appropriate to continue aligning the tariffs for the Residential Income Assistance  
9 Credit (RIA) tariff and the Low-Income Assistance Credit (LIA) across utilities,  
10 so Staff proposes the Commission approve the following language for the RIA  
11 and LIA:

12 Income Assistance Service Provision (RIA):  
13 When service is supplied to a Principal Residence Customer, where the  
14 total household income does not exceed 150% of the Federal Poverty  
15 level, a credit shall be applied during all billing months. The total  
16 household income is verified when the customer has provided proof that  
17 they have received, or are currently participating in, one or more of the  
18 following within the past 12 months:

- 19 1. A Home Heating Credit energy draft  
20 2. State Emergency Relief  
21 3. Assistance from a Michigan Energy Assistance Program (MEAP)  
22 4. Medicaid

23 If a customer does not meet any of the above requirements, a low-income  
24 verification form will be provided by the Company for the customer to  
25 complete and return. The monthly credit for the Income Assistance  
26 Service Provision (RIA) shall be applied as follows:

27  
28 Delivery Charges: These charges are applicable to Full Service Customers.  
29 Income Assistance Credit: \$(8.50) per customer per month  
30 If a credit balance occurs, the credit shall apply to the customer's future  
31 electric utility charges.

32 This credit shall not be taken in conjunction with a credit for the Senior  
33 Citizen Service Provision (RSC).

34

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Low Income Assistance Credit (LIA):  
32,000 RIA customers may receive LIA for up to 12 consecutive months.  
The number of customers enrolled may be adjusted, at the Company's  
discretion, in order to dispense Commission-approved number of LIA  
credits on an annual basis. Any difference between the actual amount of  
credits disbursed and the amount assumed for rate setting purposes will be  
deferred and dealt with in future cases. LIA customer selection will be  
random and with total household income that does not exceed 150% of the  
Federal Poverty level. The total household income is verified when the  
customer has provided proof that they have received, or are currently  
participating in, one or more of the following within the past 12 months:

1. Customers whose total household income does not exceed 150%  
of the Federal Poverty level within the last 12 months
2. Customers who have received assistance from a Michigan  
Energy Assistance Program (MEAP)
3. Customers who have received a Home Heating Credit energy  
draft
4. A State Emergency Relief program
5. Medicaid
6. Customers that have participated in a Supplementary Nutrition  
Assistance Program where the total household income does not  
exceed 150% of the Federal Poverty level within the last 12  
months. If the customer does not meet any of the above  
requirements, a low-income verification form will be provided by  
the Company for the customer to complete and return.

The monthly credit for LIA shall be applied as follows:

Low Income Assistance Credit: \$(40.00) per meter per month

If a credit balance occurs, the credit shall apply to the customer's future  
electric utility charges. Re-enrollment, if applicable, and confirmation of  
qualification is required for each annual period of participation. Customers  
selected for LIA will not be eligible for the RIA Provision while enrolled  
in LIA.

- Q. Please summarize some of the key differences in the Company's proposed tariff  
language and Staff's proposed tariff language.
- A. Staff changed the proposed layout and some minor wording to make the tariff  
easier to read and to ensure that the treatment of a credit balance on a customer's  
bill is consistent across other regulated utilities. Staff also included the maximum  
LIA enrollment figure in the tariff language to align with DTE Gas's tariff as well

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1        as language clarifying that LIA enrollment should be performed randomly—as

2        previously described in testimony.

3        Q.     Does this conclude your testimony?

4        A.     Yes, it does.

✿ ✿ ✿ ✿

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**May 19, 2022**

**QUALIFICATIONS OF DANIEL J. GOTTSCHALK**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is Daniel J. Gottschalk. My business address is 7109 West Saginaw Highway,  
3 Lansing, Michigan 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or Commission) as a  
6 departmental specialist in the Rates and Tariff Section of the Regulated Energy Division.  
7 I serve as the section's Electric Cost of Service Specialist.

8 Q. Please briefly describe your educational background.

9 A. In 2012, I received a Bachelor of Arts degree in Marketing from Michigan State  
10 University after completing a full range of business courses at the Eli Broad College of  
11 Business, including courses in accounting, finance, marketing, economics, and other  
12 areas. In 2012 and 2013, I completed several web design and development courses at  
13 Lansing Community College. In 2021, I earned a Master of Business Administration  
14 degree with an emphasis in management at West Texas A&M University.

15 Q. Have you attended any seminars or other training courses?

16 A. Yes, in September 2013 and 2014, I attended the Advanced Regulatory Studies Program  
17 at the Institute of Public Utilities (IPU) at Michigan State University. In August of 2014,  
18 I completed the National Association of Regulatory Utility Commissioners (NARUC)  
19 Annual Regulatory Studies Program held at Michigan State University, which included  
20 courses on ratemaking, rate case auditing, regulatory policy, and other regulatory issues.  
21 In October 2016, I completed NARUC's Eastern Utility Rate School in Clearwater, FL. I  
22 attended additional courses in August of 2019 at IPU's Advanced Regulatory Studies  
23 Program including Public Utility Commission Management and Operation. In February

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1 of 2020, I attended EUCI's Electric Cost-of-Service - Essential Concepts for a Changing  
2 Industry course as well as its Electric Utility Pricing - Trends in Cost Recovery course.

3 Q. Please describe your professional background.

4 A. In November 2011, while attending Michigan State University, I started as a student  
5 assistant in the Renewable Energy Section at the MPSC, assisting MPSC staff with the  
6 implementation of PA 295 of 2008. In August 2013, I was hired full time as a  
7 departmental analyst in the Rates and Tariff Section for the MPSC. As an analyst, I  
8 performed and testified to a variety of tasks in rate cases including electric and gas cost of  
9 service, electric and natural gas rate design, low-income program design and forecasting,  
10 miscellaneous and present revenue projections, decoupling mechanisms, surcharges, and  
11 miscellaneous tariff issues. I also served as a web editor for the Regulated Energy  
12 Division and updated electric and natural gas rate comparison spreadsheets for the MPSC  
13 website. As I became more experienced, I trained new staff on our section's  
14 responsibilities and oversaw our section's website duties. In October 2018, I was  
15 promoted to a departmental specialist in the Rates and Tariff Section of the MPSC,  
16 serving as the Electric Cost of Service Specialist.

17 Q. What are your current responsibilities at the MPSC?

18 A. As the Electric Cost of Service Specialist, I am responsible for developing Staff electric  
19 cost of service studies, interpreting and applying laws related to electric cost-of-service,  
20 and any other electric cost-of-service-related issues in cases before the Commission  
21 under the supervision of the Rates and Tariff Section Manager. I am also actively  
22 involved in several MI Power Grid workgroups and Diversity, Equity and Inclusion  
23 subcommittees.



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1 Q. In which cases have you filed testimony before the MPSC?

2 A. I have filed testimony in the following cases:

3	<u>Case No.</u>	<u>Utility</u>	<u>Case Type - Responsibility</u>
4	U-17735	Consumers Energy Company	Electric Rate Case – Rate design
5	U-17999	DTE Gas Company	Gas Rate Case – Rate design/RDM
6	U-18370	Indiana Michigan Power Company	Elec. Rate Case – COSS/Cap costs
7	U-18424	Consumers Energy Company	Gas Rate Case – Rate design
8	U-20114	Michigan Gas Utilities Corporation	TCJA Credit A – COSS/Rate design
9	U-20137	Indiana Michigan Power Company	Opt-out Charge – COSS/Rate design
10	U-20162	DTE Electric Company	Electric Rate Case – Cost of service
11	U-20359	Indiana Michigan Power Company	Electric Rate Case – Cost of service
12	U-20561	DTE Electric Company	Electric Rate Case – Cost of service
13	U-20697	Consumers Energy Company	Electric Rate Case – Cost of service
14	U-20836	DTE Electric Company	Electric Rate Case – Cost of Service
15	U-20837	DTE Electric Company	AMI Opt-Out Charge
16	U-20963	Consumers Energy Company	Electric Rate Case – Cost of service

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1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to present MPSC Staff's (Staff) class cost of service  
3 study (COSS), which allocates Staff's recommended test-year revenue requirements to  
4 DTE Electric Company's (DTE or the Company) various customer classes. I will also  
5 cover the following:

6 -Staff's recommended customer charges

7 -Staff's recommended capacity cost revenue requirement

8 -Uncollectibles allocation

9 Q. Are you sponsoring any exhibits in this case?

10 A. Yes, I am sponsoring the following schedules, which are all part of Exhibit S-6:

11 F1.1: Staff's version of the Company's Exhibit A-16, Schedule F1.1 (UCOS 4CP 75-0-25  
12 Production, 12 months Ending October 31, 2023). This schedule summarizes the results  
13 of the production portion of Staff's COSS.

14 F1.2: Staff's version of the Company's Exhibit A-16, Schedule F1.2 (UCOS Distribution  
15 by Voltage Class). This schedule summarizes the results of the distribution portion of  
16 Staff's COSS.

17 F1.4: Staff's version of the Company's Exhibit A-16, Schedule F1.4 (Customer Charges  
18 by Voltage).

19 F1.5: Staff's version of the Company's Exhibit A-16, Schedule F1.5 (Capacity Costs  
20 Determination and Capacity Charge Revenue Requirement) on pages 1-4. Page 5 of  
21 Schedule F-1.5 summarizes the variable production O&M expenses in the COSS.

22 Q. Were these exhibits prepared by you or under your direction?

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1 A. Yes. I prepared the schedules in Exhibit S-6 by modifying the Company's test year  
2 COSS filed by Company witness Maroun and by using Staff's proposed customer charge  
3 method.

4 Q. In what manner has Staff modified the Company's test year COSS?

5 A. Staff has replaced the Company's inputs with Staff's inputs so that the resulting COSS  
6 supports Staff's proposed revenue requirement. In addition, Staff made the following  
7 two additional changes to the COSS that I will address in detail:

8 1) Staff modified the SRM Capacity Charge calculation to reflect the method ordered by  
9 the Commission in MPSC Case No. U-20162 and to reflect the corrected values filed by  
10 Company witness Burgdorf in revised Exhibit A-26, Schedule P4.

11 2) Staff created a total revenue allocator, allocator 402, and applied it to uncollectibles  
12 expense.

13 Q. Please explain how Staff's case incorporates the results of Staff's COSS.

14 A. Staff witness Mark Pung has designed rates to collect the appropriate amount of revenue  
15 for each class based on Staff's COSS.

16 Q. Does Staff have any recommendations for revising the COSS at the end of this case?

17 A. Yes, the COSS should be revised to reflect any decision made by the Commission that  
18 would impact the COSS.

19 Q. Company witness Maroun claims the Company experienced a total revenue deficiency of  
20 \$388.2 million. Is this accurate?

21 A. No. The Company is utilizing a future test year for this case, the year ending October 31,  
22 2023. Therefore, the Company has not yet experienced a deficiency in revenue based on

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1 the expenses in the instant case, but *would* experience a revenue deficiency in the future  
2 test year based on the Company's projected costs and revenues.

3 Q. The Company contends that distribution system design cost is caused by the maximum  
4 demand placed on the system at a given voltage level and the number of customers  
5 served. Is this an accurate statement?

6 A. No. According to the NARUC Electric Utility Cost Allocation Manual (p. 90), "costs are  
7 incurred to serve area load, rather than a specific number of customers."

8 Capacity Revenue Requirement

9 Q. Is the Company proposing to use the same capacity cost method as ordered by the  
10 Commission in case U-20162?

11 A. No. The Company's capacity revenue requirement method is not consistent with the  
12 method ordered by the Commission in U-20162. The Company inappropriately included  
13 MISO Schedule 17 Market Administrative Costs as a fuel cost that offsets projected  
14 energy sales revenue. Staff used the method approved in U-20162 in the instant case;  
15 removing MISO Market Administration costs from the fuel cost calculation. Staff's  
16 overall capacity cost revenue requirement, as shown in Exhibit S-6 Schedule F-1.5, is  
17 \$1,538,293,000. Despite testifying in U-20561 that the Company's capacity charge  
18 calculation method adhered to the Commission's order in U-20162, the Company's  
19 inclusion of MISO Schedule 17 Administrative costs is in direct violation of that order:

20 Finding that the utility provided no convincing argument otherwise, the  
21 Commission also agrees with the Staff and the ALJ that MISO Schedule 17  
22 administrative costs should not be subtracted from projected energy sales revenue.  
23 (*MPSC Case No. U-20162. May 2<sup>nd</sup>, 2019 Order. p.132.*)  
24

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1           Staff's method in the instant case corrects the Company's error from U-20561 and  
2           adheres to the Commission order in U-20162.

3           Customer Charges

4           Q.     Is the Company proposing to use the same customer charge method ordered by the  
5           Commission in case U-20561?

6           A.     Yes. The customer charge calculation as shown in Exhibit S-6, Schedule F1.4, is  
7           consistent with Staff's methodology ordered by the Commission in U-20561.

8           Q.     Is the "Staff method" used to calculate all customer-related distribution costs as stated in  
9           Company witness Maroun's testimony?

10          A.     No. The "Staff method" referenced on page 4 of Company witness Maroun's testimony is  
11          only used to calculate the customer charge and does not contain *all* customer-related  
12          distribution costs – only those appropriate for inclusion in the customer charge.

13          Q.     Is Staff proposing to increase the residential customer charge?

14          A.     Yes. Based on the approved customer charge methodology, an increase in the residential  
15          customer charge to \$8.50 per month is warranted. This represents a \$1 increase to the  
16          \$7.50 residential customer charge currently in effect. This small increase, consistent with  
17          cost-of-service based rates and the rate design concept of gradualism, could help prevent  
18          a larger, more jarring increase in the future.

19          Uncollectibles allocation

20          Q.     Does Staff agree with the Company's proposed allocation of uncollectibles?

21          A.     No. The current method of allocating uncollectibles by its historical year contribution to  
22          net write-offs is inappropriate as it does not reflect the reality of the way uncollectible  
23          costs are incurred or how they should be borne by the classes.

**DIRECT TESTIMONY OF DANIEL J. GOTTSCHALK**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. What does Staff recommend?

2 A. Staff recommends allocating uncollectibles based on total revenue, as this reflects how  
3 the bills (that represent the amounts that may end up uncollectible) are determined. In  
4 addition, this method properly reflects the fact that expenses related to uncollectible  
5 accounts are a general cost of doing business. No different than any other utility, there  
6 will unavoidably be some customers who fail to pay their bills. Otherwise, there would be  
7 no uncollectible expense. Some customers will not pay their electric bill, but the number  
8 of similarly served customers has no effect on any particular customer's willingness or  
9 ability to pay their bill. Other customers have no bearing on the unique circumstance that  
10 leads to a customer's account becoming uncollectible. A customer on Residential Rate  
11 RSP that pays their bill in full has no more impact on an uncollectible account than a  
12 customer on Rate GPD that pays its bill in full. Uncollectible expense should be shared  
13 by all customers consistent with how their overall costs are recovered by the Company:  
14 by total revenue. This method is consistent with the uncollectibles allocation method  
15 approved by the Commission in U-20963, Consumers Energy's recent electric rate case.

16 Q. Does Staff have an alternative recommendation for uncollectibles allocation?

17 A. Yes. In the alternative, Staff recommends uncollectibles expense be allocated based on a  
18 3-year average of net write off data by class in future rate cases. Staff typically uses a 3-  
19 year average to project uncollectible expense. Accordingly, it would be appropriate to  
20 match the time periods used for the uncollectibles forecast with the time period used to  
21 calculate the allocator. Additionally, uncollectibles can vary significantly from year to  
22 year in total and between classes, making a 3-year average an appropriate method to  
23 smooth out the year-to-year fluctuations.

**DIRECT TESTIMONY OF DANIEL J. GOTTSCHALK**  
**CASE NUMBER U-20836**  
**PART II**

1     |     Q.     Does this complete your testimony?

2     |     A.     Yes, it does.

\* \* \* \*

**Case No. U-20836**

**May 19, 2022**



**QUALIFICATIONS OF KEVIN S. KRAUSE**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is Kevin S. Krause, and my business address is 7109 W. Saginaw Highway,  
3 Lansing, MI 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (Commission or MPSC) as a  
6 Gas Cost of Service Specialist within the Regulated Energy Division, Rates and Tariff  
7 Section.

8 Q. How long have you been employed by the MPSC and what are your duties?

9 A. I have been employed by the MPSC since February of 2009. I was assigned to the  
10 Revenue Requirements Section to analyze and make recommendations regarding Rate  
11 Base, Net Operating Income, and Depreciation issues in general rate cases and  
12 depreciation rate cases. In August of 2012, I was transferred to the Renewable Energy  
13 Section. In November of 2016, I was transferred to the Rates and Tariff Section.

14 Q. Please describe your educational background.

15 A. I graduated from the University of Michigan in 1990 with a Bachelor of Science degree  
16 in Nuclear Engineering. I received a Masters of Nuclear Engineering from the same  
17 school in 1991. I also received a Masters in Business Administration from Michigan  
18 State University in 1999. I have taken classes as part of the Certified Public Accountant  
19 preparation program at Lansing Community College. I also attended the Institute of  
20 Public Utilities - Regulatory Studies Program at Michigan State University. In the fall of  
21 2010, I completed the Depreciation Basics Training conducted by the Society of  
22 Depreciation Professionals (SDP).

23 Q. Please describe your professional background.

**QUALIFICATIONS OF KEVIN S. KRAUSE**  
**CASE NUMBER U-20836**  
**PART I**

1 A. From 1992 to 1997, I worked as a Nuclear Engineer for B & W Fuel Company in  
2 Lynchburg, Virginia. My duties there included performing fuel cycle analysis and related  
3 calculations. In 1998, I was a procurement intern with Public Service Electric and Gas  
4 Company of Newark, New Jersey. From 2002 to 2010, I was an adjunct professor of  
5 Mathematics at Lansing Community College.

6 Q. Have you previously presented testimony or helped develop the Commission Staff's  
7 (Staff) position in cases before the MPSC?

8 A. Yes, I have filed or developed Staff's position in the following cases with area of  
9 testimony specified:

10 U-15768: Detroit Edison Electric - AFUDC

11 U-15935: Alpena Power - Operations and Maintenance (O&M) Expense

12 U-15985: Michigan Consolidated Gas Case - Revenue Deficiency

13 U-15986: Consumers Energy Gas Case - Rate Base

14 U-16180: Indiana Michigan Electric Case - Rate Base

15 U-16166: Upper Peninsula Power Company – O&M Expense

16 U-16169: SEMCO Energy Gas Company – O&M Expense

17 U-16417: Upper Peninsula Power Company Electric Case - Revenue Deficiency

18 U-16475: Northern States Power Company Electric Case - Revenue Deficiency

19 U-16794: Consumers Energy Electric Case - Rate Base

20 U-16801: Indiana Michigan Electric Case - Rate Base

21 U-16855: Consumers Energy Gas Case - Rate Base

22 U-17026: Indiana Michigan Certificate of Necessity – Accounting

23 U-17303: Indiana Michigan Renewable Energy Plan

**QUALIFICATIONS OF KEVIN S. KRAUSE**  
**CASE NUMBER U-20836**  
**PART I**

1	U-17321: Consumers Energy 2012 Renewable Reconciliation
2	U-17323: Indiana Michigan 2012 Renewable Reconciliation
3	U-17429: Consumers Energy Certificate of Necessity – Accounting
4	U-17631: Consumers Energy 2013 Renewable Reconciliation
5	U-17632: DTE Electric 2013 Renewable Reconciliation - Rebuttal
6	U-17633: Indiana Michigan 2013 Renewable Reconciliation
7	U-17767: DTE Electric Rate Case – Certain Nuclear Expenses
8	U-17803: Consumers Energy 2014 Renewable Reconciliation
9	U-18014: DTE Electric Rate Case – Renewable Expenses
10	U-18090: Consumers Energy – Avoided Cost
11	U-18091: DTE Electric – Avoided Cost
12	U-18322: Consumers Energy – Standby Rates – Rebuttal
13	U-18255: DTE Electric – Standby Rates – Rebuttal
14	U-18259: Presque Isle Gas – Cost of Service and Rate Design
15	U-18424: Consumers Energy Gas Rate Case – Other Gas Revenue
16	U-18999: DTE Gas Rate Case – Other Gas Revenue and Rate Design
17	U-20106: DTE Gas – Credit A
18	U-20115: SEMCO Energy Gas Company – Credit A
19	U-20182: SEMCO Energy Gas Company – Credit B
20	U-20134: Consumers Energy Rate Case – Standby and Electric Vehicle Rates
21	U-20162: DTE Electric Rate Case – DG tariff, Standby and Electric Vehicle Rates
22	U-20276: UPPCO Electric Rate Case – Rate Design
23	U-20479: SEMCO Gas Rate Case – Cost of Service

**QUALIFICATIONS OF KEVIN S. KRAUSE**  
**CASE NUMBER U-20836**  
**PART I**

- |   |                                                                                  |
|---|----------------------------------------------------------------------------------|
| 1 | U-20359: Indiana Michigan Rate Case – Demand Charge pilot and DG tariff rebuttal |
| 2 | U-20561: DTE Electric - DG tariff rebuttal                                       |
| 3 | U-20642: DTE Gas Rate Case – Cost of Service                                     |
| 4 | U-20650: Consumers Energy Gas Rate Case – Cost of Service                        |
| 5 | U-20697: Consumers Energy Electric Rate Case - DG Tariff                         |
| 6 | U-20940: DTE Gas Rate Case – Cost of Service                                     |
| 7 | U-20718: MGU Gas Rate Case – Cost of Service                                     |
| 8 | U-21090: Consumers Energy Integrated Resource Plan                               |
| 9 | U-21148: Consumers Energy Gas Rate Case – Cost of Service                        |

**DIRECT TESTIMONY OF KEVIN S. KRAUSE**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to make a recommendation for Staff's position on the  
3 outflow credit of Rider 18.

4 Q. Are you filing any exhibits?

5 A. No.

6 Q. On page 4 of Company witness Foley's testimony the concept of "optionality" is  
7 introduced and then explained further in subsequent pages. How is the Company  
8 proposing to apply optionality to DG customers?

9 A. The Company is clearly proposing to take optionality away from DG customers. By  
10 designing rate D1.12 and then requiring DG customers (Rider 18) customers to use that  
11 as a base rate, the company is taking away the option for residential customers to have a  
12 different base rate to which Rider 18 can be applied. While Company witness Foley  
13 testifies to the importance of providing optionality to customers, that importance does not  
14 seem to extend to DG customers.

15 Q. Beginning on page 61 of direct testimony Company witness Foley discusses cost shifts  
16 related to Rider 18. Does Staff agree with the witness' description of cost shifts??

17 A. Only partially, and Staff disagrees with the recommended changes associated with them.  
18 Intra-class subsidies have always existed; they are a necessary feature of rates that are  
19 based on average costs for a group of similarly served customers rather than individual  
20 rates. Some customers are connected to more expensive circuits, but they don't, and  
21 likely shouldn't, pay more due to the relatively higher expense. Other customers are  
22 connected closer to the substation, but they don't, and likely shouldn't, pay less due to  
23 that difference in distance. These cost differences are likely due to the way the system

**DIRECT TESTIMONY OF KEVIN S. KRAUSE**  
**CASE NUMBER U-20836**  
**PART II**

1 happened to expand over the years, the amount of time the equipment has been in place  
2 (including how depreciated it is), etc. In other words, the customers are not directly  
3 responsible through their choices for many of the differences in costs to serve them.  
4 Also, some customers lessen their bills through energy waste reduction (EWR), even  
5 though they may rely on the same assets for service as they did before EWR. Both EWR  
6 and DG are capable of reducing the customer requirements served by the utility.  
7 However, there are a few principal differences of great magnitude. The primary one is  
8 that EWR will never export energy to the utility. This difference, however, is not  
9 appropriately considered as a difference in how usage reductions or subsidies/cost shifts  
10 should be treated. In Staff's opinion, the sale of energy to the customer and the  
11 compensation for outflow are two separate transactions, hence the use of what has been  
12 called "instantaneous netting", or the inflow/outflow method. Additionally, EWR is  
13 basically incapable of reducing a customer to no net load served by the utility.  
14 Conversely, energy that is generated and consumed on-site can look a lot like EWR.  
15 However, the fact that these differences are well within the normal variation within the  
16 class' usage characteristics, DG customers should not be treated as a separate class,  
17 which is what any solution that does not involve modifying the rates of the entire class  
18 would effectively entail. The Company has not demonstrated that the intra-class subsidies  
19 of the proposed DG tariff are more significant than the many other intra-class subsidies  
20 that are already known to exist.

21 Q. Is the current tariff a significant improvement over Net Energy Metering (NEM)?

22 A. Yes. The current tariff better reflects the appropriate cost-of-service for the individual  
23 customer and reflects how specific customers use the Company's system. For customers

**DIRECT TESTIMONY OF KEVIN S. KRAUSE**  
**CASE NUMBER U-20836**  
**PART II**

1       who reduce their total inflow, just as in the EWR example above, they will save money  
2       on their total bills received from the Company. While it will not capture each customer's  
3       precise cost-of-service, rates should not be expected to do so, they should only send a  
4       reasonable price signal.

5   Q.   On pages 51 and 52 of Company witness Foley's Direct Testimony he describes the  
6       outflow credit structure as deficient based on comparison of two customers, does Staff  
7       agree?

8   A.   No. The comparison does not result in the deficiency described. The Company fails to  
9       mention that if the same two customers did not have DG that their inflow at these times  
10      would also be charged different rates. Having outflow at these times paying different  
11      rates does not constitute a deficiency in rate design any more than having inflow charged  
12      differently at these same times.

13      What instead is happening is that two customers have selected different rates with  
14      different structures and, due to the nature of when the customers are exporting, one is  
15      receiving more credit than the other. If a rainstorm or heavy cloud cover happened to  
16      occur in this timeframe the customer that received more credit in the Company example  
17      would also pay more for service. Additionally, the TOU rate more closely represents the  
18      correct timing in the cost-to-serve as the likely times when the peak occurs are  
19      represented by higher rates.

20      The rate schedules being compared will collect the reasonably appropriate revenue  
21      requirement on an annual basis whether these two customers have or do not have DG.

22      Rider 18 as an addendum to either rate design is functioning as designed and is in no way  
23      deficient. In fact, as the non-time-varying rate does not appropriately reflect the cost

**DIRECT TESTIMONY OF KEVIN S. KRAUSE**  
**CASE NUMBER U-20836**  
**PART II**

1 differences across time periods, it is likely that the customer on the non-time-varying rate  
2 is the one whose rates less appropriately reflect the value of the outflow.

3 Q. The Company proposes that outflow should be compensated at Location Marginal Price  
4 (LMP), does Staff agree?

5 A. No. This is not the appropriate rate nor is the Company proposed methodology the  
6 appropriate methodology for compensating outflow, as I will discuss further. The  
7 appropriate capacity compensation for outflow is further addressed in the Direct  
8 Testimony of Staff witness Cody Matthews.

9 Q. Please describe the Company proposal for valuing DG outflow?

10 A. The Company describes its proposal for outflow on pages 57 and 58 of Company witness  
11 Foley's testimony. In Staff's words, it is the LMP averaged over the appropriate TOU  
12 period with an adder for avoided line loss.

13 Q. Why is this an inappropriate price signal?

14 A. Due to the recommended Company procedure the compensated price for outflow is not  
15 known at the time that the potential outflow exists. The phrase potential outflow is used  
16 here because the customer could choose different behaviors if the actual price were  
17 known. If the customer knew that the value of the outflow was low, they may choose to  
18 shift load into that period of time and use more generation behind the meter. Similarly, if  
19 the customer knew the value of the outflow was high, they may choose to shift load out  
20 of that time period in order to export more. The issue here is that the credit for the  
21 outflow is not known until well after events have occurred and decisions have been made.  
22 The situation becomes even more dramatic if the customer's system also includes  
23 storage. Decisions for when to charge, and when to discharge need to have clear price



**DIRECT TESTIMONY OF KEVIN S. KRAUSE**  
**CASE NUMBER U-20836**  
**PART II**

1 signals. Even if these decisions are automated such that customer intervention is not  
2 required in these decisions, the decisions are still based on price signals that if not known  
3 at the time would need to be projected. This is beyond the reasonable expectation of  
4 most if not all residential customers.

5 Q. Is it Staff's position that the credit for outflow needs to be known in advance?

6 A. Yes. For the customer to make decisions about load shifting and storage, the credit for  
7 outflow needs to be known in advance.

8 Q. What is Staff's recommendation for the outflow credit?

9 A. In combination with Staff witness Cody Matthew's testimony on the capacity value of  
10 outflow, and Staff witness Nicholas Revere's testimony on transmission, Staff  
11 recommends that the outflow credit be established at power supply inclusive of  
12 transmission.

13 Q. Any further recommendations relating to the DG tariff?

14 A. Yes. Line 15 of Schedule B5.7.3 is an IT project for \$398,000 related to the Company's  
15 proposed LMP outflow credit. In line with Staff's recommendation for outflow, Staff is  
16 also recommending that this amount be removed from the IT projections.

17 Q. Does this conclude your testimony?

18 A. Yes.

STATE OF MICHIGAN  
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

\* \* \* \*

In the matter of the application of DTE )	
Electric Company for authority to increase )	
its rates, amend its rate schedules and rules )	Case No. U-20836
governing the distribution and supply of )	
electric energy, and for miscellaneous )	
<u>accounting authority</u> )	

**QUALIFICATIONS AND DIRECT TESTIMONY OF**  
**JAMES E. LA PAN**  
**MICHIGAN PUBLIC SERVICE COMMISSION**

May 19, 2022

**QUALIFICATIONS OF JAMES E. LA PAN**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is James E. LaPan and my business address is 7109 West Saginaw Highway,  
3 Lansing, MI.

4 Q. Who are you currently employed by and in what position?

5 A. My employer is the Michigan Public Service Commission (MPSC or Commission) and my  
6 job title is Public Utility Engineer.

7 Q. What are your responsibilities in your current position?

8 A. My current responsibilities consist of assisting with Staff's analysis of natural gas and  
9 electric utility depreciation rate case filings. This includes determining the remaining book  
10 value of current assets, performing life and net salvage analysis, and reviewing the terminal  
11 cost estimates associated with decommissioning retired plants. Also, I assist with  
12 performing compliance and prudence reviews of utility environmental response and  
13 remediation costs associated with historic Manufactured Gas Plant (MGP) Facility  
14 remediation, as presented in utility natural gas rate case filings. Furthermore, upon request,  
15 I am involved in studies of all facilities in former and current natural gas and electric utility  
16 plants under MPSC jurisdiction. Such studies are conducted through on-site review and  
17 examination via walk-throughs, along with interviews with Company subject matter expert  
18 personnel of each facility as needed. Additional reviews of facility operations,  
19 environmental compliance, asset retirement obligation, system and site integrity, and plant  
20 demolition and decommissioning costs are also part of my duties. As requested, I have  
21 provided technical presentations regarding specialized topics of interest; most recently, this  
22 involved an internal Commission Staff training session where I presented an explanation

**QUALIFICATIONS OF JAMES E. LA PAN**  
**CASE NUMBER U-20836**  
**PART I**

1 of the review criteria for MGP remediation activities and costs and how compliance and  
2 prudence are determined.

3 Q. Would you please describe your educational background and work experience?

4 A. I earned a Bachelor of Science in Biosystems Engineering from Michigan State University  
5 (MSU) in August 2006. Prior to attending MSU, I was in the honors program at Delta  
6 College. While attending Delta College, I was employed at the Delphi Corporation as an  
7 engineering apprentice from May 2000 through August 2002. During this apprenticeship,  
8 I worked with engineering professionals to address technical issues, including state and  
9 federal regulatory compliance issues related to onsite electric generation, hazardous  
10 material handling, and wastewater treatment. I was directly involved in the activities  
11 surrounding the decommissioning and demolition of Delphi's Chassis Plant 2. I was also  
12 involved in the development of several programs and operational procedures that dealt with  
13 the capture and reuse of spent materials, in particular, waste sludge from Delphi's  
14 wastewater treatment facility. After transferring to MSU, I was employed by the Statewide  
15 Planning Section of the Michigan Department of Transportation (MDOT) in a student  
16 assistant position from June 2005 through June 2006. My duties included providing  
17 technical support for the implementation and assignment of federal grant money under the  
18 Congestion Mitigation and Air Quality Control (CMAQ) program for project proposals  
19 submitted. My assistance with the development of modeling and forecasting programs was  
20 used to aid in the qualification, quantification, and prioritization of those proposals.

21 Q. Have you attended any additional courses of study or any professional seminars?

22 A. Yes. I have regularly attended the annual meetings and attended the following classes  
23 offered by the Society of Depreciation Professionals (SDP): "Depreciation Basic," "Life

**QUALIFICATIONS OF JAMES E. LA PAN**  
**CASE NUMBER U-20836**  
**PART I**

and Net Salvage Analysis,” “Analyzing the Life of Real-World Property,” and “Preparing and Defending a Depreciation Study” in September 2012, September 2013, September 2014, and September 2015, respectively. I last participated in annual training at the Society of Depreciation Professionals in 2017. While employed at the MPSC, I attended the Electric Utility Consultants, Inc. (EUCI) annual conference on “Plant Retirement and Remediation: Mitigating Risk, Cost and Liability of Deactivated Assets” and the Institute of Public Utilities (IPU) advanced regulatory studies program. I last participated in annual training seminars in depreciation of regulated utilities provided by the National Association of Regulatory Utility Commissioners (NARUC) in 2018. In August 2006, I attended NARUC’s two-week training program for regulatory professionals held each year on the campus of Michigan State University.

Q. Have you prepared testimony for any other proceedings?

A. Yes. I have prepared testimony for the following proceedings:

<u>Case Number</u>	<u>Company</u>	<u>Subject/Type</u>
U-15506	Consumers Energy Company	Rate Case
U-15702	SEMCO Energy Gas Company	GCR Plan Case
U-15985	Michigan Consolidated Gas Co.	Rate Case
U-15896	Consumers Energy Gas Company	Rate Case
U-16125	SEMCO Energy Gas Company	Capacity
Improvement		
U-16117	Detroit Edison	Depreciation Case
U-16418	Consumers Energy Company	Rate Case
U-16054	Consumers Energy Company	Depreciation Case

**QUALIFICATIONS OF JAMES E. LA PAN**  
**CASE NUMBER U-20836**  
**PART I**

	<u>Case Number</u>	<u>Company</u>	<u>Subject/Type</u>
1			
2	U-16055	Consumers Energy & Detroit Edison	Depreciation Case
3	U-16801	Indiana Michigan Power Company	Rate Case
4	U-16855	Consumers Energy Company	Rate Case
5	U-16938	Consumers Energy Company	Depreciation Case
6	U-16999	Michigan Consolidated Gas Company	Rate Case
7	U-16991	DTE Electric Company	Depreciation Case
8	U-17643	Consumers Energy Company	Rate Case
9	U-17882	Consumers Energy Company Gas	Rate Case
10	U-18124	Consumers Energy Company Gas	Rate Case
11	U-18424	Consumers Energy Company Gas	Rate Case
12	U-18452	SEMCO Energy Gas Company	Depreciation Case
13	U-18467	UPPCo	Depreciation Case
14	U-20118	DTE Gas Company	Depreciation Case
15	U-20322	Consumers Energy Gas	Rate Case
16	U-20359	Indiana Michigan Power Company	Depreciation Case
17	U-20479	SEMCO Energy Gas Company Gas	Rate Case
18	U-20642	DTE Gas Company Gas	Rate Case
19	U-20650	Consumers Energy Gas	Rate Case
20	U-20940	DTE Gas Company	Rate Case
21	U-21148	Consumers Energy Gas	Rate Case

**DIRECT TESTIMONY OF JAMES E. LA PAN**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to present Staff's findings and support recommendations  
3 regarding the i) reasonableness and prudence of requesting recovery of capital expenses  
4 related to the cost of removal (COR) for retirement of plant in service, and ii) Detroit  
5 Edison Electric's (DTE or the Company) capital investments for Facilities, specifically  
6 "Service Center Optimization".

7 Q. Are you supporting any exhibits in this case?

8 A. No.

9 **Capital Costs of Retirement Recommendations on Reasonableness and Prudence**

10 Q. Has DTE requested recovery of costs in this case that are associated with the retirement of  
11 plant in service?

12 A. Yes. The Company's Exhibit A-12, Schedule B5.1, page 2 lines 10 through 20 itemizes  
13 their requested recovery of capital expenditures associated with the retirement and  
14 decommissioning of steam powered generation facilities and closure costs associated with  
15 the removal of coal combustion residuals (CCR) and retirement of CCR basins at various  
16 Company owned sites.

17 Q. Is a general rate case typically where the Commission Staff and other intervening parties  
18 review and assess the underlying assumptions and methodologies supporting the estimated  
19 costs for retirement and/or closure of plant?

20 A. No. Typically, the retirement, closure, and decommissioning plans for plant in service,  
21 and their supporting cost estimates, are fully vetted within a depreciation rate case<sup>1</sup>. A

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<sup>1</sup> For example, refer to the Commission's June 16, 2011 Order in depreciation Case No. U-16117, page 9 through page 16.

**DIRECT TESTIMONY OF JAMES E. LA PAN**  
**CASE NUMBER U-20836**  
**PART II**

1 depreciation case provides the Staff and intervenors the opportunity to review the estimated  
2 costs for retirement of depreciated plant as well as the Company's proposed methodologies  
3 for decommissioning, for reasonable and prudence. In the current case, the Company has  
4 identified costs already, or projected to be, incurred due to certain retirements.

5 Q. Were these currently incurred or projected costs reviewed in the Company's most recently  
6 approved depreciation case?

7 A. No. The costs of removal or retirement were not subject to review in the Company's  
8 previous depreciation case, MPSC Case No. U-18150.

9 Q. What was the result of the Company's last depreciation case, Case No. U-18150?

10 A. In Case No. U-18150, the Commission approved a settlement agreement in a December 6,  
11 2018 Order. That settlement agreement obligates the Company to provide Staff and  
12 ABATE the opportunity to reconcile costs associated with plant retirements. This is to  
13 occur immediately following the acceptance of firm removal bids<sup>2</sup>. However, neither Staff  
14 nor ABATE were provided this opportunity<sup>3</sup>.

15 Q. What is Staff's recommendation considering DTE has not provided Staff and ABATE an  
16 opportunity to reconcile costs associated with the plant retirements immediately following  
17 the acceptance of form removal bids as required by the settlement agreement in U-18150  
18 and the lack of support for non-routine costs of retirement presented in the instant case?

19 A. Staff witnesses DeCooman is recommending an adjustment to the cost of removal  
20 expenditures in this case. Staff witness Nichols is recommending deferred accounting for  
21 those costs. Additionally, Staff recommends the Commission not allow DTE to recover in

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<sup>2</sup> See item no. 5 on page 2 and page of Exhibit A attached to the Commission's December 6, 2018 Order in Case No. U-18150.

<sup>3</sup> Exhibit S-10.1, p. 5



**DIRECT TESTIMONY OF JAMES E. LA PAN**  
**CASE NUMBER U-20836**  
**PART II**

1 rates these specific amounts supported by Staff witness DeCooman for the expenditures  
2 associated with the cost of removal/retirement until the Company complies with the  
3 Commission's Order in U-18150. After DTE has provided Staff and ABATE opportunity  
4 to review and reconcile the costs DTE should resubmit their recovery request in a  
5 subsequent rate case.

6 **Facilities – Service Center Optimization**

7 Q. Please explain Staff's recommended adjustment regarding the Service Center Optimization  
8 of the Wixom pole yard.

9 A. Staff recommends the removal of \$4.5 million in capital expenditures from the Company's  
10 request as seen in Company witness Uzenski's Exhibit A-12, Schedule B5.8. A breakdown  
11 of this adjustment would reduce the Company's spend \$1,667,000 in the 10-month bridge  
12 period ending October 31, 2022 and \$2,833,000 in the test year.

13 Q. Had DTE previously conceded this adjustment?

14 A. Yes. In the Company's response to the Attorneys General discovery AGDE-9.304d,  
15 Company witness Uzenski conceded to the adjustment which Staff is adopting.

16 Q. Is this adjustment reflected in the Staff's revenue deficiency in its initial filing?

17 A. No. Regarding my recommendation for the above adjustment, it should be noted that my  
18 analysis concluded after Staff's revenue deficiency was finalized. Thus, the impact of this  
19 adjustment is not reflected in the testimony and exhibits of other Staff witnesses or in the  
20 Staff's revenue deficiency supported by Staff witness Nichols. However, all impacts of  
21 this adjustment will be included in Staff's Brief.

22 Q. Does this conclude your testimony at this time?

23 A. Yes.

\* \* \* \*

**Case No. U-20836**

**May 19, 2022**

**QUALIFICATIONS OF THERESA MCMILLAN-SEPKOSKI**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is Theresa L. McMillan-Sepkoski. My business address is 7109 West  
3 Saginaw Hwy, Lansing MI, 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or  
6 Commission) as an Audit Specialist in the Revenue Requirements Section of the  
7 Regulated Energy Division.

8 Q. What is your educational background?

9 A. I graduated in 1981 from Mott Community College with an A.A.S. degree in  
10 Accounting with a minor in Business Management. In June 2006, I graduated  
11 from Baker College with highest honors and a B.B.A. degree with emphasis in  
12 Accounting. Since becoming employed here at the Commission, I have  
13 participated in numerous MPSC training sessions and attended the National  
14 Association of Regulatory Utility Commissioners (NARUC) Advanced  
15 Regulatory Studies Program.

16 Q. Please describe your professional background.

17 A. Prior to my employment at the MPSC, I worked in accounting in the public and  
18 private sector for sixteen years after receiving my associate degree. I began my  
19 employment at the Shiawassee County Health Department as an Accounts  
20 Processor. From there my experience in accounting came from working for  
21 Federal Forge Inc., also known as Bharat Forge Ltd. from an entry level position  
22 in Accounts Payable and promoted to Controller. After that I worked for CSI Inc.  
23 as an Assistant Controller/Human Resource Administrator. In December 2006,

**QUALIFICATIONS OF THERESA MCMILLAN-SEPKOSKI**  
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**PART I**

1       having completed my bachelor's degree, I began my employment with the  
2       Michigan Public Service Commission and have continued through the present.

3       Q.     Briefly discuss your experience with the MPSC.

4       A.     I have served as the lead auditor, case coordinator, and performed audit work in  
5       many types of cases for the MPSC. The types of cases have been gas and electric  
6       rate cases, Power Supply Cost Recovery (PSCR) and Gas Cost Recovery (GCR)  
7       reconciliation cases, Cooperative Times Interest Earned Ratio (TIER) review  
8       cases, and various tracking mechanism cases. I have also testified before the  
9       Commission on previous Revenue Requirement rate cases.

10      Q.     Have you previously filed testimony before the MPSC?

11      A.     Yes, I have filed testimony in the following cases:

12           U-15190 – Consumers Energy Company Gas Rate Case

13           U-15244 – Detroit Edison Company Electric Rate Case

14           U-15245 – Consumers Energy Company Electric Rate Case

15           U-15506 – Consumers Energy Company Gas Rate Case

16           U-16034-R – Wisconsin Electric Power Co. 2010 PSCR Reconciliation

17           U-16149-R – Consumers Energy Co. 4/10 – 3/11 GCR Reconciliation

18           U-16424-R – Wisconsin Electric Power Co. 2011 PSCR Reconciliation

19           U-17095-R – Consumers Energy Co. 2013 PSCR Reconciliation

20           U-17130-R – Michigan Gas Utilities Corporation 4/13 - 3/14 GCR Reconciliation

21           U-17133-R – Consumers Energy Co. 4/13 – 3/14 GCR Reconciliation

22           U-17317-R – Consumers Energy Co. 2014 PSCR Reconciliation

23           U-17334-R – Consumers Energy Co. 4/14 – 3/15 GCR Reconciliation

**QUALIFICATIONS OF THERESA MCMILLAN-SEPKOSKI**  
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1	U-17691-R – DTE Gas 4/15 – 3/16 GCR Reconciliation
2	U-18124 – Consumers Energy Co. Gas Rate Case
3	U-18250 – Consumers Energy Co. Securitization Case
4	U-20134 – Consumers Energy Co. Electric Rate Case
5	U-20162 – DTE Electric Rate Case
6	U-20276 – Upper Peninsula Power Co. Electric Rate Case
7	U-20322 – Consumers Energy Gas Rate Case
8	U-20479 – SEMCo Energy Gas Co. Gas Rate Case
9	U-20561 – DTE Electric Rate Case
10	U-20642 – DTE Gas Rate Case
11	U-20650 – Consumers Energy Gas Rate Case
12	U-20697 – Consumers Energy Electric Rate Case
13	U-20940 – DTE Gas Rate Case
14	U-20963 – Consumers Electric Rate Case
15	U-21148 – Consumers Gas Rate Case

**DIRECT TESTIMONY OF THERESA MCMILLAN-SEPKOSKI**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to present the Michigan Public Service Commission Staff's  
3 (Staff) adjustments to DTE Electric Company's (the Company, or DTE) projected Employee  
4 Incentive Compensation Plan (EICP) costs included in Operations and Maintenance Expense  
5 (O&M), Restricted Stock included in the revenue requirement, and Merchant Fees O&M  
6 expense for the test year ending October 31, 2023.

7 Q. Are you sponsoring any exhibits in this proceeding?

8 A. Yes, I am sponsoring the following exhibits:

9 Exhibit    Title

10 S-8.0        Company Witness M. Cooper Testimony, Table 3

11 S-8.1        Incentive Compensation Payout-Co. Response TMS-2.1

12 S-8.2        Restricted Stock in Revenue Requirement-Co. Response TMS-5.1a

13 S-8.3        DTE Energy Company Long-Term Incentive Plan Booklet

14 S-8.4        Customer Payment Plan Invoicing 3-Year Average %

15 S-8.5        Merchant Fee Company Projection vs Actual Costs-Co. Response TMS-1.1

16 **Employee Incentive Compensation Plan (EICP) Expense**

17 Q. Please describe DTE Electric's EICP.

18 A. DTE's EICP is a component of the Company's variable pay programs to both executive and non  
19 represented employees. There are three programs included in EICP: 1) the Annual Incentive  
20 Plan (AIP), which is a short-term program available to senior management level personnel; 2)  
21 the Rewarding Employees Plan (REP), which is identical to AIP except that the threshold  
22 Performance percentage is different; and 3) the Long-Term Incentive Plan (LTIP), which  
23 provides an incentive payout to certain individuals in the form of DTE Energy common stock.

**DIRECT TESTIMONY OF THERESA MCMILLAN-SEPKOSKI**  
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**PART II**

1        These programs are related to financial and non-financial performance objectives.

2        Q.     What is the Company's projected expense for EICP?

3        A.     The Company projected \$63,763,000 for the projected test-year ending October 31, 2023, with  
4        \$42,537,000 related to the achievement of financial performance measures (which is the total of  
5        \$41,473,000 in financial measures and \$1,064,000 LTIP for Nuclear Generation), and  
6        \$21,225,000 related to non-financial operating objectives. (See Staff Exhibit S-8.0 and Staff  
7        Exhibit S-8.1).

8        Q.     Has the Commission provided a decision on EICP in previous rate cases?

9        A.     Yes. Commission decisions to exclude incentive compensation related to financial measures  
10       from the revenue requirement in preceding rate cases were founded on two premises. First, the  
11       Commission found that incentive compensation plans that were tied to Company earnings and  
12       cash flow were financial considerations that largely benefited shareholders and should not be  
13       paid for by ratepayers. See MPSC Case No. U-14347, Opinion and Order, December 22, 2005, p  
14       35. Second, the Commission has found that long-term incentive compensation is tied closely to  
15       company earnings and cashflow that benefits the shareholders more than the ratepayers. See  
16       MPSC Case No. U-17735, Order, November 19, 2015, p 78. In MPSC Case No. U-17767,  
17       Order, December 11, 2015, pgs. 76-77, the Commission found there was insufficient evidence to  
18       conclude that the financial measures for short term incentives (AIP and REP) showed significant  
19       benefit to ratepayers. Most recently in MPSC Case No. U-20561, Order, May 8, 2020, pg. 19,  
20       the Commission has disallowed any capitalized amounts of incentive compensation that are  
21       based upon financial measures to be included in rates. The following are more recent cases in  
22       which financially measured incentive compensation has been excluded from the revenue  
23       requirement by the Commission:

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**PART II**

1 - Case No U-17735, 11/19/2015 Order, (Consumers Energy electric rate case)

2 -Case No. U-18124, 7/31/17 Order, (Consumers Energy gas rate case)

3 -Case No. U-18322, 3/29/18 Order, (Consumers Energy electric rate case)

4 -Case No. U-18999, 9/13/18 Order (DTE Gas Company gas rate case)

5 -Case No. U-20162, 5/2/19 Order (DTE Electric Company rate case)

6 -Case No. U-20322, 9/26/19 Order (Consumers Energy gas rate case)

7 -Case No. U-20561, 5/8/20 Order (DTE electric rate case)

8 -Case No. U-20697, 12/17/20 Order (Consumers Energy electric rate case)

9 -Case No. U-20940, 12/9/21 Order (DTE gas rate case)

10 -Case No. U-20963, 12/22/21 Order (CE electric rate case)

11 Q. What is Staff's understanding of the Commission's policy for EICP expenses?

12 A. The Commission has excluded capitalized and O&M incentive compensation expense that is  
13 based upon financial performance measures from the revenue requirement on the basis that  
14 shareholders specifically benefit from financial performance measures such as return on equity  
15 and cash flow, whereas ratepayers specifically benefit from non-financial measures related to  
16 reliability and customer satisfaction.

17 Q. What is Staff's recommendation regarding the Company's request for inclusion of EICP expense  
18 in this case?

19 A. Staff recommends the Commission find the inclusion of the EICP for non-financial performance  
20 measures in the amount of \$21,225,000 is reasonable (See Staff Exhibit S-8.1). Staff  
21 recommends that the \$42,537,000 of EICP related to the achievement of financial performance  
22 measures should be disallowed.



**DIRECT TESTIMONY OF THERESA MCMILLAN-SEPKOSKI**  
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**Restricted Stock**

Q. Please describe the Restricted Stock included in the revenue requirement.

A. The Company states in Staff Exhibit S-8.3 that LTIP is awarded with Restricted Stock or performance shares. Both awards are based on DTE Energy Company stock prices, which is a financial measure used by the Company to determine the amount of the award. Restricted Stock is considered as a reward to employees for assisting the Company in reaching its financial performance goals. See Staff Exhibit S-8.3, pages 2-3 of 8. Per Company response Staff Exhibit S-8.2, the amount of compensation in the form of Restricted Stock included in the revenue requirement is \$5,857,000. The Company indicated this amount was included in O&M in the projected test period (Exhibit A-13, Schedule C1, Line 4).

The Commission has repeatedly disallowed any portion of compensation related to financial measures to be included in the revenue requirement. In MPSC Case No. U-20561, Order, May 8, 2020, pgs. 202-203, the Commission agreed with the recommendation of the ALJ that Staff correctly analyzed the Restricted Stock as an expense that should be excluded.

Q. Please explain Staff's recommended disallowance for Restricted Stock.

A. Since the Commission has repeatedly disallowed any portion of compensation related to financial measures to be included in the revenue requirement, Staff is recommending a disallowance of Restricted Stock in the amount of \$5,857,000.

**Merchant Fees**

Q. Please explain Merchant Fees.

A. When customers opt to pay their utility bill with a credit/debit card, there is a transaction fee assessed to that customer by their credit/debit card issuer. DTE began taking over the cost to

**DIRECT TESTIMONY OF THERESA MCMILLAN-SEPKOSKI**  
**CASE NUMBER U-20836**  
**PART II**

1       these individual customers paying with credit/debit card by socializing said costs. DTE believes  
2       that this service enhances their customers experience and satisfaction.

3       Q.     When did DTE Electric request to have these fees socialized in a rate case?

4       A.     DTE Electric requested to have these fees eliminated for the individual customer paying with a  
5       credit/debit card and socialize the costs among the rate classes approved for this use in MPSC  
6       Case No. U-18255. In MPSC Case No. U-20162, the Commission approved DTE Electric's  
7       request to socialize Merchant Fees but prohibited larger industrial customers and secondary  
8       choice customers from using credit/debit cards, in order to reduce the cost of socializing the  
9       merchant fee.

10      Q.     What is the Company requesting in this present case concerning Merchant Fees?

11      A.     The Company is requesting an increase from the historical test period merchant fees of \$10.456  
12      million to the projected test period amount of \$20.522 million (Exhibit A-13, Schedule C5.7.1,  
13      Line 10; Exhibit A-13, Schedule C5, Line 7).

14      Q.     What has the Company previously projected for Merchant Fees compared to actual costs?

15      A.     Staff requested this information from the Company, and it responded with the answer in Staff  
16      Exhibit S-8.5. As presented on this Exhibit, for 2019 through 2020, the Company was very close  
17      in its projections compared to actuals. For 2021, the Company has overly projected the costs for  
18      Merchant Fees by \$3.2 million. For 2019, 2020, and 2021, the actual costs were \$12.4 million,  
19      \$13.7 million, and \$13.9 million. For the test year, the Company is requesting \$20.5 million,  
20      which is a 54% increase over the historic three-year average of \$13.3 million.

21      Q.     What is Staff proposing in this case?

22      A.     Staff is proposing a disallowance of \$2,972,836 for the projected test period based on 1) a three  
23      year average percent increase in credit/debit card use based on third party vendor invoicing (See

**DIRECT TESTIMONY OF THERESA MCMILLAN-SEPKOSKI**  
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1        Staff Exhibit S-8.4), and 2) a slightly more conservative and accurate projection for the test year.  
2        Staff's calculation of \$17,549,164 for the projected test year is an appropriate amount to include  
3        in rates.  
4        Q.     Does this conclude your testimony?  
5        A.     Yes, it does.

✿ ✿ ✿ ✿

**Case No. U-20836**

**May 19, 2022**

**QUALIFICATIONS OF ROBERT F. NICHOLS II, CPA**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is Robert F. Nichols II, and my business address is 7109 West Saginaw  
3 Highway, Lansing, MI 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (Commission or  
6 MPSC) as the Manager of the Revenue Requirements Section of the Regulated  
7 Energy Division.

8 Q. How long have you been employed by the MPSC and what are your duties?

9 A. I have been employed by the MPSC since November of 2011. As Manager of the  
10 Revenue Requirements Section, I am primarily responsible for the planning and  
11 direction of electric and gas rate case audits and presentations, as well as cases  
12 involving accounting standards and requests for accounting authority. From 2011  
13 through March 2016, as an Auditor within the Revenue Requirements Section, my  
14 responsibilities included auditing, analyzing, and making recommendations  
15 regarding utility revenues, expenses, and rate base.

16 Q. Please describe your educational background.

17 A. I graduated from Davenport University, with highest honors, in 2009 with a  
18 Bachelor of Business Administration degree in Accounting Information  
19 Management. I attended a regulation and ratemaking conference hosted by the  
20 Michigan State University Institute of Public Utilities (MSU IPU) in May of  
21 2012. In August of 2012, I attended the National Association of Regulatory  
22 Utility Commissioners (NARUC) annual two-week Regulatory Studies Program  
23 held at Michigan State University. Each August from 2013 through 2016 and in

**QUALIFICATIONS OF ROBERT F. NICHOLS II, CPA**  
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1        2019, I attended the Annual Regulatory Studies Program hosted by MSU IPU. I  
2        also attended a one-week Advanced Regulatory Studies Program in fall of 2013,  
3        2014, and 2016, hosted by MSU IPU.

4        Q.     Please describe your professional background.

5        A.     Prior to coming to the MPSC, from 2000 to 2011, I was employed by Genesee  
6        Cut Stone & Marble Company. My duties there included sales, drafting, and  
7        estimating.

8        Q.     Do you have any professional licenses?

9        A.     Yes. I am a Certified Public Accountant, licensed by the State of Michigan.

10       Q.     Have you prepared testimony or assisted in any other proceedings?

11       A.     I have assisted or filed testimony in the following cases:

<u>Case No.</u>	<u>Company</u>	<u>Subject/Type</u>
U-16855	Consumers Energy Co. Gas	Rate Case
U-16969	SEMCO Energy Gas Company	Merger and Acquisition
U-16794	Consumers Energy Co. Electric	Rate Case
U-16999	Michigan Consolidated Gas Co.	Rate Case
U-16855	Consumers Energy Co. Gas	Self-Implementation Refund
U-17087	Consumers Energy Co. Electric	Rate Case
U-17197	Consumers Energy Co. Gas	Rate Case
U-17273	Michigan Gas Utilities Corp.	Rate Case
U-17274	Upper Peninsula Power Co.	Rate Case
U-17440	Consumers Energy Co. Electric	Self-Implementation Refund
U-17488	Northern States Power Co. Gas	Rate Case

**QUALIFICATIONS OF ROBERT F. NICHOLS II, CPA**  
**CASE NUMBER U-20836**  
**PART I**

1	U-16999	DTE Gas IRM	Reconciliation
2	U-17620	Consumers Energy Co.	OPEB Trust Funding
3	U-17643	Consumers Energy Co. Gas	Rate Case
4	U-17669	WPSC Electric	Rate Case
5	U-17735	Consumers Energy Co. Electric	Rate Case
6	U-17882	Consumers Energy Co. Gas	Rate Case
7	U-17999	DTE Gas Company	Rate Case
8	U-18014	DTE Electric Company	Rate Case
9	U-17990	Consumers Energy Co. Electric	Rate Case
10	U-18124	Consumers Energy Co. Gas	Rate Case
11	U-18322	Consumers Energy Co. Electric	Rate Case
12	U-18255	DTE Electric Company	Rate Case
13	U-18370	Indiana Michigan Power Co.	Rate Case
14	U-18419	DTE Electric Company	Certificate of Necessity
15	U-18424	Consumers Energy Co. Gas	Rate Case
16	U-18999	DTE Gas Company	Rate Case
17	U-20111	Upper Peninsula Power Co.	TCJA Credit A Case
18	U-20268	Alpena Power Company	TCJA Credit B Case
19	U-20134	Consumers Energy Co. Electric	Rate Case
20	U-20287	Consumers Energy Co. Gas	TCJA Credit B Case
21	U-20165	Consumers Energy Co. Electric	Integrated Resource Plan
22	U-20162	DTE Electric Company	Rate Case
23	U-20276	Upper Peninsula Power Co.	Rate Case

**QUALIFICATIONS OF ROBERT F. NICHOLS II, CPA**  
**CASE NUMBER U-20836**  
**PART I**

1	U-20322	Consumers Energy Co. Gas	Rate Case
2	U-20350	Upper Peninsula Power Co.	Integrated Resource Plan
3	U-20479	SEMCO Energy Gas Co.	Rate Case
4	U-20359	Indiana Michigan Power Co.	Rate Case
5	U-20561	DTE Electric Company	Rate Case
6	U-20642	DTE Gas Company	Rate Case
7	U-20650	Consumers Energy Co. Gas	Rate Case
8	U-20697	Consumers Energy Co. Electric	Rate Case
9	U-20713	DTE Electric Company	Voluntary Green Pricing
10	U-21015	DTE Electric Company	Securitization Case
11	U-20940	DTE Gas Company	Rate Case
12	U-20963	Consumers Energy Co. Electric	Rate Case
13	U-21090	Consumers Energy Co. Electric	Integrated Resource Plan
14	U-21148	Consumers Energy Co. Gas	Rate Case



**DIRECT TESTIMONY OF ROBERT F. NICHOLS II, CPA**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to present the MPSC Staff's (Staff) projected  
3 revenue deficiency, projected operating income, projected tree trim regulatory  
4 asset, and Staff's positions regarding DTE Electric Company's (DTE Electric or  
5 the Company) revised testimony and cost of removal (COR) accounting deferral  
6 in this case.

7 Q. Are you sponsoring any exhibits?

8 A. Yes. I am sponsoring the following exhibits:

9 Exhibits:

10 S-1 Schedule A-1: Projected Revenue Deficiency (Sufficiency)

11 S-1 Schedule A-1.1: Tree Trim Regulatory Asset

12 S-3 Schedule C-1: Projected Adjusted Net Operating Income

13 S-3 Schedule C-1.1: Development of Projected Adjusted Net Operating  
14 Income

15 S-3 Schedule C-5: Projected Operation and Maintenance Expense

16 S-3 Schedule C-14: Projected Income Tax Effect of Interest

17 S-3 Schedule C-15: Projected Income Tax Effect of Interest –  
18 Synchronization Adjustment

19 **REVENUE DEFICIENCY:**

20 Q. Referring to Exhibit S-1, Schedule A-1, what is Staff's projected revenue  
21 deficiency?

22 A. Staff projects a revenue deficiency of \$142,643,000, a revenue requirement  
23 decrease of \$245,579,000 from the Company's originally filed revenue deficiency

**DIRECT TESTIMONY OF ROBERT F. NICHOLS II, CPA**  
**CASE NUMBER U-20836**  
**PART II**

1 of \$388,222,000 found on Exhibit A-11, Schedule A-1, Line 10. The main factors  
2 driving Staff's overall adjustment are Staff's lower rate base, its higher net  
3 operating income, and its lower required rate of return. In addition to my  
4 testimony, other Staff witnesses provide testimony and supporting exhibits  
5 regarding the adjustments to the Company's revenue deficiency.

6 **NET OPERATING INCOME:**

7 Q. Referring to Exhibit S-3, Schedule C-1, what is Staff's projected net operating  
8 income?

9 A. Staff's projected net operating income is \$988,575,000, an increase of  
10 \$89,376,000 from the Company's originally filed net operating income of  
11 \$899,199,000 found on Exhibit A-13, Schedule C1, Line 17. Details of Staff's  
12 adjustments to net operating income, including the Staff witness sponsoring and  
13 explaining each adjustment, can be found on Exhibit S-3, Schedule C-1.1.

14 **PROJECTED OPERATION AND MAINTENANCE EXPENSES:**

15 Q. Referring to Exhibit S-3, Schedule C-5, what is Staff's projected operations and  
16 maintenance expense?

17 A. Staff's projected operations and maintenance expense is \$1,218,255,000, a  
18 decrease of \$62,460,000 for the Company's originally filed projected operations  
19 and maintenance expense of \$1,280,716,000 found on Exhibit A-13, Schedule C5,  
20 Line 12. Staff witnesses supporting individual adjustments to projected  
21 operations and maintenance expense can be found in column (f) of Exhibit S-3,  
22 Schedule C-5. Additional detail can also be found on Exhibit S-3, Schedule C1.1.

23 **TREE TRIM REGULATORY ASSET:**

**DIRECT TESTIMONY OF ROBERT F. NICHOLS II, CPA**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. Referring to Exhibit S-1, Schedule A1.1, what is Staff's projected tree trim  
2 regulatory asset return on?

3 A. Staff's projected tree trim regulatory asset return on is \$2,188,000, a decrease of  
4 \$4,833,000 from the Company's originally filed amount of \$7,021,000 found on  
5 Exhibit A-11, Schedule A1.1, Line 6.

6 Q. Why is Staff's tree trim regulatory asset return on lower than Company's?

7 A. Staff's tree trim regulatory asset return on is lower than the Company's because  
8 Staff applied the currently approved short-term debt rate of 2.73%, but the  
9 Company applied the currently approved pre-tax rate of return on permanent  
10 capital of 8.76%, both of which were authorized in MPSC Case No. U-20561  
11 Order dated May 8, 2020.

12 Q. What rate of return did the Commission authorize DTE Electric to apply to the  
13 tree trim regulatory asset in MPSC Case No. U-20162 Commission Order dated  
14 May 2, 2019?

15 A. In MPSC Case No. U-20162 Order dated May 2, 2019, the Commission Ordered  
16 the application of the short-term debt rate to be applied to the tree trim regulatory  
17 asset to calculate the return on the tree trim regulatory asset.

18 Q. In MPSC Case No. U-20561, what rate of return did DTE Electric apply to the  
19 tree trim regulatory asset, which was subsequently approved by the Commission?

20 A. In MPSC Case No. U-20561, DTE Electric applied the short-term debt rate  
21 approved in U-20162 as the rate of return on the tree trim regulatory asset, which  
22 was subsequently approved by the Commission.

**DIRECT TESTIMONY OF ROBERT F. NICHOLS II, CPA**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. In the instant case, is Staff supporting using the same method that was previously  
2 approved in MPSC Case No. U-20162 and U-20561?

3 A. Yes. In the instant case, Staff supports applying the short-term debt rate approved  
4 in MPSC Case No. U-20561 to the tree trim regulatory asset to calculate the  
5 return on. This is the treatment that was previously approved in MPSC Case Nos.  
6 U-20162 and U-20561.

7 Q. Why does Staff support using the Commission approved short-term debt rate to  
8 calculate the return on the tree trim regulatory asset?

9 A. Staff supports using the Commission approved short-term debt rate to calculate  
10 the return on the tree trim regulatory asset because the circumstances have not  
11 changed significantly since the Commission Order approving the tree trim surge  
12 in MPSC U-20162. In that Order dated May 2, 2019, the Commission stated (p.  
13 80):

14 **The Commission finds it appropriate to move forward with the**  
15 **surge proposal as the best way to balance these considerations**, but to  
16 only authorize the first three years. Thus, the Commission approves the  
17 originally requested \$95.1 million of O&M for tree trimming in the  
18 projected test period, and the first three years of spending for the surge  
19 program, being \$43.3 million for 2019, \$74.1 million for 2020, and \$70.5  
20 million for 2021, as a regulatory asset, **with application of the short-**  
21 **term debt cost rate adopted in this order of 3.56% rather than the**  
22 **pretax permanent overall cost of capital proposed by DTE Electric**.  
23 This will reduce overall costs and is expected to be temporary given the  
24 company's plans to file for securitization of the tree trimming regulatory  
25 asset.<sup>8</sup> 5 Tr 1053. Thus, the Commission finds the short-term debt rate to  
26 be more appropriate than the overall cost of capital. The company may  
27 accrue carrying costs in the regulatory asset at the short-term debt rate,  
28 and may seek recovery in a future proceeding such as a securitization or  
29 rate case using a traditional ratemaking approach. [MPSC Case No. U-  
30 20162, 5/2/2019 Order, p 80 (Emphasis added).]  
31

**DIRECT TESTIMONY OF ROBERT F. NICHOLS II, CPA**  
**CASE NUMBER U-20836**  
**PART II**

1 In that case, the Commission heard various arguments regarding approval of a  
2 tree trim spending regulatory asset and ultimately approved it, but with the return  
3 on at the short term-debt rate. The Commission Order states it struck a balance in  
4 that case which continues to seem reasonable to Staff. It is understandable that  
5 DTE Electric recommends a higher return, but given that the Commission  
6 approved this unique program with unique conditions, Staff recommends that it is  
7 appropriate to continue the return on at the short-term debt rate.

8 **DTE ELECTRIC REVISED TESTIMONY:**

9 Q. Did the Company file updated testimony and exhibits on April 26, 2022?

10 A. Yes. On April 26, 2022, DTE Electric filed revised testimony of DTE Electric  
11 witness Cooper along with revised exhibits of DTE Electric witnesses Bellini and  
12 Uzenski.

13 Q. Did DTE Electric provide any support for the differences between the initial filing  
14 and revised filing?

15 A. No. DTE Electric revised some amounts in the testimony and exhibits, but DTE  
16 Electric did not provide any support for the differences between the initial filing  
17 and the revised filing.

18 Q. Is it problematic for Staff that the Company provided revised amounts with no  
19 support so late in the process?

20 A. Yes. The Company should provide record evidence supporting any revisions it  
21 files to its testimony and exhibits. The combination of changing numbers at a late  
22 date in the process coupled with providing no support for the changes is  
23 burdensome for Staff and intervenors. If the Company files late revisions, it

**DIRECT TESTIMONY OF ROBERT F. NICHOLS II, CPA**  
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1       should also file record evidence supporting the revisions. Simply changing  
2       numbers with no support is inadequate.

3       Q.     Has Staff reflected any of the changes in the revised testimony and exhibits in  
4       Staff's direct case?

5       A.     No. Staff has not reflected any of the changes in the revised testimony and  
6       exhibits in Staff's direct case. Staff has not had an adequate opportunity to  
7       review the revised amounts to determine if they are reasonable. While it could  
8       turn out that the revised testimony and exhibits are reasonable, it could also turn  
9       out that after review, Staff recommends further revision of the revised amounts.  
10      Therein lies the problem with any late revisions, especially late revisions without  
11      any supporting evidence. If Staff has further recommendations or adjustments  
12      related to the revised amounts, then Staff will update its case.

13      **COST OF REMOVAL ACCOUNTING DEFERRAL:**

14      Q.     Is Staff supporting an adjustment to cost of removal (COR) projects in the instant  
15      case, which reduces rate base?

16      A.     Yes. Staff witness DeCooman is recommending an adjustment to COR projects  
17      in the instant case. The adjustment decreases rate base and this amount should be  
18      deferred until it is reviewed as to comply with the previous Order in MPSC Case  
19      No. U-18150. Staff witness DeCooman supports the adjustment while Staff  
20      witness LaPan supports a recommendation for the appropriate review of the costs  
21      prior to their inclusion in base rates.

22      Q.     What accounting treatment does Staff recommend for the COR deferral?

**DIRECT TESTIMONY OF ROBERT F. NICHOLS II, CPA**  
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1 A. Staff recommends that the COR deferral should be removed from base rates,  
2 thereby reducing rate base in the instant case. The deferred amounts that are  
3 reasonably and prudently incurred should receive a full return on.

4 Q. Why does Staff recommend the COR deferral receive a full return on?

5 A. The normal mechanics of COR accounting that make a utility whole for the  
6 carrying cost results in an increased rate base when COR is actually spent. Pre-  
7 collected COR reduces rate base for dollars the utility has received but not yet  
8 spent, but the utility is made whole because it may use those pre-collected  
9 ratepayer-supplied funds for its operations. Actual COR spend increases rate base  
10 from the reduced amounts that were recorded by the pre-collected COR as those  
11 amounts are actually spent. To the extent that the COR actual spend is reasonable  
12 and prudent, but deferred for review, the Company should receive a full return on  
13 the deferred amount in order to be made whole for the carrying cost. To the  
14 extent that the actual COR spend has not been pre-collected in rates, then it has  
15 been funded by the investor (utility), and it should also receive a full return on if it  
16 was reasonably and prudently incurred.

17 Q. Does this conclude your testimony?

18 A. Yes.

\* \* \* \*

**Case No. U-20836**

**May 19, 2022**



**QUALIFICATIONS OF MARK J. PUNG**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is Mark J. Pung. My business address is 7109 West Saginaw Highway,  
3 Lansing, Michigan 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or  
6 Commission) as a Departmental Analyst in the Rates and Tariff Section of the  
7 Regulated Energy Division.

8 Q. Please briefly describe your educational background.

9 A. I graduated from Michigan State University in 2004 with a Bachelor of Arts  
10 degree in Supply Chain Management.

11 Q. Have you completed any other courses?

12 A. Yes, I have completed two graduate courses at Central Michigan University's  
13 Lansing campus, Quantitative Applications in Administrative Decision Making  
14 and Financial Management. I have also completed the Association of Edison  
15 Illuminating Company's Fundamentals of Customer Load Data Analysis course,  
16 the National Association of Regulatory Utility Commissioners (NARUC) Annual  
17 Regulatory Studies Program held at Michigan State University, and EUCI Electric  
18 Cost-of-Service Course - Essential Concepts for a Changing Industry.

19 Q. What are your current responsibilities at the MPSC?

20 A. In my current position at the MPSC, I participate in rate cases, PSCR  
21 Reconciliations, self-implementation reconciliations, and special contract cases.  
22 My duties also involve customer complaint and inquiry processing and tariff  
23 administration.

**QUALIFICATIONS OF MARK J. PUNG**  
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**PART I**

1 Q. Have you previously presented testimony or participated in utility cases before the  
2 MPSC?

3 A. Yes. I have participated in the following cases:

4	<u>Case No.</u>	<u>Utility</u>	<u>Description</u>
5	U-14270-R	Presque Isle, Cherryland, Tri-County, and	PSCR Reconciliation
6		Great Lakes	
7	U-14637	Presque Isle Electric and Gas Cooperative	Rate Design
8	U-14710-R	Presque Isle, Cherryland, Tri-County, and	PSCR Reconciliation
9		Great Lakes	& TIER Audit
10	U-14713-R	Ontonagon County REA	Rate Design
11	U-14745	Upper Peninsula Power Company	Rate Design
12	U-14790	Great Lakes Energy Cooperative	Rate Design
13	U-14893	SEMCO Energy Gas Company	Rate Design
14	U-15071	Wisconsin Electric Power Company	Rate Design
15	U-15114	Wisconsin Public Service Corp.	Ex parte of new rate
16	U-15244	Detroit Edison Company	Rate Design
17	U-15245	Consumers Energy Company	Rate Design
18	U-15487	Alpena Power Company	Ex parte of new rate
19	U-15500	Wisconsin Electric Power Company	Rate Design
20	U-15645	Consumers Energy Company	Rate Design
21	U-15981	Wisconsin Electric Power Company	Rate Design
22	U-15988	Upper Peninsula Power Company	Rate Design
23	U-16180	Indiana Michigan Power Company	Rate Design

**QUALIFICATIONS OF MARK J. PUNG**  
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1	Case No.	Utility	Description
2	U-16472	Detroit Edison Company	Rate Design
3	U-16794	Consumers Energy Company	Rate Design
4	U-16860	Consumers Energy Company	Revenue Decoupling
5	U-16877	Michigan Consolidated Gas Company	Revenue Decoupling
6	U-17043	Consumers Energy Company	VHWF
7	U-17087	Consumers Energy Company	Rate Design
8	U-17221	Michigan Gas Utilities Corporation	Revenue Decoupling
9	U-17222	Michigan Gas Utilities Corporation	Un-collectables
10	U-17479	Tilden Mining Company	RAS-1 Tariff
11	U-17530	DTE Michigan Gathering Company	Ex parte of new rate
12	U-17547	Michigan Gas Utilities Corporation	Revenue Decoupling
13	U-17686	Michigan Gas Utilities Corporation	Tariff Revisions
14	U-17688	Consumers Energy Company	Act 169 Case
15	U-17735	Consumers Energy Company	Rate Design
16	U-17895	Upper Peninsula Power Company	Rate Design
17	U-17990	Consumers Energy Company	Rate Design
18	U-18255	Detroit Edison Company	Rate Design
19	U-18462	Northern States Power Company	Rate Design
20	U-20101	Alpena Power Company	TCJA Credit A
21	U-20108	Northern States Power Company	TCJA Credit A
22	U-20110	Upper Michigan Energy Resource Corp.	TCJA Credit A
23	U-20111	Upper Peninsula Power Company	TCJA Credit A

**QUALIFICATIONS OF MARK J. PUNG**  
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1	U-20162	Detroit Edison Company	Rate Design
2	U-20359	Indiana Michigan Power Company	Rate Design
3	U-20697	Consumers Energy Company	Rate Design
4	U-21045	Alpena Power Company	Rate Design
5	U-21097	Northern States Power Company	Rate Design

**DIRECT TESTIMONY OF MARK J. PUNG**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. What is the purpose of your testimony?

2 A. I sponsor MPSC Staff's (Staff) recommendation regarding present revenue, rate  
3 design, and proposed tariff and rule changes.

4 Q. Are you sponsoring any exhibits?

5 A. Yes, I am sponsoring the following exhibits:

<u>Exhibit</u>	<u>Schedule</u>	<u>Description</u>
S-3	C3	Staff's Projected Operating Revenue
S-3	C4	Staff's Calculation of Power Supply Expenses
S-6	F2	Staff's Present and Proposed Revenue by Rate Schedule
S-6	F3	Staff's Present and Proposed Revenue, Pages 1-10, 14-57
S-6	F4	Staff's Comparison of Present and Proposed Monthly Bills, Pages 1-19, 24-54
S-6	F5	Staff's Calculation of Voltage Level Distribution Charges
S-6	F6	Staff's Calculation of Nuclear Surcharge

19 Q. Did Staff make any changes to projected operating revenues reflected on Staff  
20 Exhibit S-3, Schedule C3?

21 A. Yes. Staff analysis determined that a few adjustments to DTE Electric Company's  
22 (The Company) calculation of pro forma revenues are necessary. First, Staff made  
23 a correction to the residential Energy Waste Reduction (EWR) surcharge used to

**DIRECT TESTIMONY OF MARK J. PUNG**  
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**PART II**

1 calculate revenues that increases both the present and proposed revenue amounts  
2 equally resulting in a revenue neutral adjustment overall. This adjustment  
3 amounted in approximately \$5.24 million. Second, Staff made corrections to the  
4 Commercial Rate D1.8 Non-capacity energy charge resulting in an increase of  
5 \$12 dollars and to the Rate D9 commercial underground 70 Watt high pressure  
6 sodium vapor lamp rate resulting in a revenue increase of \$468 dollars. Thirdly,  
7 Staff made an increase adjustment of \$2.587 million to account for Staff's  
8 projected level of Residential Income Assistance (RIA) provision participation.  
9 Please see the direct testimony of Staff witness Elaina Braunschweig for the  
10 justification for this adjustment. Finally, Staff made an increase adjustment of  
11 \$19.797 million resulting from Staff's adjusted test-year sales forecast. Please see  
12 the direct testimony of Staff witness Paul Ausum for the justification for this  
13 adjustment. These adjustments result in a total increase to Staff's projected  
14 operation revenues of \$22.373 million.

15 Q. Did Staff make any adjustments to the Company's projected miscellaneous and  
16 other revenues forecast?

17 A. No. All projected test-year miscellaneous and other revenues amounts were  
18 compared with the previous 5-year actual amounts and Staff identified no issues  
19 with the Company's forecasted amounts.

20 Q. How did Staff calculate its proposed Nuclear Surcharge in Exhibit S-6, Schedule  
21 F6?

**DIRECT TESTIMONY OF MARK J. PUNG**  
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1 A. Staff calculated the Nuclear Surcharge in the same manner as the Company but  
2 using Staff's test-year sales forecast. This results in a proposed Nuclear Surcharge  
3 of \$0.000864 per kWh.

4 Q. What are the primary objectives of Staff's rate design?

5 A. Staff's first objective when designing rates is to adhere to the cost of service  
6 ("COS") requirements set forth in MCL 460.11(1). The law states:

7 "Sec. 11. (1) Except as otherwise provided in this subsection, the  
8 commission shall ensure the establishment of electric rates equal to the  
9 cost of providing service to each customer class. In establishing cost of  
10 service rates, the commission shall ensure that each class, or sub-class,  
11 is assessed for its fair and equitable use of the electric grid. If the  
12 commission determines that the impact of imposing cost of service  
13 rates on customers of an electric utility would have a material impact  
14 on customer rates, the commission may approve an order that  
15 implements those rates over a suitable number of years. The  
16 commission shall ensure that the cost of providing service to each  
17 customer class is based on the allocation of production-related costs  
18 based on using the 75-0-25 method of cost allocation and transmission  
19 costs based on using the 100% demand method of cost allocation. The  
20 commission may modify this method if it determines that this method  
21 of cost allocation does not ensure that rates are equal to the cost of  
22 service."  
23

24 After adhering to the requirements of MCL 460.11, Staff's objective is to design  
25 rates within the classes that send proper price signals to customers, encourage  
26 efficient use of the Company's electric system, and balance the interests of  
27 customers within each customer class.

28 Q. What method did Staff use to develop its revenue targets for rate design?

29 A. Staff used the same method as the Company to calculate rate design targets by  
30 customer class but adjusted for Staff's revenue requirement and cost-of-service  
31 study allocations.

**DIRECT TESTIMONY OF MARK J. PUNG**  
**CASE NUMBER U-20836**  
**PART II**

1

2

**Residential Rate Design**

3

Q. Please describe Staff's residential rate design method.

4

A. Staff used the same methodology for residential rate design as the Company but updated for Staff's residential revenue requirement.

5

6

Q. Does Staff agree with the Company's proposed residential distribution rate design?

7

8

A. Yes. Staff agrees that residential distribution rates should be designed in the same manner approved by the Commission in the Company's previous general rate cases, Cases U-17767, U-18014, U-18255, U-20162, and U-20561. Variable distribution rates are designed such that all residential secondary customers have the same rate, with exception of pilot Time-of-Use rates D1-A and D1-B.

9

10

11

12

13

Q. Has the Company proposed to increase the residential service charge in this case?

14

A. No, it has not.

15

Q. Is Staff proposing any changes to the residential service charge in this case?

16

A. Yes. Staff's cost-of-service analysis supports a residential service charge amount of \$8.50 per month. As a result, Staff recommends increasing the service charge from the current amount of \$7.50 to \$8.50. The support for this change can be found in the direct testimony of Staff witness Daniel Gottschalk.

17

18

19

20

Q. Has the Company proposed any changes to the residential income assistance (RIA) provision?

21

22

A. No, it has not.

23

Q. Is Staff proposing any changes to the RIA provision?



**DIRECT TESTIMONY OF MARK J. PUNG**  
**CASE NUMBER U-20836**  
**PART II**

1 A. Yes. The RIA provision has historically been set to be an offsetting credit for the  
2 residential service charge. Because Staff is proposing to increase the residential  
3 service charge from \$7.50 to \$8.50 in this case, Staff is also proposing to increase  
4 the RIA credit amount from (\$7.50) to (\$8.50). This maintains the current  
5 relationship between the service charge and the RIA provision.

6 Q. Has the Company proposed any changes to the residential service senior citizen  
7 provision?

8 A. No. The senior citizen provision has been historically tied to the residential  
9 service charge, and because the Company is not proposing any changes to the  
10 residential service charges, it is also not proposing any changes to the senior  
11 citizen provision.

12 Q. Is Staff proposing any changes to the residential service senior citizen provision?

13 A. Yes. Historically, the senior citizen provision's monthly credit amount has been  
14 tied at 50% of the residential service charge amount. Because Staff is  
15 recommending in this case to increase the service charge from \$7.50 to \$8.50,  
16 Staff also recommends increasing the senior citizen discount from the current  
17 (\$3.75) per month to (\$4.25) per month, maintaining that relationship.

18 Q. Is the Company proposing any new rates for residential service in this case?

19 A. Yes. The Company is proposing two new residential rates in this case: 1)  
20 Residential Service Rate Standard Time-Of-Use - D1.11 and 2) Residential  
21 Service Rate Stable Bill Service Level - D1.12. For Staff's position on proposed  
22 rate D1.11, see the direct testimony of Staff witness Nicholas Revere. For Staff's

**DIRECT TESTIMONY OF MARK J. PUNG**  
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1 position on proposed rate D1.12, please see the direct testimony of Staff witnesses  
2 Nicholas Revere, Kevin Krause, Julie Baldwin, and Cody Matthews.

3

4 **Commercial Rate Design**

5 Q. Please describe Staff's commercial rate design method for power supply.

6 A. Staff used the same method to allocate capacity and non-capacity targets to each  
7 individual rate schedule for commercial rate design as the Company but updated  
8 for Staff's revenue requirement. Rate schedules D3.2 and D4 have their own  
9 separate cost columns in the cost-of-service study and their costs are directly  
10 assigned. The remaining rate schedules are contained in cost column "D3/Other"  
11 and costs are assigned to each rate schedule based upon each tariff's percentage  
12 contribution to total present power supply revenue.

13 Q. How did Staff design commercial secondary distribution rates?

14 A. Commercial secondary distribution rates were calculated with the same method  
15 used in the Company's previous general rate cases, Cases U-18014, U-18255, U-  
16 20105, U-20162, and U-20561. This method continues to transition all  
17 commercial secondary customers to one uniform distribution rate while providing  
18 a cap on the maximum increase to any one rate schedule at 25%. This is the same  
19 method proposed by DTE in this case. However, Staff's distribution rates will  
20 differ from the Company's because Staff's rates are calculated using Staff's  
21 revenue requirement and cost of service study.

22 Q. Has the Company proposed any changes to the secondary service charges?

**DIRECT TESTIMONY OF MARK J. PUNG**  
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1 A. The Company is not proposing to increase the service charges for secondary  
2 customers with the exception of Rider 3. The Company claims that the service  
3 charge for secondary customers taking service under Rider 3 was inadvertently  
4 reduced in the previous rate case from \$90 down to \$11.25. The Company states  
5 that secondary customers on Rider 3 require interval metering and it is appropriate  
6 to have a service charge in line with other customers who require interval  
7 metering.

8 Q. Does Staff agree with the Company's proposal to increase the service charge for  
9 secondary customers taking service under Rider 3?

10 A. Yes. The service charge for Rider 3 secondary service was \$95 until the charge  
11 was inadvertently reduced to \$11.25 in the Company's last rate case, Case U-  
12 20561. The Company's proposal to increase the charge, not to the full \$95 that it  
13 was previously, but to the primary customer charge (\$70 as proposed by the  
14 Company, \$75 as proposed by Staff). in this case is reasonable and should be  
15 approved by the Commission.

**Primary Rate Design**

18 Q. Please describe Staff's primary rate design method for power supply service.

19 A. Staff used the same method as the Company to design power supply rates but  
20 updated for Staff's revenue requirement and cost-of-service allocations.

21 Q. How did Staff design the primary class distribution rates?

22 A. Staff designed primary distribution rates by calculating one distribution rate for  
23 each voltage level to be applied uniformly to every primary class rate schedule,

**DIRECT TESTIMONY OF MARK J. PUNG**  
**CASE NUMBER U-20836**  
**PART II**

1 with the exception of rates D10, R1.1, and R1.2, which have energy-based  
2 delivery charges. For these rates, Staff calculated energy charges equivalent to  
3 Staff's voltage level distribution charges. This is the same method the Company  
4 used in designing primary class distribution rates in this case and the same  
5 method approved by the Commission in the Company's previous rate cases.

6 Q. Is the Company proposing any changes to the primary service charges in this  
7 case?

8 A. No, it is not.

9 Q. Is Staff proposing any changes to the primary service charges in this case?

10 A. Yes. Staff's cost-of-service analysis supports a primary service charge amount of  
11 \$75 per month. As a result, Staff recommends increasing the service charge from  
12 the current amount of \$70 to \$75. The support for this change can be found in the  
13 direct testimony of Staff witness Daniel Gottschalk.

14

15 **Streetlighting Rate Design**

16 Q. Does Staff agree with the Company's rate design for street lighting?

17 A. Yes. Staff used the same method as the Company to design rates for street  
18 lighting but updated for Staff's cost of service study and revenue requirements.  
19 Like the Company's streetlighting rate design, Staff's streetlighting rates reflect a  
20 monthly energy charge, non-capacity and capacity energy charges, and a fixed  
21 monthly luminaire charge.

22 Q. How did Staff allocate the production and distribution revenue requirements to  
23 the streetlighting rate schedules?

**DIRECT TESTIMONY OF MARK J. PUNG**  
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1 A. Staff used the same method as approved by the Commission in previous cases U-  
2 18014, U-18255, U-20105, U-20162, and U-20561. Production and distribution  
3 revenue requirement amounts from Staff's cost-of-service study were fully  
4 allocated to each streetlighting rate schedule within the lighting rate model.  
5 Staff's proposed fixed monthly luminaire, distribution and both non-capacity and  
6 capacity charges for each lighting rate schedule were designed to meet Staff's  
7 production and distribution revenue requirements.

**Tariff Changes**

10 Q. Is the Company proposing any changes to its outdoor lighting tariffs?

11 A. Yes, the Company is proposing to clarify the Dusk to Midnight and the  
12 Experimental Programmable Photocell Service language for rate schedules D9  
13 and E1. The Company states that the language clarification is necessary to  
14 properly reflect how discounts for these two billing provisions are calculated.  
15 Currently, the tariffs only include the discount for the Distribution Charge per  
16 lamp, per month and do not reflect the energy charge savings. The Company is  
17 proposing to add language to address the energy charge portion of the discount.

18 Q. Does Staff agree with the Company's proposed outdoor lighting tariff changes?

19 A. Yes. Staff agrees that the proposed language adds clarity to how the Dusk to  
20 Midnight and Experimental Programmable Photocell Service discounts are  
21 calculated. The Company's proposed language makes the tariff more detailed and  
22 reduces potential confusion. For these reasons, this proposal should be approved  
23 by the Commission.

**DIRECT TESTIMONY OF MARK J. PUNG**  
**CASE NUMBER U-20836**  
**PART II**

1     |     Q.     Does this conclude your testimony?

2     |     A.     Yes, it does.

\* \* \* \*

**Case No. U-20836**

**May 19, 2022**

**QUALIFICATIONS OF NICHOLAS M. REVERE**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is Nicholas M. Revere. My business address is 7109 West Saginaw Hwy,  
3 Lansing, Michigan 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or Commission) as  
6 the Manager of the Rates and Tariff Section of the Regulated Energy Division.

7 Q. Would you briefly describe your academic background?

8 A. I received a Bachelor of Arts degree in Political Science and a Bachelor of Arts degree in  
9 Economics from Michigan State University in 2006. In August of 2008 and 2009, I  
10 completed the annual National Association of Regulatory Utility Commissioners  
11 (NARUC) regulatory studies program at Michigan State University, which included  
12 courses on ratemaking, rate case auditing, regulatory policy, and other regulatory issues.  
13 In September of 2010, I completed the Institute for Public Utilities Advanced Regulatory  
14 Studies Program. In October 2012, I completed the Association of Edison Illuminating  
15 Companies' Advanced Course in Load Research.

16 Q. What are your current responsibilities at the MPSC?

17 A. As Manager of the Rates and Tariff Section, I supervise the members of and oversee the  
18 responsibilities of the section. The responsibilities of the section include, but are not  
19 limited to, analyzing utility reports, financial records, and rate case filings to determine  
20 the appropriate level of rates for regulated energy utilities, utilizing laws, regulations, and  
21 Commission policies. The section is charged with conducting MPSC Staff (Staff) Cost of  
22 Service allocation studies (COSS) and rate designs for gas and electric utilities and  
23 reviewing special contracts, gas storage rates, and Act 9 intrastate pipeline rates. The



**QUALIFICATIONS OF NICHOLAS M. REVERE**  
**CASE NUMBER U-20836**  
**PART I**

section is also involved in customer complaint and inquiry processing, updating electric and gas comparison spreadsheets for the MPSC website, and tariff administration.

Q. Have you previously filed testimony in any cases before the Commission?

A. Yes. I filed testimony in the following cases:

<u>Case</u>	<u>Company</u>	<u>Case Type</u>
U-15645	Consumers Energy Electric	Rate Case
U-15766	MichCon Gathering v. Highmount	Act 9 Complaint
U-15768	Detroit Edison/DTE Electric	Rate Case
U-15985	MichCon/DTE Gas	Rate Case
U-15986	Consumers Energy Gas	Rate Case
U-16169	SEMCO Energy Gas	Rate Case
U-16191	Consumers Energy Electric	Rate Case
U-16566	Consumers Energy Electric	RDM Recon
U-16568	Upper Peninsula Power Company	RDM Recon
U-16780	Detroit Edison/DTE Electric	RDM Recon
U-16830	Wisconsin Electric Power Company	Rate Case
U-16952	Detroit Edison/DTE Electric	ECIM Recon
U-16999	MichCon/DTE Gas	Rate Case
U-17643	Consumers Energy Gas	Rate Case
U-17688	Consumers Energy Electric	Act 169
U-17689	Detroit Edison/DTE Electric	Act 169
U-17701	MichCon/ DTE Gas	IRM
U-17735	Consumers Energy Electric	Rate Case

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1	U-17767	Detroit Edison/DTE Electric	Rate Case
2	U-17882	Consumers Energy Gas	Rate Case
3	U-17990	Consumers Energy Electric	Rate Case
4	U-18010	Consumers Energy Gas	Contract
5	U-18014	Detroit Edison/DTE Electric	Rate Case
6	U-18124	Consumers Energy Gas	Rate Case
7	U-18224	Upper Michigan Energy Resources Corporation	CON
8	U-18239	Consumers Energy Electric	SRM
9	U-18248	Detroit Edison/DTE Electric	SRM
10	U-18250	Consumers Energy Electric	Securitization
11	U-18253	Upper Michigan Energy Resources Corporation	SRM
12	U-18254	Upper Peninsula Power Company	SRM
13	U-18255	Detroit Edison/DTE Electric	Rate Case
14	U-18258	Cloverland Electric Cooperative	SRM
15	U-18322	Consumers Energy Electric	Rate Case
16	U-18370	Indiana Michigan Power Company	Rate Case
17	U-18999	DTE Gas	Rate Case
18	U-20111	Upper Peninsula Power Company	TCJA Credit A
19	U-20114	Michigan Gas Utilities	TCJA Credit A
20	U-20130	Upper Michigan Energy Resources Corporation	SRM
21	U-20131	Upper Peninsula Power Company	SRM
22	U-20144	Cloverland Electric Cooperative	SRM
23	U-20162	DTE Electric	Rate Case

**QUALIFICATIONS OF NICHOLAS M. REVERE**  
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1	U-20189	DTE Gas	TCJA Credit B
2	U-20276	Upper Peninsula Power Company	Rate Case
3	U-20284	DTE Electric	TCJA Credit B
4	U-20298	DTE Gas	TCJA Calculation C
5	U-20309	Consumers Energy	TCJA Calculation C
6	U-20316	Indiana Michigan Power Company	TCJA Credit B
7	U-20317	Indiana Michigan Power Company	TCJA Calculation C
8	U-20322	Consumers Energy Gas	Rate Case
9	U-20233	Consumers Energy Gas	GCR Plan
10	U-20359	Indiana Michigan Power Company	Rate Case
11	U-20479	SEMCO Energy Gas	Rate Case
12	U-20561	DTE Electric	Rate Case
13	U-20642	DTE Gas	Rate Case
14	U-20650	Consumers Energy Gas	Rate Case
15	U-20150	CARE v. Upper Peninsula Power Company	Complaint
16	U-20697	Consumers Energy Electric	Rate Case
17	U-20889	Consumers Energy Electric	Securitization
18	U-20940	DTE Gas	Rate Case
19	U-20963	CE Electric	Rate Case
20	U-21148	CE Gas	Rate Case

**DIRECT TESTIMONY OF NICHOLAS M. REVERE**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. What is the purpose of your testimony in this case?

2 A. The purpose of my testimony is to present Staff's analysis of and/or position on DTE  
3 Electric Company's (the Company) proposals relating to certain rate design principles  
4 and their application (including a proposal related to time-based energy allocations),  
5 implementation of the new time-varying default residential rate structure, and a portion of  
6 distributed generation (DG). I will also be sponsoring Staff proposals relating to  
7 advanced metering infrastructure (AMI) system cost allocations, as well as the translation  
8 of Staff's overall sales forecast into billing determinants and allocation schedules.

9 Q. Are you sponsoring any exhibits?

10 A. Yes, I am sponsoring the following exhibits:

11 S-6, Schedule F3, Staff's Present and Proposed Revenue, pages 11-13

12 S-6, Schedule F3, Staff's Comparison of Present and Proposed Monthly Bills, pages 20-  
13 23

14 S-6, Schedule F7, Staff's Rider 18 Outflow Credits

15 S-23.00, Company Audit Responses DWI-1.1 & DWI-1.2

16 S-23.01, Attachment to Company Audit Response DWI-1.2

17 S-23.02, Schedule G1.1, STAFF 2022/2023 Forecast Energy Allocation Schedule

18 S-23.02, Schedule G1.2, STAFF Demand and Energy Allocation

19 **Rate Design Principles**

20 Q. How does Company witness Neal T. Foley describe the rate design principle of cost-  
21 alignment?

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1 A. Company witness Foley describes cost-alignment as a rate reflecting how and when costs  
2 are incurred,<sup>1</sup> as well as the structure of the rate matching cost-causation.

3 Q. Does Staff agree with Company witness Foley's basic description of cost-alignment or its  
4 appropriateness as a rate design goal?

5 A. While Staff broadly agrees with the basic principle of cost-alignment as described by  
6 Company witness Foley, as it matched quite well with the idea, often put forward by  
7 Staff, that rates should send the correct price signal to ensure economically efficient  
8 outcomes, Staff disagrees with a number of ways Company witness Foley attempts to  
9 apply this principle. Staff also has further proposals that, in Staff's opinion, would send  
10 better price signals than the Company's current or proposed rates.

11 Q. What is Company witness Foley further description of how the Company views cost-  
12 alignment?

13 A. Company witness Foley claims:

14 [T]he Company incurs three basic types of costs – energy-related, demand-  
15 related, and customer-related. As such, the most appropriate rate design to achieve  
16 cost-alignment would reflect these underlying drivers of cost and incorporate an  
17 energy charge, a demand-based charge, and a customer charge. [Company  
18 witness Foley Direct Testimony, p. 8.]

19  
20 Company witness Foley further elaborates, stating energy-related costs should be  
21 collected through an energy charge (preferably a time-of-use [TOU] rate), demand-  
22 related costs should be collected through a demand rate (based on a customer's on-peak  
23 or non-coincident peak [NCP] demand depending on the cost), and customer-related costs

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<sup>1</sup> Company witness Foley Direct Testimony, p. 4.

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1       should be collected through a fixed customer charge. Company witness Foley Direct  
2       Testimony, p. 9.

3   Q.     Does Staff agree with this description of cost-alignment?

4   A.     Staff mostly disagrees with this description of cost-alignment. This description amounts  
5       to claiming that the classification of a cost as demand-related, energy-related, or customer-  
6       related should control the manner in which that cost is charged to customers. This is  
7       incorrect. Such a claim relies on the assumption that the classification of a cost reflects the  
8       determinant used to allocate the cost, and that the determinant used to allocate the cost is  
9       equivalent to the determinant used to apply the rate to customers. It is demonstrable that  
10      these relationships do not hold well enough to support the proposal in the instant case.

11   Q.     Why does the classification not properly reflect the causation of the costs for demand?

12   A.     The allocators used for costs classified as demand-related are based mainly on a  
13      combination of class contributions to system peaks at various levels (or the customers on  
14      that voltage level are treated as the class) and summed individual customer demand. Staff  
15      is not taking a position on the appropriateness of these allocators in the current discussion.  
16      However, it is important to point out that relying on the classification of a cost as  
17      “demand” does not justify the use of a demand determinant as the basis of a charge, nor  
18      does it support the claim that so charging would better match costs to their causation. In  
19      fact, these “demand”-classified costs are allocated using various combinations of class  
20      contribution to system peaks, summed individual demands, and energy. Assuming all  
21      “demand” classified costs should be collected through a demand charge ignores the  
22      amount of those costs actually allocated on some measure of demand, or whether or not

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1 the demand that can be used to charge customers actually properly represents the  
2 contribution to cost-causation.

3 Q. Are there other problems with this conception of cost-alignment put forward by Company  
4 witness Foley?

5 A. Yes. Charging power supply demand-related costs on the basis of demand would be  
6 inappropriate for classes of a certain composition. To explain this, it is useful to distinguish  
7 between how members of different classes contribute to the Company's capacity needs.  
8 As costs are distributed by class, the cost responsibility is determined by the class'  
9 contribution, rather than the individual customers' contributions, to the measure of  
10 capacity. In a theoretical class consisting of only one customer, the approaches are the  
11 same. In a theoretical perfectly homogeneous class of any number of customers, all of  
12 whom use energy in exactly the same way, the approaches are also the same. However,  
13 two difficulties arise, even in such perfect cases. First, billing on the measure of  
14 contribution to capacity is effectively impossible, or at the very least not desirable. For the  
15 purpose of allocating cost, each class is allocated costs on the basis of 75% demand during  
16 the highest load hours of the four summer months, and 25% on total energy. If costs are  
17 allocated on the basis of class contributions to these measures, how would a utility bill its  
18 customers? One could measure the contribution to the 4 CP<sup>2</sup> in the billing year, but this  
19 would not accurately correspond to how the costs were allocated.

20 Q. Are there any other concerns with such a method?

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<sup>2</sup> As Company witness Maroun explains in direct testimony, "CP = Coincident Peak, 12 represents an average of twelve months and 4 represents an average of the four summer months, June through September." Company witness Maroun Direct Testimony, p. 14.

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1 A. Yes. Customers would have a very difficult time determining when those hours would  
2 occur, as they are not known until after the fact. Indeed, if customers somehow knew when  
3 those hours would be, and also knew they were going to be charged based on those hours,  
4 customers would lower usage in those hours, making them no longer the highest hours.  
5 There is also an issue of randomness inherent in a particular customer's contribution to any  
6 given hour. A customer who, in all other hours surrounding the 4 CP hours (all potential  
7 CPs themselves, depending mostly on the vagaries of the weather), could theoretically  
8 contribute little to those particular hours. The customer could be away from home, and  
9 have their thermostat set such that the air conditioner (AC) does not run. That customer  
10 did not truly contribute less to the need for capacity if in the previous year their AC was  
11 running during each of the 4 CPs, had an electric dryer running, a dishwasher, and a hair  
12 dryer. When costs are distributed to a large class of customers, these stochastic differences  
13 essentially even out, making the cost responsibility of the class as a whole appropriate.  
14 However, in that same class, attempting to charge on the same basis as the allocation makes  
15 little sense. So we are left, then, with imperfect proxies for capacity contribution on which  
16 the Company could bill its customers.

17 Q. What potential measures could be used for such a proxy?

18 A. One method that has been in use for some time, particularly for larger customers, is on-  
19 peak billing demand, as discussed by the Company. This applies a charge to the highest  
20 hour (or some other finite period of time) of demand the customer places on the system  
21 during the on-peak hours of a billing month. This, in effect, recognizes that each of those  
22 on-peak hours has some chance of being the CP, and charges on that basis. For smaller  
23 classes, this measure is still problematic. A person who works odd shifts, for example,



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1 may be using some high-load device during portions of the on-peak time period that are  
2 less likely to become a CP, and therefore representative of capacity need, while not using  
3 that same device during the hours more likely to be a CP. This individual customer cannot  
4 sway enough load to move the actual CP, but is effectively paying as if they could. Another  
5 method that can be used to bill is isolating some number of hours likely to become the CP  
6 and charging each of those hours at the same rate. The previous example customer, then,  
7 would pay less than a customer who contributes that same load across all of those hours,  
8 effectively recognizing the reduced likelihood of contributing to peak. The challenge, then,  
9 becomes what period of hours to choose. Spreading a certain amount of cost over a smaller  
10 number of hours results in a rate that is higher than if that same cost were spread over a  
11 larger number of hours. If using too few hours, it is more likely that customers will respond  
12 to the price signal, increasing the chance of actually moving the peak to a different time.  
13 On the other hand, using too large of a number of hours will dilute the price signal, resulting  
14 in more customers who contribute less to the actual capacity need paying more than  
15 perhaps they should. In Staff's opinion, utilizing the percentage differential to spread such  
16 costs into on- and off-peak periods is most appropriate currently, as I will discuss further  
17 later in my testimony.

18 Q. Does Staff agree that customer-related costs are most appropriately collected in customer  
19 charges?

20 A. No. Only costs that directly vary with the number of customers, or are directly related to  
21 a customer's existence as a customer, should be included in a customer charge, as further  
22 discussed by Staff witness Daniel J. Gottschalk. The classification of a cost does not drive  
23 the appropriate allocation or collection method for that cost. The customer-related

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1 classification tends to be used for costs that vary neither with energy usage nor demand,  
2 rather than just for those things that actually vary with the number of customers. Those  
3 items are actually unclassifiable, and the fact that they are included as customer-related by  
4 default should not be used as a justification for charging them on a per-customer basis.

5 Q. Does Staff have any additional proposals related to cost-alignment?

6 A. Yes. The Commission should require the Company to examine their cost structure as it  
7 relates to different time periods and calculate allocators that allocate the costs associated  
8 with those time periods on usage during those time periods. This will enable better  
9 matching the allocation of costs to their temporal occurrence, and also enable different  
10 ways to look at the time-varying nature of costs to inform cost-alignment of rates. This  
11 proposal is similar to the method used by Consumers Energy, and will better match the  
12 allocation of costs to their causation.

13 Q. Does Staff agree with Company witness Foley that the Company's proposed rates and  
14 rate changes comport with the principle of cost-alignment?

15 A. Not as properly defined above, no. I will show specifically how they fail to do so for  
16 each next in my testimony.

17 **Time-Varying Default Rate**

18 Q. Does Staff agree with the Company's proposed default time-varying rate?

19 A. While Staff agrees such a rate should be implemented, Staff does not agree with certain  
20 aspects of the rate proposed by the Company. In addition, the Company has an  
21 alternative proposal I will address.

22 Q. Does Staff agree with the Company's proposal to apply a time-varying structure to only  
23 the non-capacity power supply rates?

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1 A. No. Company witness Foley claims:

2 Power Supply Capacity costs are most appropriately recovered through a demand-  
3 based charge. These rate designs best align with the underlying drivers of cost for  
4 the respective cost type, and therefore send the most accurate pricing signals to  
5 customers to encourage efficient, low-cost asset use. [Company witness Foley  
6 Direct Testimony, p. 20.]  
7

8 However, as discussed previously, a demand-based rate is *not* the most appropriate way  
9 to collect demand-related power supply costs from large classes of diverse customers,  
10 such as the residential class, as it does *not* best align with the underlying drivers of the  
11 cost. In fact, it is more appropriate to collect those costs through a time-varying rate in  
12 the periods those peaks are most likely to occur, such as the peak window for the new  
13 time-varying rate. Including all such costs in such a small window of time, however,  
14 would result in rates that, in Staff's opinion, would currently be unreasonable. It is also  
15 important to note that the method currently used to determine the Company's capacity  
16 costs has a result significantly higher than the cost of new entry (CONE), or the price to  
17 build a gas combustion turbine (CT), whose purpose is effectively to supply capacity.  
18 While Staff is not making an argument in the instant case that the current calculation  
19 should be changed, it would be unreasonable to include all cost identified as capacity in  
20 the capacity charge during on-peak hours. Therefore, rather than a flat capacity rate over  
21 all kWh, it is more appropriate (and cost-aligned) to begin by collecting those costs  
22 through rates that are 50% higher in the summer on-peak period. This is similar to the  
23 current method for Consumers Energy's Summer On-Peak rate. For these reasons, the  
24 Commission should approve applying Staff's proposed differentials to capacity and non-  
25 capacity rates on the new default time-varying rate.

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1 Q. Does Staff agree with Company witness Foley that a lower differential between on- and  
2 off-peak rates should be preferred?

3 A. No. Company witness Foley claims both that the lower differential would be easier for  
4 customers to accept, result in larger bill impacts, and that the change in load between the  
5 two options is insignificant. Company witness Foley Direct Testimony, pp. 25-26. The  
6 rate is intended to reflect the cost difference between using electricity in different time  
7 periods, not to inspire change in usage patterns. While it is possible for bill impacts to be  
8 greater with a larger differential, that is appropriate, as it reflects the cost difference  
9 between usage in those time periods.

10 Q. Does Staff agree that, should the Commission approve a larger differential, the  
11 determinants used should be altered to reflect the difference?

12 A. No. Company witness Foley claims:

13 [I]f the Commission orders a rate design other than that proposed by the Company  
14 as I have described in this section, the Commission should also allow the  
15 Company to adjust the projected billing determinants associated with the ordered  
16 rate design.

17  
18 Depending on the ordered rate design, customer behavior that is different than  
19 what underlies the pricing of the Company's proposed D1.11 rate could  
20 potentially be expected. For example, a higher on-peak to off-peak pricing  
21 differential could result in lower expected on-peak usage than was assumed for  
22 the Company's proposed D1.11 rate. As such, the Company should be allowed to  
23 update its projected billing determinants if a different rate design is ordered to  
24 ensure it is able to fully recover the costs allocated to the D1/Other cost of service  
25 class. [Company witness Foley Direct Testimony, pp. 26-27.]

26  
27 This argument should be rejected. First, Company witness Foley states there is not a  
28 substantial difference between customer on-peak usage under the two differential options  
29 from the Company's perspective. Company witness Foley Direct, p. 25. This alone  
30 should make the change unnecessary. Second, the Company has already assumed a 3%

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1 peak shift from implementation of the lower differential, well above even what was  
2 experienced from the larger differential during the pilot. Therefore, no adjustment to the  
3 determinants would be necessary if the larger differential were approved.

4 Q. Does Staff agree that the actual LMP differential should be used to set the differential?

5 A. No. Company witness Aaron Willis claims:

6 The actual difference is most consistent and reflective of the observed distinctions  
7 between the time periods. If we consider two possible market scenarios, we can  
8 observe the consistency of the actual method and the distorting effects of the  
9 proportional method as shown in Table 1 below. [Table excluded]

10 In this example, the two scenarios have the same actual difference in average  
11 pricing in the TOU windows (\$0.02) but have substantially different relative  
12 differences. The true cost impact of using energy in one period or the other is  
13 \$0.02 in both scenarios, and the actual difference method captures this. The  
14 relative difference method is sensitive to both the size of the raw numbers and the  
15 difference between them, leading to Scenario A implying twice the difference of  
16 Scenario B. This is not an accurate representation of the actual cost difference.  
17 Company witness Willis Direct Testimony, pp. 15-16.

18  
19 Staff disagrees. In Staff's opinion, it is more appropriate to utilize the percentage  
20 difference in LMPs to guide the rate differentials. The very differences that the Company  
21 claims make utilizing the absolute difference more reasonable in fact makes it *less*  
22 reasonable. Given the large absolute difference between some of the rates charged to  
23 customers and the LMPs, the percentage differential is *more* representative of the  
24 difference in price than is the absolute differential. For the rates without the large  
25 absolute difference relative to LMPs, the percentage and absolute differentials converge.  
26 Therefore, Staff recommends the percentage LMP differences be utilized to guide  
27 differentials.

28 Q. Does Staff agree with the Company's Alternative Proposal for implementing the new  
29 default time-varying rate?

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1 A. The Company's Alternative Proposal (included as Exhibit S-23.00 corrects a number of  
2 the deficiencies in the Company's initial proposal. The Alternative Proposal aligns with  
3 Staff's opinion in that the differential should be applied to both capacity and non-capacity  
4 and that the rate should replace and not allow for customers to remain on the current D1  
5 rate (other than for those customers who have opted for a non-transmitting meter). The  
6 Alternative Proposal is also substantially less expensive to implement. For these reasons,  
7 Staff proposes the Commission approve the Alternative Proposal with the modifications  
8 described by Staff above in relation to the Company's initial proposal. Staff was unable  
9 to incorporate the cost difference between the Company's Alternative and initial  
10 proposals in its direct presentation.

11 Q. What adjustment would be necessary to incorporate the costs of the Alternative Proposal  
12 into Staff's case?

13 A. The costs listed on Exhibit S-23.01 would need to be added to the calculation of the  
14 revenue deficiency (minus the contingency amount for the reasons supported by Staff  
15 witness Rogers) in the Commission final order. The costs of the initial proposal were  
16 removed from Staff's case due to the class of the estimate by Staff witness Rogers. In my  
17 understanding, the class of the estimates I am proposing being included is such that no  
18 similar disallowance is being proposed.

19 **Stable Bill Service Level Rate**

20 Q. Does Staff agree with the Company's proposed Stable Bill Service Level rate, D1.12?

21 A. No. Staff disagrees with the justification for the rate, as I will discuss. The Commission  
22 should reject the proposed rate and disallow the expenses associated with its  
23 implementation. While Staff witness Danielle Rogers has recommended disallowance of

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1 this expense on another basis, even if that argument were rejected the expense should still  
2 be disallowed if the Commission rejects the rate as I recommend.

3 Q. What justification does the Company provide for the rate?

4 A. The Company claims that the rate more equitably recovers cost from customers, allows  
5 customers new ways to manage their bills, allows optionality, and reduces bill volatility.  
6 Company witness Foley Direct Testimony, pp. 34-35, 40, 42-43.

7 Q. Does Staff agree that the rate more equitably recovers costs from customers?

8 A. No. As discussed previously, demand charges are not necessarily the best way in which  
9 to ensure equitable recovery of costs or cost-alignment in rates. Even though the various  
10 levels of the distribution system can have different peaks from the total system and/or  
11 power supply, most costs are still incurred and/or allocated based on the combined  
12 contribution of a number of customers to the relevant peak. Very few distribution costs  
13 are incurred on the basis of an individual customer's demand (it may only be line  
14 transformers that serve single customers which can be said to be exclusively incurred on  
15 such a basis). Therefore, for the same reasons as Staff argued for power supply, allowing  
16 these costs to be charged in the time periods that are likely to be the relevant peaks would  
17 be more appropriate. The Company's proposed rate does not better reflect cost causation  
18 or cost-alignment than the current rate and should therefore be rejected.

19 Q. Does Staff agree with the Company's other justifications for the proposed D1.12 rate?

20 A. No. Giving customers options, reducing bill volatility, or allowing a new way to affect  
21 bills should not be taken as justification to approve a rate that does not properly align  
22 costs and rates. The rate should still be rejected.

23 **Proposed DG Change Justifications**

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1 Q. In attempting to justify the Company's proposed changes to Rider 18, the DG rider, the  
2 Company makes claims regarding the drivers of delivery costs, the interaction with rates  
3 and DG customers. Does Staff agree with these claims?

4 A. No. Company witness Foley's claims regarding drivers of distribution costs being  
5 customers and NCP demand have already been addressed previously in my testimony; the  
6 same argument applies to DG customers as to other residential customers. Whether or  
7 not the NCP of a customer has significantly changed says nothing about whether or not  
8 that customer's contribution to the relevant peak that drives costs has changed. Absent a  
9 showing that the relevant peak is not impacted, this argument should not be taken as  
10 support for the Company's other claims or proposals. Staff witness Kevin S. Krause  
11 addresses the Company's claimed cost shifts. Staff witnesses Krause and Cody  
12 Matthews address additional aspects of the Company's DG proposal and justifications  
13 thereto.

14 Q. Are there additional reasons beyond those supplied by other Staff witnesses to reject the  
15 Company's proposal to set outflow at LMP?

16 A. Yes. Attempting to compensate at market rates ignores the reality of the Company's  
17 power supply costs that would be offset by the outflow of DG customers, thereby  
18 undercompensating DG outflow. As retail rates represent the Company's actual power  
19 supply costs as charged to customers, they are more appropriate. The Company's  
20 proposal also fails to properly reflect the temporal value of DG outflow through the  
21 manner in which the LMPs would be averaged. This would not result in cost-alignment.

22 Q. Does Staff agree with the Company's proposals related to how demand should be  
23 measured for the application of the demand rate to outflow?



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1 A. No. The Company proposes to use the average on-peak outflow kW for primary  
2 customers and the average outflow billing demand for secondary customers. Company  
3 witness Willis Direct Testimony, p. 23. While Staff agrees with the Company's proposal  
4 for primary demand rate customers, Staff does not agree with the proposal for the  
5 secondary demand rate. The outflow demand credit is effectively intended to recognize  
6 the value of the outflow provided by customers on the DG tariff with reference to the  
7 Company's costs and rates. The relevant costs are incurred over the on-peak period, so  
8 that is the manner in which both secondary and primary demand-billed customers should  
9 be credited. Staff recommends the Commission reject the Company's proposal for  
10 secondary demand-billed customers and approve the Company's proposal for primary  
11 demand-billed customers which should be applied to both primary and secondary  
12 demand-billed customers, along with the appropriate tariff language modifications. This  
13 is the method recently approved by the Commission for Consumers Energy.<sup>3</sup>

14 Q. Does Staff have any further proposals related to the DG tariff?

15 A. Yes. Staff proposes that the transmission amount be included in the compensation for  
16 outflow, which would result in the outflow rate being the total power supply rate over the  
17 relevant time period. Staff also proposes that DG customer no longer be barred from  
18 being on rate D1.8.

19 Q. Why is Staff proposing that transmission be included in the outflow rate?

20 A. Outflow, as it supplied at the distribution level, offsets transmission usage. As  
21 transmission costs are generally charged on the basis of 12 CP, but charged on the basis

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<sup>3</sup> MPSC Case No. U-20963, 12/22/2021 Order, pp 371-373.

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1 of total energy, the rate is not currently cost-aligned. Outflow tends to occur in the hours  
2 that those CPs are likely to occur. Therefore, even including transmission rates as part of  
3 outflow likely does not fully encompass the contribution outflow has towards reducing  
4 the use of transmission. In Staff's opinion, this is appropriate for the time being, as  
5 exactly how much value the contribution represents versus the amount that would be  
6 compensated through outflow has not been empirically established, and the current  
7 compensation includes nothing for transmission. For these reasons, transmission should  
8 be included in the DG outflow rate.

9 Q. Why is Staff proposing that DG customers no longer be prevented from being on Rate  
10 D1.8?

11 A. In Staff's opinion, even though the rate is considered to be a demand response rate, with  
12 pricing set to encourage certain behaviors, the pricing is still justified by cost-differentials  
13 (such as the appropriate way to charge for power supply capacity I discussed earlier).  
14 Therefore, the pricing is also appropriate for DG customers and their outflow. For this  
15 reason, the prohibition should be removed from the tariff.

16 **AMI System Cost Allocations**

17 Q. What does Staff propose for AMI System cost allocations?

18 A. Staff recommends that the Company be required, in its next rate case, to propose a  
19 method for allocating the costs of the AMI communication system between the billing  
20 function and any other functions it is utilized for (for example, used to deliver load  
21 control signals as discussed by Company witness Phillip L. Smith), including identifying  
22 all said functions. In Staff's opinion, insofar as the AMI communication network is used  
23 for something other than billing, an appropriately allocated portion of that cost should be

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1 removed from the calculation of the customer charge, the non-transmitting meter charge  
2 offset, and allocated on a basis consistent with that use rather than how it is currently  
3 allocated. It is inappropriate for the portion of those costs not directly related to billing to  
4 be treated as if they were.

5 **Staff Forecast Incorporation**

6 Q. How did Staff incorporate Staff's volumetric sales forecast adjustment, sponsored by  
7 Staff witness Paul Ausum, into its direct case?

8 A. Staff ran the adjustments through the Company's workpapers that translated their  
9 proposed forecast into determinants and allocator changes as a customer usage change.  
10 These workpapers and associated exhibits were then provided to other Staff witnesses for  
11 incorporation into the cost of service study, present revenue calculation, rate design, and  
12 PSCR expense calculations. These exhibits are S-23.02, Schedules G1.1 and G1.2.

13 Q. Does this conclude your testimony?

14 A. Yes, it does.

STATE OF MICHIGAN  
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

\* \* \* \*

In the matter of the application of )  
**DTE ELECTRIC COMPANY** )  
for authority to increase its rates, amend )  
its rate schedules and rules governing the )  
distribution and supply of electric energy, and )  
for miscellaneous accounting authority. )

Case No. U-20836

**QUALIFICATIONS AND DIRECT TESTIMONY OF**  
**SHANNON RUECKERT**  
**MICHIGAN PUBLIC SERVICE COMMISSION**

May 19, 2022

**QUALIFICATIONS OF SHANNON RUECKERT**

**CASE NUMBER U-20836**

**PART I**

1 Q. Please state your name and business address.

2 A. My name is Shannon Rueckert. My business address is 7109 W. Saginaw Hwy, Lansing,  
3 MI 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or Commission) as  
6 an auditor in the Revenue Requirements section.

7 Q. How long have you been employed by the Commission?

8 A. Since February of 2018.

9 Q. What is your educational and professional background?

10 A. I previously served in the US Air Force as a Fuels Resource Controller, responsible for  
11 controlling base wide fuels operations and accounting. My duties included daily close out  
12 and reconciliation of all fuel transactions. After serving in the Air Force I managed a  
13 family business. While general manager of the business I performed all managerial  
14 accounting functions. I transitioned the business from ledger paper to an accounting  
15 information system. This allowed me to perform more accounting functions in house  
16 instead of outsourcing them, such as processing payroll and business taxes. In 2015, I  
17 graduated from the University of Michigan with a Bachelor of Business Administration  
18 and a concentration in Accounting degree with High Honors. I was previously employed  
19 at Andrew's Hooper Pavlik, PLC as a staff accountant where I performed tax preparation  
20 and audits of municipalities, retirement plans, and banks. In April of 2019 I completed  
21 the Master of Business Administration program, with a concentration in Accounting, at  
22 the University of Michigan. I have been involved in rate case audits and performed audit  
23 work in the following cases:

**QUALIFICATIONS OF SHANNON RUECKERT**

CASE NUMBER U-20836

**PART I**

1	<u>Case No.</u>	<u>Company / Type of Case</u>
2	U-20276	Upper Peninsula Power Company Electric Rate Case
3	U-20286	Consumers Energy Company's Tax Cuts and Jobs Act (TCJA) Credit B
4	U-20322	Consumer's Energy Gas Rate Case
5	U-20359	Indiana Michigan Company Electric Rate Case
6	U-20642	DTE Gas Rate Case
7	U-20650	Consumer's Energy Gas Rate Case
8	U-20697	Consumer's Energy Electric Rate case
9	U-20940	DTE Gas Rate Case
10	U-20963	Consumer's Energy Gas Rate Case
11	U-21045	Alpena Electric Company
12	U-21097	NSP Electric Company
13	U-21148	Consumer's Energy Electric Rate case

**DIRECT TESTIMONY OF SHANNON RUECKERT**

**CASE NUMBER U-20836**

**PART II**

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to present Staff's Uncollectible Accounts Expense  
3 projection for the 12-month periods ending October 31, 2023.

4 Q. Are you sponsoring exhibits?

5 A. Yes.

6 Exh. Title

7 S-18 Uncollectible Accounts Expense for the Projected Test-Period Ending  
8 October 31, 2023.

9 S-18.1 Uncollectible Accounts Expense Direct Write-Off Method for the  
10 Projected Test-Period Ending October 31, 2023.

11 S-18.2 Future UCX Reductions from Capital Projects.

12 Q. Please describe Exhibit S-18.

13 A. Exhibit S-18 presents Staff's Uncollectible Expense projection of \$50,013,000 for the  
14 Projected 12-month period ending October 31, 2023, a decrease of \$9,560,000 from DTE  
15 Electric Company's (DTE or Company) request of \$59,573,000. The projection was  
16 developed through the categories listed in column (a.). Column (b.) presents the  
17 Company's projection and column (d.) presents Staff's projection, with a difference  
18 shown in column (c.). The differences in column (c.) represent Staff's adjustments and  
19 are supported by corresponding exhibits and Commission Staff listed in column (e.).

20 Q. Please describe Exhibit S-18.1.

21 A. Exhibit S-18.1 presents Staff's Commission-approved direct write-off methodology for  
22 projecting uncollectible accounts expense.

23 Q. Please describe Exhibit S-18.2.

**DIRECT TESTIMONY OF SHANNON RUECKERT**

CASE NUMBER U-20836

**PART II**

1 A. Exhibit S-18.2 presents the Company's responses to Staff's request for DTE Electric's  
2 portion of the UCX savings resulting from capital investments.

3 **Uncollectible Accounts Expense**

4 Q. What method did the Company use to project its uncollectible accounts expense (UCX)?

5 A. The Company is using a three-year average based on the accrual method of uncollectible  
6 expense reported on its P-521 for years 2017 through 2020, excluding 2018, resulting in a  
7 projection of \$59.6 million of uncollectible expense. See Exhibit A-13, Schedule C5.8.  
8 This average excludes the year 2018. In 2018, system issues and delayed collections  
9 resulting from the Customer 360 (C360) billing system implementation caused  
10 uncollectible expense to be abnormally high. See the direct testimony of Tamara D.  
11 Johnson, page 563.

12 Q. Does Staff support the Company's projected uncollectible accounts expense?

13 A. No. The Company's methodology is unreasonable for several reasons. The Company's  
14 accrual method projection does not consider revenues. Including revenue as a factor for  
15 projecting uncollectible accounts expense is necessary because as revenue increases or  
16 decreases, so does the probable amount for default on revenue owed to the Company. The  
17 accrual method is allowed for financial reporting of uncollectible accounts expense by  
18 Generally Accepted Accounting Principles (GAAP) and is used by the Company for  
19 financial reporting purposes. GAAP accounting should inform regulatory accounting.  
20 However, it does not entirely dictate it for rate making purposes.

21 Q. What method did Staff use to project the Company's uncollectible accounts expense?

22 A. Staff uses and recommends the direct write-off method shown on exhibit S-18.1. The  
23 cash basis accounting of gross write-offs less recoveries to revenue is more accurate for



**DIRECT TESTIMONY OF SHANNON RUECKERT**

**CASE NUMBER U-20836**

**PART II**

1 uncollectible accounts expense projections for rate making purposes because it presents  
2 the actual write-offs and recoveries the Company receives from customers annually and  
3 includes direct expenses. Using the cash basis, direct write-off method, uncollectible  
4 accounts are written off directly to expense as they become uncollectible. This method is  
5 also used for U.S. income tax purposes. Company witness Maroun stated that “this  
6 method accurately reflects cost causation by measuring write offs net of recoveries  
7 caused by each major class and assigning the uncollectible expense on that basis.” See  
8 the direct testimony of Habeeb J. Maroun, page 52. An example of the accuracy in Staff’s  
9 direct write-off method using the cash basis of accounting can be seen in the historical  
10 year 2018. In Exhibit A-13, C5.8, historical year 2018’s accrued uncollectible expense  
11 (Account 904) was excluded because it was reported abnormally high due to system  
12 issues and delayed collection, resulting from the billing system. In Staff’s Commission  
13 approved cash basis, direct write-off, method calendar year 2018 is not unusually larger  
14 than previous years and shows the year should be include with the most current historical  
15 information. See Exhibit S-18.1. The Commission has previously approved this method  
16 for rate recovery of uncollectibles expense. See MPSC cases; No. U-20322, Order,  
17 September 26, 2019, p 102 and No. U-18124, Order, July 31, 2017, pp 89-90. In addition  
18 to this, Staff included the Company’s forecasted reductions to projected UCX expenses  
19 gained from capital IT investments. The Company invested \$3.9 million in capital  
20 between the historic and bridge years to complete the Business Rules Framework (BRF+)  
21 project. Company witness Pizzuti stated that “the BRF+ project is expected to provide  
22 annualized arrears and uncollectible expense (“UCX”) reductions of \$3.8 million and  
23 \$2.7 million, respectively.” See the direct testimony of Angie M. Pizzuti, page 388-389.

**DIRECT TESTIMONY OF SHANNON RUECKERT**

**CASE NUMBER U-20836**

**PART II**

1 The Company is also investing \$3.6 million in bridge period and test year capital to  
2 upgrade the Revenue Management and Protection (RM&P) collection and theft field  
3 order scheduling and dispatching functions to its ClickSoft cloud-based solution. Witness  
4 Pizzuti stated that this upgrade could “(result) in a potential annualized reduction of \$1  
5 million in uncollectible expense across both DTE Electric and DTE Gas.” See the direct  
6 testimony of Angie M. Pizzuti, page 388. Staff requested the amount of savings the  
7 Company expects to realize for DTE Electric for both projects and are shown on Exhibit  
8 S-18.2. The customer savings from capital IT projects provided are \$1,620,000 and  
9 \$200,000. Without including these projected reductions to UCX in rates, rate payers do  
10 not realize any benefits from the Company’s capital expenditures. Exhibit S-18.1 presents  
11 the Commission approved methodology, calculating an uncollectible account expense  
12 projection based on gross charge-offs less recoveries and non-energy write-offs applied  
13 to projected revenues. This includes projected reductions to UCX resulting from capital  
14 investments. Staff’s uncollectible expense projection of \$50,013,000 is a downward  
15 adjustment of \$9,560,000 from the Company’s request of \$59,573,000.

16 Q. Does this complete your testimony?

17 A. Yes.

**S T A T E O F M I C H I G A N**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

\* \* \* \*

In the matter of the Application of	)	
<b>DTE ELECTRIC COMPANY</b>	)	
for authority to increase its rates, amend	)	Case No. U-20836
its rate schedules and rules governing the	)	
distribution and supply of electric energy, and	)	
<u>for miscellaneous accounting authority.</u>	)	

QUALIFICATIONS AND DIRECT TESTIMONY OF  
  
MICHELLE L. SCHREUR  
  
MICHIGAN PUBLIC SERVICE COMMISSION

**May 19, 2022**

**QUALIFICATIONS OF MICHELLE L. SCHREUR**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is Michelle L. Schreur and my business address is 7109 West Saginaw  
3 Highway, Lansing, MI 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or  
6 Commission) as an auditor in the Revenue Requirements section of the Regulated  
7 Energy Division.

8 Q. Please describe your educational background.

9 A. I graduated from Grand Rapids Community College in 2015 with an Associate  
10 Degree in Business Administration. In 2017, I graduated from Grand Valley State  
11 University with a Bachelor of Business Administration Degree in Accounting and  
12 Finance. In September of 2017, I attended a Utility Business Model/Financial  
13 Valuation Training hosted by Michigan State University Institute of Public  
14 Utilities (MSU IPU). In August of 2018, I attended a fundamental and  
15 intermediate Annual Regulatory Studies Program hosted by MSU IPU.

16 Q. Please describe your professional background with the MPSC.

17 A. I began my employment with the MPSC in September of 2017 as an auditor in the  
18 Revenue Requirements section of the Regulated Energy Division. My current  
19 responsibilities include, but are not limited to, performing rate case audits using  
20 the financial and operating records of regulated utilities, applicable laws,  
21 regulations, and Commission policies to determine the necessity of rate relief.

22

23

**QUALIFICATIONS OF MICHELLE L. SCHREUR**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Have you previously sponsored testimony under the name Michelle L. Edelyn?

2 A. Yes.

3 Q. Have you previously sponsored testimony before the Michigan Public Service  
4 Commission?

5 A. Yes. I have sponsored testimony in the following cases:

6	<u>Case Number</u>	<u>Company</u>	<u>Case Type</u>
7	U-18424	Consumers Energy Co.	Gas Rate Case
8	U-18999	DTE Gas Co.	Gas Rate Case
9	U-20162	DTE Electric Co.	Electric Rate Case
10	U-20276	Upper Peninsula Power Co.	Electric Rate Case
11	U-20322	Consumers Energy Co.	Gas Rate Case
12	U-20479	SEMCO Energy Gas Co.	Gas Rate Case
13	U-20561	DTE Electric Co.	Electric Rate Case
14	U-20563	Consumers Energy Co.	DR Reconciliation
15	U-20650	Consumers Energy Co.	Gas Rate Case

**DIRECT TESTIMONY OF MICHELLE L. SCHREUR**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to present MPSC Staff's (Staff) projected total  
3 rate base for the 12-month period ending October 31, 2023 (projected test year) in  
4 the instant DTE Electric Company (DTE or the Company) electric rate case.  
5 Additionally, I will be supporting adjustments to the Company's projected  
6 depreciation and amortization expense, presented on Staff Exhibit S-3, Schedule  
7 C1, sponsored by Staff witness Nichols.

8 Q. Are you sponsoring any exhibits in this proceeding?

9 A. Yes, I am sponsoring the following exhibits:

10 S-2 Schedule B1: Projected Rate Base for Test Year Ending 10/31/23

11 S-2 Schedule B4: Projected Working Capital for Test Year Ending 10/31/23

12 S-19.0 Company Response to Staff Audit Request JSG-1.2

13 Q. Were these exhibits prepared by you or under your direction?

14 A. Yes.

15

16

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22

23

**DIRECT TESTIMONY OF MICHELLE L. SCHREUR**  
**CASE NUMBER U-20836**  
**PART II**

**RATE BASE**

Q. What is the total rate base being presented by Staff in the instant case for the projected test year?

A. Referring to Staff Exhibit S-2, Schedule B1, Line 16, Column (e), Staff presents a total projected rate base of \$20,624,303,000. This is a decrease of \$643,641,000 from the Company's \$21,267,944,000 projection presented on Exhibit A-12, Schedule B1, Line 16, Column (d), in its initial filing. Below, my testimony will address the individual components resulting in the \$643,641,000 decrease to the Company's filed projected rate base.

**Utility Plant**

Q. What is the total projected utility plant being presented by Staff for the projected test year?

A. Referring to Staff Exhibit S-2, Schedule B1, Line 6, Column (e), Staff presents a total projected utility plant of \$26,156,346,000. This is a decrease of \$631,960,000 from the Company's \$26,788,306,000 projection presented on Exhibit A-12, Schedule B1, Line 6, Column (d), in its initial filing.

Q. Please explain the \$631,960,000 difference.

A. The \$631,960,000 difference is a direct result of adjustments made by Staff to the Company's historic and projected capital expenditures. A summary of those adjustments as well as the corresponding Staff witness supporting each adjustment is illustrated in Figure 1, on page 5 of my testimony.

**DIRECT TESTIMONY OF MICHELLE L. SCHREUR**  
**CASE NUMBER U-20836**  
**PART II**

FIGURE 1*		Test Year Impacts From Historic and Projected Capital Spend Adjustments				
(\$000)		Total Capital Adj.	Utility Plant	Accum. Depr.	Rate Base	Depreciation
Staff Witness	Description	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
Champion	Production: Steam Generation - Non-Routine Additions	(12,454)	(10,696)	(376)	(10,320)	(323)
DeCooman	Production: Steam Generation - Non-Routine Removals	(76,494)	-	47,089	(47,089)	-
Champion	Production: Hydro Generation - Non-Routine	(3,305)	(3,078)	(137)	(2,941)	(82)
DeCooman	Production: Other Generation - Non-Routine	(65,821)	(38,229)	(533)	(37,695)	(757)
Becker	Distribution: Base Capital Programs	(96,038)	(69,604)	(2,159)	(67,445)	(2,847)
Becker	Distribution: Strategic Capital Programs	(251,677)	(181,245)	(5,595)	(175,649)	(7,413)
Evans	Distribution: Strategic Capital Programs	(66,384)	(40,742)	(1,091)	(39,651)	(1,666)
Wang	Distribution: Strategic Capital Programs	(165,997)	(127,964)	(5,989)	(121,976)	(5,234)
Rogers	Distribution: Strategic Capital Programs	(6,727)	(6,477)	(640)	(5,837)	(265)
Doherty	Demand Side Management: Other DR Programs & Pilots	(1,120)	(759)	(109)	(650)	(152)
Matthews	Demand Side Management: Other DR Programs & Pilots	(2,872)	(2,114)	(341)	(1,773)	(423)
Rogers	IT: Exhibit A-12 (Sch. B5.7, B5.7.1-B5.7.7 )	(113,122)	(75,592)	(11,874)	(63,718)	(15,118)
Armstrong	IT: Exhibit A-12 (Sch. B5.7.3)	(20,080)	(19,043)	(8,164)	(10,878)	(3,809)
Wang	IT: Exhibit A-12 (Sch. B5.7.4, B5.7.7)	(9,564)	(8,155)	(1,961)	(6,194)	(1,631)
Evans	Corporate Staff: EV Fleet & Maintenance	(20,425)	(10,213)	(387)	(9,825)	(774)
DeCooman	Corporate Staff: Headquarters Energy Center	(7,700)	(7,700)	(1,070)	(6,630)	(584)
Rogers	Corporate Staff: Enterprise Automation	(20,759)	(15,258)	(2,448)	(12,810)	(3,052)
Matthews	Residential Battery Pilot	(4,244)	(2,672)	(36)	(2,636)	(53)
DeCooman	Contingency - Production: Other Power Generation	(8,100)	(8,100)	(294)	(7,806)	(160)
Rogers	Contingency - IT	(4,900)	(4,320)	(260)	(4,060)	(302)
	<b>TOTAL</b>	<b>(957,782)</b>	<b>(631,960)</b>	<b>3,626</b>	<b>(635,585)</b>	<b>(44,644)</b>
	Total of Non-Contingency Items Above	(944,782)	(619,540)	4,180	(623,720)	(44,181)
	Total of Contingency Items Above	(13,000)	(12,420)	(554)	(11,866)	(463)
	<b>TOTAL</b>	<b>(957,782)</b>	<b>(631,960)</b>	<b>3,626</b>	<b>(635,585)</b>	<b>(44,644)</b>
*Source - WP-MLS-1						

**Depreciation Reserve**

Q. What is the projected depreciation reserve being presented by Staff for the projected test year?

A. Referring to Staff Exhibit S-2, Schedule B1, Line 7, Column (e), Staff presents a projected depreciation reserve of \$6,934,229,000. This is an increase of \$3,626,000 from the Company's \$6,930,603,000 projection presented on Exhibit A-12, Schedule B1, Line 7, Column (d), in its initial filing.

Q. Please explain the \$3,626,000 difference.

A. The \$3,626,000 difference is a direct result of adjustments made by Staff to the Company's historic and projected capital expenditures. A summary of those



**DIRECT TESTIMONY OF MICHELLE L. SCHREUR**  
**CASE NUMBER U-20836**  
**PART II**

1 adjustments as well as the corresponding Staff witness supporting each  
2 adjustment appears in Figure 1, on page 5 of my testimony.

3 **Working Capital**

4 Q. What is the projected test year working capital being presented by Staff?

5 A. Referring to Staff Exhibit S-2, Schedule B4, Line 63, Column (e), Staff presents a  
6 projected working capital of \$1,249,327,000. This is a decrease of \$8,055,000  
7 from the Company's \$1,257,383,000 projection presented on Exhibit A-12,  
8 Schedule B4, Line 63, Column (c), in its initial filing.

9 Q. Please explain the \$8,055,225 difference.

10 A. The \$8,055,225 difference is a direct result of Staff Exhibit S-19.0 Company  
11 Response to Staff Audit Request JSG-1.2. The Company confirms that the  
12 account Other Accounts Receivable has an embedded balance that is considered  
13 non-recoverable and non-utility related. Therefore, I made an adjustment to  
14 remove \$8,055,225 from line 11.

15

16 **DEPRECIATION AND AMORTIZATION EXPENSE ADJUSTMENT**

17 Q. The Company provides a projected amount for depreciation and amortization  
18 expense of \$1,087,914,000 on its Exhibit A-13, Schedule C1, in its initial filing, is  
19 that correct?

20 A. Yes.

21 Q. What adjustments to the Company's projected depreciation expense are you  
22 supporting?

**DIRECT TESTIMONY OF MICHELLE L. SCHREUR**  
**CASE NUMBER U-20836**  
**PART II**

1     A.     I am supporting an adjustment on Exhibit S-3, Schedule C1, sponsored by Staff  
2             witness Nichols, to decrease the Company's projected depreciation expense by  
3             \$44,644,000 to \$1,043,271,000.

4     Q.     Please explain your adjustment.

5     A.     The \$44,644,000 adjustment is a direct result of Staff adjustments to the  
6             Company's projected capital expenditures illustrated in Figure 1, on page 5 of my  
7             testimony.

8     Q.     Does this conclude your testimony?

9     A.     Yes.

In the matter of the Application of )  
**DTE ELECTRIC COMPANY** )  
for authority to increase its rates, amend )  
its rate schedules and rules governing the )  
distribution and supply of electric energy, and )  
for miscellaneous accounting authority. )

**May 19, 2022**

**QUALIFICATIONS OF JOSEPH UFOLLA**  
**CASE NUMBER U-20836**  
**PART I**

1 Q. Please state your name and business address.

2 A. My name is Joseph E. Ufolla and my business address is 7109 West Saginaw  
3 Highway, Lansing, MI 48909.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission ("MPSC" or  
6 "Commission") as a financial analyst in the Revenue Requirements Section of the  
7 Regulated Energy Division.

8 Q. Please describe your educational and other professional qualifications.

9 A. I graduated from Oakland Community College in 2016 with an Associate Degree  
10 in Business Administration. In 2018, I graduated from Cleary University with a  
11 Bachelor of Business Administration Degree in Accounting and Finance. In  
12 October 2018, I attended courses in Utility Credit Markets and Ratings and Utility  
13 Stock Valuation as part of the Institute of Public Utilities Advanced Regulatory  
14 Studies Program at Michigan State University. In August 2019, I attended the  
15 Institute of Public Utilities Fundamental Studies Program at Michigan State  
16 University. In October 2019 I attended the Essentials of Regulatory Finance  
17 conference at Georgetown University hosted by S&P Global.

18 Q. Please describe your professional background with the MPSC.

19 A. I began my employment with the MPSC in August of 2018, as a financial analyst,  
20 in the Revenue Requirements Section of the Regulated Energy Division. My  
21 primary responsibilities include, but are not limited to, reviewing, analyzing, and  
22 making recommendations regarding utility capital structure and development,

**QUALIFICATIONS OF JOSEPH UFOLLA**  
**CASE NUMBER U-20836**  
**PART I**

1        debt and equity costing, and business and credit risk analysis in rate case

2        proceedings.

3        Q.     Have you sponsored testimony in any MPSC cases prior to this case?

4        A.     Yes, I have sponsored testimony in the following cases:

	<u>Case Number</u>	<u>Company Name</u>	<u>Description</u>
6	U-20276	Upper Peninsula Power Co.	Short-Term Debt/Inflation
7	U-20322	Consumers Energy Co. (Gas Div.)	Capital Structure
8	U-20479	SEMCO Energy Gas Company	Capital Structure/ROE
9	U-20561	DTE Electric Company	Capital Structure
10	U-20642	DTE Gas Company	Capital Structure/ROE
11	U-20940	DTE Gas Company	Capital Structure/ROE

**DIRECT TESTIMONY OF JOSEPH UFOLLA**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. What is the purpose of your testimony in this proceeding?

2 A. The purpose of my testimony is to provide recommendations on behalf of the  
3 Michigan Public Service Commission Staff ("Staff") regarding DTE Electric  
4 Company ("DTE," "DTE Electric," or the "Company") capital structure balances  
5 and corresponding cost rates.

6 Q. Are you sponsoring any exhibits on behalf of Staff in this proceeding?

7 A. Yes, I am sponsoring the following exhibits:

<u>Exhibit</u>	<u>Schedule</u>	<u>Title</u>
S-4	D-1	Capital Structure and Overall Rate of Return
S-4	D-2	Forecasted Long-Term Debt Balance and Cost Rate
S-4	D-3	Forecasted Short-Term Debt Balance and Cost Rate
S-4	D-4	Forecasted Preferred Stock Balance and Cost Rate
S-4	D-5	Forecasted Equity Balance and Cost Rate
S-13		DTE Audit Response to Staff

15 Q. Were these exhibits prepared by you or under your direction?

16 A. Yes.

17

**DIRECT TESTIMONY OF JOSEPH UFOLLA**  
**CASE NUMBER U-20836**  
**PART II**

1 Q. Please summarize Staff's overall rate of return recommendation.

2 A. Staff recommends an overall rate of return of 5.30%. This recommendation is  
3 comprised of a 9.60% return on equity ("ROE") and a common equity ratio of  
4 50%. Staff's overall rate of return is premised on the Company's capital structure  
5 forecast and then adjusted for any known, anticipated, and/or reasonable changes  
6 in the test year ending October 31, 2023. In determining the ratemaking cost of  
7 capital, I rely on a mixture of balances and cost rates provided by the Company  
8 and by Staff.

9 Q. How is your testimony organized?

10 A. My testimony is split into three sections. The first covers Staff's recommendation  
11 on capital structure balances, and the second covers Staff's recommendation on  
12 capital structure cost rates. The third covers Staff's cost of equity analyses and  
13 recommendation for return on equity.

14 **Capital Structure Balances**

15 Q. Please summarize the recommended ratemaking capital structure balances of Staff  
16 and the Company.

17 A. Chart 1 outlines the ratemaking capital structure recommendations by Staff and  
18 the Company:  
19

**DIRECT TESTIMONY OF JOSEPH UFOLLA**  
**CASE NUMBER U-20836**  
**PART II**

**Chart 1: Capital Structure Balances**

<b>Component</b>	<b>Company (000)</b>	<b>Staff (000)</b>
Long-Term Debt	\$ 8,410,859	\$ 8,410,859
Preferred Stock	0	0
Common Equity	8,426,264	8,426,264
Short-Term Debt	265,492	265,492
Deferred Income Tax	4,117,952	4,117,952
Job Development Investment Tax Credits	47,376	47,376
Total Capital Structure	<u>\$ 21,267,943</u>	<u>\$21,267,943</u>

Q. Were there any differences between the balances proposed on the Company's Schedule D1 versus Staff's Schedule D1?

A. No. However, it is worth pointing out that DTE and Staff choose to round the permanent equity ratio to one and two decimal places respectively. For this reason, Staff's Schedule D1 shows a 50.05% equity ratio instead of the Company's proposed 50.00%. For simplicity, since no adjustment was made in Staff's analysis, in the instant case Staff will refer to its recommended equity ratio as "50%" just as the Company has.



**DIRECT TESTIMONY OF JOSEPH UFOLLA**  
**CASE NUMBER U-20836**  
**PART II**

**Capital Structure Cost Rates**

Q. Please summarize the recommended cost rates of Staff and the Company.

A. Chart 2 outlines the cost rates recommended by Staff and the Company:

**Chart 2: Capital Structure Component Cost Rates**

Component	Company	Staff
Long-Term Debt	3.69%	3.69%
Preferred Stock	N/A	N/A
Common Equity	10.25%	9.60%
Short-Term Debt	1.74%	1.74%
Deferred Income Tax	0.00%	0.00%
Job Development Investment Tax Credits	Mixed	Mixed

Q. Please explain the difference between the recommended Cost of Common Equity provided by Staff and the Company.

A. The differences between Staff's Cost of Equity recommendation and the Company's recommendation are explained in detail in the next section of my testimony.

**Return on Equity**

Q. Please summarize Staff's Return on Equity (ROE) recommendation.

A. Staff recommends a return on equity of 9.60%, which is in the upper half of Staff's 8.90% - 9.90% reasonable ROE range. To determine the fair return on equity, since DTE Electric is not a publicly traded company, a group of twelve publicly traded electric utility companies forms a comparable proxy group for Staff's analysis. The proxy group's data is used in both Discounted Cash Flow and Capital Asset Pricing Model analyses to determine a reasonable cost of

**DIRECT TESTIMONY OF JOSEPH UFOLLA**  
**CASE NUMBER U-20836**  
**PART II**

1 equity. Additionally, a Risk Premium model and a review of gas ROE  
2 authorizations from other state jurisdictions from 2020-2021 are also utilized in  
3 this case. Staff's 9.60% recommendation considers the Company's currently  
4 authorized 9.90% and requested 10.25% ROE in the instant case.

5 Q. Please outline DTE Electric's current credit rating.

6 A. DTE currently has an A- rating from S&P, an Aa3 rating from Moody's, and an  
7 A+ rating from Fitch. These are unchanged since the last rate case. All DTE  
8 Electric's ratings have a stable outlook.

9 Q. In establishing a legal basis for Staff's return on equity analysis in this rate case,  
10 what considerations does Staff take into account?

11 A. Traditionally, when considering a return on equity recommendation for a utility  
12 company, Staff takes into consideration the landmark Supreme Court decisions in  
13 the Hope and Bluefield cases. Those decisions described various methods such as  
14 the "Attraction of Capital" and the "Returns Commensurate with Those on  
15 Investments in Enterprises of Comparable Risks" that the Supreme Court found to  
16 be lawful and prudent. In *Bluefield Water Works and Improvement Co. vs. Public*  
17 *Service Commission*, 262 U.S. 679, 692-693 (1923) case, the Court stated:

18 "A public utility is entitled to such rates as will permit it to earn a return on the  
19 value of the property which it employs for the convenience of the public equal to  
20 that generally being made at the same time and in the same part of the country on  
21 investments in other business undertakings which are attended by corresponding  
22 risks and uncertainties; but has no constitutional right to profits such as are  
23 realized or anticipated in highly profitable enterprises or speculative ventures."

24 Furthermore, in 1944 in *Federal Power Commission vs. Hope Natural Gas*  
25 *Company*, 320 U.S. 591, 603 (1944), the Court stated:

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1       “From the investor or company point of view, it is important that there be enough  
2       revenue not only for operating expenses but also for the capital costs of the  
3       business. These include service on the debt and dividends on the stock. By that  
4       standard the return to the equity owner should be commensurate with returns on  
5       investment in other enterprises having corresponding risks. That return, moreover,  
6       should be sufficient to assure confidence in the financial integrity of the  
7       enterprise, so as to maintain its credit and to attract capital.”

8       The Supreme Court’s “end result” doctrine surmises that how a capital structure  
9       and rate of return was determined was not so important as long as the end result  
10      was appropriate and reasonable for the case at hand. No one methodology  
11      provides an exact measure of a fair rate of return on equity, but some methods  
12      provide good estimates. The Discounted Cash Flow method and the Capital Asset  
13      Pricing Model are the primary models most utility financial analysts use in rate  
14      cases to determine a fair and reasonable cost of equity for regulated utility  
15      companies. Staff employs those same methods in this rate case along with a risk  
16      premium method and a comparison of recent gas ROE determinations from other  
17      state jurisdictions.

18   Q.     Please explain the development of the electric utility proxy group Staff used to aid  
19      in determining its cost of equity recommendation for DTE Electric.

20   A.     Staff’s proxy group consists of nine electric companies that meet five criteria.  
21      These criteria are; the company must 1) be listed as electric Utility by Value Line,  
22      2) have a full Value Line report available, 3) be currently paying dividends to  
23      shareholders, 4) not be the target of a merger or acquisition, and 5) have a  
24      Moody’s credit rating of Baa1 or higher.

25

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1 Q. How does Staff's proxy group compare to the Company's proxy group?

2 A. Comparing the two proxy groups identifies a few differences from the Company's  
3 Proxy group. The Company's proxy group is much larger and includes the  
4 entirety of Staff's proxy group, except Portland General. Firstly, the Company  
5 does not have the criteria of removing proxy candidates with a significantly lower  
6 credit rating than DTE Electric. Staff believes this to be an important criteria in  
7 order to produce a proxy that is most similar to the subject utility, and to assure  
8 that the proxy companies have very similar risk profiles.

9 Additionally, the Company utilized both gas and water companies in analysis;  
10 however, Staff rejects this analysis as gas and water companies are not as similar  
11 to DTE Electric as other electric companies are. Dr. Villadsen argues on page 14  
12 of her direct testimony that gas and water companies face similar regulation, are  
13 similarly capital intensive, and serve a similar customer base when compared to  
14 electric companies such as DTE Electric. Although Dr. Villadsen concludes that  
15 gas and water utilities are appropriate for use in her proxy, I respectfully disagree  
16 as they do not experience the same risks as electric utilities. The goal of a proxy  
17 group is to create a group of companies as similar to the subject utility as possible.  
18 I believe Dr. Villadsen put it best in her response to a Staff audit request when she  
19 stated, "If there was a sufficiently large group of companies that replicated all  
20 aspects of DTE Electric's business profile, yes, it would create an ideal proxy  
21 group."<sup>1</sup> Staff would argue that its proxy, containing 12 companies, is sufficiently

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<sup>1</sup> Exhibit S-13 Page 1

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1 large and is a genuine and reasonable attempt to create a proxy group that best  
2 matches the aspects of DTE Electric.

**Discounted Cash Flow (DCF) Analysis**

4 Q. Please provide a brief explanation of the DCF and how it's used in Staff's ROE  
5 analysis.

6 A. The DCF method has been a widely used approach for estimating equity investors  
7 return demand since the 1960s. It was introduced after the 1929 stock market  
8 crash by I. Fisher in 1930 and expanded upon by J.B. Williams in 1938 before  
9 being elaborated on by M.J. Gordon and E. Shapiro. The approach derives its  
10 basis by surmising how investors evaluate stocks for potential investment. The  
11 formula assesses that investors value securities by evaluating the present value of  
12 expected future cash flows attributed to those securities. The model suggests that  
13 expected future cash flows include dividends, the projected market value of the  
14 security at liquidation, and the discount or capitalization rate investors apply to  
15 the future cash flows. The model evaluates the current price of a stock with the  
16 assumption that the growth of the stock will be constant throughout its life and  
17 that its growth will be less than the cost of its equity. The formula is

18  $P = D / K - g$  where:

19 P = Price per share

20 D = Dividend per Share Expected

21 K = Cost of Equity

22 g = Expected Growth Rate

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1       Rearranging the above formula into the basic DCF formula is the mathematical  
2       equation that states that the cost of equity is equal to the security's dividend yield  
3       plus a projected future growth rate of the stock. The basic DCF formula is

4                     
$$K = D / P + g$$

5                     *(D/P = Dividend Yield)*

6       Q.       Please explain the computation of Staff's DCF estimate.

7       A.       Staff's DCF analysis can be seen in detail on Schedule D-5, pages 3-5. Staff uses  
8       the closing stock prices from January, February, and March 2022 along with the  
9       most recent quarterly dividend to calculate the annual dividend yields for the  
10       proxy group. The dividend yield is modified by the semi-annual compounding  
11       method based on the formula  $DCF = (D1 / P) * [1 + 0.5g] + g$ . The semi-annual  
12       compounding model is the preferred model to use when performing a DCF  
13       analysis on a group of comparison companies.<sup>2</sup> This is also the preferred method  
14       used by the Federal Energy Regulatory Commission (FERC).

15       For growth rates, Staff employs three well-known and widely used sources;  
16       Yahoo Finance, Zacks, and Value Line. The average of these sources is used to  
17       determine each individual proxy company's growth estimate. All available growth  
18       rate data is utilized ranging from 1.30% to 11.00%.

19       Q.       What DCF cost of equity did Staff arrive at?

20       A.       Staff arrived at an average adjusted DCF cost of equity estimate of 8.85%.

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<sup>2</sup> Parcell, D.C. (1997) The Cost of Capital – A Practitioner's Guide, 1997 Edition, Chapter 8, pages 10-13.

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1 Q. Did DTE Electric also provide a DCF cost of equity estimate?

2 A. Yes. The Company's cost of capital witness, Dr. Villadsen, sponsored a DCF  
3 analysis using two methods and two proxy groups. The Company performed a  
4 simple, or traditional, DCF analysis and a multi-stage, or 2-Step, DCF analysis  
5 using a combination of short-term analyst growth rates and a long-term growth  
6 rate associated with the Gross Domestic Product (GDP).

7 Q. Do you agree with the Company's DCF analysis and the ROE estimate that  
8 results from it?

9 A. No. Firstly, Dr. Villadsen herself states that her multi-step analysis results are  
10 "unrepresentative" on page 45 of her testimony. More importantly, the  
11 methodology used by Dr. Villadsen includes a version of the After-Tax Weighted  
12 Average Cost of Capital (ATWACC) approach which has never been approved by  
13 this Commission. I do understand the value in using the ATWACC as a tool;  
14 however, I have two concerns with this methodology. First, the ATWACC  
15 approach takes market weights for equity and debt to establish a market value  
16 overall rate of return for the proxy group. The approach then attempts to recreate  
17 the same overall market value rate of return using book weights or rate case  
18 weights of debt & equity of the Company. If the market weight for equity is  
19 higher than debt, which is normally the case, then to obtain the same overall  
20 market return, it will most always require a higher cost of equity. Second, the  
21 ATWACC is a tool that is geared primarily for use in analyzing the Overall Cost  
22 of Capital. It does not analyze the Cost of Equity exclusively as a pure DCF or  
23 CAPM equation is designed to do, and for these reasons, although I see value in

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1 the ATWACC analysis, I do not believe it should be used for setting an  
2 authorized ROE in this rate case.

**Capital Asset Pricing Model (CAPM) Analysis**

4 Q. Please discuss Staff's Historical CAPM method.

5 A. The CAPM model was derived from the study and analysis of economists Sharpe,  
6 Lintner, and Treynor and in its simplified form is expressed by the equation:

7 
$$E(R) = R_f + \beta * [E(R_m) - R_f] \text{ where:}$$

8  $E(R)$  = Expected rate of return on a risky security

9  $R_f$  = Risk free rate of return

10  $E(R_m)$  = Expected market rate of return

11  $\beta$  = The systematic risk or beta of a security

12 In theory the CAPM model differentiates between two types of risk: diversifiable  
13 and non-diversifiable risk. The theory suggests that an investor's required return  
14 is based on the investor's exposure to risk that is systemic in the market, i.e. non-  
15 diversifiable risk. Risk that is unique to a particular security is called firm specific  
16 risk. One of CAPM's primary assumptions is that investors are fully invested in  
17 the market, i.e. invested in a portfolio of stocks, and thus eliminate (or  
18 substantially reduce) firm specific risk. Hence, the model infers that investors risk  
19 exposure is primarily composed of market risk and since this is risk that cannot be  
20 diversified away, it should be the basis for investor compensation. The beta  
21 coefficient measures the volatility of a security's stock price as it relates to  
22 changes or movements in the market.



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1 Q. What equity risk premium estimate is used in Staff's Historical CAPM method?

2 A. In evaluating the historical risk premium, Staff reviewed the Ibbotson Associates  
3 study entitled Stocks, Bonds, Bills and Inflation: The 2021 Classic Yearbook. The  
4 study provides historical values for market return indices used in the estimation of  
5 risk premiums and common equity costs. Staff reviewed return data for the entire  
6 period 1926-2020. Taking the difference between the average stock return and  
7 government bond return indicated a 7.25% risk premium over the period.

8 Q. What risk free rate is utilized by Staff for the Historical CAPM method?

9 A. Because the U.S. government can print money and levy taxes, government  
10 securities are commonly considered to be risk-free. The risk-free rate used in the  
11 CAPM analysis is the yield associated with a long-term 30-year U.S. government  
12 Treasury bond. Staff reviewed projections of 2023 Treasury bond yields from IHS  
13 Markit over a three-month period; the average projection was 2.823%.

14 Q. What beta does Staff use in its CAPM analysis?

15 A. Staff uses beta values from Value Line. Value Line's beta measurement is widely  
16 accepted in the industry and utilized by every expert witness I am aware of. In  
17 general terms the total market has a beta of 1.00, stocks with a beta of less than  
18 1.00 are less volatile and have less inherent risk than the market as a whole, and  
19 stocks with a beta of greater than 1.00 are more volatile and have more inherent  
20 risk than the overall market. The Value Line beta is a forward-looking beta, which  
21 measures a 60-month average raw beta on a weekly basis and adjusts that raw  
22 beta by a convergence factor towards the market.

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1 Q. What cost of equity estimate does Staff arrive at when utilizing the Historical  
2 CAPM model?

3 A. Utilizing a risk-free rate of 2.82%, a historical risk premium of 7.25%, and an  
4 average beta of 0.86, Staff computes a Historical CAPM cost of equity of 9.08%.

5 Q. Does Staff provide an additional CAPM estimate?

6 A. Yes. To account for the forward-looking nature of ratemaking, Staff also conducts  
7 a Projected CAPM analysis using Value Line market data. Neither the Historical  
8 CAPM, nor the Projected CAPM, is without flaw. Therefore, using both can  
9 provide a clearer picture of investor expectations. Dr. Roger Morin discusses the  
10 strengths and weaknesses of both models at length in Chapter 5 of his book *New*  
11 *Regulatory Finance*, one of the most respected texts on ROE analysis.

12 Q. Is the Projected CAPM widely accepted for ratemaking?

13 A. Yes, the Federal Energy Regulatory Commission (FERC) now uses the projected  
14 CAPM as a primary analysis in determining ROE.

15 Q. Are there any concerns regarding the Projected CAPM?

16 A. Other intervenors have expressed concern about Staff's Projected CAPM in past  
17 rate cases. One concern is that Staff's methodology does not match FERC's  
18 Projected CAPM, and the second is a concern with the idea of a Projected CAPM  
19 in general due to the use of analyst forecasts in determining an ROE. To address  
20 the first concern, FERC uses a DCF of the S&P 500 as its projected market return;  
21 however, this DCF is based on analyst growth projections just like Staff's model.  
22 The difference is simply that FERC uses IBES growth estimates on the S&P 500  
23 and Staff uses Value Line growth estimate for the market. Both are analyst growth

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1 estimates from highly utilized and highly respected financial service providers on  
2 the broad stock market. To the second concern, there are multiple studies that  
3 have concluded that investors depend on analyst forecasts<sup>3</sup>. Therefore, it is  
4 reasonable to use a growth forecast as a basis for ROE determination.

5 Q. Please explain how Staff develops its Projected CAPM analysis.

6 A. Staff began the Projected CAPM by reviewing Value Line's projections for the  
7 last quarter and averaging them. An average is used to avoid picking a single  
8 projection that is an outlier as the projections can change weekly. Value Line  
9 estimates a median dividend yield of dividend paying stocks over the next 12  
10 months, which it estimated at about 1.87%. Value Line also estimates the median  
11 price appreciation of the 1,700 stocks in the Value Line universe over the next 3-5  
12 years. The price appreciation over the period is projected to be about 47%. Staff  
13 then annualized the price appreciation estimate at 10.07%, that is the necessary  
14 growth compounded over 4 years to reach 47% appreciation. The price  
15 appreciation rate was then added to the 1.78% dividend yield to approximate a  
16 projected total market return of 11.94% for the test period. Staff then subtracted  
17 its risk-free rate of 2.82%, discussed earlier. This produced a market risk premium  
18 of 9.12%. Substituting this projected 9.12% risk premium for the 7.25% historical  
19 risk premium in the CAPM formula results in a Projected CAPM cost of equity  
20 estimate of 10.69%. This analysis can be found alongside the historic CAPM on  
21 pages 6-8 of Exhibit S-4, Schedule D-5.

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<sup>3</sup> Womack 1996 - *Do Brokerage Analysts' Recommendations Have Investment Value?*  
Low & Tan 2016 - *The Role of Analyst Forecasts in the Momentum Effect*

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1 Q. Did the Company provide a CAPM cost of equity estimate?

2 A. Yes, DTE provides an array of CAPM analyses. Dr. Villadsen summarizes her  
3 CAPM analyses on page 42 of her direct testimony. The highest of her CAPM  
4 estimates is 11.7%, while the lowest is 10.3% (this excludes the gas and water  
5 sample). Dr. Villadsen's models include traditional CAPM, Empirical CAPM  
6 (ECAPM), and Hamada adjustments both with and without taxes.

7 Q. Does Staff agree with the Company's methodology for the CAPM models?

8 A. No, the Company's CAPM model includes an ATWACC formula (this can be  
9 seen on Dr. Villadsen's Exhibit titled "D5.11: Schedule No. BV-11"). However,  
10 the unadjusted CAPM outputs can be found in Column 4 of Dr. Villadsen's  
11 Exhibit titled "D5.10: Schedule No. BV-10". This is a two-page exhibit showing  
12 two different scenarios with different market risk premiums (MRP). I've  
13 summarized the averages of these columns in Chart 3 below:

14 **Chart 3: DTE's Unadjusted CAPM Outputs**

	<b>Scenario 1: MRP – 7.25%</b>	<b>Scenario 2: MRP – 7.89%</b>
<b>Electric Utilities</b>	<b>9.10%</b>	<b>9.64%</b>
Full Sample	9.28%	9.84%

15  
16 As previously explained, Staff does not agree with the use of the ATWACC  
17 adjustment for use in determining a reasonable ROE. However, when removing  
18 the adjustments the Company employs, which Staff objects to, the outputs are  
19 much lower and more in line with Staff's ROE recommendation. Staff would not

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1 object to the electric utility output shown in Chart 3 being considered in the  
2 determination of a reasonable ROE.

3 Q. Does Staff agree with the Company's use of the ECAPM models?

4 A. No. The Commission has historically not relied on ECAPM analyses in rate cases.

5 There are several concerns Staff has regarding the ECAPM approach, especially  
6 the use of a Value Line, or Bloomberg, adjusted beta instead of a raw beta in the  
7 model. The ALJ agreed with this concern in the PFD of Consumers Energy  
8 electric rate case U-17735.<sup>4</sup> More compellingly, the inputs used in Staff's  
9 ratemaking CAPM analysis already account for many of the shortcomings  
10 supposedly recognized by ECAPM, and thus render the ECAPM adjustment  
11 unnecessary.

12 Additionally, the current Beta values of the proxy group are much closer to 1.0  
13 than in past cases. This makes the ECAPM adjustment much smaller than usual to  
14 the point where Dr. Villadsen's ECAPM models yield results within 0.1% of the  
15 standard CAPM results; once again making the ECAPM even more unnecessary  
16 in this case.

17 Q. Does Staff have any other concerns with the ECAPM model?

18 A. Yes, well respected ROE expert Dr. Morin, states that long-term risk-free rates  
19 are used in regulated CAPM estimates instead of short-term risk-free rates that  
20 were used in the ECAPM observations. Dr. Morin remarked, "the long-term risk-

---

<sup>4</sup> Starting on page 86 of the ALJ's PFD, the ALJ stated "In addition, it seems that Mr. Rao incorrectly applied an 'adjusted beta' when performing his ECAPM analysis instead of using a 'raw beta'..."

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1 free rate version of the CAPM has a higher intercept and a flatter slope than the  
2 short-term risk-free version which has been tested.”

3 Finally, Dr. Morin also remarked that a lower tax burden on capital gains also had  
4 the effect of increasing the slope more in line with the standard CAPM.<sup>5</sup> Thus, as  
5 stated previously; Staff’s ratemaking CAPM analysis, with its use of long-term  
6 risk-free rates and adjusted betas, incorporates the desired effect of the ECAPM  
7 adjustment.

**Risk Premium Analysis**

9 Q. Please outline Staff’s risk premium analysis.

10 A. Staff provides three risk premium estimates. Two that use the difference between  
11 utility equity and utility bond returns, and one that examines the difference  
12 between utility equity and Treasury bond returns. Essentially this analysis looks at  
13 the historical risk premium investors have received for choosing to invest in the  
14 equity of a utility company as opposed to a utility bond or Treasury bond.

15 Q. Please explain the derivation of the risk premium approach.

16 A. Staff reviews the Electric Utility Realized Market Return Average from 1931  
17 through 2021, compares it with the A-Rated Public Utility Bond Yield Average,  
18 or Treasury bond yield, over the same period. Mergent Public Utility Manual &  
19 Bond Record provided complete market return and bond yield data until 2002.  
20 Therefore, in order to obtain utility market data for 2003 to 2021, Staff uses data

---

<sup>5</sup> Morin R.A. (2006), New Regulatory Finance, 6, p. 191

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1 from the Dow Jones Utilities index as shown on Exhibit No. S-4, Schedule D-5,  
2 pages 9-10.

3 The average electric utility market return over the period was 11.05%, the average  
4 return of an A-rated composite utility bond was 6.30%, and the average Treasury  
5 yield was 5.81% over the same period. Subtracting these bond yields from the  
6 natural gas market returns gives risk premiums of 4.75% and 5.24% respectively.  
7 Taking these risk premiums and adding them to current yields of 3.56% for an A-  
8 rated utility and 2.82% for a Treasury bond gives an estimate of 8.31% using the  
9 A-rated utility bond method and 8.06% using the Treasury bond method.

10 Current Baa-rated utility bond yield of 3.85% were also added to the utility bond  
11 premium for a result of 8.60%; although this mismatches the current Baa-rated  
12 yields with an A-rated risk premium, the results output a higher cost of equity  
13 estimation due to the fact that a Baa-rated bond will have a lower risk premium.  
14 Therefore, any inaccuracy derived from this mismatch would be in the favor of a  
15 slightly higher ROE.

16 Q. Did the Company also provide a Risk Premium analysis?

17 A. Yes. The Company provided two Risk Premium estimates. The models used  
18 Treasury yield based method which result in 9.8% and 9.9% estimates  
19 respectively.

20 Q. Does Staff agree with the Company's Risk Premium analyses?

21 A. Though Staff does not fully agree with the Company's Risk Premium model,  
22 Staff does not find the results to be unreasonable. Therefore, because of the "end

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1 result” doctrine allowed for by the Supreme Court, Staff will not dispute the  
2 Company’s Risk Premium analyses at this time.

**ROE Recommendation Summary**

4 Q. Does Staff review any other data in its ROE analysis?

5 A. Yes. Staff also reviews authorized rate of return decisions for electric utilities  
6 rendered by other state commissions across the country for 2020 and 2021. The  
7 average authorized ROE decisions for 2020 was 9.44%, and 9.38% for 2021<sup>6</sup>.

8 Q. Based on Staff’s analysis, what is Staff’s recommendation of the cost of common  
9 equity for DTE Electric in this rate case?

10 A. Chart 4 summarizes Staff’s cost of equity estimates and Staff’s recommendation  
11 for ROE range and ROE:

**Chart 4: Staff’s ROE Analysis Summary**

<u>Cost of Equity Model</u>	<u>ROE</u>
Discounted Cash Flows	8.85%
Historical CAPM	9.08%
Projected CAPM	10.69%
Risk Premium A-Rated Bond	8.31%
Risk Premium Baa-Rated Bonds	8.60%
Risk Premium Treasury Bonds	8.06%
Average Gas ROE Authorized 2021	9.38%
Average Gas ROE Authorized 2020	9.44%
Recommend Cost of Equity Range	8.90%-9.90%
ROE used in Overall Cost of Capital	<b>9.60%</b>

<sup>6</sup> S&P Global: RRA Regulatory Focus Major Rate Case Decisions



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1       Based on the results of the multiple analyses done, along with other factors such  
2       as; credit rating, Company requested 10.25% ROE, and currently approved 9.90%  
3       ROE, it is Staff's judgement that a reasonable range for DTE Electric's cost of  
4       equity to fall within is 8.90% - 9.90%. Within that range, Staff recommends a  
5       value of 9.60%, which falls in the upper half of Staff's range, is a reasonable ROE  
6       for DTE Electric and is appropriate for this rate case.

7   Q.   Does this conclude your testimony?

8   A.   Yes.

**S T A T E O F M I C H I G A N**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

\* \* \* \*

<b>In the matter of the application of</b>	)	
<b>DTE ELECTRIC COMPANY</b>	)	
<b>for authority to increase its rates, amend</b>	)	<b>Case No. U-20836</b>
<b>its rate schedules and rules governing the</b>	)	
<b>distribution and supply of electric energy, and</b>	)	
<b>for miscellaneous accounting authority.</b>	)	
<hr/>	)	

**EXHIBITS OF REGULATED ENERGY DIVISION**  
**MICHIGAN PUBLIC SERVICE COMMISSION**

**May 19, 2022**

## Audit Response EMB-2.1a

<b>MPSC Case No.:</b>	U-20836
<b>Requestor:</b>	Staff
<b>Question No.:</b>	EMB-2.1a
<b>Respondent:</b>	T. Johnson
	1 of 1

**Question:** Referencing Tamara Johnson's proposal to prioritize 5,000 senior customers to receive the LIA:

a. Is the Company currently engaging in this practice?

**Answer:** After reviewing non-LSP accounts, eligible seniors who received the Home Heating Credit (HHC) and enrolled in the Residential Income Assistance (RIA) credit were automatically enrolled in the Low Income Assistance (LIA) credit. This was a one-time review.

**Attachment:** None

## Audit Response EMB-2.1b

<b>MPSC Case No.:</b>	U-20836
<b>Requestor:</b>	Staff
<b>Question No.:</b>	EMB-2.1b
<b>Respondent:</b>	T. Johnson
	1 of 1

**Question:** Referencing Tamara Johnson's proposal to prioritize 5,000 senior customers to receive the LIA:

b. If so, did the Company seek or receive specific approval to prioritize 5,000 senior customers to receive the LIA? If so, please provide a reference to or copy of the filing or other relevant document in which the approval was sought or obtained.

**Answer:** The Company did not seek approval to move eligible seniors receiving RIA to LIA.

**Attachment:** *None*

## Audit Response EMB-2.2

**MPSC Case No.:** U-20836  
**Requestor:** Staff  
**Question No.:** EMB-2.2  
**Respondent:** M. Asghar  
1 of 1

**Question:** Please explain in detail why RIA customer counts filed in Part III of the filing requirements for Case No. U-20561 for 2016-2018 differ from that of the Part III filing requirements for Case No. U-20836 for 2016-2018. U-20836 RIA customer counts:  
2018: 743,333  
2017: 781,070  
2016: 663,390  
U-20561 RIA customer counts:  
2018: 160,205  
2017: 442,725  
2016: 539,256

**Answer:** Part III for U-20561 RIA customer counts included only the annual values for the years of 2016-2018. Part III for U-20836 RIA customer counts included the average of three years of annual values. U-20836 also combined the Residential Income Assistant Credit and Special Low Income Credit customers. Below is the breakout.

		<u>Annual</u>	<u>3 Year Average</u>
2018	Residential Income Assistant Credit	160,205	
	Special Low Income Credit	372,708	
	<b>Total</b>	<b>532,913</b>	<b>743,333</b>
2017	Residential Income Assistant Credit	442,725	
	Special Low Income Credit	367,966	
	<b>Total</b>	<b>810,691</b>	<b>781,070</b>
2016	Residential Income Assistant Credit	539,256	
	Special Low Income Credit	347,139	
	<b>Total</b>	<b>886,395</b>	<b>663,390</b>

**Attachment:** None.

Michigan Public Service Commission  
DTE Electric Company  
Unbundled Cost of Service, Production by Customer Class  
TME October 31, 2023  
(thousands of dollars)

Cost of Service Study  
75-0-25  
PRODUCTION COSTS

Case No. U-20836  
Exhibit S-6  
Schedule: F1.1  
Witness D. Gottschalk  
Page: 1 of 4

	(a)	(b)	(c)	(d)	(e)
	Total Electric	Total Residential	Total Commercial Secondary	Total Primary	E-1 St Lgt D9 OPL E-2 Signals
1 Rate Base	10,593,433	5,018,442	2,694,504	2,855,986	24,501
2 Revenue	3,221,958	1,420,417	810,930	979,063	11,548
3 Expenses:					
4 Fuel	969,329	403,718	245,574	315,212	4,825
5 Purchased Power	395,929	155,709	91,790	146,932	1,498
6 O & M Expense	593,490	254,015	150,126	186,866	2,484
7 Depreciation	442,317	211,816	112,530	117,040	930
8 Other (Reg Assets, etc)	-	-	-	-	-
9 Remove Reg Assets	-	-	-	-	-
10 Accretion of Loss/ Gain on Sale	-	-	-	-	-
11 Other Taxes	136,111	63,807	34,590	37,373	341
12 Income Taxes	107,787	52,494	27,319	27,744	230
13 Amortizations	-	-	-	-	-
14 Total Expenses	2,644,963	1,141,558	661,929	831,167	10,309
15 Net Oper Income	576,995	278,859	149,001	147,896	1,239
16 AFUDC & Other	42,770	20,472	10,881	11,327	90
17 Net Adjustments	(912)	(432)	(232)	(246)	(2)
18 Adj Net Oper Income	618,853	298,899	159,650	158,977	1,327
19 Rate of Return	5.84%	5.94%	5.93%	5.57%	5.42%
20 Return @ 5.29784942511858 %	561,224	265,869	142,751	151,306	1,298
21 Income Deficiency	(57,629)	(33,029)	(16,899)	(7,671)	(29)
22 Base Revenue Def / (Sufficiency)	(77,779)	(44,578)	(22,808)	(10,353)	(40)
23 Additional Rev Req	0	-	-	-	-
24 Total Revenue Def/ (Sufficiency)	(77,779)	(44,578)	(22,808)	(10,353)	(40)
25 Revenue Requirement	3,144,180	1,375,839	788,123	968,710	11,508
26 Misc Revenue	43,254	32,536	6,249	4,401	69
27 Rev Req Excl Misc Rev & Nuc Decomm	3,100,925	1,343,304	781,874	964,309	11,439

Michigan Public Service Commission  
DTE Electric Company  
Unbundled Cost of Service, Production by Customer Class  
TME October 31, 2023  
(thousands of dollars)

Cost of Service Study  
75-0-25  
PRODUCTION COSTS

Case No. U-20836  
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	(f) D-1/Other Residential Service	(g) D-1.2 Time Of Use	(h) D-2 Residential Space Ht	(i) Total Residential	(j) D-3/Other General Service	(k) D-3.2 Secondary Schools	(l) D-4 Lg Genl Service	(m) Total Commercial Secondary
1 Rate Base	4,911,153	42,729	64,559	5,018,442	2,123,076	72,587	498,842	2,694,504
2 Revenue	1,384,317	13,813	22,287	1,420,417	631,098	22,084	157,748	810,930
3 Expenses:								
4 Fuel	392,026	4,432	7,260	403,718	190,427	7,042	48,104	245,574
5 Purchased Power	151,638	1,588	2,484	155,709	71,386	2,614	17,790	91,790
6 O & M Expense	247,329	2,604	4,082	254,015	116,718	4,280	29,128	150,126
7 Depreciation	207,398	1,766	2,652	211,816	88,812	3,015	20,703	112,530
8 Other (Reg Assets, etc)	-	-	-	-	-	-	-	-
9 Remove Reg Assets	-	-	-	-	-	-	-	-
10 Accretion of Loss/ Gain on Sale	-	-	-	-	-	-	-	-
11 Other Taxes	62,412	554	841	63,807	27,216	937	6,437	34,590
12 Income Taxes	51,250	455	789	52,494	21,173	644	5,501	27,319
13 Amortizations	-	-	-	-	-	-	-	-
14 Total Expenses	1,112,054	11,398	18,107	1,141,558	515,732	18,533	127,664	661,929
15 Net Oper Income	272,263	2,415	4,181	278,859	115,367	3,550	30,084	149,001
16 AFUDC & Other	20,045	171	257	20,472	8,587	292	2,002	10,881
17 Net Adjustments	(423)	(4)	(6)	(432)	(183)	(6)	(43)	(232)
18 Adj Net Oper Income	291,885	2,582	4,432	298,899	123,771	3,836	32,043	159,650
19 Rate of Return	5.94%	6.04%	6.86%	5.96%	5.83%	5.28%	6.42%	5.93%
20 Return @ 5.29784942511858 %	260,186	2,264	3,420	265,869	112,477	3,846	26,428	142,751
21 Income Deficiency	(31,699)	(318)	(1,012)	(33,029)	(11,294)	10	(5,616)	(16,899)
22 Base Revenue Def / (Sufficiency)	(42,783)	(430)	(1,365)	(44,578)	(15,242)	13	(7,579)	(22,808)
23 Additional Rev Req	-	-	-	-	-	-	-	-
24 Total Revenue Def/ (Sufficiency)	(42,783)	(430)	(1,365)	(44,578)	(15,242)	13	(7,579)	(22,808)
25 Revenue Requirement	1,341,534	13,383	20,922	1,375,839	615,856	22,097	150,170	788,123
26 Misc Revenue	31,857	193	486	32,536	5,320	123	806	6,249
27 Rev Req Excl Misc Rev & Nuc Decomm	1,309,677	13,190	20,436	1,343,304	610,536	21,974	149,364	781,874

Michigan Public Service Commission  
DTE Electric Company  
Unbundled Cost of Service, Production by Customer Class  
TME October 31, 2023  
(thousands of dollars)

Case No. U-20836  
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		Cost of Service Study					
		75-0-25					
		PRODUCTION COSTS					
		(n) D-11/Other	(o) D-6.2 Primary Schools	(p) D-8 Interrupt Supply	(q) R-1.1/R-1.2 Metal Melt Process Heat	(r) R-10 Interrupt Supply	(s) Total Primary
		Primary					
1	Rate Base	2,558,873	89,802	89,525	70,622	47,166	2,855,986
2	Revenue	824,715	27,502	33,847	28,598	64,401	979,063
3	Expenses:						
4	Fuel	272,999	8,271	12,838	11,279	9,826	315,212
5	Purchased Power	99,756	3,102	4,184	3,546	36,344	146,932
6	O & M Expense	163,284	5,074	6,905	5,865	5,738	186,866
7	Depreciation	105,247	3,743	3,581	2,789	1,680	117,040
8	Other (Reg Assets, etc)	-	-	-	-	-	-
9	Remove Reg Assets	-	-	-	-	-	-
10	Accretion of Loss/ Gain on Sale	-	-	-	-	-	-
11	Other Taxes	33,333	1,155	1,195	953	737	37,373
12	Income Taxes	23,694	977	809	655	1,609	27,744
13	Amortizations	-	-	-	-	-	-
14	Total Expenses	698,314	22,321	29,512	25,086	55,934	831,167
15	Net Oper Income	126,401	5,180	4,335	3,513	8,466	147,896
16	AFUDC & Other	10,184	362	347	270	163	11,327
17	Net Adjustments	(220)	(8)	(8)	(6)	(4)	(246)
18	Adj Net Oper Income	136,365	5,535	4,674	3,777	8,626	11,081
19	Rate of Return	5.33%	6.16%	5.22%	5.35%	18.29%	0.39%
20	Return @ 5.29784942511858 %	135,565	4,758	4,743	3,741	2,499	151,306
21	Income Deficiency	(800)	(777)	68	(35)	(6,127)	(7,671)
22	Base Revenue Def / (Sufficiency)	(1,080)	(1,049)	92	(48)	(8,269)	(10,353)
23	Additional Rev Req	-	-	-	-	-	-
24	Total Revenue Def/ (Sufficiency)	(1,080)	(1,049)	92	(48)	(8,269)	(10,353)
25	Revenue Requirement	823,636	26,453	33,939	28,550	56,132	968,710
26	Misc Revenue	3,718	123	157	132	271	4,401
27	Rev Req Excl Misc Rev & Nuc Decomm	819,917	26,330	33,782	28,419	55,861	964,309



Michigan Public Service Commission  
DTE Electric Company  
Unbundled Cost of Service, Production by Customer Class  
TME October 31, 2023  
(thousands of dollars)

Cost of Service Study  
75-0-25  
PRODUCTION COSTS

Case No. U-20836  
Exhibit S-6  
Schedule: F1.1  
Witness D. Gottschalk  
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	(t)	(u)	(v)	(w)
	D-9 OPL Residential	D-9 OPL Commercial	E-1 St Lght	E-2 Signals
1 Rate Base	547	2,146	10,570	11,238
2 Revenue	308	1,229	6,128	3,882
3 Expenses:				
4 Fuel	145	570	2,805	1,305
5 Purchased Power	42	166	818	472
6 O & M Expense	71	277	1,362	775
7 Depreciation	20	77	377	457
8 Other (Reg Assets, etc)	-	-	-	-
9 Remove Reg Assets	-	-	-	-
10 Accretion of Loss/ Gain on Sale	-	-	-	-
11 Other Taxes	8	31	154	148
12 Income Taxes	3	17	95	115
13 Amortizations	-	-	-	-
14 Total Expenses	289	1,137	5,611	3,271
15 Net Oper Income	19	92	517	611
16 AFUDC & Other	2	7	37	44
17 Net Adjustments	(0)	(0)	(1)	(1)
18 Adj Net Oper Income	21	99	553	654
19 Rate of Return	3.85%	4.62%	5.23%	5.82%
20 Return @ 5.29784942511858 %	29	114	560	595
21 Income Deficiency	8	14	7	(59)
22 Base Revenue Def / (Sufficiency)	11	20	9	(79)
23 Additional Rev Req	-	-	-	-
24 Total Revenue Def/ (Sufficiency)	11	20	9	(79)
25 Revenue Requirement	319	1,249	6,138	3,803
26 Misc Revenue	2	6	44	18
27 Rev Req Excl Misc Rev & Nuc Decomm	318	1,243	6,094	3,785

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Unbundled Cost of Service, Distribution by Voltage Class**  
**TME October 31, 2023**  
(thousands of dollars)

Distribution by Voltage

Cost of Service Study

DISTRIBUTION COSTS

Case No. U-20836  
Exhibit S-6  
Schedule: F-1.2  
Witness D. Gottschalk  
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	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
	Total Electric	Residential Secondary	Commercial Secondary	Primary	Subtransmission	Transmission	D-9 OPL Residential	D-9 OPL Commercial	E-1 St Lght	E-2 Signals
1 Rate Base	10,030,870	6,078,992	2,667,663	845,348	109,453	92,748	9,533	22,855	236,057	6,116
2 Revenue	1,880,831	1,213,356	465,010	120,044	13,564	11,626	1,838	7,156	47,219	1,046
3 Expenses:										
4 Fuel	0	-	-	-	-	-	-	-	-	-
5 Purchased Power	0	-	-	-	-	-	-	-	-	-
6 O & M Expense	624,765	431,413	136,494	38,510	3,842	4,038	391	1,279	8,899	386
7 Depreciation	600,953	371,409	155,899	39,533	4,055	2,931	1,158	2,491	24,971	341
8 Other (Reg Assets, etc)	-	-	-	-	-	-	-	-	-	-
9 Remove Reg Assets	-	-	-	-	-	-	-	-	-	-
10 Accretion of Loss/ Gain on Sale	-	-	-	-	-	-	-	-	-	-
11 Other Taxes	220,201	135,708	56,813	17,030	2,118	1,775	298	677	6,343	128
12 Income Taxes	64,432	37,037	18,632	5,847	623	474	(0)	485	1,295	40
13 Amortizations	-	-	-	-	-	-	-	-	-	-
14 Total Expenses	1,510,351	975,567	367,838	100,920	10,639	9,218	1,847	4,932	41,507	895
15 Net Oper Income	370,480	237,789	97,172	19,124	2,925	2,408	(9)	2,224	5,712	151
16 AFUDC & Other	0	-	-	-	-	-	-	-	-	-
17 Net Adjustments	(865)	(524)	(230)	(73)	(9)	(8)	(1)	(2)	(20)	(1)
18 Adj Net Oper Income	369,615	237,265	96,942	19,051	2,916	2,400	(10)	2,222	5,692	151
19 Rate of Return	3.68%	3.90%	3.63%	2.25%	2.66%	2.59%	-0.10%	9.72%	2.41%	2.47%
20 Return @ 5.29784942511858 %	531,420	322,056	141,329	44,785	5,799	4,914	505	1,211	12,506	324
21 Income Deficiency	161,805	84,791	44,387	25,734	2,883	2,513	515	(1,012)	6,814	173
22 Base Revenue Def / (Sufficiency)	218,378	114,437	59,906	34,732	3,891	3,392	695	(1,365)	9,197	234
23 Additional Rev Req	0	0	0	0	0	0	-	-	0	-
24 Total Revenue Def/ (Sufficiency)	218,378	114,437	59,906	34,732	3,891	3,392	695	(1,365)	9,197	234
25 Revenue Requirement	2,099,209	1,327,793	524,916	154,776	17,455	15,019	2,533	5,791	56,416	1,280
26 Misc Revenue	65,814	47,153	9,467	3,193	2,077	3,304	21	78	529	19
27 Base Revenue Requirement	2,033,395	1,280,640	515,449	151,583	15,378	11,714	2,511	5,713	55,887	1,260
<u>Adjusted for Tree Trim Surge</u>										
28 Total Revenue Def/ (Sufficiency)	220,566	115,881	60,540	34,822	3,891	3,392	696	(1,363)	9,211	235
29 Base Revenue Requirement	2,035,583	1,282,085	516,083	151,673	15,378	11,714	2,512	5,715	55,901	1,262

Michigan Public Service Commission  
DTE Electric Company  
Customer Charges by Voltage Class  
(thousands of dollars)

Case No. U-20836  
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Schedule: F1.4  
Witness: D. Gottschalk  
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	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Account	Residential	Commercial Secondary	Primary	Sub-Trans	Transmission	Total
1	<b>Dist Operation Exp:</b>						
2	586 Meters	\$ 6,194	\$ 949	\$ 90	\$ 6	\$ 4	\$ 7,243
3	587 Customer Installs	256	39	4	0	0	299
4	<b>Dist Maintenance Exp:</b>						
5	597 Meters	0	0	0	0	0	0
6							
7	<b>Customer Accounts</b>						
8	901 Supervision	1,568	162	3	0	0	1,734
9	902 Meter Read	1,909	293	28	2	1	2,233
10	903 Customer Records	88,708	8,868	110	4	4	97,695
11	905 Miscellaneous	(427)	(7)	(1)	(0)	(0)	(435)
12							
13	<b>Cust Serv &amp; Inf</b>						
14	907 Supervision	1,987	204	3	0	0	2,194
15	908 Customer Assist	17,597	1,808	27	1	1	19,434
16	909 Info & Instr	0	0	0	0	0	0
17	910 Miscellaneous	4,847	498	7	0	0	5,353
18							
19	<b>Depreciation Expense</b>						
20	369 Services Depreciation Expense	28,449	3,974	398	101	208	33,130
21	370 Meters Depreciation Expense	22,178	3,398	323	21	16	25,935
22							
23	<b>Return on Meters and Services in Rate Base</b>						
24	<b>Plant</b>						
25	369 Services	\$ 446,528	\$ 62,088	\$ 6,007	\$ 1,516	\$ 3,142	\$ 519,281
26	370 Meters	433,497	66,413	6,313	406	305	506,933
27	<b>CWIP</b>						
28	369 Services	4,062	512	9	2	5	4,591
29	370 Meters	15,777	2,417	230	15	11	18,450
30	<b>Reserve</b>						
31	369 Services	316,481	44,416	4,610	1,164	2,411	369,081
32	370 Meters	86,972	13,324	1,266	82	61	101,706
33							
34	<b>Rate base</b>	<u>\$ 496,411</u>	<u>\$ 73,690</u>	<u>\$ 6,683</u>	<u>\$ 695</u>	<u>\$ 991</u>	<u>\$ 578,468</u>
35							
36	Weighted average cost of capital (WACC)	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%
37							
38	Return (Line 34 * Line 36)	\$ 26,299	\$ 3,904	\$ 354	\$ 37	\$ 52	\$ 30,646
39							
40	<b>Property Tax</b>						
41	Property Tax on meters and services	\$ 11,479	\$ 4,975	\$ 1,505	\$ 186	\$ 153	18,298
42							
43	<b>Total Customer Related Cost</b>	<u>\$ 211,044</u>	<u>\$ 29,066</u>	<u>\$ 2,851</u>	<u>\$ 357</u>	<u>\$ 441</u>	<u>\$ 243,760</u>
44							
45	Customers	2,059,058	211,615	3,131	121	105	2,274,030
46	Cost per Customer per Year	102.50	137.35	910.69	2,947.47	4,193.46	
47							
48	<b>Cost per Customer per Month</b>	<u>\$ 8.54</u>	<u>\$ 11.45</u>	<u>\$ 75.89</u>	<u>\$ 245.62</u>	<u>\$ 349.45</u>	

Michigan Public Service Commission  
DTE Electric Company  
Capacity Charge Revenue Requirement by Customer Class  
TME October 31, 2023  
(thousands of dollars)

CAPACITY CHARGE

Case No. U-20836  
Exhibit: S-6  
Schedule: F1.5  
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Cost of Service Study

75-0-25

PRODUCTION COSTS

(a)	(b)	(c)	(d)	(e)
Total Electric	Total Residential	Total Commercial Secondary	Total Primary	E-1 St Lgt D9 OPL E-2 Signals

**CAPACITY COSTS DETERMINATION**

1	Net Production Costs Rev. Req. (Exh A-16 Sch F1.1 Line 27)	\$	3,100,925				
2	Less Fuel (Exh A-16 Sch F1.1 Line 4)		(969,329)				
3	Less MISO Energy in PP (Exh A-13 Sch C4 Lines 20-21)		(36,539)				
4	Less Other Energy in PP (WPA16PF1 Sch 11.5 Line 14)		(234,384)				
5	Less Variable O&M (Exh A-16 Sch F1.5 Page 5 Line 8)		(10,725)				
6	Subtotal	\$	1,849,948				
7	Proj 2022 Energy Sales Rev Net of Fuel (Per A-26, Sch P3, Line 28)		(311,655)				
8	Capacity Revenue Requirement (Line 6 + Line 7)	\$	1,538,293				
<b>Allocator</b>							
9	Sch 200B 4 CP Excl R10		100.0000	50.9305	25.5366	23.4458	0.0872
<b>Revenue Requirement</b>							
10	Capacity Revenue Requirement (Line 8 * Line 9/100)	\$	1,538,293	\$ 783,460	\$ 392,828	\$ 360,665	\$ 1,341
11	Non-Capacity Revenue Requirement (Line 12 less Line 10)		1,562,632	559,843	389,046	603,644	10,099
12	Total Production Revenue Requirement (Exh A-16 Sch F1.1 L 27)	\$	3,100,925	\$ 1,343,304	\$ 781,874	\$ 964,309	\$ 11,439

Michigan Public Service Commission  
DTE Electric Company  
Capacity Charge Revenue Requirement by Customer Class  
TME October 31, 2023  
(thousands of dollars)

CAPACITY CHARGE							
Cost of Service Study							
75-0-25							
PRODUCTION COSTS							
(f)	(g)	(i)	(j)	(g)	(h)	(i)	(j)
D-1/Other Residential Service	D-1.2 TOU	D-2 Residential Space Ht	Total Residential	D-3/Other General Service	D-3.2 Secondary Schools	D-4 Lg Genl Service	Total Commercial Secondary

Case No. U-20836  
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<b><u>Allocator</u></b>									
9	Sch 200B 4 CP Excl R10	50.0063	0.3760	0.5482	50.9305	20.3316	0.6583	4.5467	25.5366
<b><u>Revenue Requirement</u></b>									
10	Capacity Rev Req (P1 Line 7 * Line 8/100)	\$ 769,243	\$ 5,784	\$ 8,433	\$ 783,460	\$ 312,760	\$ 10,126	\$ 69,942	\$ 392,828
11	Non-Capacity Revenue Requirement (Line 12 less Line 10)	540,434	7,406	12,003	559,843	297,776	11,848	79,422	389,046
12	Total Production Revenue Requirement (Exh A-16 Sch F1.1 L 27)	\$ 1,309,677	\$ 13,190	\$ 20,436	\$ 1,343,304	\$ 610,536	\$ 21,974	\$ 149,364	\$ 781,874

Michigan Public Service Commission  
DTE Electric Company  
Capacity Charge Revenue Requirement by Customer Class  
TME October 31, 2023  
(thousands of dollars)

CAPACITY CHARGE						Case No.	U-20836
Cost of Service Study						Exhibit:	S-6
75-0-25						Schedule:	F1.5
PRODUCTION COSTS						Witness:	D. Gottschalk
						Page:	3 of 5
(k)	(l)	(m)	(n)	(o)	(p)		
D-11/Other	D-6.2	D-8	R-1.1/R-1.2	R-10			
Primary	Primary	Interrupt	Metal Melt	Interrupt	Total		
	Schools	Supply	Process Heat	Supply	Primary		

<u>Allocator</u>							
9	Sch 200B 4 CP Excl R10	21.5840	0.8410	0.6010	0.4197	-	23.4458
<u>Revenue Requirement</u>							
10	Capacity Rev Req (P1 Line 7 * Line 8/100)	\$ 332,026	\$ 12,937	\$ 9,245	\$ 6,457	\$ -	\$ 360,665
11	Non-Capacity Revenue Requirement (Line 12 less Line 10)	487,892	13,392	24,537	21,962	55,861	603,644
12	Total Production Revenue Requirement (Exh A-16 Sch F1.1 L 27)	\$ 819,917	\$ 26,330	\$ 33,782	\$ 28,419	\$ 55,861	\$ 964,309

Michigan Public Service Commission  
DTE Electric Company  
Capacity Charge Revenue Requirement by Customer Class  
TME October 31, 2023  
(thousands of dollars)

CAPACITY CHARGE			
Cost of Service Study			
75-0-25			
PRODUCTION COSTS			
(q)	(r)	(s)	(t)
D-9 OPL Residential	D-9 OPL Commercial	E-1 St Lght	E-2 Signals

Case No. U-20836  
Exhibit: S-6  
Schedule: F1.5  
Witness: D. Gottschalk  
Page: 4 of 5

<u>Allocator</u>					
9	Sch 200B 4 CP Excl R10	-	-	-	0.0872
<u>Revenue Requirement</u>					
10	Capacity Rev Req (P1 Line 7 * Line 8/100)	\$ -	\$ -	\$ -	\$ 1,341
11	Non-Capacity Revenue Requirement (Line 12 less Line 10)	318	1,243	6,094	2,444
12	Total Production Revenue Requirement (Exh A-16 Sch F1.1 L 27)	<u>318</u>	<u>1,243</u>	<u>6,094</u>	<u>3,785</u>

	(a)	(b)	(c)
	Total O&M	Labor O&M	Variable O&M (a)-(b)
<b>POWER PRODUCTION EXPENSES</b>			
1 501 Fuel Handling	\$ 22,889	\$ 17,755	\$ 5,133
2 502 Steam Expenses	14,993	16,287	\$ -
3 505 Electric Expenses	5,192	4,318	\$ 874
4 519 Coolants and Water	3,522	3,026	\$ 496
5 520 Steam Expenses 1/	(5,976)	3,934	\$ -
6 538 Electric Expense	1,047	0	\$ 1,047
7 548 Peaker Expense	3,172	(3)	3,174
8 TOTAL	\$ 44,839	\$ 45,317	\$ 10,725

1/ Normalized to eliminate negative variable O&M



Table 3

M. S. COOPER  
U-20836

	<u><b>LTIP</b></u>	<u><b>AIP</b></u>	<u><b>REP</b></u>	<u><b>Total</b></u>
	(000's Omitted)			
Financial				
DTE Electric	\$6,492	\$744	\$7,177	\$14,413
Nuclear Gen	266	89	836	1,191
DTE LLC	15,229	4,764	5,876	25,869
	21,987	5,598	13,888	41,473
Operating				
DTE Electric	0	657	6,335	6,992
Nuclear Gen	1,064	234	3,027	4,326
DTE LLC	0	5,137	5,834	10,972
	1,064	6,029	15,196	22,290
Total				
DTE Electric	6,492	1,402	13,511	21,405
Nuclear Gen	1,331	324	3,863	5,517
DTE LLC	15,229	9,901	11,710	36,841
	\$23,052	\$11,627	\$29,084	\$63,763

**MPSC Case No.:** U-20836

**Requestor:** Staff

**Question No.:** TMS-2.1

**Respondent:** M. Cooper

**Page:** 1 of 1

**Question:** Relating to incentive compensation for the projected test year:  
a. If no financial metrics are achieved, and all non-financial (Operational) metrics are achieved at target, what would the total office and non-officer payout be that would be reflected in the Revenue Requirement? Please list both separately.

**Answer:** The incentive compensation expense for the projected test year for the Operating measures at Target, with the portions identified related to Officers and Non-Officers, is reflected in the table below.

	<u><b>AIP/REP</b></u>	<u><b>LTIP</b></u> (\$000s)	<u><b>Total</b></u>
Non-Officers	17,893	845	18,738
Officers	3,332	219	3,552
Total	21,225	1,064	22,290

**Attachments:** None

**MPSC Case No.:** U-20836  
**Requestor:** TMS  
**Question No.:** TMS-5.1a  
**Respondent:** M. Cooper  
1 of 1

**Question:** Is there any Restricted Stock included in the Revenue Requirement for the current case?  
a. If so, please provide the amount included.

**Answer:** Yes. There is \$5.857 million Restricted Stock included in O&M in the projected test period.

**Attachment:** None.



# Climbing Together *Toward Our Goals*



## **DTE Energy Company** *Long-Term Incentive Plan*

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### **Restricted Stock and Performance Shares**

#### ***What's Inside***

Building Value Together	2
Your LTIP Award	3
A Closer Look: Restricted Stock	4
A Closer Look: Performance Shares	5
If You Terminate Employment	6
Additional Information	7



# Building Value Together

As the energy industry changes, your role as a leader is more critical than ever to drive performance and deliver results that will contribute to our continued business success.

Our Long-Term Incentive Plan (LTIP) is designed to strengthen the link between meaningful, profitable growth for the company and financial rewards for you. The LTIP gives you an ownership stake in our company with an opportunity to build personal wealth.

In return, DTE Energy (Company) expects you to focus on creating long-term value for the organization in your role as a company leader.

When we succeed, both you and the Company benefit.

## Long-Term Incentive Plan Objectives



### The plan is intended to:

- Enable you to share in the value created for shareholders
- Reward you for sustaining the Company's profitable growth
- Link your rewards to long-term financial results
- Attract, motivate and retain high-performing talent
- Offer competitive long-term incentive opportunities

Nothing in this Plan Summary is intended to be interpreted as a promise or guarantee of future or continued benefits or employment or as stating provisions or terms of employment. The Company and its employees recognize their mutual right to end their employment relationship at any time and acknowledge that such relationship is one of employment at will. Except with respect to employment at will, the Company reserves the right to change (including, but not limited to, the right to amend, suspend or terminate) its Human Resources policies, procedures, and benefits, including those for retirees, at its discretion, at any time without notice. The vice president of Human Resources is the only officer authorized to communicate such changes.

Portions of this document constitute part of a prospectus covering shares that have been registered under the Securities Act of 1933.

# Your Long-Term Incentive Plan (LTIP) Award

The LTIP rewards you for making decisions and taking actions that will bring the Company long-term success. Your LTIP grant may be delivered in the form of two components:

- **Restricted Stock** is a grant of ownership rights to DTE Energy Company stock that typically will vest three years from the date of grant, but may vest differently in special situations, (subject to continued employment).
- **Performance Shares** give you the opportunity to receive a range of shares of DTE Energy Company stock after three years, subject to continued employment and achievement of performance targets.



When you own shares in the Company, you benefit financially when DTE Energy Company stock increases as well as when the Board authorizes a dividend. As a leader, you have the ability to make decisions that result in meeting or exceeding both short-term and long-term goals. When we achieve our goals, we are more likely to see our stock price increase.

## Determining Your LTIP Award Target

Your LTIP award target is based on your job level, scope and responsibilities, as well as a review of market competitiveness. The number of restricted stock shares and the target number of performance shares you receive at the time of the grant are based on:

- The target value of your LTIP award; and,
- The DTE Energy Company stock price used at the time of the grant.



### Let's look at a very simple example.

Assume your base pay is \$200,000, your LTIP target is 50% and the stock price is \$100. This would result in 1,000 shares granted as your LTIP award.

*This example is just to illustrate the formula. It is not intended to represent an actual LTIP target award or the current DTE Energy Company stock price. In addition, there can be separate special ad hoc grants that are not based on this formula.*

$$\text{\$200,000} \times 50\% = \text{\$100,000}$$

$$\text{\$100,000} \div \text{\$100} = 1,000$$



The actual number of units you receive is detailed in your Grant Agreement, which is provided separately.

To qualify for an LTIP grant, you must be designated by the Organization & Compensation Committee, the CEO, or the President as eligible to receive a grant.

# A Closer Look: Restricted Stock

This is a grant of ownership rights to DTE Energy Company stock that will vest as long as you are employed with the Company and its subsidiaries through the vesting date, which is typically three years from the date of grant. After this date, you have full ownership of the shares and can sell or hold them. Although the number of shares you receive is fixed at the grant date, the price per share can increase or decrease based on the Company's performance and the overall stock market.



## At-a-Glance

Restricted stock provides greater value when the stock price increases—and the higher it climbs, the larger your potential return.



## These basic principles explain how restricted stock works:

### Grant Date:

In most cases, the date your award is approved by the CEO, President or Organization & Compensation Committee of the Board. Awards are officially given to you each year you are eligible and typically occur in the first quarter.



### Vesting:

Time period over which you'll earn the right to receive your award. As long as you remain employed with DTE Energy and its subsidiaries, your award will vest in accordance with the vesting terms set forth in your Grant Agreement.



### Ownership:

Holders of restricted stock (even prior to your vesting date) have nearly all the rights of a shareholder, including the right to vote the shares and receive cash dividends (when authorized by the Board of Directors). You have these rights at the grant date.





# A Closer Look: Performance Shares

Performance shares give you the opportunity to receive a range of shares of DTE Energy Company stock, cash or a combination of the two after the completion of the performance period, subject to your continued employment and the achievement of the performance targets. Superior Company results lead to higher rewards—up to two times the sum of your target number of shares plus reinvested stock dividend equivalents.

## At-a-Glance

The number of performance shares you earn increases if the Company meets or exceeds target performance on specific metrics. If your shares are paid in DTE Energy Company stock, you benefit when the stock price increases and when the Board issues dividends—and the higher it climbs, the larger your potential return.



## These basic principles explain how performance shares work:

### Grant Date:

The day your performance share grant is approved by the CEO, President or Organization & Compensation Committee of the Board.

Awards are officially given to you each year you are eligible and typically occur in the first quarter.



### Performance Metrics:

The number of shares earned is determined based on the level of achievement against performance targets of the company you are assigned on the grant date. The performance objectives, weightings and payout percentages established with respect to the grant are available at [www.dteltip.com](http://www.dteltip.com).



### Performance Period:

Begins on the first day of the calendar year in which the grant is made and lasts three consecutive calendar years. The number of shares earned is based on Company performance during the three-year performance period. As long as you remain employed, your right to payment vests on the payment date subsequent to the end of the three-year performance period. Your performance share awards may be settled in the form of cash, DTE Energy Company stock or some combination of the two.



### Payout Range:

Based on actual performance of the Company during the three-year performance period, you may earn up to two times the sum of your target number of shares plus reinvested stock dividend equivalents.



### Ownership:

Holders of performance shares do not have voting rights. Dividend equivalents will be credited as additional shares during the three-year performance period.

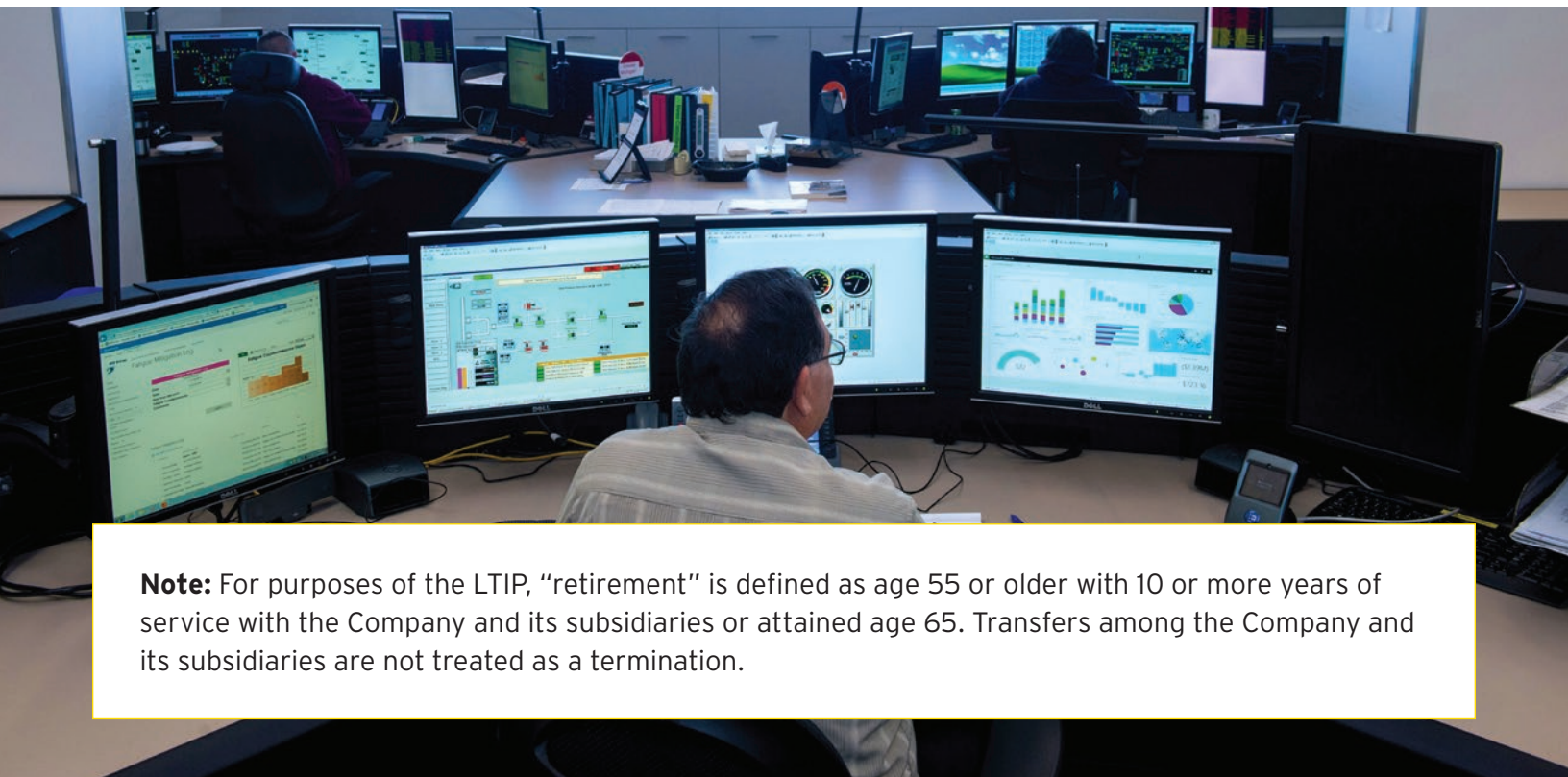




# What Happens If I Terminate Employment?

Generally, if your employment terminates before your stock grants have vested, the following guidelines will apply. However, the LTIP Plan Administrator retains the authority to take any other action it deems appropriate in its sole discretion.

	Restricted Stock	Performance Shares
<b>Retirement, Death or Disability</b>	You, or your designated beneficiary, will retain the rights to a pro-rated number of shares of restricted stock based on the actual number of days worked during the vesting period. Restrictions are lifted and stock is distributed after retirement, death or disability.	You, or your designated beneficiary, will retain the rights to a pro-rated number of performance shares based on the actual number of days worked during the performance period. Final payment, if any, will occur at the same time as for all other participants based on the pro-rated number of shares and actual results during the entire performance period.
<b>Other Termination</b>	Your rights to any unvested shares will be forfeited on the date of your termination.	Your rights to any future dividends and final payment will be forfeited on the date of your termination.



**Note:** For purposes of the LTIP, “retirement” is defined as age 55 or older with 10 or more years of service with the Company and its subsidiaries or attained age 65. Transfers among the Company and its subsidiaries are not treated as a termination.

# Additional Information

## Beneficiary Designation

You may name any beneficiary to inherit the right to these grants, according to the applicable terms. Beneficiaries may be designated at [www.dteltip.com](http://www.dteltip.com) and each designation will revoke all prior designations.

## Disability

Disability means you meet the definition of "Disability" or "Disabled" as defined in the current DTE Energy Company Long-Term Disability Plan certificate of coverage.

## Transferability

These grants are nontransferable and are subject to risk of forfeiture. You may not sell, transfer, pledge, exchange or otherwise dispose of these grants or the right to receive cash or DTE Energy Company stock thereunder, except in the event of your death. If you have a valid beneficiary designation at [www.dteltip.com](http://www.dteltip.com), your rights under these grants will pass to your designated beneficiary. Otherwise, your rights under these grants will pass to the beneficiary designated in your will or, if your will does not designate a beneficiary or you do not have a will, your rights under these grants will pass to your estate. The LTIP Plan Administrator, in its sole discretion, may waive the restrictions on transferability with respect to all or a portion of the shares subject to these grants.

## Hedging

You may not hedge or be involved in any similar transaction involving DTE Energy Company stock which has the effect of limiting or eliminating the full risks and rewards of ownership of DTE Energy Company stock.

## No Right to Continued Employment

Neither the Grant Agreement, nor this Plan Summary, confers upon you any right with respect to continuance of employment by the Company or a subsidiary; nor shall it interfere in any way with the right of the Company or a subsidiary to terminate your employment at any time.

## Participant Bound by Plan

You acknowledge that a copy of the DTE Energy Company Long-Term Incentive Plan has been made available to you, and you agree to be bound by all the terms and provisions thereof. All references herein to the Long-Term Incentive Plan and LTIP shall mean the equity plan as in effect on the date of grant.

## Relation to Other Benefits

Grants under the Long-Term Incentive Plan are not considered compensation for purposes of the Company's qualified and non-qualified savings plans, the Company's qualified and non-qualified retirement plans, insurance or any other Company-sponsored qualified or non-qualified employee benefit programs.

## Taxes

The Company is required to withhold any applicable federal, state, local or FICA tax in connection with the vesting and payment of your long-term grants. It shall be a condition to such vesting or payment that you pay all such taxes.

The value of restricted stock on the vesting date and the value of payment under a performance share award are taxed as compensation at ordinary income tax rates.



This Plan Summary provides information related to the DTE Energy Long-Term Incentive Plan. It does not contain all of the rules and governing terms included in the incentive programs' documents that may be applicable to you. If there are any differences between the information in this booklet and the program's documents, the program documents will govern.

Card Processing Yearly invoicing - Merchant Fees  
DTE Electric Rate Case  
U-20836

Case No.: U-20836  
Exhibit No.: S-8.4  
Witness: Theresa McMillan-Sepkoski  
Page: 1 of 1

<u>Year</u>		<u>Invoice Amount</u>		<u>Source</u>
2018	\$	10,456,000.00		Company Response TMS-1.1
2019	\$	12,418,000.00	18.76%	Company Response TMS-1.1
2020	\$	13,677,000.00	10.14%	Company Response TMS-1.1
2021	\$	13,857,000.00	1.32%	Company Response TMS-1.1
3-year Avg %			9.63%	
	\$	39,952,000.00 / 3 =	\$ 13,317,333.33	Yearly totals divided by 3 for average
Projected 2021	\$	14,600,363.16		Yearly Average times Avg % + yearly avg
Projected 2022	\$	16,007,003.73		2021 Proj. times Avg % + 2021 Proj.
Projected 2023	\$	17,549,164.06		2022 Proj. times Avg % + 2022 Proj.

**U-20836 DTE Electric Rate Case projected for 2023**

	\$	20,522,000.00
<b>Amount Staff Approving</b>	\$	17,549,164.06
<b>Adjustment to Rev Req.</b>	\$	(2,972,835.94)

**MPSC Case No.:** U-20836

**Requestor:** Staff

**Question No.:** TMS-1.1

**Respondent:** B. Burns

**Page:** 1 of 1

**Question:** Please provide the projected and actual merchant fee costs by year for 2016 – 2021, allocated to Electric.

**Answer: Merchant Fee Projected and Actual Costs**

<b>Merchant Fees (000)</b>	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>2018</u></b>	<b><u>2019</u></b>	<b><u>2020</u></b>	<b><u>2021</u></b>
Projected Merchant Fees	5,620	7,128	8,308	13,481	13,137	17,110
Actual Merchant Fees	6,220	8,131	10,456	12,418	13,677	13,857

**Attachments:** N/A

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Projected Revenue Deficiency (Sufficiency)**  
**Projected 12 Month Period Ending October 31, 2023**  
**(\$000)**

Case No.: U-20836  
 Exhibit: S-1  
 Schedule: A1  
 Witness: RFNichols

Line No.	(a) Description	(b) Source	(c) Applicant Projection	(d) Staff Adjustment	(e) Staff Projection
1	Rate Base	Exh. A-12, Sch. B1	\$ 21,267,944	\$ (643,641)	\$ 20,624,303
2	Adjusted Net Operating Income	Exh. A-13, Sch. C1	\$ 899,199	\$ 89,376	\$ 988,575
3	Overall Rate of Return	Line 2 ÷ Line 1	4.23%	0.57%	4.79%
4	Projected Rate of Return	Exh. A-14, Sch. D1	5.56%	-0.26%	5.30%
5	Income Requirements	Line 1 x Line 4	\$ 1,181,647	\$ (89,002)	\$ 1,092,645
6	Income Deficiency (Sufficiency)	Line 5 - Line 2	\$ 282,448	\$ (178,379)	\$ 104,069
7	Revenue Conversion Factor	Exh. A-13, Sch. C2	<u>1.3496</u>	<u>-</u>	<u>1.3496</u>
8	Revenue Deficiency / (Sufficiency)	Line 6 x Line 7	\$ 381,201	\$ (240,746)	\$ 140,455
9	Revenue Deficiency - Tree Trim Surge Program	Exh. A-11, Sch. A1.1	<u>\$ 7,021</u>	<u>\$ (4,833)</u>	<u>\$ 2,188</u>
10	Revenue Deficiency / (Sufficiency)-Total	Line 8 + Line 9	<u><u>\$ 388,222</u></u>	<u><u>\$ (245,579)</u></u>	<u><u>\$ 142,643</u></u>

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Tree Trim Regulatory Asset - Incremental Revenue Requirement**  
**Projected 12 Month Period Ending October 31, 2023**  
**(\$000)**

Case No.: U-20836  
 Exhibit: S-1  
 Schedule: A1.1  
 Witness: RFNichols

	(a)	(b)	(c)	(d)	(e)			
Line No.	Description	Reference	Applicant Projection	Staff Adjustment	Staff Projection			
1	<b><u>Return on Tree Trim Regulatory Asset</u></b>							
2	Average Balance Regulatory Asset	Line 16	108,160	-	108,160			
3	Deferred Tax Liability	- Line 2 x 25.9% Composite Tax Rate	(28,013)	-	(28,013)			
4	Average Net Rate Base		80,147	-	80,147			
5	Authorized Rate of Return	DTE permanent pre-tax v. Staff short-term debt rate U-20561.	8.76%	-6.03%	2.73%			
6	Return on Tree Trim		7,021	(4,833)	2,188			
			<b><u>2019-A</u></b>	<b><u>2020-A</u></b>	<b><u>2021</u></b>	<b><u>2022</u></b>	<b><u>2023</u></b>	
7	<b><u>Tree Trim Regulatory Asset</u></b>							
8	Approved Tree Trim - Surge Funding	43,300	74,100	70,500	58,200	-	Exhibit A-13 C5.6.1, Line 2	
9	Carrying Charges thru April 30, 2020 1/	-	1,200					
10	Additional Funding Request	-	-	-	-	67,000	Exhibit A-13 C5.6.1, Line 3	
11	Total Tree Trim Reg Asset Deferral	43,300	75,300	70,500	58,200	67,000		
12	Total Tree Trim Reg Asset Cumulative	43,300	118,600	189,100	247,300	314,300	Cumulative Line 11	
13	Approved for Securitization 2/			(156,900)	(156,900)	(156,900)	Case U-21015 Exhibit A-3	
14	Cumulative Balance at December 31			32,200	90,400	157,400		
15	Cumulative Balance at October 31				72,320	144,000	Assumes 80% of annual spend	
16	Average Balance					108,160		

1/ Interest at U-20162 authorized STD rate of 3.56% until U-20561 order was in effect.

2/ Securitization approved per U-21015 order dated June 23, 2021 (up to \$156.9 per order page 91)

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Projected Net Operating Income**  
**Projected 12 Month Period Ending Oct. 31, 2023**  
**(\$000)**

Case No.: U-20836  
 Exhibit: S-3  
 Schedule: C1  
 Witness: RFNichols

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Applicant Projection	Staff Adjustments	Staff Projection
1	<b>Operating Revenues</b>	Exh. A-13, Sch. C3	5,080,523	22,373	5,102,896
2	<b><u>Operating Expenses</u></b>				
3	Fuel and Purchased Power	Exh. A-13, Sch. C4	1,359,740	5,518	1,365,258
4	Operations and Maintenance Expenses	Exh. A-13, Sch. C5	1,280,715	(62,460)	1,218,255
5	Depreciation and Amortization	Exh. A-13, Sch. C6	1,087,914	(44,644)	1,043,271
6	Property Taxes	Exh. A-13, Sch. C7, C7.1	307,739	-	307,739
7	Other Taxes	Exh. A-13, Sch. C7	48,573	-	48,573
8	State & Local Income Taxes	Exh. A-13, Sch. C9, C10	54,386	8,290	62,676
9	Federal Income Taxes	Exh. A-13, Sch. C8	83,250	26,293	109,543
10	Other Utility (Income)/Deductions	Exh. A-13, Sch. C13	(158)	-	(158)
11	Total Operating Expenses		4,222,159	(67,003)	4,155,156
12	<b>Operating Income</b>		858,364	89,376	947,740
13	<b><u>Operating Income Adjustments</u></b>				
14	Allowance for Funds Used During Construction	Exh. A-13, Sch. C11	44,400	-	44,400
15	Loss on Reaquired Securities	Exh. A-13, Sch. C12	(3,565)	-	(3,565)
16	Total Operating Income Adjustments		40,836	-	40,836
17	<b>Adjusted Net Operating Income</b>		899,199	89,376	988,575



## MICHIGAN PUBLIC SERVICE COMMISSION

DTE Electric Energy Company  
Projected Net Operating Income  
for the Test Year Ended October 31, 2023  
(\$000)

Case No.: U-20836  
Exhibit: S-3  
Schedule: C1.1  
Witness: RFNichols  
Page: 1 of 1

	Revenue				Expenses										NOI			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
Line No.	Description (Witness)	Sales Revenue	Base Fuel & Purchase Power Rev.	Other Revenue and R2 Rider	Total	Fuel and Purchased Power	Other O&M Expense	Depreciation & Amort.	Property Taxes	Other Taxes	State & Local Income Taxes	FIT	Other Utility (Income) / Deductions	Total	NOI	AFUDC	Loss on Reacquired Securities	Adjusted NOI
1	Company Filed Operating Income (Initial Filing)	3,611,715	1,359,740	109,068	5,080,523	1,359,740	1,280,715	1,087,914	307,739	48,573	54,386	83,250	(158)	4,222,159	858,364	44,400	(3,565)	899,199
2	Staff Adjustments REVENUE																	
3	Sales Revenue (Braunschweig)	2,587			2,587						161	510		670	1,917			1,917
4	Sales Rev. (Revere, Ausum, Kindsc	19,786			19,786	5,518					886	2,810		9,214	10,572			10,572
5					-						-	-		-	-			-
6	STEAM POWER GENERATION				-						-	-		-	-			-
7	Steam Power Generation O&M (Kindschy)				-		(4,581)				284	902		(3,394)	3,394			3,394
8					-						-	-		-	-			-
9	DISTRIBUTION				-						-	-		-	-			-
10	Retoration O&M (Becker)				-		14,777				(918)	(2,910)		10,949	(10,949)			(10,949)
11					-						-	-		-	-			-
12	CUSTOMER SERVICE				-						-	-		-	-			-
13	Distribution Ops App Health (capital to O&M with downward adjustment) (Wang)				-		685				(43)	(135)		507	(507)			(507)
14	Distribution Ops App Health (O&M adjustment, decrease by 48%) (Wang)				-		(14)				1	3		(11)	11			11
15	Fuel Supply Application Health (Wang)				-		404				(25)	(80)		299	(299)			(299)
16	IT O&M (Wang)				-		(2,876)				179	566		(2,131)	2,131			2,131
17	Level 1 IT Projects (100%) (Rogers)				-		(5,880)				365	1,158		(4,357)	4,357			4,357
18	Level 2 IT Projects (20%) (Rogers)				-		(3,864)				240	761		(2,863)	2,863			2,863
19	Merchant Fees (McMillan-Sepkoski)				-		(2,973)				185	586		(2,203)	2,203			2,203
20					-						-	-		-	-			-
21	UNCOLLECTIBLES				-						-	-		-	-			-
22	Uncollectible Expense				-		(9,560)				594	1,883		(7,084)	7,084			7,084
23					-						-	-		-	-			-
24	REGULATED MARKETING				-						-	-		-	-			-
25	Residential Battery Pilot O&M (Matthews)				-		(183)				11	36		(136)	136			136
26					-						-	-		-	-			-
27	CORPORATE SERVICES				-						-	-		-	-			-
28	Incentive Compensation (McMillan-Sepkoski)				-		(42,537)				2,642	8,378		(31,517)	31,517			31,517
29	Restricted Stock (McMillan-Sepkoski)				-		(5,857)				364	1,154		(4,340)	4,340			4,340
30					-						-	-		-	-			-
31					-						-	-		-	-			-
32	Impact of Cap Ex Adj on Depreciation (Schreur)				-			(44,644)			2,772	8,793		(33,078)	33,078			33,078
33	Proforma Interest (Nichols)				-						590	1,873		2,463	(2,463)			(2,463)
34	Interest Synchronization (Nichols)	-	-	-	-	-	-	-	-	-	2	5	-	7	(7)	-	-	(7)
35	Total Adjustments	22,373	-	-	22,373	5,518	(62,460)	(44,644)	-	-	8,290	26,293	-	(67,003)	89,376	-	-	89,376
36	Staff NOI - Test Year	3,634,088	1,359,740	109,068	5,102,896	1,365,258	1,218,255	1,043,271	307,739	48,573	62,676	109,543	(158)	4,155,156	947,740	44,400	(3,565)	988,575

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Projected Operation and Maintenance Expenses**  
**Summary**  
**(\$000)**

Case No.: U-20836  
 Exhibit: S-3  
 Schedule: C5  
 Witness: RFNichols  
 Page: 1 of 1

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Description	Exhibit Source A-13	Projected Test Period	Staff Adjustments	Staff Projection	Staff Witness/Source
1	Steam Power Generation	C5.1	223,769	(4,581)	219,188	Kindschy.
2	Fuel Supply & MERC Fuel Handling	C5.2	8,478		8,478	
3	Nuclear Power Generation	C5.3	198,370		198,370	
4	Hydraulic Power Generation	C5.4	11,446		11,446	
5	Other Power Generation	C5.5	18,258		18,258	
6	Distribution	C5.6	317,945	14,777	332,722	Becker.
7	Customer Service	C5.7	133,570	(14,519)	119,051	Wang. McMillan-Sepkoski.
8	Uncollectible Accounts Expense	C5.8	59,573	(9,560)	50,013	Rueckert.
9	Regulated Marketing	C5.9	23,980	(183)	23,797	Matthews. A-13 C5.9 In 15
10	Corporate Support	C5.10	176,108	(48,394)	127,714	McMillan-Sepkoski.
11	Pension and Benefits	C5.11	109,219	-	109,219	
12	Total O&M Expense		1,280,716	(62,460)	1,218,255	

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Projected Tax Effect of Interest Allowed in Ratemaking Formu**  
**12 Months Ended 12/31/2020 and 10/31/2023**  
**(\$000)**

Case No.: U-20836  
 Exhibit: S-3  
 Schedule: C14  
 Witness: RFNichols  
 Page: 1 of 1

Line No.	(a) Description	(b) Projected 10/31/2023	(c) Source
1	Rate Base	\$ 20,624,303	Exh.S-2, Sch. B1
2	Weighted Cost of Debt (1)	<u>1.48%</u>	Exh., Sch.
3	Interest Allowed in Ratemaking Formula	\$ 305,151	Line 1 x Line 2
4	Applicant Projection	\$ 314,659	WP-KMV-3
5	Increase / (Decrease) in Interest Deduction	\$ (9,508)	Line 3 - Line 4
6	Composite State and Municipal Income Tax Rate	6.21%	Exh. A-13, Sch. C2
7	Effect on State and Municipal Income Tax Expense	<u>\$ 590</u>	
8	Effect on Federal Taxable Income	\$ (8,918)	
9	Federal Income Tax Rate	<u>21.00%</u>	Exh. A-13, Sch. C2
10	Effect on Federal Income Tax Expense	<u>\$ 1,873</u>	Line 8 x Line 9
11	Total Tax Effect on Net Operating Income	<u>\$ (2,463)</u>	(Line 7 + Line 10) x -1

(1) Includes Short and Long-Term Interest

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Projected Tax Effect of Interest - Synchronization Adj**  
**12 Months Ended 12/31/2018 and 4/30/2021**  
**(\$000)**

Case No.: U-20561  
 Exhibit: S-3  
 Schedule: C15  
 Witness: RFNichols  
 Page: 1 of 1

Line No.	(a) Description	(c) Amount	(d) Source
1	Rate Base	20,624,303	Exh. Exhibit:, Sch.Schedule:
2	Weight of JDITC Reserve - Debt	0.11%	Exh. , Sch.
3	Cost of Long-Term Debt	3.69%	Exh. , Sch.
4	Imputed Interest	846	L1 x L2 x L3
5	Applicant Projection	873	
6	Interest Deduction Change	(27)	
7	Composite State and Municipal Income Tax Rate	6.21%	A-13, Sch. C2
8	Effect on State and Municipal Income Tax Expense	2	(Line 5 x Line 6) x -1
9	Imputed Effect on Federal Taxable Income	(25)	(Line 5 + Line 7) x -1
10	Federal Income Tax Rate	21.00%	Exh. S-3, Sch. C2
11	Imputed Effect on Fed. Income Tax Expense	<u>5</u>	Line 8 x Line 9
12	Synchronization Tax Adjustment to NOI	<u>7</u>	(Line 7 + Line 10) x -1

**Michigan Public Service Commission**

DTE Electric Company

Staff's Projected Operating Revenue

Projected 12 Month Period Ending Oct. 31, 2023

(\$000)

Case No.: U-20836

Exhibit: S-3

Schedule: C3

Witness: M.J. Pung

Page: 1 of 3

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Description	Adj. Historical 12 mos. ended 12/31/20	Company Projection Adjustments	Company Test 12 mos. ending 10/31/23	Staff Adjustments	Staff Test-Year 12 mos. ending 10/31/23	Reference
1	Electric Sales Revenue	3,621,157	(9,442)	3,611,715	16,855	3,628,570	
2	Base Fuel and Purchased Power Revenue	1,347,915	11,825	1,359,740	5,518	1,365,258	Exhibits A-13 and S-3, Sch. C4
3	Electric Sales Revenue (440-449.1, 456.1)	4,969,072	2,383	4,971,455	22,373	4,993,828	Exhibits A-13 and S-3, Sch. C3, page 2, line 6
4	Sales for Resale (447)	(0)	0	-	-	-	
5	Other Operating Revenues (450-456)	95,727	6,169	101,896	-	101,896	Detailed below on Lines 9 thru 17
6	Other Revenue Adjustment:						
7	R2 Special Purpose Facilities Rider	7,298	(126)	7,172	-	7,172	Witness Maroun WP A-16 F1, Schedule 16
8	Total Operating Revenue	5,072,097	8,426	5,080,523	22,373	5,102,896	
9	<u>Other Operating Revenues (450-456)</u>						
10	Late Payment Charges (450)	18,782	-	18,782	-	18,782	
11	Misc Service Charges (451)	7,240	(0)	7,240	-	7,240	
12	Sale of Water (453)	29	0	29	-	29	
13	Electric Property Rental (454)	15,551	(0)	15,551	-	15,551	
14	Interdept Rent/Shared Asset Rev (455)	50,993	6,169	57,162	-	57,162	Exhibits A-13 and S-3, Sch. C3, page 3, line 3
15	Other Misc Rev (456)	2,534	0	2,534	-	2,534	
16	Transmission of Others Elec (456.1)	599	(0)	599	-	599	
17	Total Misc Operating Revenue	95,727	6,169	101,896	-	101,896	

**Michigan Public Service Commission**  
DTE Electric Company  
Staff's Operating Revenue  
Projected 12 Month Period Ending Oct. 31, 2023  
(\$000)

Case: U-20836  
Exhibit: S-3  
Schedule: C3  
Witness: M.J. Pung  
Page: 2 of 3

Line No.	(a) Description	(b)	(c)	(d)	(e)
		Company Test 12 mos. ending 10/31/23	Staff Adjustments	Staff Test-Year 12 mos. ending 10/31/23	Reference
1	Total Electric Sales Revenue	5,179,399	27,615	5,207,014	1/ 2/ 3/
2	Less: Nuclear Surcharge Revenue	37,846	-	37,846	
3	Energy Waste Reduction Surcharge Revenue	146,345	5,242	151,587	Updated Residential EWR Charge
4	Renewable Program Surcharge Revenue	-	-	-	Renewable surcharge rate is zero
5	Low Income Energy Assistance Fund (LIEAF) Surcharge Revenue	<u>23,753</u>	<u>-</u>	<u>23,753</u>	
6	Electric Sales Revenue excluding Surcharges	<u><u>4,971,455</u></u>	<u><u>22,373</u></u>	<u><u>4,993,828</u></u>	Line 1 less Lines 2 through 5

1/ Sponsored by Staff Witness M.J. Pung on Exhibit S-6, Schedule F2, Page 2, Line 47, Column (b)

2/ Staff Adjustments in (\$000) includes \$0.012 to rate D1.8, \$0.468 to rate D9, \$5,242 to the residential EWR revenues, \$2,587 to RIA revenues, and \$19,787 resulting from Staff's adjusted Sales Forecast.

3/ Includes TRM Revenue in base revenue effective November 1, 2022

**Michigan Public Service Commission**  
 DTE Electric Company  
 Staff's Interdepartment Rent / Shared Asset Revenue  
 Projected 12 Month Period Ending Oct. 31, 2023  
 (\$000)

Case: U-20836  
 Exhibit: S-3  
 Schedule: C3  
 Witness: M.J. Pung  
 Page: 3 of 3

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Adj. Historical 12 mos. ended 12/31/20	Projection Adjustments	Test 12 mos. ending 10/31/23	Reference
1	Shared Asset Revenue	49,777	6,451	56,228	Workpaper TMU-19
2	C360 "Return on" Cross Charge to DTE Gas	1,215	(281)	934	
3	Total Interdepartment Rent (Account 455)	50,993	6,169	57,162	

**Michigan Public Service Commission**  
DTE Electric Company  
Staff's Calculation of Power Supply Expenses  
Projected 12 Month Period Ending Oct. 31, 2023

Case No.: U-20836  
Exhibit: S-3  
Schedule: C4  
Witness: M.J. Pung  
Page: 1 of 1

	(a)	(b)	(c)
Line No.	Description	Amount	Source
1	Current PSCR Base including transmission at generation level (mills/kWh)	31.26	U-15768; Exh. A-10, Sch. C4
2	Loss Factor (mills/kWh)	1.0731	Exhibit A-13, Schedule C4.1, Col (d) Line 6
3	PSCR Base including transmission at sales level (mills/kWh)	33.55	(Line 1 x Line 2)
4			
5	DTE Electric Power Supply Projected Sales (MWh) (Note 1)	40,595,549	Exhibit S-6, Schedule F2, Page 3 column B
6			
7	Transmission Expense	\$ 305,671,000	U-15768; Exh. A-10, Sch. C4.3
8			
9	Base Transmission Expense at PSCR Sales Level (mills/kWh)	7.53	(Line 7 ÷ Line 5)
10			
11	Base Fuel & PP Expense at PSCR Sales Level (mills/kWh)	26.02	(Line 3 - Line 9)
12			
13	<b><u>Test Year Power Supply Costs (Less Transmission)</u></b>		
14			
15	DTE Electric Power Supply Projected Sales (MWh)	40,595,549	Line 5
16	DTE Electric R10 & R3 MISO Pricing Option Projected Sales (MWh)	1,288,876	Exhibit A-16, Schedule F3 (R3 & R10 MISO energy charge sales)
17	DTE Electric Retail Sales (less R10 & R3) (MWh)	39,306,673	
18			
19	DTE Electric Retail Power Supply Costs (less R10 & R3)	\$ 1,022,772,684	(Line 17 x Line 11)
20	MISO Pricing Option Costs (Note 2)	35,959,640	(Line 16 x \$27.90/MWh)
21	R10 Voltage Level Service Adder (Note 3)	854,484	Exhibit A-16, Schedule F3 (R10 voltage level detail)
22	DTE Electric Total Power Supply Costs	\$ 1,059,586,808	
23			
24	R10 and R3 Transmission	\$ 9,704,808	Line 9 x Line 16
25	PSCR Sales Transmission	295,966,192	(Line 26 - Line 24)
26	Transmission Expense	\$ 305,671,000	
27			
28	Total Expense	\$ 1,365,257,808	
29			
30			
31	Capacity and Non-Capacity Detail		
32			
33	Non-Capacity Power Supply Expenses	\$ 1,890,119,363	
34	PA295 Capacity Related Generation Cost	113,095,478	Exhibit A-26 Schedule P2
35	PURPA Capacity Related Generation Cost	11,063,886	Exhibit A-26 Schedule P1
36	Capacity Purchases	846,364	Exhibit A-26 Schedule P3
37	Net Energy Market Sales Revenue	(649,867,283)	Exhibit A-26 Schedule P3
38	Total Power Supply Expense	\$ 1,365,257,808	

Note 1 - Updated for Staff's test-year sales forecast.

Note 2 - Average MISO Wholesale Purchase cost for test period as supported in Case U-21050 Exhibit A-6

Note 3 - Updated R10 Voltage Level Service Adder Revenue.



Case No.: U-20836  
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**DTE Electric Company  
Case No. U-20836  
Staff's Present and Proposed Revenue  
by Rate Schedule**

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Present and Proposed Revenue**  
**by Rate Schedule**

Case No.: U-20836  
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Page: 2 of 4

**Total Revenues**

	(a)	(b)	(c)	(d)	(e)
Line No.	Residential	Total Present Revenue (\$000's)	Total Proposed Revenue (\$000's)	Total Net Increase/ (Decrease) (\$000's)	Total Net Increase/ (Decrease) (%)
1	D1/D1.6 Residential	\$2,455,330	\$2,521,059	\$65,729	2.7%
2	D1-A TOU Pilot	\$8,805	\$9,039	\$235	2.7%
3	D1-B TOU Pilot	\$8,841	\$9,077	\$235	2.7%
4	D1.1 Int. Air	\$54,094	\$55,413	\$1,319	2.4%
5	D1.2 TOD	\$27,921	\$28,731	\$810	2.9%
6	D1.7 TOD	\$15,285	\$15,798	\$513	3.4%
7	D1.8 Dynamic	\$38,002	\$39,144	\$1,142	3.0%
8	D1.9 Elec. Vehicle	\$927	\$950	\$23	2.5%
9	D2 Elec. Space Heat	\$46,105	\$46,889	\$784	1.7%
10	D5 Res. Water Ht.	\$15,022	\$15,536	\$513	3.4%
11	Total Residential	\$2,670,333	\$2,741,636	\$71,303	2.7%
12					
13	<b>Secondary</b>				
14	D1.1 Int. Air	\$671	\$695	\$24	3.6%
15	D1.7 TOD	\$1,085	\$1,175	\$90	8.3%
16	D1.8 Dynamic	\$134	\$139	\$5	3.7%
17	D 1.9 Elec Vehicle	\$7	\$7	\$0	1.5%
18	D3/D3.5 Gen. Serv.	\$944,889	\$976,755	\$31,866	3.4%
19	D3.1 Unmetered	\$10,099	\$10,311	\$212	2.1%
20	D3.2 Sec. Educ.	\$44,016	\$48,255	\$4,239	9.6%
21	D3.3 Interruptible	\$8,262	\$8,627	\$365	4.4%
22	D4 Lg. Gen. Serv.	\$264,004	\$264,225	\$221	0.1%
23	D5 Com. Wat. Ht.	\$717	\$777	\$60	8.3%
24	E1.1 Eng. St. Ltg.	\$957	\$1,002	\$46	4.8%
25	R7 Greenhs. Ltg.	\$413	\$436	\$23	5.7%
26	R8 Space Cond.	\$8,722	\$9,059	\$337	3.9%
27	Total Secondary	\$1,283,976	\$1,321,464	\$37,488	2.9%
28					
29	<b>Primary</b>				
30	D11 Prim. Supply	\$976,184	\$1,008,542	\$32,358	3.3%
31	D12 Exp. Lrg Cust	\$0	\$0	\$0	-
32	D6.2 Pri. Educ.	\$42,647	\$44,786	\$2,138	5.0%
33	D8 Int. Primary	\$42,973	\$44,964	\$1,992	4.6%
34	D10 El.Schools	\$2,258	\$2,366	\$108	4.8%
35	R1.1 Alt. Mtl. Melt.	\$4,256	\$4,352	\$96	2.3%
36	R1.2 El. Pr. Htg.	\$34,687	\$36,358	\$1,671	4.8%
37	R3 Standby	\$11,903	\$12,373	\$469	3.9%
38	R10 Int. Supply	\$69,135	\$62,420	(\$6,716)	(9.7%)
39	Total Primary	\$1,184,043	\$1,216,160	\$32,117	2.7%
40					
41	<b>Other</b>				
42	D9 Protective Ltg.	\$10,793	\$10,109	(\$684)	(6.3%)
43	E1 Muni Street Ltg	\$52,923	\$62,204	\$9,281	17.5%
44	E2 Traffic Lights	\$4,947	\$5,103	\$156	3.2%
45	Total Other	\$68,662	\$77,416	\$8,754	12.7%
46					
47	<b>Total All Classes</b>	<b>\$5,207,014</b>	<b>\$5,356,676</b>	<b>\$149,662</b>	<b>2.9%</b>

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
by Rate Schedule

Case No.: U-20836  
Exhibit: S-6  
Schedule: F2  
Witness: M.J. Pung  
Page: 3 of 4

Power Supply Revenues

Line No.	(a) Residential	(b) Power Supply Sales (MWH)	(c) Present Revenue (\$000's)	(d) Increase/ (Decrease) (\$000's)	(e) Proposed Revenue (\$000's)	(f) Capacity Revenue (\$000's)	(g) Non-Capacity Revenue (\$000's)
1	D1/D1.6 Residential	13,722,511	\$1,285,957	(\$40,679)	\$1,245,278	\$731,418	\$513,860
2	D1-A TOU Pilot	51,441	\$4,587	(\$145)	\$4,442	\$2,609	\$1,833
3	D1-B TOU Pilot	51,664	\$4,608	(\$146)	\$4,463	\$2,621	\$1,841
4	D1.1 Int. Air	351,843	\$26,075	(\$825)	\$25,250	\$14,831	\$10,419
5	D1.2 TOD	183,469	\$13,620	(\$430)	\$13,190	\$5,784	\$7,406
6	D1.7 TOD	118,102	\$6,532	(\$207)	\$6,325	\$3,715	\$2,610
7	D1.8 Dynamic	230,070	\$18,597	(\$588)	\$18,008	\$10,577	\$7,431
8	D1.9 Elec. Vehicle	5,971	\$425	(\$13)	\$412	\$242	\$170
9	D2 Elec. Space Heat	295,143	\$21,801	(\$1,365)	\$20,436	\$8,433	\$12,003
10	D5 Res. Water Ht.	113,751	\$5,680	(\$180)	\$5,500	\$3,230	\$2,270
11	Total Residential	15,123,965	\$1,387,881	(\$44,578)	\$1,343,304	\$783,460	\$559,843
12							
13	<b>Secondary</b>						
14	D1.1 Int. Air	5,649	\$401	(\$10)	\$391	\$200	\$191
15	D1.7 TOD	13,573	\$640	(\$15)	\$624	\$320	\$304
16	D1.8 Dynamic	1,177	\$87	(\$2)	\$85	\$43	\$41
17	D1.9 Elec. Vehicle	38	\$4	\$0	\$4	\$2	\$2
18	D3/D3.5 Gen. Serv.	7,357,968	\$606,586	(\$14,621)	\$591,965	\$303,246	\$288,719
19	D3.1 Unmetered	91,661	\$6,291	(\$152)	\$6,139	\$3,145	\$2,994
20	D3.2 Sec. Educ.	298,459	\$21,961	\$13	\$21,974	\$10,126	\$11,848
21	D3.3 Interruptible	73,481	\$5,061	(\$122)	\$4,939	\$2,530	\$2,409
22	D4 Lg. Gen. Serv.	2,021,108	\$156,943	(\$7,579)	\$149,364	\$69,942	\$79,422
23	D5 Com. Wat. Ht.	7,776	\$377	(\$9)	\$368	\$189	\$180
24	E1.1 Eng. St. Ltg.	9,792	\$558	(\$13)	\$544	\$279	\$265
25	R7 Greenhs. Ltg.	4,760	\$224	(\$5)	\$219	\$112	\$107
26	R8 Space Cond.	74,752	\$5,388	(\$130)	\$5,258	\$2,694	\$2,564
27	Total Secondary	9,960,195	\$804,520	(\$22,646)	\$781,874	\$392,828	\$389,046
28							
29	<b>Primary</b>						
30	D11 Prim. Supply	12,381,348	\$810,314	(\$992)	\$809,322	\$328,588	\$480,734
31	D12 Exp. Lrg Cust	0	\$0	\$0	\$0	\$0	\$0.00
32	D6.2 Pri. Educ.	349,415	\$27,378	(\$1,049)	\$26,330	\$12,937	\$13,392
33	D8 Int. Primary	589,779	\$33,690	\$92	\$33,782	\$9,245	\$24,537
34	D10 El.Schools	16,164	\$1,313	(\$2)	\$1,311	\$531	\$780
35	R1.1 Alt. Mtl. Melt.	60,727	\$3,420	(\$4)	\$3,416	\$827	\$2,589
36	R1.2 El. Pr. Htg.	454,377	\$25,083	(\$81)	\$25,002	\$5,630	\$19,373
37	R3 Standby	147,833	\$9,377	(\$92)	\$9,284	\$2,906	\$6,378
38	R10 Int. Supply	1,281,858	\$64,130	(\$8,269)	\$55,861	\$0	\$55,861
39	Total Primary	15,281,501	\$974,706	(\$10,397)	\$964,309	\$360,665	\$603,644
40							
41	<b>Other</b>						
42	D9 Protective Ltg.	34,232	\$1,530	\$8	\$1,538	\$0	\$1,538
43	E1 Muni Street Ltg	136,129	\$6,085	\$31	\$6,116	\$0	\$6,116
44	E2 Traffic Lights	59,527	\$3,864	(\$79)	\$3,785	\$1,341	\$2,444
45	Total Other	229,889	\$11,479	(\$40)	\$11,439	\$1,341	\$10,099
46							
47	<b>Total All Classes</b>	40,595,549	\$3,178,587	(\$77,662)	\$3,100,926	\$1,538,293	\$1,562,632

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Present and Proposed Revenue**  
**by Rate Schedule**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F2  
Witness: M.J. Pung  
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**Distribution Revenues**

Line No.	(a) <b>Residential</b>	(b) <b>Distribution Sales (MWH)</b>	(c) <b>Present Revenue (\$000's)</b>	(d) <b>Increase/ (Decrease) (\$000's)</b>	(e) <b>Proposed Revenue (\$000's)</b>
1	D1/D1.6 Residential	13,722,511	\$1,169,373	\$106,408	\$1,275,781
2	D1-A TOU Pilot	51,441	\$4,218	\$380	\$4,598
3	D1-B TOU Pilot	51,664	\$4,233	\$381	\$4,614
4	D1.1 Int. Air	351,843	\$28,019	\$2,144	\$30,163
5	D1.2 TOD	183,469	\$14,301	\$1,240	\$15,541
6	D1.7 TOD	118,102	\$8,754	\$720	\$9,473
7	D1.8 Dynamic	230,070	\$19,405	\$1,730	\$21,135
8	D1.9 Elec. Vehicle	5,971	\$502	\$36	\$539
9	D2 Elec. Space Heat	295,143	\$24,304	\$2,149	\$26,453
10	D5 Res. Water Ht.	113,751	\$9,343	\$693	\$10,036
11	<b>Total Residential</b>	<b>15,123,965</b>	<b>\$1,282,452</b>	<b>\$115,881</b>	<b>\$1,398,333</b>
12					
13	<b>Secondary</b>				
14	D1.1 Int. Air	5,649	\$270	\$34	\$305
15	D1.7 TOD	13,733	\$445	\$106	\$551
16	D1.8 Dynamic	1,177	\$47	\$7	\$54
17	D1.9 Elec Vehicle	38	\$3	\$0	\$3
18	D3/D3.5 Gen. Serv.	7,665,136	\$338,303	\$46,487	\$384,790
19	D3.1 Unmetered	91,661	\$3,807	\$364	\$4,171
20	D3.2 Sec. Educ.	568,924	\$22,056	\$4,226	\$26,282
21	D3.3 Interruptible	80,532	\$3,201	\$487	\$3,688
22	D4 Lg. Gen. Serv.	2,321,699	\$107,061	\$7,800	\$114,861
23	D5 Com. Wat. Ht.	7,781	\$339	\$69	\$408
24	E1.1 Eng. St. Ltg.	9,792	\$399	\$59	\$458
25	R7 Greenhs. Ltg.	4,760	\$189	\$29	\$217
26	R8 Space Cond.	77,251	\$3,334	\$467	\$3,801
27	<b>Total Secondary</b>	<b>10,848,135</b>	<b>\$479,455</b>	<b>\$60,135</b>	<b>\$539,590</b>
28					
29	<b>Primary</b>				
30	D11 Prim. Supply	15,574,024	\$165,870	\$33,350	\$199,220
31	D12 Exp. Lrg Cust	0	\$0	\$0	\$0
32	D6.2 Pri. Educ.	703,871	\$15,269	\$3,187	\$18,456
33	D8 Int. Primary	741,962	\$9,283	\$1,899	\$11,182
34	D10 El.Schools	29,299	\$944	\$110	\$1,054
35	R1.1 Alt. Mtl. Melt.	60,727	\$836	\$100	\$936
36	R1.2 El. Pr. Htg.	463,148	\$9,604	\$1,752	\$11,356
37	R3 Standby	140,961	\$2,527	\$562	\$3,088
38	R10 Int. Supply	1,281,858	\$5,005	\$1,553	\$6,559
39	<b>Total Primary</b>	<b>18,995,849</b>	<b>\$209,337,511</b>	<b>\$42,513</b>	<b>\$251,851</b>
40					
41	<b>Other</b>				
42	D9 Protective Ltg.	34,232	\$9,263	(\$692)	\$8,571
43	E1 Muni Street Ltg	136,129	\$46,838	\$9,250	\$56,088
44	E2 Traffic Lights	59,527	\$1,082	\$235	\$1,317
45	<b>Total Other</b>	<b>229,889</b>	<b>\$57,183</b>	<b>\$8,794</b>	<b>\$65,976</b>
46					
47	<b>Total All Classes</b>	<b>45,197,837</b>	<b>\$2,028,427</b>	<b>\$227,322</b>	<b>\$2,255,750</b>

Case No.: U-20836

Exhibit: S-6

Schedule: F3

Witnesses: M.J. Pung

N.M. Revere

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**DTE Electric Company**  
**Case No. U-20836**  
**Staff's Present and Proposed Revenue**

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Residential Service Rate Base - D1

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
1	Power Supply Charges						
2	Non-Capacity Charge	13,461,299	MWh	\$0.04176	562,144	\$0.03745	504,079
3	Capacity Charges:						
4	First 17 KWH/Day	8,746,013	MWh	\$0.04500	393,571	\$0.04617	403,791
5	Excess	4,715,287	MWh	\$0.06484	305,739	\$0.06652	313,679
6	Power Supply Subtotal	13,461,299	MWh	9.37¢	1,261,454		1,221,548
7							
8	PSCR	13,461,299	MWh	\$0.00000	0	\$0.00000	0
9	REPS	1,943,596	Meters	\$0.00000	0	\$0.00000	0
10	Total Full Service Power Supply	13,461,299	MWh	9.37¢	1,261,454	9.07¢	1,221,548
11							
12	<b>Full Service Distribution</b>	Quantity	Units				
13							
14	Service Charge	1,943,596	Cust.	\$7.50	174,924	\$8.50	198,247
15	Income Assistance	31,255	Cust.	(\$7.50)	(2,813)	(\$8.50)	(3,188)
16	Senior Citizen Provision	90,000	Cust.	(\$3.75)	(4,050)	(\$4.25)	(4,590)
17							
18	Distribution Charge	13,461,299	MWh	\$0.06611	889,927	\$0.07220	971,951
19	Distribution System	13,461,299	MWh	7.86¢	1,057,987	8.64¢	1,162,420
20							
21	Nuclear Decomm.	13,461,299	MWh	\$0.000842	11,334	\$0.000842	11,334
22	Energy Waste Reduction	13,461,299	MWh	\$0.005423	73,001	\$0.005423	73,001
23	LIEAF	1,943,596	Cust.	\$0.87	20,291	\$0.87	20,291
24	Distribution Surcharges	13,461,299	MWh	0.78¢	104,626	0.78¢	104,626
25							
26	Total Full Service Distribution			8.64¢	1,162,613	9.41¢	1,267,046
27	<b>Total Full Service D1</b>	13,461,299	MWh	18.01¢	2,424,067	18.49¢	2,488,594
28							
29	<b>Choice</b>	Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
30							
31	Capacity Charges:						
32	First 17 KWH/Day	0	MWh	\$0.04500	0	\$0.04617	0
33	Excess	0	MWh	\$0.06484	0	\$0.06652	0
34	Capacity Total	0	MWh		0		0
35							
36	Distribution Charges						
37	Service Charge	0	Cust.	\$7.50	0	\$8.50	0
38	Income Assistance	0	Cust.	(\$7.50)	0	(\$8.50)	0
39	Senior Citizen Provision	0	Cust.	(\$3.75)	0	(\$4.25)	0
40							
41	Distribution Charge	0	MWh	\$0.06611	0	\$0.07220	0
42	Distribution System	0	MWh		0		0
43							
44	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
45	Energy Waste Reduction	0	MWh	\$0.005423	0	\$0.005423	0
46	LIEAF	0	Cust.	\$0.87	0	\$0.87	0
47	Distribution Surcharges	0	MWh		0		0
48							
49	<b>Total Choice D1</b>	0	MWh		0		0
50							
51	<b>Total D1</b>	13,461,299	MWh	18.01¢	2,424,067	18.49¢	2,488,594
52	Increase/Decrease (\$)						64,527

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Residential Advanced Pricing Pilot A; TOU I - D1-A

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 3 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue	(e) Proposed	(f) Revenue
		Quantity	Units	Rate	(\$000)	Rate	(\$000)
	<b>Full Service Power Supply</b>						
1	Power Supply Charges						
2	Non-Capacity Charge						
3	June - September						
4	On Peak (3pm-7pm, M-F)	3,342	MWh	\$0.06272	210	\$0.05114	171
5	Off Peak	17,793	MWh	\$0.04539	808	\$0.03421	609
6	October - May						
7	On Peak (3pm-7pm, M-F)	3,918	MWh	\$0.05023	197	\$0.03838	150
8	Off Peak	26,389	MWh	\$0.04539	1,198	\$0.03421	903
9							
10	Capacity Charge	51,441	MWh	\$0.04228	2,175	\$0.05071	2,609
11							
12							
13	Power Supply Subtotal	51,441	MWh	<b>8.92¢</b>	<b>4,587</b>		<b>4,442</b>
14							
15	PSCR	51,441	MWh	\$0.00000	0	\$0.00000	0
16	REPS	7,500	Meters	\$0.00000	0	\$0.00000	0
17	Total Full Service Power Supply	51,441	MWh	<b>8.92¢</b>	<b>4,587</b>	<b>8.63¢</b>	<b>4,442</b>
18							
19	<b>Full Service Distribution</b>	Quantity	Units				
20							
21	Service Charge	7,500	Cust.	\$7.50	675	\$8.50	765
22							
23	Distribution Charge	51,441	MWh	\$0.06109	3,143	\$0.06672	3,432
24	Distribution System	51,441	MWh	<b>7.42¢</b>	<b>3,818</b>	<b>8.16¢</b>	<b>4,197</b>
25							
26	Nuclear Decomm.	51,441	MWh	\$0.000842	43	\$0.000842	43
27	Energy Waste Reduction	51,441	MWh	\$0.005423	279	\$0.005423	279
28	LIEAF	7,500	Cust.	\$0.87	78	\$0.87	78
29	Distribution Surcharges	51,441	MWh	<b>0.78¢</b>	<b>401</b>	<b>0.78¢</b>	<b>401</b>
30							
31	Total Full Service Distribution			<b>8.20¢</b>	<b>4,218</b>	<b>8.94¢</b>	<b>4,598</b>
32	<b>Total Full Service D1-A</b>	51,441	MWh	<b>17.12¢</b>	<b>8,805</b>	<b>17.57¢</b>	<b>9,039</b>
33							
34	Increase/Decrease (\$)						235

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Residential Advanced Pricing Pilot B; TOU II - D1-B

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 4 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue	(e) Proposed	(f) Revenue
		Quantity	Units	Rate	((\$000))	Rate	((\$000))
	<b>Full Service Power Supply</b>						
1	Power Supply Charges						
2	Non-Capacity Charge						
3	June - September						
4	On Peak (3pm-7pm, M-F)	3,356	MWh	\$0.07053	237	\$0.05565	187
5	Off Peak	17,870	MWh	\$0.04465	798	\$0.03384	605
6	October - May						
7	On Peak (3pm-7pm, M-F)	3,935	MWh	\$0.05203	205	\$0.03896	153
8	Off Peak	26,503	MWh	\$0.04465	1,183	\$0.03384	897
9	Capacity Charges:						
10	June - September						
11	On Peak (3pm-7pm, M-F)	3,356	MWh	\$0.06363	214	\$0.07921	266
12	Off Peak	17,870	MWh	\$0.04028	720	\$0.04816	861
13	October - May		MWh				
14	On Peak (3pm-7pm, M-F)	3,935	MWh	\$0.04694	185	\$0.05546	218
15	Off Peak	26,503	MWh	\$0.04028	1,068	\$0.04816	1,276
16	Power Supply Subtotal	51,664	MWh	<b>8.92¢</b>	<b>4,608</b>		<b>4,463</b>
17							
18	PSCR	51,664	MWh	\$0.00000	0	\$0.00000	0
19	REPS	7,500	Meters	\$0.00000	0	\$0.00000	0
20	Total Full Service Power Supply	51,664	MWh	<b>8.92¢</b>	<b>4,608</b>	<b>8.64¢</b>	<b>4,463</b>
21							
22	<b>Full Service Distribution</b>	Quantity	Units				
23							
24	Service Charge	7,500	Cust.	\$7.50	675	\$8.50	765
25							
26	Distribution Charge	51,664	MWh	\$0.06109	3,156	\$0.06672	3,447
27	Distribution System	51,664	MWh	<b>7.42¢</b>	<b>3,831</b>	<b>8.15¢</b>	<b>4,212</b>
28							
29	Nuclear Decomm.	51,664	MWh	\$0.000842	44	\$0.000842	44
30	Energy Waste Reduction	51,664	MWh	\$0.005423	280	\$0.005423	280
31	LIEAF	7,500	Cust.	\$0.87	78	\$0.87	78
32	Distribution Surcharges	51,664	MWh	<b>0.78¢</b>	<b>402</b>	<b>0.78¢</b>	<b>402</b>
33							
34	Total Full Service Distribution			<b>8.19¢</b>	<b>4,233</b>	<b>8.93¢</b>	<b>4,614</b>
35	<b>Total Full Service D1-B</b>	51,664	MWh	<b>17.11¢</b>	<b>8,841</b>	<b>17.57¢</b>	<b>9,077</b>
36							
37	Increase/Decrease (\$)						235



**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Present and Proposed Revenue**  
**Interruptible Space-Conditioning Service Rate - D1.1 Residential**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 5 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue (\$000)	(e) Proposed	(f) Revenue (\$000)
	<b>Full Service Power Supply</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
1	Power Supply Charges						
2	Non-Capacity Charge	351,843	MWh	\$0.03292	11,583	\$0.02961	10,419
3	Capacity Charges						
4	Summer Energy	331,737	MWh	\$0.04304	14,278	\$0.04404	14,611
5	Winter Winter	20,106	MWh	\$0.01067	215	\$0.01092	220
6	Power Supply Subtotal	351,843	MWh		26,075		25,250
7							
8	PSCR	351,843	MWh	\$0.00000	0	\$0.00000	0
9	Total Full Service Power Supply	351,843	MWh	<b>7.41¢</b>	<b>26,075</b>	<b>7.18¢</b>	<b>25,250</b>
10							
11	<b>Full-Service Distribution</b>	<u>Quantity</u>	<u>Units</u>				
12		Customers	Months				
13	Service Charge (June-Oct)	262,000	5	\$1.95	2,555	\$1.95	2,555
14							
15	Distribution Charge	351,843	MWh	\$0.06611	23,260	\$0.07220	25,404
16	Distribution System	351,843	MWh	<b>7.34¢</b>	<b>25,815</b>	<b>7.95¢</b>	<b>27,959</b>
17							
18	Nuclear Decomm.	351,843	MWh	\$0.000842	296	\$0.000842	296
19	Energy Waste Reduction	351,843	MWh	\$0.005423	1,908	\$0.005423	1,908
20	Distribution Surcharges	351,843	MWh	<b>0.63¢</b>	<b>2,204</b>	<b>0.63¢</b>	<b>2,204</b>
21							
22	Total Full Service Distribution	351,843	MWh	<b>7.96¢</b>	<b>28,019</b>	<b>8.57¢</b>	<b>30,163</b>
23	<b>Total Full-Service D1.1</b>	351,843	MWh	<b>15.37¢</b>	<b>54,094</b>	<b>15.75¢</b>	<b>55,413</b>
24							
25	<b>Choice</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
26							
27	Capacity Charges						
28	Summer Energy	0	MWh	\$0.04304	0	\$0.04404	0
29	Winter Energy	0	MWh	\$0.01067	0	\$0.01092	0
30	Capacity Total	0	MWh		0		0
31							
32	Distribution Charges						
33		Customers	Months				
34	Service Charge (June-Oct)	0	5	\$1.95	0	\$1.95	0
35							
36	Distribution Energy	0	MWh	\$0.06611	0	\$0.07220	0
37	Distribution System	0	MWh		0		0
38							
39	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
40	Energy Waste Reduction	0	MWh	\$0.005423	0	\$0.005423	0
41	Distribution Surcharges	0	MWh		0		0
42							
43	<b>Total Choice D1.1</b>	0	MWh		0		0
44							
45	<b>Total D1.1</b>	351,843	MWh	<b>15.37¢</b>	<b>54,094</b>	<b>15.75¢</b>	<b>55,413</b>
46	Increase/Decrease (\$)						1,319

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Residential Service Rate Enhanced TOU - D1.2

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 6 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue	(e) Proposed	(f) Revenue
		Quantity	Units	Rate	(\$000)	Rate	(\$000)
	<b>Full Service Power Supply</b>						
1	Power Supply Charges						
2	Non-Capacity Charge	183,469	MWh	\$0.04261	\$7,818	\$0.04037	7,406
3	Capacity Charges						
4	Summer:						
5	On-Peak	17,524	MWh	\$0.11841	2,075	\$0.11557	2,025
6	Off-Peak	54,838	MWh	\$0.01160	636	\$0.01213	665
7	Winter:						
8	On-Peak	24,281	MWh	\$0.09341	2,268	\$0.09136	2,218
9	Off-Peak	86,827	MWh	\$0.00948	823	\$0.01008	875
10	Power Supply Subtotal	183,469	MWh		13,620		13,190
11							
12	PSCR	183,469	MWh	\$0.00000	0	\$0.00000	0
13	REPS	10,262	Meters	\$0.00000	0	\$0.00000	0
14	Total Full Service Power Supply	183,469	MWh	7.42¢	13,620	7.19¢	13,190
15							
16	<b>Full Service Distribution</b>	Quantity	Units				
17							
18	Service Charge	10,262	Cust.	\$7.50	924	\$8.50	1,047
19	Income Assistance	95	Cust.	(\$7.50)	(9)	(\$8.50)	(10)
20							
21	Distribution Energy	183,469	MWh	\$0.06611	12,129	\$0.07220	13,247
22	Distribution System	183,469	MWh	7.11¢	13,044	7.79¢	14,284
23							
24	Nuclear Decomm.	183,469	MWh	\$0.000842	154	\$0.000842	154
25	Energy Waste Reduction	183,469	MWh	\$0.005423	995	\$0.005423	995
26	LIEAF	10,262	Cust.	\$0.87	107	\$0.87	107
27	Distribution Surcharges	183,469	MWh	0.68¢	1,257	0.68¢	1,257
28							
29	Total Full Service Distribution	183,469	MWh	7.79¢	14,301	8.47¢	15,541
30	<b>Total Full-Service D1.2</b>	183,469	MWh	15.22¢	27,921	15.66¢	28,731
31							
32	<b>Choice</b>	Quantity	Units	Rate	Revenue	Rate	Revenue
33					(\$000)		(\$000)
34	Capacity Charges						
35	Summer:						
36	On-Peak	0	MWh	\$0.11841	0	\$0.11557	0
37	Off-Peak	0	MWh	\$0.01160	0	\$0.01213	0
38	Winter:						
39	On-Peak	0	MWh	\$0.09341	0	\$0.09136	0
40	Off-Peak	0	MWh	\$0.00948	0	\$0.01008	0
41	Capacity Total	0	MWh		0		0
42							
43	Service Charge	0	Cust.	\$7.50	0	\$8.50	0
44	Income Assistance	0	Cust.	(\$7.50)	0	(\$8.50)	0
45							
46	Distribution Charge	0	MWh	\$0.06611	0	\$0.07220	0
47	Distribution System	0	MWh		0		0
48							
49	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
50	Energy Waste Reduction	0	MWh	\$0.005423	0	\$0.005423	0
51	LIEAF	0	Cust.	\$0.87	0	\$0.87	0
52	Distribution Surcharges	0	MWh		0		0
53							
54	<b>Total Choice D1.2</b>	0	MWh		0		0
55							
56	<b>Total D1.2</b>	183,469	MWh	15.22¢	27,921	15.66¢	28,731
57	Increase/Decrease (\$)						810

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Residential Service Special Low Income Pilot Rate - D1.6

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 7 of 57

Line No.	(a) Description	(b) Billing Determinants Quantity Units	(c) Present Rate	(d) Revenue (\$000)	(e) Proposed Rate	(f) Revenue (\$000)
	<b>Full Service Power Supply</b>					
1	Power Supply Charges					
2	Non-Capacity Charge	261,211 MWh	\$0.04176	10,908	\$0.03745	9,781
3	Capacity Charges					
4	First 17 KWH/Day	168,428 MWh	\$0.04500	7,579	\$0.04617	7,776
5	Excess	92,783 MWh	\$0.06484	6,016	\$0.06652	6,172
6	Power Supply Subtotal	261,211 MWh	9.38¢	24,504	9.08¢	23,730
7						
8	PSCR	261,211 MWh	\$0.00000	0	\$0.00000	0
9	REPS	32,000 Meters	\$0.00000	0	\$0.00000	0
10	Total Full Service Power Supply	261,211 MWh	<b>9.38¢</b>	<b>24,504</b>	<b>9.08¢</b>	<b>23,730</b>
11						
12	<b>Full Service Distribution</b>					
13						
14	Service Charge	32,000 Cust.	\$7.50	2,880	\$8.50	3,264
15	Income Assistance	32,000 Cust.	(\$40.00)	(15,360)	(\$40.00)	(15,360)
16						
17	Distribution Charge	261,211 MWh	\$0.06611	17,269	\$0.07220	18,860
18	Distribution System	261,211 MWh	<b>1.83¢</b>	<b>4,789</b>	<b>2.59¢</b>	<b>6,764</b>
19						
20	Nuclear Decomm.	261,211 MWh	\$0.000842	220	\$0.000842	220
21	Energy Waste Reduction	261,211 MWh	\$0.005423	1,417	\$0.005423	1,417
22	LIEAF	32,000 Cust.	\$0.87	334	\$0.87	334
23	Distribution Subtotal	261,211 MWh	<b>0.75¢</b>	<b>1,971</b>	<b>0.75¢</b>	<b>1,971</b>
24						
25	Total Full Service Distribution		<b>2.59¢</b>	<b>6,759</b>	<b>3.34¢</b>	<b>8,735</b>
26	<b>Total Full Service D1.6</b>	261,211 MWh	<b>11.97¢</b>	<b>31,263</b>	<b>12.43¢</b>	<b>32,465</b>
27						
28	<b>Choice</b>					
29						
30	Capacity Charges					
31	First 17 KWH/Day	0 MWh	\$0.04500	0	\$0.04617	0
32	Excess	0 MWh	\$0.06484	0	\$0.06652	0
33	Total Capacity	0		<b>0</b>		<b>0</b>
34						
35	Service Charge	0 Cust.	\$7.50	0	\$8.50	0
36	Income Assistance	0 Cust.	(\$40.00)	0	(\$40.00)	0
37						
38	Distribution Charge	0 MWh	\$0.06611	0	\$0.07220	0
39	Distribution System	0 MWh		<b>0</b>		<b>0</b>
40						
41	Nuclear Decomm.	0 MWh	\$0.000842	0	\$0.000842	0
42	Energy Waste Reduction	0 MWh	\$0.005423	0	\$0.005423	0
43	LIEAF	0 Cust.	\$0.87	0	\$0.87	0
44	Distribution Subtotal	0 MWh		<b>0</b>		<b>0</b>
45						
46	<b>Total Choice D1.6</b>	0 MWh		<b>0</b>		<b>0</b>
47						
48	<b>Total D1.6</b>	261,211 MWh	<b>11.97¢</b>	<b>31,263</b>	<b>12.43¢</b>	<b>32,465</b>
49	Increase/Decrease (\$)					1,202

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Geothermal Time of Day Service Rate - Residential D1.7

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 8 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue (\$000)	(e) Proposed	(f) Revenue (\$000)
	<b>Full Service Power Supply</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
1	Power Supply Charges						
2	Non-Capacity Charge	118,102	MWh	\$0.02432	\$2,872	\$0.02210	2,610
3	Capacity Charges:						
4	Summer Energy (11 a.m. Peak Start)						
5	On-Peak	7,285	MWh	\$0.11595	\$845	\$0.11373	829
6	Off-Peak	17,668	MWh	\$0.02214	\$391	\$0.02289	404
7	Winter Energy (11 a.m. Peak Start)						
8	On-Peak	19,482	MWh	\$0.03629	\$707	\$0.03659	713
9	Off-Peak	73,667	MWh	\$0.02330	\$1,716	\$0.02401	1,769
10	Power Supply Subtotal	118,102	MWh		\$6,532		6,325
11							
12	PSCR	118,102	MWh	\$0.00000	0	\$0.00000	0
13	Total Power Supply	118,102	MWh	<b>5.53¢</b>	<b>6,532</b>	<b>5.36¢</b>	<b>6,325</b>
14							
15	<b>Full Service Distribution</b>	<u>Quantity</u>	<u>Units</u>				
16							
17	Service Charge (\$/day)	8,426	Cust.	\$0.067	206	\$0.067	206
18							
19	Distribution Charge	118,102	MWh	\$0.06611	7,808	\$0.07220	8,527
20	Distribution System	118,102	MWh	<b>6.79¢</b>	<b>8,014</b>	<b>7.39¢</b>	<b>8,733</b>
21							
22	Nuclear Decomm.	118,102	MWh	\$0.000842	99	\$0.000842	99
23	Energy Waste Reduction	118,102	MWh	\$0.005423	640	\$0.005423	640
24	Distribution Surcharges	118,102	MWh	<b>0.63¢</b>	<b>740</b>	<b>0.63¢</b>	<b>740</b>
25							
26	Total Full Service Distribution	118,102	MWh	<b>7.41¢</b>	<b>8,754</b>	<b>8.02¢</b>	<b>9,473</b>
27	<b>Total Full-Service D1.7</b>	118,102	MWh	<b>12.94¢</b>	<b>15,285</b>	<b>13.38¢</b>	<b>15,798</b>
28							
29	<b>Choice</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
30							
31	Capacity Charges:						
32	Summer Energy (11 a.m. Peak Start)						
33	On-Peak	0	MWh	\$0.11595	0	\$0.11373	0
34	Off-Peak	0	MWh	\$0.02214	0	\$0.02289	0
35	Winter Energy (11 a.m. Peak Start)						
36	On-Peak	0	MWh	\$0.03629	0	\$0.03659	0
37	Off-Peak	0	MWh	\$0.02330	0	\$0.02401	0
38	Total Capacity	0	MWh		0		0
39							
40	Distribution Charges						
41	Service Charge (\$/day)	0	Cust.	\$0.067	0	\$0.067	0
42							
43	Distribution Charge	0	MWh	\$0.06611	0	\$0.07220	0
44	Distribution System	0	MWh		0		0
45							
46	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
47	Energy Waste Reduction	0	MWh	\$0.005423	0	\$0.005423	0
48	Distribution Surcharges	0	MWh		0		0
49							
50	<b>Total Choice D1.7</b>	0	MWh		0		0
51							
52	<b>Total D1.7</b>	118,102	MWh	<b>12.94¢</b>	<b>15,285</b>	<b>13.38¢</b>	<b>15,798</b>
53	Increase/Decrease (\$)						513

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Present and Proposed Revenue**  
**Residential Service Rate Dynamic Peak Pricing - D1.8**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
1	Non-Capacity Charge	230,070	MWh	\$0.03576	8,227	\$0.03230	7,431
2	Capacity Charges:						
3	Off-Peak (11pm-7am)	118,195	MWh	\$0.01218	1,440	\$0.01243	1,469
4	Mid-Peak (7pm-11pm, 7am-3pm)	80,923	MWh	\$0.05645	4,568	\$0.05762	4,663
5	On-Peak (3pm-7pm)	30,530	MWh	\$0.13025	3,977	\$0.13294	4,059
6	Critical Peak (3pm-7pm)	421	MWh	\$0.91424	385	\$0.91770	386
7	Power Supply Subtotal	230,070	MWh	\$0.08083	18,597	\$0.07827	18,008
8							
9	PSCR	230,070	MWh	\$0.00000	0	\$0.00000	0
10	REPS	28,000	Cust	\$0.00000	0	\$0.00000	0
11	Total Full Service Power Supply	230,070	MWh	<b>8.08¢</b>	<b>18,597</b>	<b>7.83¢</b>	<b>18,008</b>
12							
13	<b>Full Service Distribution</b>	Quantity	Units				
14							
15	Sales Applied to Min.		MWh				
16	Service Charge	28,000	Cust.	\$7.50	2,520	\$8.50	2,856
17	Income Assistance	650	Cust.	(\$7.50)	(59)	(\$8.50)	(66)
18							
19	Distribution Charge	230,070	MWh	\$0.06611	15,210	\$0.07220	16,612
20	Distribution System	230,070	MWh	<b>7.68¢</b>	<b>17,671</b>	<b>8.43¢</b>	<b>19,402</b>
21							
22	Nuclear Decomm.	230,070	MWh	\$0.000842	194	\$0.000842	194
23	Energy Waste Reduction	230,070	MWh	\$0.005423	1,248	\$0.005423	1,248
24	LIEAF	28,000	cust	\$0.87	292	\$0.87	292
25	Distribution Surcharges	230,070	MWh	<b>0.75¢</b>	<b>1,734</b>	<b>0.75¢</b>	<b>1,734</b>
26							
27	Total Full Service Distribution			<b>8.43¢</b>	<b>19,405</b>	<b>9.19¢</b>	<b>21,135</b>
28	<b>Total Full Service D1.8</b>	230,070	MWh	<b>16.52¢</b>	<b>38,002</b>	<b>17.01¢</b>	<b>39,144</b>
29	Increase/Decrease (\$)						1,142

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Residential Experimental Electric Vehicle Rate - D1.9

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 10 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue (\$000)	(e) Proposed	(f) Revenue (\$000)
	<b>Full Service Power Supply</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
1	Power Supply Charges						
2	Non-Capacity Charge	5,971	MWh				
3	On-Peak	1,215	MWh	\$0.07889	96	\$0.07065	86
4	Off-Peak	4,756	MWh	\$0.01972	94	\$0.01766	84
5	Capacity Charge						
6							
7	On-Peak	1,215	MWh	\$0.09791	119	\$0.10055	122
8	Off-Peak	4,756	MWh	\$0.02448	116	\$0.02514	120
9		5,971	MWh				
10							
11	PSCR	5,971	MWh	\$0.00000	0	\$0.00000	0
12	Total Full Service Power Supply	5,971	MWh	7.12¢	425	6.89¢	412
13							
14	<b>Full Service Distribution</b>	<u>Quantity</u>	<u>Units</u>				
15							
16	Service Charge (\$/month)	3,000	Cust.	\$1.95	70	\$1.95	70
17							
18	Distribution Charge	5,971	MWh	\$0.06611	395	\$0.07220	431
19	Distribution System	5,971	MWh	7.79¢	465	8.40¢	501
20							
21	Nuclear Decomm.	5,971	MWh	\$0.000842	5	\$0.000842	5
22	Energy Waste Reduction	5,971	MWh	\$0.005423	32	\$0.005423	32
23	Distribution Surcharges	5,971	MWh	0.63¢	37	0.63¢	37
24							
25	Total Full Service Distribution	5,971	MWh	8.41¢	502	9.02¢	539
26	Total Full Service D1.9	5,971	MWh	15.53¢	927	15.92¢	950
27							
28	<b>Choice</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
29							
30	Capacity Charge						
31							
32	On-Peak	0	MWh	\$0.09791	0	\$0.10055	0
33	Off-Peak	0	MWh	\$0.02448	0	\$0.02514	0
34	Total Capacity	0	MWh		0		0
35							
36	Distribution Charges						
37	Service Charge (\$/month)	0	Cust.	\$1.95	0	\$1.95	0
38							
39	Distribution Charge	0	MWh	\$0.06611	0	\$0.07220	0
40	Distribution System	0	MWh		0		0
41							
42	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
43	Energy Waste Reduction	0	MWh	\$0.005423	0	\$0.005423	0
44	Distribution Surcharges	0	MWh		0		0
45							
46	Total Choice D1.9	0	MWh		0		0
47							
48	Total D1.9	5,971	MWh	15.53¢	927	15.92¢	950
49	Increase/Decrease (\$)						23



Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Residential Space Heating Rate - D2

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 14 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
1	Power Supply Charges						
2	Non-Capacity Charge	295,143	MWh	\$0.04373	12,907	\$0.04067	12,003
3	Capacity Charges						
4	Summer						
5	First 17 KWH/Day	56,594	MWh	\$0.04624	2,617	\$0.04384	2,481
6	Excess	34,313	MWh	\$0.06613	2,269	\$0.06270	2,151
7	Winter						
8	First 20 KWH/Day	110,248	MWh	\$0.02728	3,008	\$0.02586	2,852
9	Excess	93,987	MWh	\$0.01065	1,001	\$0.01010	949
10							
11	PSCR	295,143	MWh	\$0.00000	0	\$0.00000	0
12	REPS	30,200	Meters	\$0.00000	0	\$0.00000	0
13	Total Full Service Power Supply	295,143	MWh	7.39¢	21,801	6.92¢	20,436
14							
15	<b>Full Service Distribution</b>	Quantity	Units				
16							
17	Service Charge	30,200	Cust.	\$7.50	2,718	\$8.50	3,080
18	Income Assistance	1,000	Cust.	(\$7.50)	(90)	(\$8.50)	(102)
19							
20	Distribution Charge						
21	Summer	90,907	MWh	\$0.06611	6,010	\$0.07220	6,564
22	Winter	204,236	MWh	\$0.06611	13,502	\$0.07220	14,747
23	Distribution System	295,143	MWh	7.50¢	22,140	8.23¢	24,289
24							
25	Nuclear Decomm.	295,143	MWh	\$0.000842	249	\$0.000842	249
26	Energy Waste Reduction	295,143	MWh	\$0.005423	1,601	\$0.005423	1,601
27	LIEAF	30,200	Cust.	\$0.87	315	\$0.87	315
28	Distribution Surcharges	295,143	MWh	0.73¢	2,164	0.73¢	2,164
29							
30	Total Full Service Distribution	295,143	MWh	8.23¢	24,304	8.96¢	26,453
31	<b>Total Full Service D2</b>	295,143	MWh	15.62¢	46,105	15.89¢	46,889
32							
33	<b>Choice</b>	Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
34							
35	Capacity Charges						
36	Summer						
37	First 17 KWH/Day	0	MWh	\$0.04624	0	\$0.04384	0
38	Excess	0	MWh	\$0.06613	0	\$0.06270	0
39	Winter						
40	First 20 KWH/Day	0	MWh	\$0.02728	0	\$0.02586	0
41	Excess	0	MWh	\$0.01065	0	\$0.01010	0
42	Total Capacity				0		0
43							
44	Distribution Charges						
45	Service Charge	0	Cust.	\$7.50	0	\$8.50	0
46	Income Assistance	0	Cust.	(\$7.50)	0	(\$8.50)	0
47							
48	Distribution Charge						
49	Summer	0	MWh	\$0.06611	0	\$0.07220	0
50	Winter	0	MWh	\$0.06611	0	\$0.07220	0
51	Distribution System	0	MWh		0		0
52							
53	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
54	Energy Waste Reduction	0	MWh	\$0.005423	0	\$0.005423	0
55	LIEAF	0	Cust.	\$0.87	0	\$0.87	0
56	Distribution Surcharges	0	MWh		0		0
57							
58	<b>Total Choice D2</b>	0	MWh		0		0
59							
60	<b>Total D2</b>	295,143	MWh	15.62¢	46,105	15.89¢	46,889
61	Increase/Decrease (\$)						784

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Water Heating Service Rate - Residential D5

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue (\$000)	(e) Proposed	(f) Revenue (\$000)
	<b>Full Service Power Supply</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
1	Non-Capacity Charge	113,751	MWh	\$0.02228	2,534	\$0.01995	2,270
2	Capacity Charge	113,751	MWh	\$0.02765	3,145	\$0.02840	3,230
3							
4	PSCR	113,751	MWh	\$0.00000	0	\$0.00000	0
5	Total Full Service Power Supply	113,751	MWh	<b>4.99¢</b>	<b>5,680</b>	<b>4.84¢</b>	<b>5,500</b>
6							
7	<b>Full-Service Distribution</b>	<u>Quantity</u>	<u>Units</u>				
8							
9	Service Charge	47,433	Cust.	\$1.95	1,110	\$1.95	1,110
10							
11	Distribution Charge	113,751	MWh	\$0.06611	7,520	\$0.07220	8,213
12	Distribution System	113,751	MWh	<b>7.59¢</b>	<b>8,630</b>	<b>8.20¢</b>	<b>9,323</b>
13							
14	Nuclear Decomm.	113,751	MWh	\$0.000842	96	\$0.000842	96
15	Energy Waste Reduction	113,751	MWh	\$0.005423	617	\$0.005423	617
16	Distribution Surcharges	113,751	MWh	<b>0.63¢</b>	<b>713</b>	<b>0.63¢</b>	<b>713</b>
17							
18	Total Full Service Distribution	113,751	MWh	<b>8.21¢</b>	<b>9,343</b>	<b>8.82¢</b>	<b>10,036</b>
19	<b>Total Full Service D5</b>	113,751	MWh	<b>13.21¢</b>	<b>15,022</b>	<b>13.66¢</b>	<b>15,536</b>
20							
21	<b>Choice</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
22							
23	Capacity Charge	0	MWh	\$0.02765	0	\$0.02840	0
24	Total Capacity	0			<b>0</b>		<b>0</b>
25							
26	Distribution Charges						
27	Service Charge	0	Cust.	\$1.95	0	\$1.95	0
28							
29	Distribution Charge	0	MWh	\$0.06611	0	\$0.07220	0
30	Distribution System	0			<b>0</b>		<b>0</b>
31							
32	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
33	Energy Waste Reduction	0	MWh	\$0.005423	0	\$0.005423	0
34	Distribution Surcharges	0	MWh		<b>0</b>		<b>0</b>
35							
36	<b>Total Choice Distribution D5</b>	0	MWh		<b>0</b>		<b>0</b>
37							
38	<b>Total D5</b>	113,751	MWh	<b>13.21¢</b>	<b>15,022</b>	<b>13.66¢</b>	<b>15,536</b>
39	Increase/Decrease (\$)						513



Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Interruptible Space Conditioning Service Rate - Commercial D1.1

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 16 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
	Capacity						
1	Energy						
2	Summer	3,931	MWh	\$0.04347	171	\$0.04206	165
3	Winter	1,719	MWh	\$0.01044	18	\$0.02034	35
4							
5	Non-capacity energy	5,649		\$0.03749	212	\$0.03375	191
6	Power Supply Subtotal	5,649	MWh		401		391
7							
8	PSCR	5,649	MWh	\$0.00000	0	\$0.00000	0
9	REPS	878	Meters	\$0.00	0	\$0.00	0
10	Total Full Service Power Supply	5,649	MWh		7.09¢ 401		6.92¢ 391
11							
12	<b>Full Service Distribution</b>						
13							
14	Service Charge (June-Oct)	878	Cust.	\$1.95	9	\$1.95	9
15							
16	Distribution Charge	5,649	MWh	\$0.03868	219	\$0.04473	253
17	Distribution System	5,649	MWh		4.02¢ 227		4.62¢ 261
18							
19	Nuclear Decomm.	5,649	MWh	\$0.000842	5	\$0.000842	5
20	Energy Waste Reduction	878	Meters	\$2.79	29	\$2.79	29
21	LIEAF	878	Meters	\$0.87	9	\$0.87	9
22	Distribution Surcharges	5,649	MWh		0.77¢ 43		0.77¢ 43
23							
24	Total Distribution	5,649	MWh		4.79¢ 270		5.39¢ 305
25	<b>Total Full Service D1.1</b>	5,649	MWh		11.88¢ 671		12.31¢ 695
26							
27	<b>Choice Distribution</b>	Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
28							
29	Capacity						
30	Energy						
31	Summer	0	MWh	\$0.04347	0	\$0.04206	0
32	Winter	0	MWh	\$0.01044	0	\$0.02034	0
33							
34	Service Charge (June-Oct)	0	Cust.	\$1.95	0	\$1.95	0
35							
36	Distribution Charge	0	MWh	\$0.03868	0	\$0.04473	0
37	Distribution System	0	MWh		0		0
38							
39	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
40	Energy Waste Reduction	0	Meters	\$2.79	0	\$2.79	0
41	LIEAF	0	Meters	\$0.87	0	\$0.87	0
42	Distribution Surcharges	0	MWh		0		0
43							
44	<b>Total Choice D1.1</b>	0	MWh		0		0
45							
46	<b>Total D1.1</b>	5,649	MWh		11.88¢ 671		12.31¢ 695
47	Increase/Decrease (\$)						24

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Commercial Geothermal Time of Day (D1.7)

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 17 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue	(e) Proposed	(f) Revenue
	<b>Full Service Power Supply</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue</u>	<u>Rate</u>	<u>Revenue</u>
	Capacity Charges				(\$000)		(\$000)
1	<u>Energy</u>						
2	Summer (11 a.m. Peak Start)						
3	On-Peak	996	MWh	\$0.03447	34	\$0.03648	36
4	Off-Peak	2,329	MWh	\$0.01792	42	\$0.01896	44
5	Winter (11 a.m. Peak Start)						
6	On-Peak	2,611	MWh	\$0.02206	58	\$0.02334	61
7	Off-Peak	7,636	MWh	\$0.02206	168	\$0.02334	178
8							
9	Non-Capacity Energy	13,573	MWh	\$0.02486	337	\$0.02243	304
10	Power Supply Subtotal	13,573	MWh		640		624
11							
12	PSCR	13,573	MWh	\$0.00000	0	\$0.00000	0
13	REPS	160	Meters	\$0.00	0	\$0.00	0
14	Total Full Service Power Supply	13,573	MWh	4.71¢	640	4.60¢	624
15							
16	<b>Full Service Distribution</b>	<u>Quantity</u>	<u>Units</u>				
17							
18	Service Charge	160	Cust.	\$0.067	4	\$0.067	4
19							
20	Distribution Charge	13,573	MWh	\$0.03078	418	\$0.03848	522
21	Distribution System	13,573	MWh	3.11¢	422	3.88¢	526
22							
23	Nuclear Decomm.	13,573	MWh	\$0.000842	11	\$0.000842	11
24	Energy Waste Reduction	160	Meters	\$2.79	5	\$2.79	5
25	LIEAF	160	Meters	\$0.87	2	\$0.87	2
26	Distribution Surcharges	13,573	MWh	0.14¢	18	0.14¢	18
27							
28	Total Distribution	13,573	MWh	3.24¢	440	4.01¢	545
29	Total Full Service D1.7	13,573	MWh	7.95¢	1,080	8.61¢	1,169
30							
31	<b>Choice Distribution</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue</u>	<u>Rate</u>	<u>Revenue</u>
32					(\$000)		(\$000)
33	Capacity Charges						
34	<u>Energy</u>						
35	Summer (11 a.m. Peak Start)						
36	On-Peak		MWh	\$0.03447	0	\$0.03648	0
37	Off-Peak		MWh	\$0.01792	0	\$0.01896	0
38	Winter (11 a.m. Peak Start)						
39	On-Peak		MWh	\$0.02206	0	\$0.02334	0
40	Off-Peak		MWh	\$0.02206	0	\$0.02334	0
41							
42	Service Charge	1	Cust.	\$0.067	0	\$0.067	0
43							
44	Distribution Charge	160	MWh	\$0.03078	5	\$0.03848	6
45	Distribution System	160	MWh	3.09¢	5	3.86¢	6
46							
47	Nuclear Decomm.	160	MWh	\$0.000842	0	\$0.000842	0
48	Energy Waste Reduction	1	Meters	\$2.79	0	\$2.79	0
49	LIEAF	1	Meters	\$0.87	0	\$0.87	0
50	Distribution Surcharges	160	MWh	0.11¢	0	0.11¢	0
51							
52	Total Choice D1.7	160	MWh	3.20¢	5	3.97¢	6
53							
54	Total D1.7	13,733	MWh	7.90¢	1,085	8.56¢	1,175
55	Increase/Decrease (\$)						90

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Commercial Dynamic Peak Pricing Rate - D1.8

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
	Capacity						
1	Energy						
2	Off-Peak (11pm-7am)	586	MWh	\$0.00694	4	\$0.00851	5
3	Mid-Peak (7 pm-11pm, 7am-3pm )	518	MWh	\$0.04492	23	\$0.05511	29
4	On-Peak (3 pm- 7 pm)	73	MWh	\$0.11005	8	\$0.13502	10
5	Critical Peak (3pm-7pm)	0	MWh	\$0.93013	0	\$1.22103	0
6							
7	Non-capacity energy	1,177	MWh	\$0.04374	51	\$0.03513	41.35
8							
9	Power Supply Subtotal	1,177	MWh		87		85
10							
11	PSCR	1,177	MWh	\$0.00000	0	\$0.00000	0
12	REPS	4	Cust.	\$0.00	0	\$0.00	0
13	Total Full Service Power Supply	1,177	MWh	7.38¢	87	7.20¢	85
14							
15	<b>Full Service Distribution</b>	Quantity	Units				
16							
17	Service Charge	4	Cust.	\$11.25	1	\$11.25	1
18							
19	Distribution Charge	1,177	MWh	\$0.03868	46	\$0.04473	53
20	Distribution System	1,177	MWh	3.91¢	46	4.52¢	53
21							
22	Nuclear Decomm.	1,177	MWh	\$0.000842	1	\$0.000842	1
23	Energy Waste Reduction	4	Cust.	\$2.79	0	\$2.79	0
24	LIEAF	4		\$0.87	0	\$0.87	0
25	Distribution Surcharges	1,177	MWh	0.10¢	1	0.10¢	1
26	Total Full Service D1.1						
27	Total Full Service Distribution	1,177	MWh	4.01¢	47	4.62¢	54
28	<b>Total Full Service D1.8</b>	1,177	MWh	11.39¢	134	11.82¢	139
29	Increase/Decrease (\$)						5

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Commercial Experimental Electric Vehicle Rate - D1.9

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants	(c) Present	(d) Revenue	(e) Proposed	(f) Revenue
		Quantity Units	Rate	(\$000)	Rate	(\$000)
	<b>Full Service Power Supply</b>					
1	Power Supply Charges					
2	Capacity					
3	Option I					
4	On-Peak	17 MWh	\$0.09791	2	\$0.10055	2
5	Off-Peak	21 MWh	\$0.02448	1	\$0.02514	1
6		38 MWh				
7						
8	Non-capacity energy charge					
	On-Peak	17 MWh	\$0.07889	1	\$0.07065	1
	Off-Peak	21 MWh	\$0.01972	0	\$0.01766	0
9						
10	PSCR	38 MWh	\$0.00000	0	\$0.00000	0
11						
12						
13	Total Full Service Power Supply	38 MWh	<b>10.40¢</b>	<b>4</b>	<b>10.07¢</b>	<b>4</b>
14						
15	<b>Full Service Distribution</b>					
16						
17	Option I Service Charge (\$/month)	5 Cust.	\$1.95	0	\$1.95	0
18						
19	Distribution Charge	38 MWh	\$0.06611	3	\$0.07220	3
20	Distribution System	38 MWh	<b>6.92¢</b>	<b>3</b>	<b>7.53¢</b>	<b>3</b>
21						
22	Nuclear Decomm.	38 MWh	\$0.000842	0	\$0.000842	0
23	Energy Waste Reduction	5 Meters	<b>\$2.79</b>	0	\$2.79	0
24	LIEAF	38 Meters	\$0.87	0	\$0.87	0
25	Distribution Surcharges	38 MWh	<b>1.57¢</b>	<b>1</b>	<b>1.57¢</b>	<b>1</b>
26						
27	Total Full Service Distribution	38 MWh	<b>8.49¢</b>	<b>3</b>	<b>9.10¢</b>	<b>3</b>
28	<b>Total Full-Service D1.9</b>	38 MWh	<b>18.89¢</b>	<b>7</b>	<b>19.17¢</b>	<b>7</b>
29						
30	<b>Choice Distribution</b>					
31						
32	Capacity					
33	Option I					
34	On-Peak	0 MWh	\$0.09791	0	\$0.10055	0
35	Off-Peak	0 MWh	\$0.02448	0	\$0.02514	0
36		0 MWh				
37	Option I Service Charge (\$/month)	0 Cust.	\$1.95	0	\$1.95	0
38						
39	Distribution Charge	0 MWh	\$0.06611	0	\$0.07220	0
40	Distribution System	0 MWh		0		0
41						
42	Nuclear Decomm.	0 MWh	\$0.000842	0	\$0.000842	0
43	Energy Waste Reduction	0 Meters	\$2.79	0	\$2.79	0
44	LIEAF	0 Meters	\$0.87	0	\$0.87	0
45	Distribution Subtotal	0 MWh		0		0
46						
47						
48	<b>Total Choice D1.9</b>	0 MWh		0		0
49						
50	<b>Total D1.9</b>	38 MWh	<b>18.89¢</b>	<b>7</b>	<b>19.17¢</b>	<b>7</b>
51	Increase/Decrease (\$)					0

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
General Service Rate - D3

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue (\$000)	(e) Proposed	(f) Revenue (\$000)
	<b>Full Service Power Supply</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
1	Capacity						
2	Energy	7,357,018	MWh	\$0.03900	286,924	\$0.04122	303,246
3							
4	Non-Capacity						
5	Energy	7,357,018		\$0.04345	319,662	\$0.03924	288,682
6							
7	PSCR	7,357,018	MWh	\$0.00000	0	\$0.00000	0
8	REPS	195,838	Meters	\$0.00	0	\$0.00	0
9	Total Full Service Power Supply	7,357,018	MWh	<b>8.25¢</b>	<b>606,586</b>	<b>8.05¢</b>	<b>591,928</b>
10							
11	<b>Full Service Distribution</b>	<u>Quantity</u>	<u>Units</u>				
12							
13	Service Charge	195,838	Cust.	\$11.25	26,438	\$11.25	26,438
14							
15	Distribution Charge	7,357,018	MWh	\$0.03868	284,569	\$0.04473	329,064
16	Distribution System	7,357,018	MWh	<b>4.23¢</b>	<b>311,008</b>	<b>4.83¢</b>	<b>355,502</b>
17							
18	Nuclear Decomm.	7,357,018	MWh	\$0.000842	6,195	\$0.000842	6,195
19	Energy Optimization	195,838	Meters	\$2.79	6,557	\$2.79	6,557
20	LIEAF	195,838	Meters	\$0.87	2,045	\$0.87	2,045
21	Distribution Surcharges	7,357,018	MWh	<b>0.20¢</b>	<b>14,796</b>	<b>0.20¢</b>	<b>14,796</b>
22							
23	Total Full Service Distribution	7,357,018	MWh	<b>4.43¢</b>	<b>325,803</b>	<b>5.03¢</b>	<b>370,298</b>
24	<b>Total Full Service D3</b>	7,357,018	MWh	<b>12.67¢</b>	<b>932,390</b>	<b>13.08¢</b>	<b>962,226</b>
25							
26	<b>Choice Distribution</b>	<u>Quantity</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue (\$000)</u>	<u>Rate</u>	<u>Revenue (\$000)</u>
27							
28	Capacity						
29	Energy	0	MWh	\$0.03900	0	\$0.04122	0
30							
31	Service Charge	2,011	Cust.	\$11.25	272	\$11.25	272
32							
33	Distribution Charge	307,168	MWh	\$0.03868	11,881	\$0.04473	13,739
34	Distribution System	307,168	MWh	<b>3.96¢</b>	<b>12,153</b>	<b>4.56¢</b>	<b>14,010</b>
35							
36	Nuclear Decomm.	307,168	MWh	\$0.000842	259	\$0.000842	259
37	Energy Optimization	2,011	Meters	\$2.79	67	\$2.79	67
38	LIEAF	2,011	Meters	\$0.87	21	\$0.87	21
39	Distribution Surcharges	307,168	MWh	<b>0.11¢</b>	<b>347</b>	<b>0.11¢</b>	<b>347</b>
40							
41	<b>Total Choice D3</b>	307,168	MWh	<b>4.07¢</b>	<b>12,500</b>	<b>4.67¢</b>	<b>14,357</b>
42							
43	<b>Total D3</b>	7,664,186	MWh	<b>12.33¢</b>	<b>944,889</b>	<b>12.74¢</b>	<b>976,583</b>
44	Increase/Decrease (\$)						31,694

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Unmetered General Service Rate - D3.1

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present		(e) Proposed	
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
1	Connected Load	261,889,893	Watts				
2							
3	Capacity						
4	Energy	91,661	MWh	0.03345	3,066	0.03431	3,145
5							
6	Non-capacity energy	91,661	MWh	0.07594	6,961	0.07739	7,094
7							
8	PSCR	91,661	MWh	0.00000	0	0	0
9							
10	Nuclear Decommissioning	91,661		0.000842	0	0.000842	0
11							
12	Energy Waste Reduction	2,140	Meters	2.79	72	2.79	72
13							
14	REPS	2,140	Meters	0.00	0	0.00	0
15							
16	Total D3.1	91,661	MWh		10,099		10,311
	Increase/Decrease (\$)						212

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Secondary Educational Institute - D3.2

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>					
1	Capacity					
2	Energy	298,459 MWh	\$0.03002	8,960	\$0.03393	10,126
3						
4	Non-capacity energy	298,459 MWh	\$0.04356	13,001	\$0.03970	11,848
5						
6	PSCR	298,459 MWh	\$0.00000	0	\$0.00000	0
7	REPS	1,212 Meters	\$0.00	0	\$0.00	0
8	Total Full Service Power Supply	298,459 MWh	<b>7.36¢</b>	<b>21,961</b>	<b>7.36¢</b>	<b>21,974</b>
9						
10	<b>Full Service Distribution</b>	Quantity Units				
11						
12	Service Charge	1,212 Cust.	\$11.25	164	\$11.25	164
13						
14	Distribution Charge	298,459 MWh	\$0.03730	11,133	\$0.04473	13,349
15	Distribution System	298,459 MWh	<b>3.78¢</b>	<b>11,296</b>	<b>4.53¢</b>	<b>13,513</b>
16						
17	Nuclear Decomm.	298,459 MWh	\$0.000842	251	\$0.000842	251
18	Energy Waste Reduction	1,212 Meters	\$2.79	41	\$2.79	41
19	LIEAF	1,212 Meters	\$0.87	13	\$0.87	13
20	Distribution Surcharges	298,459 MWh	<b>0.10¢</b>	<b>305</b>	<b>0.10¢</b>	<b>305</b>
21						
22	Total Full Service Distribution	298,459 MWh	<b>3.89¢</b>	<b>11,601</b>	<b>4.63¢</b>	<b>13,818</b>
23	<b>Total Full Service D3.2</b>	298,459 MWh	<b>11.24¢</b>	<b>33,561</b>	<b>11.99¢</b>	<b>35,791</b>
24						
25	<b>Choice Distribution</b>	Quantity Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
26						
27	Capacity					
28	Energy	0 MWh	\$0.03002	0	\$0.03393	0
29						
30	Service Charge	776 Cust.	\$11.25	105	\$11.25	105
31						
32	Distribution Charge	270,465 MWh	\$0.03730	10,088	\$0.04473	12,097
33	Distribution System	270,465 MWh	<b>3.77¢</b>	<b>10,193</b>	<b>4.51¢</b>	<b>12,202</b>
34						
35	Nuclear Decomm.	270,465 MWh	\$0.000842	228	\$0.000842	228
36	Energy Waste Reduction	776 Meters	\$2.79	26	\$2.79	26
37	LIEAF	776 Meters	\$0.87	8	\$0.87	8
38	Distribution Surcharges	270,465 MWh	<b>0.00¢</b>	<b>262</b>	<b>0.10¢</b>	<b>262</b>
39						
40	Total Choice D3.2	270,465 MWh	<b>3.87¢</b>	<b>10,455</b>	<b>4.61¢</b>	<b>12,464</b>
41						
42	<b>Total D3.2</b>	568,924 MWh	<b>7.74¢</b>	<b>44,016</b>	<b>8.48¢</b>	<b>48,255</b>
43	Increase/Decrease (\$)					4,239



**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Present and Proposed Revenue**  
**Interruptible General Service Rate - D3.3**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>					
1	Capacity					
2	Energy	73,481 MWh	\$0.03258	2,394	\$0.03443	2,530
3						
4	Non-capacity energy	73,481 MWh	\$0.03630	2,667	\$0.03278	2,409
5						
6	PSCR	73,481 MWh	\$0.00000	0	\$0.00000	0
7	REPS	96 Meters	\$0.00	0	\$0.00	0
8	Total Full Service Power Supply	73,481 MWh	<b>6.89¢</b>	<b>5,061</b>	<b>6.72¢</b>	<b>4,939</b>
9						
10	<b>Full Service Distribution</b>	Quantity Units				
11						
12	Service Charge	96 Cust.	\$11.25	13	\$11.25	13
13						
14	Distribution Charge	73,481 MWh	\$0.03868	2,842	\$0.04473	3,287
15	Distribution System	73,481 MWh	<b>3.89¢</b>	<b>2,855</b>	<b>4.49¢</b>	<b>3,300</b>
16						
17	Nuclear Decomm.	73,481 MWh	\$0.000842	62	\$0.000842	62
18	Energy Waste Reduction	96 Meters	\$2.79	3	\$2.79	3
19	LIEAF	96 Meters	\$0.87	1	\$0.87	1
20	Distribution Surcharges	73,481 MWh	<b>0.09¢</b>	<b>66</b>	<b>0.09¢</b>	<b>66</b>
21						
22	Full Service Distribution	73,481 MWh	<b>3.98¢</b>	<b>2,921</b>	<b>4.58¢</b>	<b>3,366</b>
23	<b>Total Full Service D3.3</b>	73,481 MWh	<b>10.86¢</b>	<b>7,983</b>	<b>11.30¢</b>	<b>8,305</b>
24						
25	<b>Choice Distribution</b>	Quantity Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
26						
27	Capacity					
28	Energy	0 MWh	\$0.03258	0	\$0.03443	0
29						
30	Service Charge	6 Cust.	\$11.25	1	\$11.25	1
31						
32	Distribution Charge	7,051 MWh	\$0.03868	273	\$0.04473	315
33	Distribution System	7,051 MWh	<b>3.88¢</b>	<b>273</b>	<b>4.48¢</b>	<b>316</b>
34						
35	Nuclear Decomm.	7,051 MWh	\$0.000842	6	\$0.000842	6
36	Energy Waste Reduction	6 Meters	\$2.79	0	\$2.79	0
37	LIEAF	6 Meters	\$0.87	0	\$0.87	0
38	Distribution Surcharges	7,051 MWh	<b>0.09¢</b>	<b>6</b>	<b>0.09¢</b>	<b>6</b>
39						
40	<b>Total Choice D3.3</b>	7,051 MWh	<b>3.97¢</b>	<b>280</b>	<b>4.57¢</b>	<b>322</b>
41						
42	<b>Total D3.3</b>	80,532 MWh	<b>10.26¢</b>	<b>8,262</b>	<b>10.71¢</b>	<b>8,627</b>
43	Increase/Decrease (\$)					365



**Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Company Owned Charging Service - D3.5**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue (\$000)	(e) Proposed	(f) Revenue (\$000)
		Quantity	Units	Rate		Rate	Revenue (\$000)
1							
2	Non Capacity On Peak (2pm-5pm, M-F)	285	MWh	\$0.00000	0	\$0.04474	13
3	Non Capacity Off Peak	665	MWh	\$0.00000	0	\$0.03688	25
4	PSCR	950	MWh	\$0.00000	0	\$0.00000	0
5	Session Fee						
6	< 200 kW	3,744	session	0.00	0	\$25.00	94
7	> 200 kW	576	session	0.00	0	\$70.00	40
8							
9	Nuclear Decomm.	950	MWh			0.000842	1
10	Energy Waste Reduction	950	MWh			0.000423	0
11	LIEAF	950	MWh			0.000132	0
12							
13							
14	<b>Total D3.5</b>	950	MWh		<b>0</b>	<b>18.16¢</b>	<b>173</b>
	Increase/Decrease (\$)						173

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Large General Service Rate - D4

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
1	<b>Capacity</b>						
2	Demand Charge	4,844,992	kW	\$14.07	68,169	\$14.44	69,942
3	<b>Energy</b>						
4	First 200 Hrs. Use	1,004,902	MWh	\$0.00000	0	\$0.00000	0
5	Excess	1,016,206	MWh	\$0.00000	0	\$0.00000	0
6	Power Supply Subtotal	2,021,108	MWh		68,169		69,942
7							
8	<b>Non-capacity</b>						
9	Demand Charge	4,844,992	kW	2.92	14,147	\$ 2.61	12,657
10	<b>Energy</b>						
11	First 200 Hrs. Use	1,004,902		0.04171	41,914	\$0.03732	37,499
12	Excess	1,016,206		0.03219	32,712	\$0.02880	29,266
13	PSCR	2,021,108	MWh	\$0.00000	0	\$0.00000	0
14	REPS	7,998	Meters	\$0.00	0	\$0.00	0
15	Total Full Service Power Supply	2,021,108	MWh	7.77¢	156,943	7.39¢	149,364
16							
17	<b>Full Service Distribution</b>	Quantity	Units				
18							
19	Service Charge	7,998	Cust.	\$13.67	1,312	\$13.67	1,312
20							
21	Distribution Demand Charge	4,844,992	kW	\$17.10	82,849	\$18.49	89,578
22	Distribution Energy Charge	2,021,108	MWh	\$0.000000	0	\$0.000000	0
23	Distribution Charges	2,021,108	MWh	4.16¢	84,161	4.50¢	90,890
24							
25	Nuclear Decomm.	2,021,108	MWh	\$0.000842	1,702	\$0.000842	1,702
26	Energy Waste Reduction	7,998	Meters	\$69.42	6,662	\$69.420000	6,662
27	LIEAF	7,998	Meters	\$0.87	83	\$0.87	83
28	Distribution Surcharges	2,021,108	MWh	0.42¢	8,448	0.42¢	8,448
29							
30	Total Full Service Distribution	2,021,108	MWh	4.58¢	92,609	4.91¢	99,337
31	<b>Total Full Service D4</b>	2,021,108	MWh	12.35¢	249,551	12.31¢	248,701
32							
33	<b>Choice Distribution</b>	Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
34							
35	<b>Capacity</b>						
36	Demand Charge	0	kW	\$14.07	0	\$14.44	0
37	<b>Energy</b>						
38	First 200 Hrs. Use	0	MWh	\$0.00000	0	\$0.00000	0
39	Excess	0	MWh	\$0.00000	0	\$0.00000	0
40							
41	Service Charge	996	Cust.	\$13.67	163	\$13.67	163
42							
43	Distribution Demand Charge	771,657	kW	\$17.10	13,195	\$18.49	14,267
44	Distribution Energy Charge	300,592	MWh	\$0.00000	0	\$0.00000	0
45	Distribution System	300,592	MWh	4.44¢	13,359	4.80¢	14,430
46							
47	Nuclear Decomm.	300,592	MWh	\$0.000842	253	\$0.000842	253
48	Energy Waste Reduction	996	Meters	\$69.42	830	\$69.420000	830
49	LIEAF	996	Meters	\$0.87	10	\$0.87	10
50	Distribution Surcharges	300,592	MWh	0.36¢	1,093	0.36¢	1,093
51							
52	<b>Total Choice D4</b>	300,592	MWh	4.81¢	14,452	5.16¢	15,524
53							
54	<b>Total D4</b>	2,321,699	MWh	11.37¢	264,004	11.38¢	264,225
55	Increase/Decrease (\$)						221

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Water Heating Service Rate - Commercial D5

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>					
1	Capacity					
2	Energy	7,776 MWh	\$0.02296	179	\$0.02427	189
3						
4	Non-capacity energy	7,776 MWh	\$0.02558	199	\$0.02310	180
5						
6	PSCR	7,776 MWh	\$0.00000	0	\$0.00000	0
7	REPS	795 Meters	\$0.00	0	\$0.00	0
8	Total Full Service Power Supply	7,776 MWh	<b>4.85¢</b>	<b>377</b>	<b>4.74¢</b>	<b>368</b>
9						
10	<b>Full Service Distribution</b>	Quantity Units				
11						
12	Service Charge	795 Cust.	\$1.95	19	\$1.95	19
13						
14	Distribution Charge	7,776 MWh	\$0.03589	279	\$0.04473	348
15	Distribution System	7,776 MWh	<b>3.83¢</b>	<b>298</b>	<b>4.71¢</b>	<b>366</b>
16						
17	Nuclear Decomm.	7,776 MWh	\$0.000842	7	\$0.000842	7
18	Energy Waste Reduction	795 Meters	\$2.79	27	\$2.79	27
19	LIEAF	795 Meters	\$0.87	8	\$0.87	8
20	Distribution Surcharges	7,776 MWh	<b>0.53¢</b>	<b>41</b>	<b>0.53¢</b>	<b>41</b>
21						
22	Total Full Service Distribution	7,776 MWh	<b>4.36¢</b>	<b>339</b>	<b>5.25¢</b>	<b>408</b>
23	<b>Total Full Service D5</b>	7,776 MWh	<b>9.22¢</b>	<b>717</b>	<b>9.98¢</b>	<b>776</b>
24						
25	<b>Choice Distribution</b>	Quantity Units				
26						
27	Capacity					
28	Energy	0 MWh	\$0.02296	0	\$0.02427	0
29						
30	Service Charge	2 Cust.	\$1.95	0	\$1.95	0
31						
32	Distribution Charge	5 MWh	\$0.03589	0	\$0.04473	0
33	Distribution System	5 MWh	<b>4.64¢</b>	<b>0</b>	<b>5.53¢</b>	<b>0</b>
34						
35	Nuclear Decomm.	5 MWh	\$0.000842	0	\$0.000842	0
36	Energy Waste Reduction	2 Meters	\$2.79	0	\$2.79	0
37	LIEAF	2 Meters	\$0.87	0	\$0.87	0
38	Distribution Surcharges	5 MWh	<b>2.06¢</b>	<b>0</b>	<b>2.06¢</b>	<b>0</b>
39						
40	<b>Total Choice D5</b>	5 MWh	<b>6.71¢</b>	<b>0</b>	<b>7.59¢</b>	<b>0</b>
41						
42	<b>Total D5</b>	7,781 MWh	<b>9.21¢</b>	<b>717</b>	<b>9.98¢</b>	<b>777</b>
43	Increase/Decrease (\$)					60

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Energy Only Street Lighting E1.1

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 27 of 57

Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Revenue	(e) Proposed	(f) Revenue
		Quantity	Units	Rate	(\$000)	Rate	(\$000)
	<b>Full Service Power Supply</b>						
1	<b>Capacity</b>						
2	<u>Energy</u>						
3	Secondary	9,762	MWh	\$0.02659	260	\$0.02817	275
4	Dusk to Midnight	30	MWh	\$0.11621	3	\$0.12312	4
5	Primary Energy	0	MWh	\$0.02659	0	\$0.02817	0
6							
7	Non-capacity charge	9,792		\$0.03007	294	\$0.02710	265
8	Power Supply Subtotal	9,792	MWh	<b>5.69¢</b>	<b>558</b>	<b>5.56¢</b>	<b>544</b>
9							
10	PSCR	9,792	MWh	\$0.00000	0	\$0.00000	0
11	REPS	276	Meters	\$0.00	0	\$0.00	0
12	Total Full Service Power Supply	9,792	MWh	<b>5.69¢</b>	<b>558</b>	<b>5.56¢</b>	<b>544</b>
13							
14	<b>Full Service Distribution</b>						
15							
16	Distribution Charge	9,792	MWh	\$0.03868	379	\$0.04473	438
17	Distribution System	9,792	MWh	<b>3.87¢</b>	<b>379</b>	<b>4.47¢</b>	<b>438</b>
18							
19	Nuclear Decomm.	9,792	MWh	\$0.000842	8	\$0.000842	8
20	Energy Waste Reduction	276	Meters	\$2.79	9	\$2.79	9
21	LIEAF	276	Meters	\$0.87	3	\$0.87	3
22	Distribution Surcharges	9,792	MWh	<b>0.21¢</b>	<b>20</b>	<b>0.21¢</b>	<b>20</b>
23							
24	Total Distribution	9,792	MWh	<b>4.08¢</b>	<b>399</b>	<b>4.68¢</b>	<b>458</b>
25	<b>Total Full Service E1.1</b>	9,792	MWh	<b>9.77¢</b>	<b>957</b>	<b>10.24¢</b>	<b>1,002</b>
26							
27	<b>Choice Distribution</b>	Quantity	Units	Rate	Revenue	Rate	Revenue
28					(\$000)		(\$000)
29	<b>Capacity</b>						
30	<u>Energy</u>						
31	Secondary	0	MWh	\$0.02659	0	\$0.02817	0
32	Dusk to Midnight	0	MWh	\$0.11621	0	\$0.12312	0
33	Primary Energy	0	MWh	\$0.02659	0	\$0.02817	0
34							
35	Distribution Charge	0	MWh	\$0.03868	0	\$0.04473	0
36	Distribution System	0	MWh		<b>0</b>		<b>0</b>
37							
38	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
39	Energy Waste Reduction		Meters	\$2.79	0	\$2.79	0
40	LIEAF	0	Meters	\$0.87	0	\$0.87	0
41	Distribution Surcharges	0	MWh		<b>0</b>		<b>0</b>
42							
43	<b>Total Choice E1.1</b>	0	MWh		<b>0</b>		<b>0</b>
44							
45	<b>Total E1.1</b>	9,792	MWh	<b>9.77¢</b>	<b>957</b>	<b>10.24¢</b>	<b>1,002</b>
46	Increase/Decrease (\$)						46

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Greenhouse Lighting Service Rate - Standard Contract Rider No. R7

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
1	<b>Capacity</b>						
2	Energy	4,760	MWh	\$0.02228	106	\$0.02355	112
3							
4	Non-capacity						
5	Energy	4,760	MWh	\$0.02482	118	\$0.02242	107
6							
7	PSCR	4,760	MWh	\$0.00000	0	\$0.00000	0
8	REPS	8	Meters	\$0.00	0	\$0.00	0
9	Total Full Service Power Supply	4,760	MWh	4.71¢	224	4.60¢	219
10							
11	<b>Full Service Distribution</b>	Quantity	Units				
12							
13	Service Charge	8	Cust.	\$1.95	0	\$1.95	0
14							
15	Distribution Charge	4,760	MWh	\$0.03868	184	\$0.04473	213
16	Distribution System	4,760	MWh	3.87¢	184	4.48¢	213
17							
18	Nuclear Decomm.	4,760	MWh	\$0.000842	4	\$0.000842	4
19	Energy Waste Reduction	8	Meters	\$2.79	0	\$2.79	0
20	LIEAF	8	Meters	\$0.87	0	\$0.87	0
21	Distribution Surcharges	4,760	MWh	0.09¢	4	0.09¢	4
22							
23	Total Distribution	4,760	MWh	3.96¢	189	4.57¢	217
24	Total Full Service R7	4,760	MWh	8.67¢	413	9.16¢	436
25							
26	<b>Choice Distribution</b>	Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
27							
28	<b>Capacity</b>						
29	Energy	0	MWh	\$0.02228	0	\$0.02355	0
30							
31	Service Charge	0	Cust.	\$1.95	0	\$1.95	0
32							0
33	Distribution Charge	0	MWh	\$0.03868	0	\$0.04473	0
34	Distribution System	0	MWh		0		0
35							
36	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
37	Energy Waste Reduction	0	Meters	\$2.79	0	\$2.79	0
38	LIEAF	0	Meters	\$0.87	0	\$0.87	0
39	Distribution Surcharges	0	MWh		0		0
40							
41	Total Choice R7	0	MWh		0		0
42							
43	Total R7	4,760	MWh	8.67¢	413	9.16¢	436
44	Increase/Decrease (\$)						23

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Commercial Space Conditioning Rate - Standard Contract Rider No. R8

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
Page: 29 of 57

	(a) Description	(b) Billing Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed
		QuantityUnits	Rate	Revenue(\$000)	Rate	Revenue(\$000)
1	<b>Full Service Power Supply</b>					
2	<b>Capacity</b>					
3	Energy					
4	Summer June-Oct					
5	R8 All KWH- Separate Meter	19,563MWh	\$0.06040	1,182	\$0.06241	1,221
6	R8a initial Block of D3	1,690MWh	\$0.03900	66	\$0.04122	70
7	R8a Excess	547MWh	\$0.06040	33	\$0.06241	34
8	Winter Nov-May					
9	R8 First 1000 KWH- Sep Mtr	5,115MWh	\$0.06040	309	\$0.06241	319
10	R8 Excess	32,832MWh	\$0.02003	658	\$0.02070	679
11						
12	R8a initial Block of D3	2,910MWh	\$0.03900	113	\$0.04122	120
13	Excess	12,095MWh	\$0.02003	242	\$0.02070	250
14						
15	Non-capacity Charge	74,752MWh	\$0.03726	2,785	\$0.03430	2,564
16	Power Supply Subtotal	74,752MWh		5,388		5,258
17						
18	PSCR	74,752MWh	\$0.00000	0	\$0.00000	0
19	REPS	1,702Meters	\$0.00	0	\$0.00	0
20	Total Full Service Power Supply	74,752MWh		7.21¢5,388		7.03¢5,258
21						
22	<b>Full Service Distribution</b>	QuantityUnits				
23						
24	Service Charge					
25	R8 Separate Meter	1,082Cust.	\$11.25	146	\$11.25	146
26	R8a	620Cust.	\$11.25	84	\$11.25	84
27						
28	Distribution Charge	74,752MWh	\$0.03868	2,891	\$0.04473	3,343
29	Distribution System	74,752MWh		4.18¢3,121		4.78¢3,573
30						
31	Nuclear Decomm.	74,752MWh	\$0.000842	63	\$0.000842	63
32	Energy Waste Reduction	1,082Meters	\$2.79	\$36	\$2.79	36
33	LIEAF	1,082Meters	\$0.87	11	\$0.87	11
34	Distribution Surcharges	74,752MWh		0.15¢110		0.15¢110
35						
36	Total Distribution	74,752MWh		4.32¢3,232		4.93¢3,684
37	Total Full Service R8	74,752MWh		11.53¢8,620		11.96¢8,942
38						
39	<b>Choice Distribution</b>	QuantityUnits	Rate	Revenue(\$000)	Rate	Revenue(\$000)
40						
41	<b>Capacity</b>					
42	Energy					
43						
44	R8 All KWH- Separate Meter	0MWh	\$0.06040	0	\$0.06241	0
45	R8a initial Block of D3	0MWh	\$0.03900	0	\$0.04122	0
46	R8a Excess	0MWh	\$0.06040	0	\$0.06241	0
47	Winter Nov-May					
48	R8 First 1000 KWH- Sep Mtr	0MWh	\$0.06040	0	\$0.06241	0
49	R8 Excess	0MWh	\$0.02003	0	\$0.02070	0
50						
51						
52	R8a initial Block of D3	0MWh	\$0.03900	0	\$0.04122	0
53	Excess	0MWh	\$0.02003	0	\$0.02070	0
54						
55	Service Charge					
56	R8 Separate Meter	15Cust.	\$11.25	2	\$11.25	2
57	R8a	7Cust.	\$11.25	1	\$11.25	1
58						
59	Distribution Charge	2,499MWh	\$0.03868	97	\$0.04473	112
60	Distribution System	2,499MWh		3.98¢100		4.59¢115
61						
62	Nuclear Decomm.	2,499MWh	\$0.000842	2	\$0.000842	2
63	Energy Waste Reduction	15Meters	\$2.79	0	\$2.79	0
64	LIEAF	22Meters	\$0.87	0	\$0.87	0
65	Distribution Surcharges	2,499MWh		0.11¢3		0.11¢3
66						
67	Total Choice R8	2,499MWh		4.10¢102		4.70¢117
68						
69	Total R8	77,251MWh		11.29¢8,722		11.73¢9,059
70	Increase/Decrease (\$)					337



Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Primary Supply Rate - D11  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>					
	<b>Capacity</b>					
1	Power Supply Demand	23,064,559 kW	13.82	318,752	14.46	333,591
2	<u>Voltage Level Discount</u>					
3	Subtransmission	3,407,644 kW	(0.56)	(1,908)	(0.29)	(1,001)
4	Transmission	6,562,512 kW	(0.84)	(5,513)	(0.61)	(4,002)
5						
6	<u>Energy</u>					
7	On-Peak	3,116,297 MWh		0		0
8	Off-Peak	9,265,051 MWh		0		0
9	Total Energy	12,381,348 MWh				
10						
11	<u>Voltage Level Discount</u>					
12	Subtransmission	2,022,596 MWh	0.00000	0	0.00000	0
13	Transmission	4,297,308 MWh	0.00000	0	0.00000	0
14	Total Capacity	12,381,348 MWh		311,331		328,588
15						
16	<b>Non-Capacity</b>					
17	Power Supply Demand	23,064,559 kW	3.30	76,113	3.37	77,809
18	<u>Voltage Level Adjustment</u>					
19	Subtransmission	3,407,644 kW	(0.11)	(375)	(0.06)	(203)
20	Transmission	6,562,512 kW	(0.18)	(1,181)	(0.13)	(872)
21	<u>Energy</u>					
22	On-Peak	3,116,297 MWh	0.04261	132,785	0.04066	126,717
23	Off-Peak	9,265,051 MWh	0.03261	302,133	0.03066	284,090
24	<u>Voltage Level Discount</u>					
25	Subtransmission	2,022,596 MWh	(0.00113)	(2,286)	(0.00059)	(1,188)
26	Transmission	4,297,308 MWh	(0.00191)	(8,208)	(0.00131)	(5,618)
27	Power Supply Subtotal	12,381,348 MWh		810,314		809,322
28						
29	PSCR	12,381,348 MWh	0.00000	0	0.00000	0
30	REPS	2,042 Cust.	0.0	0	0.0	0
31	Total Full Service Power Supply	12,381,348 MWh	<b>6.54¢</b>	<b>810,314</b>	<b>6.54¢</b>	<b>809,322</b>
32						
33	<b>Full Service Distribution</b>	Quantity Units				
34						
35	Service Charge - PV	1,905 Cust.	70	1,600	75	1,714
36	Service Charge - SV	77 Cust.	375	345	375	345
37	Service Charge - TV	60 Cust.	375	270	375	270
38	<u>Distribution Charges</u>					
39	Primary	16,075,782 kW	4.21	67,679	5.49	88,190
40		6,061,445 MWh				
41	Subtransmission	4,638,386 kW	1.65	7,653	2.23	10,321
42		2,022,596 MWh				
43	Transmission	7,760,492 kW	0.70	5,432	0.94	7,284
44		4,297,308 MWh				
45	<u>Substation Credit</u>					
46	Demand	3,150,546 kW	(0.30)	(945)	(0.30)	(945)
47	Energy	183,730 MWh	(0.0004)	(73)	(0.0004)	(73)
48	Distribution System	12,381,348 MWh	0.66¢	81,962	0.87¢	107,106
49						
50	Nuclear Decommissioning	12,381,348 MWh	0.000842	10,425	0.000842	10,425
51	Energy Waste Reduction	2,458 Meters	1,161.26	34,258	1,161.26	34,258
52	LIEAF	2,458 Meters	0.87	26	0.87	26
53	Distribution Surcharges	12,381,348 MWh	0.36¢	44,709	0.36¢	44,709
54						
55	Total Full Service Distribution	12,381,348 MWh	<b>1.02¢</b>	<b>126,671</b>	<b>1.23¢</b>	<b>151,815</b>
56	<b>Total Full Service D11</b>	12,381,348 MWh	<b>7.57¢</b>	<b>936,984</b>	<b>7.76¢</b>	<b>961,137</b>

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Primary Supply Rate - D11 (Cont'd)  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
57	<b>Choice Distribution</b>						
58	<b>Capacity</b>						
59	Power Supply Demand	0	kW	13.82	0	14.46	0
60	<u>Voltage Level Discount</u>						
61	Subtransmission	0	kW	(0.56)	0	(0.29)	0
62	Transmission	0	kW	(0.84)	0	(0.61)	0
63							
64	<u>Energy</u>						
65	On-Peak	0	MWh	0.00000	0	0.00000	0
66	Off-Peak	0	MWh	0.00000	0	0.00000	0
67	Total Energy	0	MWh				
68							
69	<u>Voltage Level Discount</u>						
70	Subtransmission	0	MWh	0.00000	0	0.00000	0
71	Transmission	0	MWh	0.00000	0	0.00000	0
72	Total Capacity	0	MWh		0		0
73							
74	Service Charge - PV	569	Cust.	70	478	75	512
75	Service Charge - SV	11	Cust.	375	50	375	50
76	Service Charge - TV	7	Cust.	375	30	375	30
77	<u>Distribution Charges</u>						
78	Primary	5,793,676	kW	4.21	24,391	5.49	31,783
79		2,333,052	MWh				
80	Subtransmission	676,512	kW	1.65	1,116	2.23	1,505
81		271,572	MWh				
82	Transmission	1,636,528	kW	0.70	1,146	0.94	1,536
83		588,051	MWh				
84	Substation Credit						
85	Demand	1,315,564	kW	(0.30)	(395)	(0.30)	(395)
86	Energy	337	MWh	(0.0004)	(0)	(0.0004)	(0)
87	Distribution System	3,192,675	MWh	0.84¢	26,816	1.10¢	35,022
88							
89	Nuclear Decommissioning	3,192,675	MWh	0.000842	2,688	0.000842	2,688
90	Energy Waste Reduction	695	Meters	1,161.26	9,688	1,161.3	9,688
91	LIEAF	695	Meters	0.87	7	0.87	7
92	Distribution Surcharges	3,192,675	MWh	0.39¢	12,383	0.39¢	12,383
93							
94	<b>Total Choice D11</b>	3,192,675	MWh	<b>1.23¢</b>	<b>39,199</b>	<b>1.48¢</b>	<b>47,405</b>
95							
96	<b>Total D11</b>	15,574,024	MWh	<b>6.27¢</b>	<b>976,184</b>	<b>6.48¢</b>	<b>1,008,542</b>
97	Increase/Decrease (\$)						32,358



Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Primary Educational Institute - D6.2  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>					
	<b>Capacity</b>					
1	Power Supply Demand	891,033 kW	14.81	13,196	14.55	12,966
2						
3	<b>Voltage Level Adjustment</b>					
4	Subtransmission	97,374 kW	(0.60)	(58)	(0.30)	(29)
5	Transmission	0 kW	(0.90)	0	(0.61)	0
6						
7	<b>Energy</b>					
8	On-Peak	95,107 MWh	0.00000	0	0.00000	0
9	Off-Peak	254,308 MWh	0.00000	0	0.00000	0
10	Total Energy	349,415 MWh				
11						
12	<b>Voltage Level Discount</b>					
13	Subtransmission	35,001 MWh	0.00000	0	0.00000	0
14	Transmission	0 MWh	0.00000	0	0.00000	0
15	Total Capacity	349,415 MWh		13,138		12,937
16						
17	<b>Non-Capacity</b>					
18	Power Supply Demand	891,033 kW	0.00	0	0.00	0
19						
20	<b>Energy</b>					
21	On-Peak	95,107 MWh	0.04307	4,096	0.04058	3,859
22	Off-Peak	254,308 MWh	0.04007	10,190	0.03758	9,557
23	<b>Voltage Level Discount</b>					
24	Subtransmission	35,001 MWh	(0.00131)	(46)	(0.00068)	(24)
25	Transmission	0 MWh	(0.00223)	0	(0.00151)	0
26	Power Supply Subtotal	349,415 MWh		27,378		26,330
27						
28	PSCR	349,415 MWh	0.00000	0	0.00000	0
29	REPS	112 Cust.	0.0	0	0.0	0
30	Total Full Service Power Supply	349,415 MWh	<b>7.84¢</b>	<b>27,378</b>	<b>7.54¢</b>	<b>26,330</b>
31						
32	<b>Full Service Distribution</b>	Quantity Units				
33						
34	Service Charge - PV	109 Cust.	70	91	75	98
35	Service Charge - SV	3 Cust.	375	14	375	14
36	Service Charge - TV	0 Cust.	375	0	375	0
37	<b>Distribution Charges</b>					
38	Primary	1,019,642 kW	4.21	4,293	5.49	5,594
39		314,414 MWh				
40	Subtransmission	125,453 kW	1.65	207	2.23	279
41		35,001 MWh				
42	Transmission	0 kW	0.70	0	0.94	0
43		0 MWh				
44	<b>Substation Credit</b>					
45	Demand	7,418 kW	(0.30)	(2)	(0.30)	(2)
46	Energy	0 MWh	(0.0004)	0	(0.0004)	0
47	Distribution System	349,415 MWh	1.32¢	4,602	1.71¢	5,982
48						
49	Nuclear Decommissioning	349,415 MWh	0.000842	294	0.000842	294
50	Energy Waste Reduction	130 Meters	1,161.26	1,808	1,161.26	1,808
51	LIEAF	130 Meters	0.87	1	0.87	1
52	Distribution Surcharges	349,415 MWh	0.60¢	2,104	0.60¢	2,104
53						
54	Total Full Service Distribution	349,415 MWh	<b>1.92¢</b>	<b>6,706</b>	<b>2.31¢</b>	<b>8,086</b>
55	<b>Total Full Service D6.2</b>	349,415 MWh	<b>9.75¢</b>	<b>34,084</b>	<b>9.85¢</b>	<b>34,415</b>

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Primary Educational Institute - D6.2 (Cont'd)  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
56	<b>Choice Distribution</b>						
57	<b>Capacity</b>						
58	Power Supply Demand		kW	14.81	0	14.55	0
59							
60	<b>Energy</b>						
61	On-Peak		MWh	0.00000	0	0.00000	0
62	Off-Peak		MWh	0.00000	0	0.00000	0
63	Total Energy		MWh				
64							
65	<b>Voltage Level Discount</b>						
66	Subtransmission		MWh	0.00000	0	0.00000	0
67	Transmission		MWh	0.00000	0	0.00000	0
68	Total Capacity						0
69							
70	Service Charge - PV	155	Cust.	70	130	75	139
71	Service Charge - SV	0	Cust.	375	0	375	0
72	Service Charge - TV	0	Cust.	375	0	375	0
73	<b>Distribution Charges</b>						
74	Primary	1,409,329	kW	4.21	5,933	5.49	7,731
75		354,456	MWh				
76	Subtransmission	0	kW	1.65	0	2.23	0
77		0	MWh				
78	Transmission	0	kW	0.70	0	0.94	0
79		0	MWh				
80	Substation Credit						
81	Demand	0	kW	(0.30)	0	(0.30)	0
82	Energy	0	MWh	(0.0004)	0	(0.0004)	0
83	Distribution System	354,456	MWh	1.71¢	6,063	2.22¢	7,871
84							
85	Nuclear Decommissioning	354,456	MWh	0.000842	298	0.000842	298
86	Energy Waste Reduction	158	Meters	1,161.26	2,199	1,161.26	2,199
87	LIEAF	158	Meters	0.87	2	0.87	2
88	Distribution Surcharges	354,456	MWh	0.71¢	2,500	0.71¢	2,500
89							
90	<b>Total Choice D6.2</b>	354,456	MWh	<b>2.42¢</b>	<b>8,563</b>	<b>2.93¢</b>	<b>10,370</b>
91							
92	<b>Total D6.2</b>	703,871	MWh	<b>6.06¢</b>	<b>42,647</b>	<b>6.36¢</b>	<b>44,786</b>
93	Increase/Decrease (\$)						2,138

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Interruptible Supply Rate - D8  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed
		QuantityUnits	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>					
	<b>Capacity</b>					
1	Power Supply Demand	1,089,991 kW	5.94	6,475	6.48	7,060
2	<u>Voltage Level Adjustment</u>					
3	Subtransmission	127,137 kW	(0.24)	(31)	(0.13)	(17)
4	Transmission	147,666 kW	(0.36)	(53)	(0.27)	(40)
5						
6	Product Protection Demand	158,371 kW	13.82	2,189	14.46	2,291
7	<u>Voltage Level Adjustment</u>					
8	Subtransmission	3,633 kW	(0.56)	(2)	(0.29)	(1)
9	Transmission	77,114 kW	(0.84)	(65)	(0.61)	(47)
10						
11	<u>Energy</u>					
12	On-Peak	144,882 MWh	0.00000	0	0.00000	0
13	Off-Peak	444,897 MWh	0.00000	0	0.00000	0
14	Total Energy	589,779 MWh				
15						
16	<u>Voltage Level Discount</u>					
17	Subtransmission	69,487 MWh	0.00000	0	0.00000	0
18	Transmission	128,210 MWh	0.00000	0	0.00000	0
19	Total Capacity	589,779 MWh		8,513		9,245
20						
21	<b>Non-Capacity</b>					
22	Power Supply Demand	1,089,991 kW	4.00	4,360	4.33	4,724
23	<u>Voltage Level Adjustment</u>					
24	Subtransmission	127,137 kW	(0.13)	(17)	(0.08)	(10)
25	Transmission	147,666 kW	(0.22)	(32)	(0.17)	(25)
26						
27	Product Protection Demand	158,371 kW	3.30	523	3.37	534
28	<u>Voltage Level Discount</u>					
29	Subtransmission	3,633 kW	(0.11)	(0)	(0.06)	(0)
30	Transmission	77,114 kW	(0.18)	(14)	(0.13)	(10)
31						
32	<u>Energy</u>					
33	On-Peak	144,882 MWh	0.04261	6,173	0.04066	5,891
34	Off-Peak	444,897 MWh	0.03261	14,508	0.03066	13,642
35	<u>Voltage Level Discount</u>					
36	Subtransmission	69,487 MWh	(0.00113)	(79)	(0.00059)	(41)
37	Transmission	128,210 MWh	(0.00191)	(245)	(0.00131)	(168)
38	Power Supply Subtotal	589,779 MWh		33,690		33,782
39						
40	PSCR	589,779 MWh	0.00000	0	0.00000	0
41	REPS	139 Cust.	0.00	0	0.00	0
42	Total Full Service Power Supply	589,779 MWh	5.71¢	33,690	5.73¢	33,782
43						
44	<b>Full Service Distribution</b>	QuantityUnits				
45						
46	Service Charge - PV	135 Cust.	70	113	75	121
47	Service Charge - SV	4 Cust.	375	18	375	18
48	Service Charge - TV	2 Cust.	375	9	375	9
49	<u>Distribution Charges</u>					
50	Primary	1,071,420 kW	4.21	4,511	5.49	5,878
51		392,082 MWh				
52	Subtransmission	141,239 kW	1.65	233	2.23	314
53		69,487 MWh				
54	Transmission	284,483 kW	0.70	199	0.94	267
55		128,210 MWh				
56	<u>Substation Credit</u>					
57	Demand	301,335 kW	(0.30)	(90)	(0.30)	(90)
58	Energy	0 MWh	(0.0004)	0	(0.0004)	0
59	Distribution System	589,779 MWh	0.85¢	4,992	1.10¢	6,517
60						
61	Nuclear Decommissioning	589,779 MWh	0.000842	497	0.000842	497
62	Energy Waste Reduction	156 Meters	1,161.26	2,174	1,161.26	2,174
63	LIEAF	156 Meters	0.87	2	0.87	2
64	Distribution Surcharges	589,779	0.45¢	2,672	0.45¢	2,672
65						
66	Total Full Service Distribution	589,779 MWh	1.30¢	7,665	1.56¢	9,189
67	Total Full Service D8	589,779 MWh	7.01¢	41,355	7.29¢	42,971

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Interruptible Supply Rate - D8 (Cont'd)  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line	(a)	(b)	(c)	(d)	(e)	(f)
No.	Description	Billing Determinants	Present		Proposed	
		Quantity Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
68	<b>Choice Distribution</b>					
69	<b>Capacity</b>					
70	Power Supply Demand	0 kW	5.94	0	6.48	0
71	<u>Voltage Level Discount</u>					
72	Subtransmission	0 kW	(0.24)	0	(0.13)	0
73	Transmission	0 kW	(0.36)	0	(0.27)	0
74						
75	Product Protection Demand	0 kW	13.82	0	14.46	0
76	<u>Voltage Level Discount</u>					
77	Subtransmission	0 kW	(0.56)	0	(0.29)	0
78	Transmission	0 kW	(0.84)	0	(0.61)	0
79						
80	<u>Energy</u>					
81	On-Peak	0 MWh	0.00000	0	0.00000	0
82	Off-Peak	0 MWh	0.00000	0	0.00000	0
83	Total Energy	0 MWh				
84						
85	<u>Voltage Level Discount</u>					
86	Subtransmission	0 MWh	0.00000	0	0.00000	0
87	Transmission	0 MWh	0.00000	0	0.00000	0
88	Total Capacity	0 MWh				0
89						
90	Service Charge - PV	12 Cust.	70	10	75	11
91	Service Charge - SV	2 Cust.	375	9	375	9
92	Service Charge - TV	0 Cust.	375	0	375	0
93	<u>Distribution Charges</u>					
94	Primary	265,445 kW	4.21	1,118	5.49	1,456
95		130,761 MWh				
96	Subtransmission	61,960 kW	1.65	102	2.23	138
97		21,421 MWh				
98	Transmission	0 kW	0.70	0	0.94	0
99		0 MWh				
100	<u>Substation Credit</u>					
101	Demand	0 kW	(0.30)	0	(0.30)	0
102	Energy	0 MWh	(0.0004)	0	(0.0004)	0
103	Distribution System	152,183 MWh	0.81¢	1,239	1.06¢	1,614
104						
105	Nuclear Decommissioning	152,183 MWh	0.000842	128	0.000842	128
106	Energy Waste Reduction	18 Meters	1,161.26	251	1,161.26	251
107	LIEAF	18 Meters	0.87	0	0.87	0
108	Distribution Surcharges	152,183 MWh	0.25¢	379	0.25¢	379
109						
110	<b>Total Choice D8</b>	152,183 MWh	<b>1.06¢</b>	<b>1,618</b>	<b>1.31¢</b>	<b>1,993</b>
111						
112	<b>Total D8</b>	741,962 MWh	<b>5.79¢</b>	<b>42,973</b>	<b>6.06¢</b>	<b>44,964</b>
113	Increase/Decrease (\$)					1,992

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
All Electric School Building Rate - D10  
Primary Voltage

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
	<b>Capacity</b>						
1	Energy						
2	Energy -- Winter	11,249	MWh	0.02442	275	0.02673	301
3	Energy -- Summer	4,915	MWh	0.04455	219	0.04686	230
4	Total Capacity	16,164	MWh		494		531
5							
6	<b>Non-Capacity</b>						
7	Energy	16,164	MWh	0.05070	820	0.04828	780
8	Power Supply Subtotal						
9							
10	PSCR	16,164	MWh	0.00000	0	0.00000	0
11	REPS	18	Cust.	0.00	0	0.00	0
12	Total Full Service Power Supply	16,164	MWh	8.12¢	1,313	8.11¢	1,311
13							
14	<b>Full Service Distribution</b>	Quantity	Units				
15							
16	Service Charge	18	Cust.	70	15	75	16
17							
18	<u>Distribution Charges</u>						
19	Primary	16,164	MWh	0.01419	229	0.01788	289
20	Distribution System	16,164	MWh	1.51¢	245	1.89¢	305
21							
22	Nuclear Decommissioning	16,164	MWh	0.000842	14	0.000842	14
23	Energy Waste Reduction	18	Meters	1,161.26	252	1,161.26	252
24	LIEAF	18	Meters	0.87	0	0.87	0
25	Distribution Surcharges	16,164	MWh	1.64¢	266	1.64¢	266
26							
27	Total Full Service Distribution	16,164	MWh	3.16¢	510	3.53¢	571
28	<b>Total Full Service D10</b>	16,164	MWh	11.28¢	1,824	11.65¢	1,882
29							
30	<b>Choice Distribution</b>	Quantity	Units				
31	<b>Capacity</b>						
32	Energy						
33	Energy -- Winter	0	MWh	0.02442	0	0.02673	0
34	Energy -- Summer	0	MWh	0.04455	0	0.04686	0
35	Total Capacity	0	MWh				0
36							
37	Service Charge	16	Cust.	70	13	75	14
38							
39	<u>Distribution Charges</u>						
40	Primary	13,135	MWh	0.01419	186	0.01788	235
41	Distribution System	13,135	MWh	1.52¢	200	1.90¢	249
42							
43	Nuclear Decommissioning	13,135	MWh	0.000842	11	0.000842	11
44	Energy Waste Reduction	16	Meters	1,161.26	223	1,161.26	223
45	LIEAF	16	Meters	0.87	0	0.87	0
46	Distribution Surcharges	13,135	MWh	1.78¢	234	1.78¢	234
47							
48	<b>Total Choice D10</b>	13,135	MWh	3.30¢	434	3.68¢	483
49							
50	<b>Total D10</b>	29,299	MWh	7.71¢	2,258	8.07¢	2,366
51	Increase/Decrease (\$)						108

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
EXPERIMENTAL LARGE CUSTOMER LOW  
PEAK DEMAND SUPPLY RATE - D12  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Punj  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d)	(e) Proposed	(f)
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
	<b>Capacity</b>						
1	Power Supply Demand (October through May)	0	kW	0.32	0	0.32	0
2	Power Supply Demand (June through September)	0	kW	7.99	0	7.98	0
3							
4	<u>Voltage Level Discount - Transmission</u>						
5	CVLD (October through May)	0	kW	(0.005)	0	(0.005)	0
6	CVLD (June through September)	0	kW	(0.14)	0	(0.14)	0
7							
8	Total Capacity				0		0
9							
10	<b>Non-Capacity</b>						
11	Power Supply Demand (October through May)	0	kW	0.32	0	0.32	0
12	Power Supply Demand (June through September)	0	kW	41.11	0	41.06	0
13							
14	<u>Voltage Level Discount - Transmission</u>						
15	NCVLD (October through May)	0	kW	(0.005)	0	(0.005)	0
16	NCVLD (June through September)	0	kW	(0.70)	0	(0.70)	0
17							
18	<u>Energy</u>						
19	On-Peak	0	MWh	0.04107	0	0.04102	0
20	Off-Peak	0	MWh	0.03607	0	0.03603	0
21							
22	<u>Voltage Level Discount - Transmission</u>	0	MWh	(0.00056)	0	(0.00056)	0
23							
24	Power Supply Subtotal	0	MWh		0		0
25							
26	PSCR	0	MWh	0.00000	0	0.00000	0
27	REPS	0	Cust.	0.0	0	0.0	0
28	Total Full Service Power Supply	0	MWh	#DIV/0!	0	#DIV/0!	0
29							
30	<b>Full Service Distribution</b>	Quantity	Units				
31							
32	Service Charge - SV	0	Cust.	375	0	375	0
33	Service Charge - TV	0	Cust.	375	0	375	0
34	<u>Distribution Charges</u>						
35	Subtransmission	0	kW	1.65	0	2.23	0
36		0	MWh				
37	Transmission	0	kW	0.70	0	0.94	0
38		0	MWh				
39	<u>Substation Credit</u>						
40	Demand	0	kW	(0.30)	0	(0.30)	0
41	Energy	0	MWh	(0.0004)	0	(0.0004)	0
42	Distribution System	0	MWh	#DIV/0!	0	#DIV/0!	0
43							
44	Nuclear Decommissioning	0	MWh	0.000842	0	0.000842	0
45	Energy Waste Reduction	0	Meters	1,161.26	0	1,161.26	0
46	LIEAF	0	Meters	0.87	0	0.87	0
47	Distribution Surcharges	0	MWh	#DIV/0!	0	#DIV/0!	0
48							
49	Total Full Service Distribution	0	MWh	#DIV/0!	0	#DIV/0!	0
50	<b>Total Full Service D12</b>	0	MWh	#DIV/0!	0	#DIV/0!	0



Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Alternative Metal Melting Rider - R1.1

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present		(e) Proposed	
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
	<b>Capacity</b>						
1	Energy						
2	Secondary						
3	First 100 Hours Use	1,795	MWh	0.02738	49	0.03012	54
4	Excess Hours Use	399	MWh	0.01034	4	0.01137	5
5	Primary						
6	First 100 Hours Use	6,931	MWh	0.02035	141	0.02238	155
7	Excess Hours Use	1,459	MWh	0.00743	11	0.00817	12
8	Subtransmission						
9	First 100 Hours Use	15,469	MWh	0.01987	307	0.02186	338
10	Excess Hours Use	34,675	MWh	0.00691	240	0.00760	264
11	Transmission						
12	First 100 Hours Use	0	MWh	0.01685	0	0.01853	0
13	Excess Hours Use	0	MWh	0.00558	0	0.00614	0
14	Total Capacity	60,727	MWh		752		827
15							
16	<b>Non-Capacity</b>						
17	Energy	60,727	MWh	0.04394	2,668	0.04264	2,589
18	Power Supply Subtotal				3,420		3,416
19							
20	PSCR	60,727	MWh	0.00000	0	0.00000	0
21	REPS	17	Cust.	0.00	0	0.00	0
22	Total Full Service Power Supply	60,727	MWh	<b>5.63¢</b>	<b>3,420</b>	<b>5.63¢</b>	<b>3,416</b>
23							
24	<b>Full Service Distribution</b>	Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
25							
26	Distribution Charges						
27	Secondary						
28	First 100 Hours Use	1,795	MWh	0.03223	58	0.04029	72
29	Excess Hours Use	399	MWh	0.03223	13	0.04029	16
30	Primary						
31	First 100 Hours Use	6,931	MWh	0.01231	85	0.01604	111
32	Excess Hours Use	1,459	MWh	0.01231	18	0.01604	23
33	Subtransmission						
34	First 100 Hours Use	15,469	MWh	0.00541	84	0.00643	99
35	Excess Hours Use	34,675	MWh	0.00541	188	0.00643	223
36	Transmission						
37	First 100 Hours Use	0	MWh	0.00140	0	0.00205	0
38	Excess Hours Use	0	MWh	0.00140	0	0.00205	0
39							
40	Substation Credit						
41	Energy	3,871	MWh	(0.00300)	(12)	(0.00300)	(12)
42	Distribution System	60,727	MWh	0.71¢	434	1.48¢	534
43							
44	Nuclear Decommissioning	60,727	MWh	0.000842	51	0.000842	51
45	Energy Waste Reduction	25	Meters	1,161.26	351	1,161.26	351
46	LIEAF	25	Meters	0.87	0	0.87	0
47	Distribution Surcharges	60,727	MWh	0.66¢	402	0.66¢	402
48							
49	Total Full Service Distribution	60,727	MWh	<b>1.38¢</b>	<b>836</b>	<b>1.54¢</b>	<b>936</b>
50	<b>Total Full Service R1.1</b>	60,727	MWh	<b>7.01¢</b>	<b>4,256</b>	<b>7.17¢</b>	<b>4,352</b>

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Alternative Metal Melting Rider - R1.1 (Cont'd)

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
51	<b>Choice Distribution</b>						
52	<b>Capacity</b>						
53	<u>Energy</u>						
54	Secondary						
55	First 100 Hours Use	0	MWh	0.02738	0	0.03012	0
56	Excess Hours Use	0	MWh	0.01034	0	0.01137	0
57	Primary						
58	First 100 Hours Use	0	MWh	0.02035	0	0.02238	0
59	Excess Hours Use	0	MWh	0.00743	0	0.00817	0
60	Subtransmission						
61	First 100 Hours Use	0	MWh	0.01987	0	0.02186	0
62	Excess Hours Use	0	MWh	0.00691	0	0.00760	0
63	Transmission						
64	First 100 Hours Use	0	MWh	0.01685	0	0.01853	0
65	Excess Hours Use	0	MWh	0.00558	0	0.00614	0
66	Total Capacity	0	MWh				0
67							
68	<u>Distribution Charges</u>						
69	Secondary						
70	First 100 Hours Use	0	MWh	0.03223	0	0.04029	0
71	Excess Hours Use	0	MWh	0.03223	0	0.04029	0
72	Primary						
73	First 100 Hours Use	0	MWh	0.01231	0	0.01604	0
74	Excess Hours Use	0	MWh	0.01231	0	0.01604	0
75	Subtransmission						
76	First 100 Hours Use	0	MWh	0.00541	0	0.00643	0
77	Excess Hours Use	0	MWh	0.00541	0	0.00643	0
78	Transmission						
79	First 100 Hours Use	0	MWh	0.00140	0	0.00205	0
80	Excess Hours Use	0	MWh	0.00140	0	0.00205	0
81							
82	<u>Substation Credit</u>						
83	Energy	0	MWh	(0.00300)	0	(0.00300)	0
84	Distribution System	0	MWh		0		0
85							
86	Nuclear Decommissioning	0	MWh	0.000842	0	0.000842	0
87	Energy Optimization	0	Meters	1,161.26	0	1,161.26	0
88	LIEAF	0	Meters	0.87	0	0.87	0
89	Distribution Surcharges	0	MWh		0		0
90							
91	<b>Total Choice R1.1</b>	0	MWh		<b>0</b>		<b>0</b>
92							
93	<b>Total R1.1</b>	60,727	MWh	<b>7.01¢</b>	<b>4,256</b>	<b>7.17¢</b>	<b>4,352</b>
94	Increase/Decrease (\$)						96



Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Electric Process Heat Rider - R1.2

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
	<b>Full Service Power Supply</b>	Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
1	<b>Capacity</b>						
2	<b>Energy</b>						
3	Secondary						
4	First 100 Hours Use	15,178	MWh	0.02738	416	0.03012	457
5	Excess Hours Use	24,702	MWh	0.01034	255	0.01137	281
6	Primary						
7	First 100 Hours Use	99,634	MWh	0.02035	2,028	0.02238	2,230
8	Excess Hours Use	262,790	MWh	0.00743	1,953	0.00817	2,148
9	Subtransmission						
10	First 100 Hours Use	7,309	MWh	0.01987	145	0.02186	160
11	Excess Hours Use	24,224	MWh	0.00691	167	0.00760	184
12	Transmission						
13	First 100 Hours Use	3,526	MWh	0.01685	59	0.01853	65
14	Excess Hours Use	17,015	MWh	0.00558	95	0.00614	104
15	Total Capacity	454,377	MWh		5,118		5,630
16	<b>Non-Capacity</b>						
17	Energy	454,377	MWh	0.04394	19,965	0.04264	19,373
18	Power Supply Subtotal	454,377			25,083		25,002
19							
20	PSCR	454,377	MWh	0.00000	0	0.00000	0
21	REPS	180	Cust.	0.00	0	0.00	0
22	Total Full Service Power Supply	454,377	MWh	<b>5.52¢</b>	<b>25,083</b>	<b>5.50¢</b>	<b>25,002</b>
23							
24	<b>Full Service Distribution</b>	Quantity	Units				
25							
26	<b>Distribution Charges</b>						
27	Secondary						
28	First 100 Hours Use	15,178	MWh	0.03223	489	0.04029	611
29	Excess Hours Use	24,702	MWh	0.03223	796	0.04029	995
30	Primary						
31	First 100 Hours Use	99,634	MWh	0.01231	1,226	0.01604	1,598
32	Excess Hours Use	262,790	MWh	0.01231	3,235	0.01604	4,216
33	Subtransmission						
34	First 100 Hours Use	7,309	MWh	0.00541	40	0.00643	47
35	Excess Hours Use	24,224	MWh	0.00541	131	0.00643	156
36	Transmission						
37	First 100 Hours Use	3,526	MWh	0.00140	5	0.00205	7
38	Excess Hours Use	17,015	MWh	0.00140	24	0.00205	35
39							
40	<b>Substation Credit</b>						
41	Energy	0	MWh	(0.00300)	0	(0.00300)	0
42	Distribution System	454,377	MWh	1.31¢	5,946	1.69¢	7,665
43							
44	Nuclear Decommissioning	454,377	MWh	0.000842	383	0.000842	383
45	Energy Waste Reduction	223	Meters	1,161.26	3,102	1,161.26	3,102
46	LIEAF	223	Meters	0.87	2	0.87	2
47	Distribution Surcharges	454,377	MWh	0.77¢	3,487	0.77¢	3,487
48							
49	Total Full Service Distribution	454,377	MWh	<b>2.08¢</b>	<b>9,433</b>	<b>2.45¢</b>	<b>11,152</b>
50	<b>Total Full Service R1.2</b>	454,377	MWh	<b>7.60¢</b>	<b>34,516</b>	<b>7.96¢</b>	<b>36,155</b>

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Electric Process Heat Rider - R1.2 (Cont'd)

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
	<b>Choice Distribution</b>	Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
51	<b>Capacity</b>						
52	<b>Energy</b>						
53	Secondary						
54	First 100 Hours Use	0	MWh	0.02738	0	0.03012	0
55	Excess Hours Use	0	MWh	0.01034	0	0.01137	0
56	Primary						
57	First 100 Hours Use	0	MWh	0.02035	0	0.02238	0
58	Excess Hours Use	0	MWh	0.00743	0	0.00817	0
59	Subtransmission						
60	First 100 Hours Use	0	MWh	0.01987	0	0.02186	0
61	Excess Hours Use	0	MWh	0.00691	0	0.00760	0
62	Transmission						
63	First 100 Hours Use	0	MWh	0.01685	0	0.01853	0
64	Excess Hours Use	0	MWh	0.00558	0	0.00614	0
65	Total Capacity	0	MWh				0
66							
67	<b>Distribution Charges</b>						
68	Secondary						
69	First 100 Hours Use	0	MWh	0.03223	0	0.04029	0
70	Excess Hours Use	0	MWh	0.03223	0	0.04029	0
71	Primary						
72	First 100 Hours Use	2,222	MWh	0.01231	27	0.01604	36
73	Excess Hours Use	6,548	MWh	0.01231	81	0.01604	105
74	Subtransmission						
75	First 100 Hours Use	0	MWh	0.00541	0	0.00643	0
76	Excess Hours Use	0	MWh	0.00541	0	0.00643	0
77	Transmission						
78	First 100 Hours Use	0	MWh	0.00140	0	0.00205	0
79	Excess Hours Use	0	MWh	0.00140	0	0.00205	0
80							
81	<b>Substation Credit</b>						
82	Energy			(0.00300)	0	(0.00300)	0
83	Distribution System	8,771	MWh	1.23¢	108	1.60¢	141
84							
85	Nuclear Decommissioning	8,771	MWh	0.000842	7	0.000842	7
86	Energy Waste Reduction	4	Meters	1,161.26	56	1,161.26	56
87	LIEAF	4	Meters	0.87	0	0.87	0
88	Distribution Surcharges	8,771	MWh	0.72¢	63	0.72¢	63
89							
90	<b>Total Choice Distribution R1.2</b>	8,771	MWh	<b>1.95¢</b>	<b>171</b>	<b>2.32¢</b>	<b>204</b>
91							
92	<b>Total R1.2</b>	463,148	MWh	<b>7.49¢</b>	<b>34,687</b>	<b>7.85¢</b>	<b>36,358</b>
93	Increase/Decrease (\$)						1,671

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Present and Proposed Revenue**  
**Parallel Operation And Standby Service Rider - R3**  
**All Voltages**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants Quantity Units	(c) Present Rate	(d) Present Revenue (\$000)	(e) Proposed Rate	(f) Proposed Revenue (\$000)
	<b>Full Service Power Supply</b>					
1	<b>Station Power</b>					
2	<b>Capacity</b>					
3	Administrative Charge	7,018 MWh	0.00000	0	0.00000	0
4	Station Power Capacity	7,018 MWh		0		0
5						
6	<b>Non-Capacity</b>					
7	MISO Energy Charge	7,018 MWh	0.02545	179	0.02790	196
8	Net Trans MISO MKT	7,018 MWh	0.00740	52	0.00756	53
9	Administrative Charge	7,018 MWh	0.01676	118	0.00745	52
10	Station Power PS Subtotal	7,018 MWh		348		301
11						
12	<b>Standard R3</b>					
13	<b>Capacity</b>					
14	<u>Power Supply Demand</u>					
15	Generation Reservation Fee	163,373 kW	0.50	82	0.52	85
16	Daily Demand	1,804,645 kW	1.38	2,490	1.45	2,610
17	Maintenance Demand	93,922 kW	0.69	65	0.72	68
18						
19						
20						
21						
22						
23	<u>Energy</u>					
24	Secondary	3,473 MWh	0.03900	135	0.04122	143
25	Primary Total	137,343 MWh	0.00000	0	0.00000	0
26		140,815 MWh				
27						
28						
29						
30						
31	Standard R3 Capacity	140,815 MWh		2,772		2,906
32						
33	<b>Non-Capacity</b>					
34	<u>Power Supply Demand</u>					
35	Generation Reservation Fee	163,373 kW	0.12	20	0.12	20
36	Daily Demand	1,804,645 kW	0.33	596	0.34	609
37	Maintenance Demand	93,922 kW	0.17	16	0.17	16
38						
39	<u>Energy</u>					
40	Secondary	3,619 MWh	0.04345	157	0.03924	142
41	Primary Total	137,343 MWh	0.04863	6,679	0.04686	6,436
42	Primary Off-Peak Discount	105,766 MWh	(0.010000)	(1,058)	(0.010000)	(1,058)
42						
43	<u>Voltage Level Discount</u>					
44	Subtransmission	91,007 MWh	(0.00113)	(103)	(0.00059)	(53)
45	Transmission	26,563 MWh	(0.00191)	(51)	(0.00131)	(35)
46	Standard R3 PS Subtotal	140,815		9,028		8,983
47						
48	PSCR	140,815 MWh	0.00000	0	0.00000	0
49	REPS	40 Cust.	0.00	0	0.00	0
50	Total Full Service Power Supply	147,833 MWh	<b>6.34¢</b>	<b>9,377</b>	<b>6.28¢</b>	<b>9,284</b>

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Parallel Operation And Standby Service Rider - R3 (Cont'd)  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity Units				
51	<b>Full Service Distribution</b>					
52	<u>Service Charge</u>					
53	Secondary	14 Cust.	11.25	2	75	13
54	Service Charge - PV	16 Cust.	70	13	75	14
55	Service Charge - SV	10 Cust.	375	43	375	43
56	Service Charge - TV	0 Cust.	375	2	375	2
57	<u>Distribution Charges</u>					
58	Secondary	23,471 kW	9.67	227	11.18	262
59		3,619 MWh	0.03868	140	0.04473	162
60	Primary	89,273 kW	4.21	376	5.49	490
61		19,773 MWh				
62	Subtransmission	616,987 kW	1.65	1,018	2.23	1,373
63		91,007 MWh				
64	Transmission	100,979 kW	0.70	71	0.94	95
65		26,563 MWh				
66	<u>Substation Credit</u>					
67	Demand	108,442 kW	(0.30)	(33)	(0.30)	(33)
68	Energy	15,446 MWh	(0.00040)	(6)	(0.00040)	(6)
69	Distribution System	140,961 MWh	1.31¢	1,852	1.71¢	2,414
70						
71	Nuclear Decommissioning	140,961 MWh	0.000842	119	0.000842	119
72	Energy Waste Reduction	40 Cust.	1,161.26	555	1,161.26	555
73	LIEAF	40 Meters	0.87	0	0.87	0
74	Distribution Surcharges	140,961 MWh	0.48¢	674	0.48¢	674
75						
76	Total Full Service Distribution	140,961 MWh	1.79¢	2,527	2.19¢	3,088
77	<b>Total Full Service R3</b>	147,833 MWh	8.05¢	11,903	8.37¢	12,373
78	Increase/Decrease (\$)					469

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Interruptible Supply Rider - R10  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
1	<b>Full Service Power Supply</b>						
2	<b>Capacity</b>						
3	Administrative Charge	1,281,858	MWh	0.00000	0	0.00000	0
4	Total Capacity	1,281,858	MWh				
5	<b>Non-Capacity</b>						
6	Administrative Charge	1,281,858	MWh	0.01676	21,484	0.00745	9,551
7	MISO Energy Charge	1,281,858	MWh	0.02545	32,623	0.02790	35,764
8	Net Trans MISO MKT	1,281,858	MWh	0.00740	9,486	0.00756	9,691
9	<u>Voltage Level Service Adder</u>						
10	Primary	39,215	MWh	7%	90.174	5.50%	76.480
11	Subtransmission	117,745	MWh	2%	77.359	3.73%	155.736
12	Transmission	1,124,898	MWh	1%	369.529	1.56%	622.267
13	Power Supply Subtotal	1,281,858	MWh		64,130		55,861
14							
15	REPS	0	meters	0.00	0	0.00	0
16	Total Full Service Power Supply	1,281,858	MWh	5.00¢	64,130	4.36¢	55,861
17							
18	<b>Full Service Distribution</b>	Quantity	Units				
19							
20	Service Charge - PV	13	Cust.	70	11	75	12
21	Service Charge - SV	11	Cust.	375	49	375	49
22	Service Charge - TV	34	Cust.	375	153	375	153
23	<u>Distribution Charges</u>						
24	Primary	234,552	kW	4.21	987	5.49	1,287
25		39,215	MWh				
26	Subtransmission	362,538	kW	1.65	598	2.23	807
27		117,745	MWh				
28	Transmission	4,379,612	kW	0.70	3,066	0.94	4,111
29		1,124,898	MWh				
30	<u>Substation Credit</u>						
31	Demand	2,732,656	kW	(0.30)	(820)	(0.30)	(820)
32	Energy	295,674	MWh	(0.0004)	(118)	(0.0004)	(118)
33	Distribution System	1,281,858	MWh	0.31¢	3,926	0.43¢	5,480
34							
35	Nuclear Decommissioning	1,281,858	MWh	0.000842	1,079	0.000842	1,079
36	Energy Waste Reduction	0	Meters	1,161.26	0	1,161.26	0
37	VHWF	0	Meters	0.87	0	0.87	0
38	Distribution Surcharges	1,281,858	MWh	0.08¢	1,079	0.08¢	1,079
39							
40	Total Full Service Distribution	1,281,858	MWh	0.39¢	5,005	0.51¢	6,559
41	<b>Total Full Service R10</b>	1,281,858	MWh	5.39¢	69,135	4.87¢	62,420

Michigan Public Service Commission  
DTE Electric Company  
Staff's Present and Proposed Revenue  
Interruptible Supply Rider - R10 (Cont'd)  
All Voltages

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: M.J. Pung  
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Line No.	(a) Description	(b) Billing Determinants	(c) Present	(d) Present	(e) Proposed	(f) Proposed
		Quantity Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
42	<b>Choice Distribution</b>					
43	<b>Capacity</b>					
44	Administrative Charge	0 MWh	0.00000		0.00000	0
45	Total Capacity	0 MWh				0
46						
47	Service Charge - PV	0 Cust.	70	0	75	0
48	Service Charge - SV	0 Cust.	375	0	375	0
49	Service Charge - TV	0 Cust.	375	0	375	0
50	<u>Distribution Charges</u>					
51	Primary	0 kW	4.21	0	5.49	0
52						
53	Subtransmission	0 kW	1.65	0	2.23	0
54						
55	Transmission	0 kW	0.70	0	0.94	0
56						
57	<u>Substation Credit</u>					
58	Demand	0 kW	(0.30)	0	(0.30)	0
59	Energy	0 MWh	(0.0004)	0	(0.0004)	0
60	Distribution System	0 MWh		0		0
61						
62	Nuclear Decommissioning		0.000842	0	0.000842	0
63	Energy Waste Reduction		1,161.26	0	1,161.26	0
64	LIEAF	0 Meters	0.87	0	0.87	0
65	Distribution Surcharges			0		0
66						
67	<b>Total Choice Distribution R10</b>	0 MWh		<b>0</b>		<b>0</b>
68						
69	<b>Total R10</b>	1,281,858 MWh	<b>5.39¢</b>	<b>69,135</b>	<b>4.87¢</b>	<b>62,420</b>
70	Increase/Decrease (\$)					(6,716)

Line No.	(a) Description	(b) Billing Determinants		(c)	(d)	( e )	(f)	(g)	(h)	(i)	(j)
				Present				Proposed			
				Rate	Non-Capacity	Capacity	Revenue	Rate	Non-Capacity	Capacity	Revenue
				(\$/luminaire/ mth)	Energy	Energy		(\$/luminaire/ mth)	Energy	Energy	
		Quantity	Units	(¢/kWh)	(¢/kWh)	(¢/kWh)	(\$000)	(¢/kWh)	(¢/kWh)	(¢/kWh)	(\$000)
1	Overhead										
2	Mercury Vapor										
3	100 W	0	Lamps	13.16	4.47	0.00	0	11.98	4.49	0.00	0
4	175 W	3,966	Lamps	16.22	4.47	0.00	928	14.69	4.49	0.00	856
5	250 W	5	Lamps	19.27	4.47	0.00	1	17.40	4.49	0.00	1
6	400 W	73	Lamps	25.25	4.47	0.00	28	22.74	4.49	0.00	26
7	1,000 W	3	Lamps	52.08	4.47	0.00	2	46.76	4.49	0.00	2
8											
9	High Pressure Sodium Vapor										
10	100 W	3,415	Lamps	12.20	4.47	0.00	587	11.07	4.49	0.00	541
11	150 W	1	Lamps	14.48	4.47	0.00	0	13.10	4.49	0.00	0
12	250 W	469	Lamps	18.51	4.47	0.00	131	16.69	4.49	0.00	121
13	360 W	0	Lamps	21.48	4.47	0.00	0	19.30	4.49	0.00	0
14	400 W	33	Lamps	22.56	4.47	0.00	12	20.25	4.49	0.00	11
15	1,000 W	4	Lamps	45.08	4.47	0.00	3	40.29	4.49	0.00	3
16											
17	Metal Halide										
18	100 W	0	Lamps	11.68	4.47	0.00	0	10.56	4.49	0.00	0
19	150 W	0	Lamps	14.13	4.47	0.00	0	12.76	4.49	0.00	0
20	175 W	0	Lamps	15.35	4.47	0.00	0	13.86	4.49	0.00	0
21	250 W	0	Lamps	19.03	4.47	0.00	0	17.16	4.49	0.00	0
22	320 W	0	Lamps	22.46	4.47	0.00	0	20.24	4.49	0.00	0
23	400 W	0	Lamps	26.37	4.47	0.00	0	23.76	4.49	0.00	0
24	1,000 W	1	Lamps	55.76	4.47	0.00	1	50.15	4.49	0.00	1
25											
26	LED										
27	20 - 29 W	0	Lamps	11.09	4.47	0.00	0	10.17	4.49	0.00	0
28	30 - 39 W	0	Lamps	11.18	4.47	0.00	0	10.24	4.49	0.00	0
29	40 - 49 W	0	Lamps	11.27	4.47	0.00	0	10.31	4.49	0.00	0
30	50 - 59 W	747	Lamps	11.35	4.47	0.00	109	10.38	4.49	0.00	101
31	60 - 69 W	1,323	Lamps	11.77	4.47	0.00	203	10.75	4.49	0.00	187
32	70 - 79 W	9	Lamps	12.33	4.47	0.00	1	11.25	4.49	0.00	1
33	80 - 89 W	0	Lamps	12.89	4.47	0.00	0	11.75	4.49	0.00	0
34	90 - 99 W	0	Lamps	13.45	4.47	0.00	0	12.26	4.49	0.00	0
35	100 - 109 W	0	Lamps	14.00	4.47	0.00	0	12.76	4.49	0.00	0
36	110 - 119 W	0	Lamps	14.56	4.47	0.00	0	13.26	4.49	0.00	0
37	120 - 129 W	0	Lamps	15.12	4.47	0.00	0	13.76	4.49	0.00	0
38	130 - 139 W	108	Lamps	15.68	4.47	0.00	23	14.27	4.49	0.00	21
39	140 - 149 W	0	Lamps	16.24	4.47	0.00	0	14.77	4.49	0.00	0
40	150 - 159 W	0	Lamps	16.79	4.47	0.00	0	15.28	4.49	0.00	0
41	160 - 169 W	0	Lamps	17.35	4.47	0.00	0	15.78	4.49	0.00	0
42	170 - 179 W	0	Lamps	17.91	4.47	0.00	0	16.29	4.49	0.00	0
43	180 - 189 W	0	Lamps	18.47	4.47	0.00	0	16.79	4.49	0.00	0
44	190 - 199 W	0	Lamps	19.02	4.47	0.00	0	17.29	4.49	0.00	0
45	200 - 209 W	0	Lamps	19.58	4.47	0.00	0	17.80	4.49	0.00	0
46	210 - 219 W	2	Lamps	20.16	4.47	0.00	1	18.30	4.49	0.00	1
47	220 - 229 W	0	Lamps	20.75	4.47	0.00	0	18.83	4.49	0.00	0
48	230 - 239 W	3	Lamps	21.33	4.47	0.00	1	19.35	4.49	0.00	1
49	240 - 249 W	0	Lamps	21.91	4.47	0.00	0	19.87	4.49	0.00	0
50	250 - 259 W	0	Lamps	22.49	4.47	0.00	0	20.39	4.49	0.00	0
51	260 - 269 W	0	Lamps	23.07	4.47	0.00	0	20.90	4.49	0.00	0
52	270 - 279 W	0	Lamps	23.66	4.47	0.00	0	21.42	4.49	0.00	0
53	280 - 289 W	9	Lamps	24.20	4.47	0.00	3	21.94	4.49	0.00	3
54	290 - 299 W	1	Lamps	24.73	4.47	0.00	0	22.42	4.49	0.00	0
55	300 - 309 W	0	Lamps	25.27	4.47	0.00	0	23.15	4.49	0.00	0
56	310 - 319 W	0	Lamps	25.81	4.47	0.00	0	23.87	4.49	0.00	0
57	320 - 329 W	0	Lamps	26.35	4.47	0.00	0	24.60	4.49	0.00	0
58	330 - 339 W	0	Lamps	26.89	4.47	0.00	0	25.32	4.49	0.00	0
59	340 - 349 W	0	Lamps	27.43	4.47	0.00	0	26.05	4.49	0.00	0
60	350 - 359 W	0	Lamps	27.97	4.47	0.00	0	26.77	4.49	0.00	0
61	360 - 369 W	0	Lamps	28.51	4.47	0.00	0	27.50	4.49	0.00	0
62	370 - 379 W	0	Lamps	29.05	4.47	0.00	0	28.22	4.49	0.00	0
63	380 - 389 W	0	Lamps	29.59	4.47	0.00	0	28.95	4.49	0.00	0
64	390 - 399 W	0	Lamps	30.12	4.47	0.00	0	29.67	4.49	0.00	0



Line No.	(a) Description	(b) Billing Determinants		(c) Present				(d)	(e)	(f)	(g)	(h) Proposed				(i)	(j)



Line No.	(a) Description	(b) Billing Determinants		(c)	(d)	( e )	(f)	(g)	(h)	(i)	(j)
				Present				Proposed			
		Quantity	Units	Rate (\$/luminaire/ mth)	Non-Capacity Energy (¢/kWh)	Capacity Energy (¢/kWh)	Revenue (\$000)	Rate (\$/luminaire/ mth)	Non- Capacity Energy (¢/kWh)	Capacity Energy (¢/kWh)	Revenue (\$000)
1	Overhead										
2	Mercury Vapor										
3	100 W	0	Lamps	13.16	4.47	0.00	0	11.98	4.49	0.00	0
4	175 W	4,299	Lamps	16.22	4.47	0.00	1,006	14.69	4.49	0.00	928
5	250 W	119	Lamps	19.27	4.47	0.00	34	17.40	4.49	0.00	32
6	400 W	984	Lamps	25.25	4.47	0.00	381	22.74	4.49	0.00	352
7	1,000 W	88	Lamps	52.08	4.47	0.00	73	46.76	4.49	0.00	67
8											
9	High Pressure Sodium Vapor										
10	100 W	2,447	Lamps	12.20	4.47	0.00	420	11.07	4.49	0.00	387
11	150 W	0	Lamps	14.48	4.47	0.00	0	13.10	4.49	0.00	0
12	250 W	4,504	Lamps	18.51	4.47	0.00	1,259	16.69	4.49	0.00	1,162
13	360 W	0	Lamps	21.48	4.47	0.00	0	19.30	4.49	0.00	0
14	400 W	2,315	Lamps	22.56	4.47	0.00	829	20.25	4.49	0.00	766
15	1,000 W	61	Lamps	45.08	4.47	0.00	46	40.29	4.49	0.00	42
16											
17	Metal Halide										
18	100 W	0	Lamps	11.68	4.47	0.00	0	10.56	4.49	0.00	0
19	150 W	0	Lamps	14.13	4.47	0.00	0	12.76	4.49	0.00	0
20	175 W	0	Lamps	15.35	4.47	0.00	0	13.86	4.49	0.00	0
21	250 W	0	Lamps	19.03	4.47	0.00	0	17.16	4.49	0.00	0
22	320 W	0	Lamps	22.46	4.47	0.00	0	20.24	4.49	0.00	0
23	400 W	4	Lamps	26.37	4.47	0.00	2	23.76	4.49	0.00	1
24	1,000 W	255	Lamps	55.76	4.47	0.00	221	50.15	4.49	0.00	204
25											
26	LED										
27	20 - 29 W	0	Lamps	11.09	4.47	0.00	0	10.17	4.49	0.00	0
28	30 - 39 W	9	Lamps	11.18	4.47	0.00	1	10.24	4.49	0.00	1
29	40 - 49 W	0	Lamps	11.27	4.47	0.00	0	10.31	4.49	0.00	0
30	50 - 59 W	1,382	Lamps	11.35	4.47	0.00	203	10.38	4.49	0.00	186
31	60 - 69 W	1,774	Lamps	11.77	4.47	0.00	272	10.75	4.49	0.00	251
32	70 - 79 W	195	Lamps	12.33	4.47	0.00	32	11.25	4.49	0.00	29
33	80 - 89 W	0	Lamps	12.89	4.47	0.00	0	11.75	4.49	0.00	0
34	90 - 99 W	0	Lamps	13.45	4.47	0.00	0	12.26	4.49	0.00	0
35	100 - 109 W	0	Lamps	14.00	4.47	0.00	0	12.76	4.49	0.00	0
36	110 - 119 W	0	Lamps	14.56	4.47	0.00	0	13.26	4.49	0.00	0
37	120 - 129 W	0	Lamps	15.12	4.47	0.00	0	13.76	4.49	0.00	0
38	130 - 139 W	2,094	Lamps	15.68	4.47	0.00	447	14.27	4.49	0.00	412
39	140 - 149 W	0	Lamps	16.24	4.47	0.00	0	14.77	4.49	0.00	0
40	150 - 159 W	0	Lamps	16.79	4.47	0.00	0	15.28	4.49	0.00	0
41	160 - 169 W	0	Lamps	17.35	4.47	0.00	0	15.78	4.49	0.00	0
42	170 - 179 W	0	Lamps	17.91	4.47	0.00	0	16.29	4.49	0.00	0
43	180 - 189 W	0	Lamps	18.47	4.47	0.00	0	16.79	4.49	0.00	0
44	190 - 199 W	0	Lamps	19.02	4.47	0.00	0	17.29	4.49	0.00	0
45	200 - 209 W	0	Lamps	19.58	4.47	0.00	0	17.80	4.49	0.00	0
46	210 - 219 W	351	Lamps	20.16	4.47	0.00	99	18.30	4.49	0.00	91
47	220 - 229 W	0	Lamps	20.75	4.47	0.00	0	18.83	4.49	0.00	0
48	230 - 239 W	893	Lamps	21.33	4.47	0.00	268	19.35	4.49	0.00	247
49	240 - 249 W	0	Lamps	21.91	4.47	0.00	0	19.87	4.49	0.00	0
50	250 - 259 W	0	Lamps	22.49	4.47	0.00	0	20.39	4.49	0.00	0
51	260 - 269 W	0	Lamps	23.07	4.47	0.00	0	20.90	4.49	0.00	0
52	270 - 279 W	0	Lamps	23.66	4.47	0.00	0	21.42	4.49	0.00	0
53	280 - 289 W	820	Lamps	24.20	4.47	0.00	282	21.94	4.49	0.00	260
54	290 - 299 W	1,093	Lamps	24.73	4.47	0.00	385	22.42	4.49	0.00	355
55	300 - 309 W	0	Lamps	25.27	4.47	0.00	0	23.15	4.49	0.00	0
56	310 - 319 W	0	Lamps	25.81	4.47	0.00	0	23.87	4.49	0.00	0
57	320 - 329 W	0	Lamps	26.35	4.47	0.00	0	24.60	4.49	0.00	0
58	330 - 339 W	0	Lamps	26.89	4.47	0.00	0	25.32	4.49	0.00	0
59	340 - 349 W	0	Lamps	27.43	4.47	0.00	0	26.05	4.49	0.00	0
60	350 - 359 W	0	Lamps	27.97	4.47	0.00	0	26.77	4.49	0.00	0
61	360 - 369 W	0	Lamps	28.51	4.47	0.00	0	27.50	4.49	0.00	0
62	370 - 379 W	0	Lamps	29.05	4.47	0.00	0	28.22	4.49	0.00	0
63	380 - 389 W	8	Lamps	29.59	4.47	0.00	3	28.95	4.49	0.00	3
64	390 - 399 W	0	Lamps	30.12	4.47	0.00	0	29.67	4.49	0.00	0

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Schedule: F3  
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Line No.	(a) Description	(b) Billing Determinants		(c) Present	(d)	(e)	(f)	(g)	(h)	(i)	(j)
				Proposed							
					Non-Capacity	Capacity		Non-	Capacity		
				Rate	Energy	Energy	Revenue	Rate	Energy	Energy	Revenue
		Quantity	Units	(\$/luminaire/ mth)	(¢/kWh)	(¢/kWh)	(\$000)	(\$/luminaire/ mth)	(¢/kWh)	(¢/kWh)	(\$000)
65	Underground										
66	Mercury Vapor										
67	100 W	66	Lamps	29.29	4.47	0.00	25	28.67	4.49	0.00	24
68	175 W	51	Lamps	31.49	4.47	0.00	21	30.82	4.49	0.00	21
69	250 W	5	Lamps	34.54	4.47	0.00	2	33.80	4.49	0.00	2
70	400 W	133	Lamps	39.74	4.47	0.00	74	38.88	4.49	0.00	73
71	1,000 W	0	Lamps	64.34	4.47	0.00	0	62.74	4.49	0.00	0
72											
73	High Pressure Sodium Vapor										
74	70 W	66	Lamps	26.31	4.47	0.00	22	25.76	4.49	0.00	22
75	100 W	16	Lamps	27.17	4.47	0.00	6	26.60	4.49	0.00	6
76	150 W	0	Lamps	28.61	4.47	0.00	0	28.00	4.49	0.00	0
77	250 W	2	Lamps	31.49	4.47	0.00	1	30.81	4.49	0.00	1
78	400 W	0	Lamps	35.80	4.47	0.00	0	35.03	4.49	0.00	0
79	1,000 W	0	Lamps	53.07	4.47	0.00	0	51.90	4.49	0.00	0
80											
81	Metal Halide										
82	100 W	0	Lamps	27.17	4.47	0.00	0	26.60	4.49	0.00	0
83	150 W	0	Lamps	30.05	4.47	0.00	0	28.00	4.49	0.00	0
84	175 W	0	Lamps	31.49	4.47	0.00	0	28.71	4.49	0.00	0
85	250 W	0	Lamps	35.80	4.47	0.00	0	30.81	4.49	0.00	0
86	400 W	0	Lamps	44.44	4.47	0.00	0	35.03	4.49	0.00	0
87	1,000 W	2	Lamps	78.97	4.47	0.00	2	77.25	4.49	0.00	2
88											
89	LED										
90	20 - 29 W	0	Lamps	26.90	4.47	0.00	0	26.34	4.49	0.00	0
91	30 - 39 W	1,133	Lamps	27.38	4.47	0.00	380	26.81	4.49	0.00	372
92	40 - 49 W	0	Lamps	27.86	4.47	0.00	0	27.28	4.49	0.00	0
93	50 - 59 W	69	Lamps	28.34	4.47	0.00	24	27.75	4.49	0.00	24
94	60 - 69 W	163	Lamps	28.82	4.47	0.00	58	28.22	4.49	0.00	57
95	70 - 79 W	924	Lamps	29.28	4.47	0.00	338	28.67	4.49	0.00	331
96	80 - 89 W	825	Lamps	29.73	4.47	0.00	308	29.11	4.49	0.00	302
97	90 - 99 W	5	Lamps	30.18	4.47	0.00	2	29.55	4.49	0.00	2
98	100 - 109 W	4	Lamps	30.64	4.47	0.00	2	29.99	4.49	0.00	2
99	110 - 119 W	37	Lamps	31.09	4.47	0.00	15	30.44	4.49	0.00	14
100	120 - 129 W	0	Lamps	31.54	4.47	0.00	0	30.86	4.49	0.00	0
101	130 - 139 W	601	Lamps	31.95	4.47	0.00	246	31.28	4.49	0.00	241
102	140 - 149 W	0	Lamps	32.37	4.47	0.00	0	31.69	4.49	0.00	0
103	150 - 159 W	0	Lamps	32.78	4.47	0.00	0	32.09	4.49	0.00	0
104	160 - 169 W	0	Lamps	33.19	4.47	0.00	0	32.50	4.49	0.00	0
105	170 - 179 W	0	Lamps	33.61	4.47	0.00	0	32.90	4.49	0.00	0
106	180 - 189 W	0	Lamps	34.02	4.47	0.00	0	33.30	4.49	0.00	0
107	190 - 199 W	0	Lamps	34.44	4.47	0.00	0	33.71	4.49	0.00	0
108	200 - 209 W	836	Lamps	34.85	4.47	0.00	382	34.11	4.49	0.00	375
109	210 - 219 W	0	Lamps	35.26	4.47	0.00	0	34.52	4.49	0.00	0
110	220 - 229 W	0	Lamps	35.68	4.47	0.00	0	34.92	4.49	0.00	0
111	230 - 239 W	41	Lamps	36.09	4.47	0.00	20	35.33	4.49	0.00	19
112	240 - 249 W	0	Lamps	36.50	4.47	0.00	0	35.73	4.49	0.00	0
113	250 - 259 W	0	Lamps	36.92	4.47	0.00	0	36.13	4.49	0.00	0
114	260 - 269 W	0	Lamps	37.33	4.47	0.00	0	36.54	4.49	0.00	0
115	270 - 279 W	46	Lamps	37.75	4.47	0.00	23	36.94	4.49	0.00	23
116	280 - 289 W	12	Lamps	38.16	4.47	0.00	6	37.35	4.49	0.00	6
117	290 - 299 W	0	Lamps	38.57	4.47	0.00	0	37.75	4.49	0.00	0
118	300 - 309 W	0	Lamps	38.99	4.47	0.00	0	38.16	4.49	0.00	0
119	310 - 319 W	0	Lamps	39.40	4.47	0.00	0	38.56	4.49	0.00	0
120	320 - 329 W	0	Lamps	39.81	4.47	0.00	0	38.96	4.49	0.00	0
121	330 - 339 W	0	Lamps	40.23	4.47	0.00	0	39.37	4.49	0.00	0
122	340 - 349 W	0	Lamps	40.64	4.47	0.00	0	39.77	4.49	0.00	0
123	350 - 359 W	0	Lamps	41.05	4.47	0.00	0	40.18	4.49	0.00	0
124	360 - 369 W	0	Lamps	41.47	4.47	0.00	0	40.58	4.49	0.00	0
125	370 - 379 W	0	Lamps	41.88	4.47	0.00	0	40.99	4.49	0.00	0
126	380 - 389 W	0	Lamps	42.30	4.47	0.00	0	41.39	4.49	0.00	0
127	390 - 399 W	0	Lamps	42.71	4.47	0.00	0	41.79	4.49	0.00	0
128											
129	Lamp Total	28,730	Lamps				8,217				7,693
130											
131	PSCR	27,269	MWh	\$ -			0	\$ -			0
132											
133	Additional Light Credit	49	Lamps	-97.92			(5)	-97.92			(5)
134	Post Charge	39	Posts	79.20			3	78.24			3
135											
136	Other Charges										
137		Number of Poles		\$ /Pole/Year				\$ /Pole/Year			
138	New Poles	4,270	Poles				105	24.48			105
139	Subtotal	28,730	Lamps				8,320				7,796
140											
141	Nuclear Decommissioning			0.000842			23	0.000842			23
142	Subtotal	28,730	Lamps				8,343				7,819
143											
144		Investment		Carrying Charge/Year				Carrying Charge/Year			
145	Special Facilities	107,517		-18%			(19)	-18%			(19)
146	Subtotal	28,730	Lamps				8,324				7,800
147											
148	Energy Waste Reduction	9,030	Meters	\$2.79			302	\$ 2.79			302
149	REPS	9,030	Meters	0.00%			0	0.00%			0
150	Total Commercial	27,269	MWh				8,626				8,102
151	Increase/Decrease (\$)										(524)

Line No.	(a) Description	(b) Billing Determinants		(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
				Present				Proposed			
		Quantity	Units	<u>Rate</u> <u>(\$/luminaire/</u> <u>month)</u>	<u>Non-Capacity</u> <u>Energy</u> <u>(\$/kWh)</u>	<u>Capacity</u> <u>Energy</u> <u>(\$/kWh)</u>	<u>Revenue</u> <u>(\$000)</u>	<u>Rate</u> <u>(\$/luminaire/</u> <u>month)</u>	<u>Non-Capacity</u> <u>Energy</u> <u>(\$/kWh)</u>	<u>Capacity</u> <u>Energy</u> <u>(\$/kWh)</u>	<u>Revenue</u> <u>(\$000)</u>
1	<b>Overhead</b>										
2	Mercury Vapor										
3	100 W	137	Lamps	18.35	4.47	0.00	33	23.50	4.49	0.00	42
4	175 W	7,104	Lamps	22.48	4.47	0.00	2,196	29.04	4.49	0.00	2,757
5	250 W	98	Lamps	26.73	4.47	0.00	37	34.73	4.49	0.00	46
6	400 W	998	Lamps	35.11	4.47	0.00	505	45.83	4.49	0.00	634
7	1,000 W	1	Lamps	69.20	4.47	0.00	1	91.02	4.49	0.00	1
8											
9	High Pressure Sodium Vapor										
10	70 W	1,208	Lamps	13.63	4.47	0.00	219	17.48	4.49	0.00	275
11	100 W	8,579	Lamps	15.47	4.47	0.00	1,810	19.95	4.49	0.00	2,272
12	150 W	10	Lamps	18.45	4.47	0.00	3	23.94	4.49	0.00	3
13	250 W	4,039	Lamps	23.81	4.47	0.00	1,386	31.08	4.49	0.00	1,739
14	360 W	6	Lamps	29.61	4.47	0.00	3	38.81	4.49	0.00	3
15	400 W	177	Lamps	31.76	4.47	0.00	83	41.69	4.49	0.00	104
16	1,000 W	1	Lamps	62.73	4.47	0.00	1	76.17	4.49	0.00	1
17											
18	Metal Halide										
19	70 W	1	Lamps	17.84	4.47	0.00	0	22.73	4.49	0.00	0
20	100 W	0	Lamps	19.45	4.47	0.00	0	23.03	4.49	0.00	0
21	150 W	0	Lamps	22.20	4.47	0.00	0	27.96	4.49	0.00	0
22	175 W	47	Lamps	23.58	4.47	0.00	15	30.42	4.49	0.00	19
23	250 W	1	Lamps	29.19	4.47	0.00	0	37.82	4.49	0.00	1
24	320 W	0	Lamps	34.00	4.47	0.00	0	44.15	4.49	0.00	0
25	400 W	5	Lamps	39.50	4.47	0.00	3	51.38	4.49	0.00	4
26	1,000 W	1	Lamps	81.18	4.47	0.00	1	106.01	4.49	0.00	1
27											
28	<b>De-Energized</b>										
29	Mercury Vapor										
30	100 W	0	Lamps	12.14	4.47	0.00	0	15.23	4.49	0.00	0.000
31	175 W	1	Lamps	15.46	4.47	0.00	0	19.41	4.49	0.00	0.233
32	250 W	0	Lamps	18.85	4.47	0.00	0	23.67	4.49	0.00	0.000
33	400 W	0	Lamps	25.29	4.47	0.00	0	31.75	4.49	0.00	0.000
34	1,000 W	0	Lamps	51.48	4.47	0.00	0	64.61	4.49	0.00	0.000
35											
36	High Pressure Sodium Vapor										
37	70 W	0	Lamps	9.07	4.47	0.00	0	11.38	4.49	0.00	0.000
38	100 W	4	Lamps	10.55	4.47	0.00	1	13.24	4.49	0.00	0.636
39	150 W	0	Lamps	12.95	4.47	0.00	0	16.25	4.49	0.00	0.000
40	250 W	2	Lamps	17.15	4.47	0.00	0	21.53	4.49	0.00	0.517
41	360 W	0	Lamps	21.69	4.47	0.00	0	27.23	4.49	0.00	0.000
42	400 W	0	Lamps	23.42	4.47	0.00	0	29.40	4.49	0.00	0.000
43	1,000 W	0	Lamps	47.97	4.47	0.00	0	56.08	4.49	0.00	0.000
44											
45	LED										
46	60 - 69 W	2	Lamps	9.11	4.47	0.00	0	11.23	4.49	0.00	0.270
47											
48	Dusk-Midnight										
49	Mercury Vapor										
50	100 W	0	Lamps	17.29	4.47	0.00	0	22.44	4.49	0.00	0.000
51	175 W	0	Lamps	20.63	4.47	0.00	0	27.19	4.49	0.00	0.000
52	250 W	0	Lamps	24.08	4.47	0.00	0	32.08	4.49	0.00	0.000
53	400 W	0	Lamps	30.87	4.47	0.00	0	41.59	4.49	0.00	0.000
54	1,000 W	0	Lamps	58.60	4.47	0.00	0	80.42	4.49	0.00	0.000
55											
56	High Pressure Sodium Vapor										
57	70 W	0	Lamps	12.89	4.47	0.00	0	16.74	4.49	0.00	0.000
58	100 W	0	Lamps	14.41	4.47	0.00	0	18.89	4.49	0.00	0.000
59	150 W	0	Lamps	16.86	4.47	0.00	0	22.35	4.49	0.00	0.000
60	250 W	2	Lamps	21.16	4.47	0.00	1	28.43	4.49	0.00	0.740
61	360 W	0	Lamps	25.79	4.47	0.00	0	34.99	4.49	0.00	0.000
62	400 W	4	Lamps	27.52	4.47	0.00	1	37.45	4.49	0.00	1.973
63	1,000 W	0	Lamps	52.13	4.47	0.00	0	65.57	4.49	0.00	0.000
64											
65	LED										
66	130 - 139 W	5	Lamps	18.87	4.47	0.00	1	23.20	4.49	0.00	1.456
67	280 - 289 W	2	Lamps	24.82	4.47	0.00	1	32.15	4.49	0.00	0.825

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Line No.	(a) Description	(b) Billing Determinants		(c) (d) (e) (f) Present				(g) (h) (i) (j) Proposed			
				Rate	Non-Capacity	Capacity	Revenue	Rate	Non-Capacity	Capacity	Revenue
				(\$/luminaire/	Energy	Energy		(\$/luminaire/	Energy	Energy	
		Quantity	Units	(mth)	(¢/kWh)	(¢/kWh)	(\$000)	(mth)	(¢/kWh)	(¢/kWh)	(\$000)
68	LED										
69	20 - 29 W	0	Lamps	11.04	4.47	0.00	0	13.75	4.49	0.00	0
70	30 - 39 W	0	Lamps	11.82	4.47	0.00	0	14.74	4.49	0.00	0
71	40 - 49 W	73	Lamps	12.60	4.47	0.00	12	15.72	4.49	0.00	14
72	50 - 59 W	13,236	Lamps	13.38	4.47	0.00	2,261	16.71	4.49	0.00	2,792
73	60 - 69 W	36,428	Lamps	14.17	4.47	0.00	6,639	17.70	4.49	0.00	8,184
74	70 - 79 W	592	Lamps	14.99	4.47	0.00	115	18.69	4.49	0.00	141
75	80 - 89 W	1,142	Lamps	15.84	4.47	0.00	235	19.68	4.49	0.00	288
76	90 - 99 W	1,511	Lamps	16.73	4.47	0.00	330	20.67	4.49	0.00	402
77	100 - 109 W	87	Lamps	17.67	4.47	0.00	20	21.66	4.49	0.00	24
78	110 - 119 W	1	Lamps	18.62	4.47	0.00	0	22.66	4.49	0.00	0
79	120 - 129 W	58	Lamps	19.63	4.47	0.00	15	23.65	4.49	0.00	18
80	130 - 139 W	18,684	Lamps	20.30	4.47	0.00	5,024	24.64	4.49	0.00	5,999
81	140 - 149 W	156	Lamps	20.83	4.47	0.00	43	25.42	4.49	0.00	52
82	150 - 159 W	402	Lamps	21.30	4.47	0.00	114	26.19	4.49	0.00	138
83	160 - 169 W	107	Lamps	21.77	4.47	0.00	31	26.97	4.49	0.00	38
84	170 - 179 W	51	Lamps	22.25	4.47	0.00	15	27.75	4.49	0.00	19
85	180 - 189 W	9	Lamps	22.72	4.47	0.00	3	28.53	4.49	0.00	3
86	190 - 199 W	0	Lamps	23.19	4.47	0.00	0	29.31	4.49	0.00	0
87	200 - 209 W	28	Lamps	23.70	4.47	0.00	9	30.09	4.49	0.00	11
88	210 - 219 W	12	Lamps	24.22	4.47	0.00	4	30.87	4.49	0.00	5
89	220 - 229 W	0	Lamps	24.73	4.47	0.00	0	31.65	4.49	0.00	0
90	230 - 239 W	576	Lamps	25.24	4.47	0.00	200	32.43	4.49	0.00	250
91	240 - 249 W	5	Lamps	25.75	4.47	0.00	2	33.21	4.49	0.00	2
92	250 - 259 W	11	Lamps	26.27	4.47	0.00	4	32.90	4.49	0.00	5
93	260 - 269 W	0	Lamps	26.78	4.47	0.00	0	33.66	4.49	0.00	0
94	270 - 279 W	0	Lamps	27.29	4.47	0.00	0	34.41	4.49	0.00	0
95	280 - 289 W	763	Lamps	27.84	4.47	0.00	296	35.17	4.49	0.00	363
96	290 - 299 W	8	Lamps	28.40	4.47	0.00	3	35.93	4.49	0.00	4
97	300 - 309 W	15	Lamps	28.97	4.47	0.00	6	36.68	4.49	0.00	7
98	310 - 319 W	0	Lamps	29.55	4.47	0.00	0	37.44	4.49	0.00	0
99	320 - 329 W	4	Lamps	30.12	4.47	0.00	2	38.19	4.49	0.00	2
100	330 - 339 W	0	Lamps	30.69	4.47	0.00	0	38.95	4.49	0.00	0
101	340 - 349 W	0	Lamps	31.27	4.47	0.00	0	39.71	4.49	0.00	0
102	350 - 359 W	0	Lamps	31.84	4.47	0.00	0	40.46	4.49	0.00	0
103	360 - 369 W	0	Lamps	32.41	4.47	0.00	0	41.22	4.49	0.00	0
104	370 - 379 W	0	Lamps	32.99	4.47	0.00	0	41.97	4.49	0.00	0
105	380 - 389 W	0	Lamps	33.56	4.47	0.00	0	42.73	4.49	0.00	0
106	390 - 399 W	0	Lamps	34.14	4.47	0.00	0	43.49	4.49	0.00	0
107	Subtotal	96,394	Lamps				21,685				26,672
108											
109	PSCR	46,223	MWh	0			0	\$ -			0
110											
111	Multiple Lamp Discount	885	Lamps	(\$12.24)			(11)	-12.24			(11)
112	Subtotal	96,394	Lamps				21,674				26,661
113											
114	Nuclear Decomm.	46,223	MWh	0.000842			39	0.000842			39
115	Subtotal	96,394	Lamps				21,713				26,700
116											
117	Energy Optimization	487	Meters	\$2.79			16	\$ 2.79			16
118											
119	Total E1 - Option 1	46,223	MWh				21,729				26,716
120	Increase/Decrease (\$)										4,987



Line No.	(a) Description	(b) Billing Determinants	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
			Present				Proposed			
			Rate	Non-Capacity	Capacity	Revenue	Rate	Non-Capacity	Capacity	Revenue
			(\$/luminaire/ mth)	Energy (¢/kWh)	Energy (¢/kWh)	(\$000)	(\$/luminaire/ mth)	Energy (¢/kWh)	Energy (¢/kWh)	(\$000)
		Quantity Units								
	<b>Co. Owned Ornamental</b>									
1	Mercury Vapor									
2	100 W	18 Lamps	26.17	4.47	0.00	6	32.68	4.49	0.00	7
3	175 W	2,435 Lamps	29.30	4.47	0.00	952	37.10	4.49	0.00	1,180
4	250 W	3 Lamps	34.03	4.47	0.00	1	43.89	4.49	0.00	2
5	400 W	623 Lamps	42.21	4.47	0.00	368	54.75	4.49	0.00	462
6	1,000 W	0 Lamps	77.77	4.47	0.00	0	108.23	4.49	0.00	0
7										
8	High Pressure Sodium Vapor									
9	70 W	76 Lamps	22.17	4.47	0.00	22	25.33	4.49	0.00	24
10	100 W	16,904 Lamps	23.71	4.47	0.00	5,238	28.74	4.49	0.00	6,261
11	150 W	326 Lamps	26.02	4.47	0.00	114	31.39	4.49	0.00	135
12	250 W	4,634 Lamps	29.96	4.47	0.00	1,931	38.18	4.49	0.00	2,390
13	360 W	0 Lamps	34.59	4.47	0.00	0	43.98	4.49	0.00	0
14	400 W	2,094 Lamps	36.22	4.47	0.00	1,093	46.09	4.49	0.00	1,342
15	1,000 W	2 Lamps	64.90	4.47	0.00	2	85.78	4.49	0.00	2
16										
17	Metal Halide									
18	70 W	195 Lamps	25.74	4.47	0.00	63	32.64	4.49	0.00	80
19	100 W	85 Lamps	26.95	4.47	0.00	29	34.30	4.49	0.00	37
20	150 W	14 Lamps	29.04	4.47	0.00	5	37.16	4.49	0.00	7
21	175 W	290 Lamps	30.08	4.47	0.00	116	38.58	4.49	0.00	146
22	250 W	263 Lamps	34.72	4.47	0.00	124	44.76	4.49	0.00	156
23	320 W	0 Lamps	38.72	4.47	0.00	0	50.06	4.49	0.00	0
24	400 W	234 Lamps	43.28	4.47	0.00	142	56.13	4.49	0.00	178
25	1,000 W	0 Lamps	77.51	4.47	0.00	0	101.62	4.49	0.00	0
26										
27	De-Energized									
28	Mercury Vapor	0								
29	100 W	0 Lamps	16.83	4.47	0.00	0	20.74	4.49	0.00	0.000
30	175 W	0 Lamps	19.55	4.47	0.00	0	24.24	4.49	0.00	0.000
31	250 W	0 Lamps	23.24	4.47	0.00	0	29.16	4.49	0.00	0.000
32	400 W	0 Lamps	29.55	4.47	0.00	0	37.09	4.49	0.00	0.000
33	1,000 W	0 Lamps	56.62	4.47	0.00	0	74.94	4.49	0.00	0.000
34										
35	LED									
36	60 - 69 W	27 Lamps	13.71	4.47	0.00	4	14.65	4.49	0.00	4.747
37										
38	High Pressure Sodium Vapor									
39	70 W	0 Lamps	14.19	4.47	0.00	0	16.10	4.49	0.00	0.000
40	100 W	0 Lamps	15.49	4.47	0.00	0	18.52	4.49	0.00	0.000
41	150 W	0 Lamps	17.49	4.47	0.00	0	20.72	4.49	0.00	0.000
42	250 W	17 Lamps	20.84	4.47	0.00	4	25.78	4.49	0.00	5.260
43	360 W	0 Lamps	24.68	4.47	0.00	0	30.33	4.49	0.00	0.000
44	400 W	0 Lamps	26.10	4.47	0.00	0	32.04	4.49	0.00	0.000
45	1,000 W	0 Lamps	49.27	4.47	0.00	0	61.85	4.49	0.00	0.000
46										
47	Dusk-Midnight									
48	Mercury Vapor									
49	100 W	0 Lamps	25.11	4.47	0.00	0	31.62	4.49	0.00	0.000
50	175 W	0 Lamps	27.44	4.47	0.00	0	35.24	4.49	0.00	0.000
51	250 W	0 Lamps	31.38	4.47	0.00	0	41.24	4.49	0.00	0.000
52	400 W	0 Lamps	37.97	4.47	0.00	0	50.51	4.49	0.00	0.000
53	1,000 W	0 Lamps	67.17	4.47	0.00	0	97.63	4.49	0.00	0.000
54										
55	High Pressure Sodium Vapor									
56	70 W	0 Lamps	21.43	4.47	0.00	0	24.59	4.49	0.00	0.000
57	100 W	0 Lamps	22.65	4.47	0.00	0	27.68	4.49	0.00	0.000
58	150 W	0 Lamps	24.43	4.47	0.00	0	29.80	4.49	0.00	0.000
59	250 W	0 Lamps	27.31	4.47	0.00	0	35.53	4.49	0.00	0.000
60	360 W	0 Lamps	30.77	4.47	0.00	0	40.16	4.49	0.00	0.000
61	400 W	0 Lamps	31.98	4.47	0.00	0	41.85	4.49	0.00	0.000
62	1,000 W	0 Lamps	54.30	4.47	0.00	0	75.18	4.49	0.00	0.000
	LED									
	130 - 139 W	21 Lamps	24.00	4.47	0.00	6	27.15	4.49	0.00	7.110

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Line No.	(a) Description	(b) Billing Determinants		(c)	(d) Present	(e)	(f)	(g)	(h) Proposed	(i)	(j)
		Quantity	Units	Rate (\$/luminaire/ mth)	Non-Capacity Energy (¢/kWh)	Capacity Energy (¢/kWh)	Revenue (\$000)	Rate (\$/luminaire/ mth)	Non-Capacity Energy (¢/kWh)	Capacity Energy (¢/kWh)	Revenue (\$000)
	<b>Municipally Owned</b>										
1	Mercury Vapor										
2	175 W	0	Lamps	6.86	4.47	0.00	0	7.86	4.49	0.00	0
3	250 W	0	Lamps	9.00	4.47	0.00	0	10.89	4.49	0.00	0
4	400 W	34	Lamps	13.28	4.47	0.00	8	17.19	4.49	0.00	10
5	1,000 W	0	Lamps	30.42	4.47	0.00	0	37.93	4.49	0.00	0
6											
7	High Pressure Sodium Vapor										
8	70 W	0	Lamps	3.94	4.47	0.00	0	5.40	4.49	0.00	0
9	100 W	0	Lamps	4.85	4.47	0.00	0	6.52	4.49	0.00	0
10	250 W	141	Lamps	9.40	4.47	0.00	24	12.12	4.49	0.00	29
11	360 W	0	Lamps	12.54	4.47	0.00	0	16.22	4.49	0.00	0
12	400 W	20	Lamps	13.69	4.47	0.00	5	17.72	4.49	0.00	6
13	1,000 W	0	Lamps	30.82	4.47	0.00	0	40.10	4.49	0.00	0
14											
15	Metal Halide										
16	70 W	0	Lamps	0.00	4.47	0.00	0	0.00	0.00	0.00	0.00
17	100 W	0	Lamps	0.00	4.47	0.00	0	0.00	0.00	0.00	0.00
18	175 W	0	Lamps	0.00	4.47	0.00	0	0.00	0.00	0.00	0.00
19	250 W	0	Lamps	0.00	4.47	0.00	0	0.00	0.00	0.00	0.00
20	400 W	0	Lamps	0.00	4.47	0.00	0	0.00	0.00	0.00	0.00
21	1,000 W	0	Lamps	0.00	4.47	0.00	0	0.00	0.00	0.00	0.00
22											
23	<b>De-Energized</b>										
24	Mercury Vapor										
25	175 W	0	Lamps	6.09	4.47	0.00	0	6.70	4.49	0.00	0.00
26	250 W	0	Lamps	8.22	4.47	0.00	0	9.36	4.49	0.00	0.00
27	400 W	0	Lamps	12.20	4.47	0.00	0	14.56	4.49	0.00	0.00
28	1,000 W	0	Lamps	28.21	4.47	0.00	0	32.76	4.49	0.00	0.00
29		0									
30	High Pressure Sodium Vapor	0									
31	70 W	0	Lamps	3.26	4.47	0.00	0	4.14	4.49	0.00	0.00
32	100 W	0	Lamps	4.18	4.47	0.00	0	5.19	4.49	0.00	0.00
33	250 W	0	Lamps	8.51	4.47	0.00	0	10.15	4.49	0.00	0.00
34	360 W	0	Lamps	11.45	4.47	0.00	0	13.68	4.49	0.00	0.00
35	400 W	0	Lamps	12.58	4.47	0.00	0	15.02	4.49	0.00	0.00
36	1,000 W	0	Lamps	28.82	4.47	0.00	0	34.44	4.49	0.00	0.00
37											
38	<b>Dusk-Midnight</b>										
39	Mercury Vapor										
40	175 W	0	Lamps	5.00	4.47	0.00	0	6.01	4.49	0.00	0.00
41	250 W	0	Lamps	6.35	4.47	0.00	0	8.24	4.49	0.00	0.00
42	400 W	0	Lamps	9.04	4.47	0.00	0	12.95	4.49	0.00	0.00
43	1,000 W	0	Lamps	19.82	4.47	0.00	0	27.33	4.49	0.00	0.00
44											
45	High Pressure Sodium Vapor										
46	70 W	0	Lamps	3.20	4.47	0.00	0	4.66	4.49	0.00	0.00
47	100 W	0	Lamps	3.79	4.47	0.00	0	5.46	4.49	0.00	0.00
48	250 W	0	Lamps	6.75	4.47	0.00	0	9.47	4.49	0.00	0.00
49	360 W	0	Lamps	8.73	4.47	0.00	0	12.41	4.49	0.00	0.00
50	400 W	0	Lamps	9.45	4.47	0.00	0	13.48	4.49	0.00	0.00
51	1,000 W	0	Lamps	20.22	4.47	0.00	0	29.50	4.49	0.00	0.00
52	Subtotal	195	Lamps				37.31				44.53
53											
54	PSCR	284	MWh	0			0	\$ -			0
55	Subtotal	195	Lamps								45
56											
57	Nuclear Decommissioning	284	MWh	0.000842			0.24	0.000842			0.24
58	Subtotal	195	Lamps				37.55				44.77
59											
60	Energy Optimization	18	Meters	\$ 2.79			0.60	\$ 2.79			0.60
61											
62	Total E1 - Option II	284	MWh				38				45
63	Increase/Decrease (\$)										7

Line No.	(a) Description	(b) Billing Determinants		(c)	(d) Present		(e)	(f)	(g)	(h)	(i) Proposed		(j)
					Non-Capacity	Capacity					Non-Capacity	Capacity	
				Dist Energy	Energy	Energy	Revenue		Dist Energy	Energy	Energy	Revenue	
		Quantity	Load (kW)	(¢/kWh)	(¢/kWh)	(¢/kWh)	(\$000)		(¢/kWh)	(¢/kWh)	(¢/kWh)	(\$000)	
	<b>Energy Only Service</b>												
1	Mercury Vapor												
2	100 Watt	12	1	8.45	4.47	0.00	1		10.02	4.49	0.00		1
3	175 Watt	168	29	8.45	4.47	0.00	19		10.02	4.49	0.00		22
4	250 Watt	20	5	8.45	4.47	0.00	3		10.02	4.49	0.00		4
5	400 Watt	150	60	8.45	4.47	0.00	37		10.02	4.49	0.00		41
6	1,000 Watt	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
7													
8	High Pressure Sodium Vapor												
9	70 Watt	357	25	8.45	4.47	0.00	18		10.02	4.49	0.00		21
10	100 Watt	8,958	896	8.45	4.47	0.00	656		10.02	4.49	0.00		737
11	150 Watt	1,671	251	8.45	4.47	0.00	181		10.02	4.49	0.00		204
12	250 Watt	1,009	252	8.45	4.47	0.00	167		10.02	4.49	0.00		188
13	310 Watt	28	9	8.45	4.47	0.00	6		10.02	4.49	0.00		6
14	360 Watt	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
15	400 Watt	551	220	8.45	4.47	0.00	139		10.02	4.49	0.00		156
16	1,000 Watt	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
17													
18	Metal Halide	0											
19	70 Watt	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
20	100 Watt	90	9	8.45	4.47	0.00	6		10.02	4.49	0.00		7
21	150 Watt	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
22	175 Watt	135	24	8.45	4.47	0.00	15		10.02	4.49	0.00		17
23	250 Watt	64	16	8.45	4.47	0.00	10		10.02	4.49	0.00		12
24	320 Watt	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
25	400 Watt	33	13	8.45	4.47	0.00	8		10.02	4.49	0.00		9
26	1,000 Watt	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
27	Energy Subtotal	13,246	1,810				1,267						1,424
28													
29	LED												
30	20 - 29 W	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
31	30 - 39 W	4,585	160	8.45	4.47	0.00	87		10.02	4.49	0.00		98
32	40 - 49 W	155	7	8.45	4.47	0.00	4		10.02	4.49	0.00		4
33	50 - 59 W	1,159	64	8.45	4.47	0.00	35		10.02	4.49	0.00		39
34	60 - 69 W	721	47	8.45	4.47	0.00	25		10.02	4.49	0.00		29
35	70 - 79 W	198	15	8.45	4.47	0.00	8		10.02	4.49	0.00		9
36	80 - 89 W	14,237	1,210	8.45	4.47	0.00	657		10.02	4.49	0.00		738
37	90 - 99 W	205	19	8.45	4.47	0.00	11		10.02	4.49	0.00		12
38	100 - 109 W	14,604	1,533	8.45	4.47	0.00	832		10.02	4.49	0.00		935
39	110 - 119 W	14,437	1,660	8.45	4.47	0.00	901		10.02	4.49	0.00		1,012
40	120 - 129 W	839	105	8.45	4.47	0.00	57		10.02	4.49	0.00		64
41	130 - 139 W	7,913	1,068	8.45	4.47	0.00	580		10.02	4.49	0.00		651
42	140 - 149 W	4	1	8.45	4.47	0.00	0		10.02	4.49	0.00		0
43	150 - 159 W	1,251	194	8.45	4.47	0.00	105		10.02	4.49	0.00		118
44	160 - 169 W	465	77	8.45	4.47	0.00	42		10.02	4.49	0.00		47
45	170 - 179 W	96	17	8.45	4.47	0.00	9		10.02	4.49	0.00		10
46	180 - 189 W	71	13	8.45	4.47	0.00	7		10.02	4.49	0.00		8
47	190 - 199 W	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
48	200 - 209 W	190	39	8.45	4.47	0.00	21		10.02	4.49	0.00		24
49	210 - 219 W	3,084	663	8.45	4.47	0.00	360		10.02	4.49	0.00		404
50	220 - 229 W	269	61	8.45	4.47	0.00	33		10.02	4.49	0.00		37
51	230 - 239 W	0	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
52	240 - 249 W	1	0	8.45	4.47	0.00	0		10.02	4.49	0.00		0
53	250 - 259 W	175	45	8.45	4.47	0.00	24		10.02	4.49	0.00		27
54	260 - 269 W	4,438	1,176	8.45	4.47	0.00	638		10.02	4.49	0.00		717
55	270 - 279 W	262	72	8.45	4.47	0.00	39		10.02	4.49	0.00		44



Line No.	(a) Description	(b) Billing Determinants	(c)	(d) Present	(e)	(f)	(g)	(h) Proposed	(i)	(j)

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Case No.: U-20836  
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Witnesses: M.J. Pung  
N.M. Revere  
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**DTE Electric Company**  
**Case No. U-20836**  
**Staff's Typical Bill Comparisons by Rate Schedule**

**Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Residential Service Rate Base - D1**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:  
Power Supply Charges:

Non-Capacity Charge      **\$0.04176**

Capacity Charges:  
First 17 KWH/Day      **\$0.04500**  
Excess      **\$0.06484**

Power Supply Surcharges:      **\$0.00000**  
REPS      **\$0.00**

Service Charge      **\$7.50**  
Distribution Charge:      **\$0.06611**

Delivery Surcharges:      \$0.006265  
LIEAF      \$0.87

Proposed Rates and Current Surcharges:  
Power Supply Charges:

Non-Capacity Charge      **\$0.03745**

Capacity Charges:  
First 17 KWH/Day      **\$0.04617**  
Excess      **\$0.06652**

Power Supply Surcharges:      **\$0.00000**  
REPS      **\$0.00**

Service Charge:      **\$8.50**  
Distribution Charge:      **\$0.07220**

Delivery Surcharges:      \$0.006265  
LIEAF      \$0.87

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	(d) Increase		(f) Proposed Unit Cost
				Amount	Percent	
1	100	\$24.28	\$25.58	\$1.29	5.33%	25.58¢
2	120	\$27.47	\$28.82	\$1.35	4.93%	24.02¢
3	140	\$30.65	\$32.06	\$1.41	4.61%	22.90¢
4	160	\$33.83	\$35.30	\$1.47	4.35%	22.06¢
5	180	\$37.01	\$38.55	\$1.53	4.14%	21.41¢
6	200	\$40.20	\$41.79	\$1.59	3.95%	20.89¢
7	240	\$46.56	\$48.27	\$1.71	3.67%	20.11¢
8	280	\$52.93	\$54.75	\$1.83	3.45%	19.55¢
9	300	\$56.11	\$58.00	\$1.88	3.36%	19.33¢
10	350	\$64.07	\$66.10	\$2.03	3.17%	18.89¢
11	400	\$72.02	\$74.20	\$2.18	3.03%	18.55¢
12	450	\$79.98	\$82.31	\$2.33	2.91%	18.29¢
13	500	\$87.94	\$90.41	\$2.47	2.81%	18.08¢
14	550	\$96.69	\$99.33	\$2.64	2.73%	18.06¢
15	600	\$105.64	\$108.45	\$2.82	2.67%	18.08¢
16	650	\$114.59	\$117.57	\$2.99	2.61%	18.09¢
17	700	\$123.53	\$126.70	\$3.16	2.56%	18.10¢
18	750	\$132.48	\$135.82	\$3.33	2.52%	18.11¢
19	800	\$141.43	\$144.94	\$3.51	2.48%	18.12¢
20	850	\$150.38	\$154.06	\$3.68	2.45%	18.12¢
21	900	\$159.33	\$163.18	\$3.85	2.42%	18.13¢
22	950	\$168.28	\$172.31	\$4.03	2.39%	18.14¢
23	1,000	\$177.23	\$181.43	\$4.20	2.37%	18.14¢
24	1,100	\$195.12	\$199.67	\$4.55	2.33%	18.15¢
25	1,200	\$213.02	\$217.92	\$4.89	2.30%	18.16¢
26	1,300	\$230.92	\$236.16	\$5.24	2.27%	18.17¢
27	1,400	\$248.82	\$254.40	\$5.59	2.25%	18.17¢
28	1,500	\$266.71	\$272.65	\$5.93	2.22%	18.18¢
29	2,000	\$356.20	\$363.87	\$7.66	2.15%	18.19¢
30	2,750	\$490.43	\$500.70	\$10.26	2.09%	18.21¢
31	4,000	\$714.15	\$728.74	\$14.59	2.04%	18.22¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Advanced Pricing Pilot A - D1-A**  
**June Thru September**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge  
June-Sept On Peak \$0.06272  
June-Sept Off Peak \$0.04539

Capacity Charge \$0.04228

Power Supply Surcharges: \$0.00000  
REPS \$0.00

Service Charge \$7.50  
Distribution Charge: \$0.06109

Delivery Surcharges: \$0.006265  
LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge  
June-Sept On Peak \$0.05114  
June-Sept Off Peak \$0.03421

Capacity Charges: \$0.05071

Power Supply Surcharges: \$0.00000  
REPS \$0.00

Service Charge: \$8.50  
Distribution Charge: \$0.06672

Delivery Surcharges: \$0.006265  
LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	100	\$24.15	\$25.43	\$1.28	5.31%	25.43¢
2	120	\$27.30	\$28.64	\$1.34	4.90%	23.87¢
3	140	\$30.46	\$31.85	\$1.40	4.58%	22.75¢
4	160	\$33.61	\$35.06	\$1.45	4.32%	21.92¢
5	180	\$36.77	\$38.28	\$1.51	4.10%	21.26¢
6	200	\$39.92	\$41.49	\$1.56	3.92%	20.74¢
7	240	\$46.23	\$47.91	\$1.68	3.63%	19.96¢
8	280	\$52.54	\$54.33	\$1.79	3.41%	19.41¢
9	300	\$55.70	\$57.55	\$1.85	3.32%	19.18¢
10	350	\$63.59	\$65.58	\$1.99	3.13%	18.74¢
11	400	\$71.48	\$73.61	\$2.13	2.98%	18.40¢
12	450	\$79.36	\$81.63	\$2.27	2.86%	18.14¢
13	500	\$87.25	\$89.66	\$2.41	2.76%	17.93¢
14	550	\$95.14	\$97.69	\$2.55	2.68%	17.76¢
15	600	\$103.03	\$105.72	\$2.69	2.61%	17.62¢
16	650	\$110.92	\$113.75	\$2.84	2.56%	17.50¢
17	700	\$118.81	\$121.78	\$2.98	2.51%	17.40¢
18	750	\$126.69	\$129.81	\$3.12	2.46%	17.31¢
19	800	\$134.58	\$137.84	\$3.26	2.42%	17.23¢
20	850	\$142.47	\$145.87	\$3.40	2.39%	17.16¢
21	900	\$150.36	\$153.90	\$3.54	2.35%	17.10¢
22	950	\$158.25	\$161.93	\$3.68	2.33%	17.05¢
23	1,000	\$166.14	\$169.96	\$3.82	2.30%	17.00¢
24	1,100	\$181.91	\$186.02	\$4.11	2.26%	16.91¢
25	1,200	\$197.69	\$202.08	\$4.39	2.22%	16.84¢
26	1,300	\$213.46	\$218.13	\$4.67	2.19%	16.78¢
27	1,400	\$229.24	\$234.19	\$4.95	2.16%	16.73¢
28	1,500	\$245.02	\$250.25	\$5.23	2.14%	16.68¢
29	2,000	\$323.90	\$330.55	\$6.65	2.05%	16.53¢
30	2,750	\$442.22	\$450.99	\$8.76	1.98%	16.40¢
31	4,000	\$639.43	\$651.72	\$12.29	1.92%	16.29¢

Assumes ~16% of June-September usage is on peak (per rate design billing determinants)

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Advanced Pricing Pilot A - D1-A**  
**October thru May**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge

Oct-May On Peak \$0.05023

Oct-May Off Peak \$0.04539

Capacity Charge 0.04228

Power Supply Surcharges: \$0.00000

REPS \$0.00

Service Charge \$7.50

Distribution Charge: \$0.06109

Delivery Surcharges: \$0.006265

LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge

Oct-May On Peak \$0.03838

Oct-May Off Peak \$0.03421

Capacity Charges: \$0.05071

Power Supply Surcharges: \$0.00000

REPS \$0.00

Service Charge: \$8.50

Distribution Charge: \$0.06672

Delivery Surcharges: \$0.006265

LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Monthly kWh Use	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase		Proposed Unit Cost
				Amount	Percent	
1	100	\$23.94	\$25.22	\$1.28	5.35%	25.22¢
2	120	\$27.05	\$28.38	\$1.34	4.94%	23.65¢
3	140	\$30.16	\$31.55	\$1.39	4.62%	22.54¢
4	160	\$33.27	\$34.72	\$1.45	4.35%	21.70¢
5	180	\$36.39	\$37.89	\$1.50	4.13%	21.05¢
6	200	\$39.50	\$41.06	\$1.56	3.95%	20.53¢
7	240	\$45.73	\$47.40	\$1.67	3.66%	19.75¢
8	280	\$51.95	\$53.74	\$1.78	3.43%	19.19¢
9	300	\$55.07	\$56.91	\$1.84	3.34%	18.97¢
10	350	\$62.85	\$64.83	\$1.98	3.15%	18.52¢
11	400	\$70.63	\$72.75	\$2.12	3.00%	18.19¢
12	450	\$78.41	\$80.67	\$2.26	2.88%	17.93¢
13	500	\$86.20	\$88.60	\$2.40	2.78%	17.72¢
14	550	\$93.98	\$96.52	\$2.54	2.70%	17.55¢
15	600	\$101.76	\$104.44	\$2.68	2.63%	17.41¢
16	650	\$109.54	\$112.36	\$2.82	2.57%	17.29¢
17	700	\$117.33	\$120.29	\$2.96	2.52%	17.18¢
18	750	\$125.11	\$128.21	\$3.10	2.48%	17.09¢
19	800	\$132.89	\$136.13	\$3.24	2.44%	17.02¢
20	850	\$140.67	\$144.05	\$3.38	2.40%	16.95¢
21	900	\$148.46	\$151.98	\$3.52	2.37%	16.89¢
22	950	\$156.24	\$159.90	\$3.66	2.34%	16.83¢
23	1,000	\$164.02	\$167.82	\$3.80	2.32%	16.78¢
24	1,100	\$179.59	\$183.67	\$4.08	2.27%	16.70¢
25	1,200	\$195.15	\$199.51	\$4.36	2.23%	16.63¢
26	1,300	\$210.72	\$215.36	\$4.64	2.20%	16.57¢
27	1,400	\$226.28	\$231.20	\$4.92	2.17%	16.51¢
28	1,500	\$241.85	\$247.05	\$5.20	2.15%	16.47¢
29	2,000	\$319.67	\$326.27	\$6.60	2.07%	16.31¢
30	2,750	\$436.41	\$445.11	\$8.70	1.99%	16.19¢
31	4,000	\$630.97	\$643.18	\$12.20	1.93%	16.08¢

Assumes ~13% of Oct-May usage is on peak (per rate design billing determinants)

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Advanced Pricing Pilot B - D1-B**  
**June Thru September**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge  
June-Sept On Peak \$0.07053  
June-Sept Off Peak \$0.04465

Capacity Charge  
June-Sept On Peak \$0.06363  
June-Sept Off Peak \$0.04028

Power Supply Surcharges: \$0.00000  
REPS \$0.00

Service Charge \$7.50  
Distribution Charge: \$0.06109

Delivery Surcharges: \$0.006265  
LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge  
June-Sept On Peak \$0.05565  
June-Sept Off Peak \$0.03384

Capacity Charges:  
June-Sept On Peak \$0.07921  
June-Sept Off Peak \$0.04816

Power Supply Surcharges: \$0.00000  
REPS \$0.00

Service Charge: \$8.50  
Distribution Charge: \$0.06672

Delivery Surcharges: \$0.006265  
LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	100	\$24.38	\$25.70	\$1.33	5.44%	25.70¢
2	120	\$27.58	\$28.97	\$1.39	5.05%	24.14¢
3	140	\$30.78	\$32.24	\$1.46	4.74%	23.03¢
4	160	\$33.98	\$35.50	\$1.52	4.48%	22.19¢
5	180	\$37.18	\$38.77	\$1.59	4.27%	21.54¢
6	200	\$40.38	\$42.04	\$1.65	4.10%	21.02¢
7	240	\$46.79	\$48.57	\$1.78	3.81%	20.24¢
8	280	\$53.19	\$55.10	\$1.92	3.60%	19.68¢
9	300	\$56.39	\$58.37	\$1.98	3.51%	19.46¢
10	350	\$64.39	\$66.54	\$2.14	3.33%	19.01¢
11	400	\$72.40	\$74.71	\$2.31	3.19%	18.68¢
12	450	\$80.40	\$82.87	\$2.47	3.07%	18.42¢
13	500	\$88.40	\$91.04	\$2.64	2.98%	18.21¢
14	550	\$96.41	\$99.21	\$2.80	2.90%	18.04¢
15	600	\$104.41	\$107.37	\$2.96	2.84%	17.90¢
16	650	\$112.41	\$115.54	\$3.13	2.78%	17.78¢
17	700	\$120.42	\$123.71	\$3.29	2.73%	17.67¢
18	750	\$128.42	\$131.87	\$3.45	2.69%	17.58¢
19	800	\$136.43	\$140.04	\$3.62	2.65%	17.51¢
20	850	\$144.43	\$148.21	\$3.78	2.62%	17.44¢
21	900	\$152.43	\$156.38	\$3.94	2.59%	17.38¢
22	950	\$160.44	\$164.54	\$4.11	2.56%	17.32¢
23	1,000	\$168.44	\$172.71	\$4.27	2.54%	17.27¢
24	1,100	\$184.45	\$189.04	\$4.60	2.49%	17.19¢
25	1,200	\$200.45	\$205.38	\$4.92	2.46%	17.11¢
26	1,300	\$216.46	\$221.71	\$5.25	2.43%	17.05¢
27	1,400	\$232.47	\$238.04	\$5.58	2.40%	17.00¢
28	1,500	\$248.47	\$254.38	\$5.91	2.38%	16.96¢
29	2,000	\$328.51	\$336.05	\$7.54	2.30%	16.80¢
30	2,750	\$448.56	\$458.55	\$9.99	2.23%	16.67¢
31	4,000	\$648.65	\$662.73	\$14.08	2.17%	16.57¢

Assumes ~16% of June-September usage is on peak (per rate design billing determinants)

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Advanced Pricing Pilot B - D1-B**  
**October thru May**

Case No.: U-20836  
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Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge

Oct-May On Peak \$0.05203

Oct-May Off Peak \$0.04465

Capacity Charge

Oct-May On Peak \$0.04694

Oct-May Off Peak \$0.04028

Power Supply Surcharges:

REPS \$0.00000

\$0.00

Service Charge \$7.50

Distribution Charge: \$0.06109

Delivery Surcharges: \$0.006265

LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge

Oct-May On Peak \$0.03896

Oct-May Off Peak \$0.03384

Capacity Charges:

Oct-May On Peak \$0.05546

Oct-May Off Peak \$0.04816

Power Supply Surcharges:

REPS \$0.00000

\$0.00

Service Charge: \$8.50

Distribution Charge: \$0.06672

Delivery Surcharges: \$0.006265

LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	100	\$23.78	\$25.03	\$1.25	5.25%	25.03¢
2	120	\$26.86	\$28.16	\$1.30	4.83%	23.47¢
3	140	\$29.94	\$31.29	\$1.35	4.50%	22.35¢
4	160	\$33.03	\$34.42	\$1.40	4.23%	21.52¢
5	180	\$36.11	\$37.56	\$1.45	4.01%	20.86¢
6	200	\$39.19	\$40.69	\$1.50	3.82%	20.34¢
7	240	\$45.35	\$46.95	\$1.60	3.52%	19.56¢
8	280	\$51.52	\$53.21	\$1.70	3.29%	19.01¢
9	300	\$54.60	\$56.35	\$1.75	3.20%	18.78¢
10	350	\$62.30	\$64.18	\$1.87	3.00%	18.34¢
11	400	\$70.01	\$72.01	\$2.00	2.85%	18.00¢
12	450	\$77.71	\$79.83	\$2.12	2.73%	17.74¢
13	500	\$85.42	\$87.66	\$2.24	2.63%	17.53¢
14	550	\$93.12	\$95.49	\$2.37	2.54%	17.36¢
15	600	\$100.83	\$103.32	\$2.49	2.47%	17.22¢
16	650	\$108.53	\$111.15	\$2.62	2.41%	17.10¢
17	700	\$116.24	\$118.98	\$2.74	2.36%	17.00¢
18	750	\$123.94	\$126.81	\$2.87	2.31%	16.91¢
19	800	\$131.65	\$134.64	\$2.99	2.27%	16.83¢
20	850	\$139.35	\$142.47	\$3.11	2.23%	16.76¢
21	900	\$147.06	\$150.30	\$3.24	2.20%	16.70¢
22	950	\$154.76	\$158.13	\$3.36	2.17%	16.65¢
23	1,000	\$162.47	\$165.96	\$3.49	2.15%	16.60¢
24	1,100	\$177.88	\$181.62	\$3.74	2.10%	16.51¢
25	1,200	\$193.29	\$197.28	\$3.99	2.06%	16.44¢
26	1,300	\$208.70	\$212.93	\$4.23	2.03%	16.38¢
27	1,400	\$224.11	\$228.59	\$4.48	2.00%	16.33¢
28	1,500	\$239.52	\$244.25	\$4.73	1.98%	16.28¢
29	2,000	\$316.57	\$322.55	\$5.98	1.89%	16.13¢
30	2,750	\$432.14	\$439.99	\$7.84	1.81%	16.00¢
31	4,000	\$624.77	\$635.72	\$10.95	1.75%	15.89¢

Assumes ~13% of Oct-May usage is on peak (per rate design billing determinants)



**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Interruptible Space-Conditioning Service Rate - D1.1 Residential**  
**June thru October**

Case No.: U-20836  
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Witness: M.J. Pung  
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Present Rates and Current Surcharges:

Power Supply Charges:

Non Capacity Charge \$0.03292

Capacity Charge \$0.04304

Power Supply Surcharges: \$0.00000

Distribution Charges:

Service Charge: \$1.95

Distribution Energy \$0.06611

Delivery Surcharges: \$0.006265

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non Capacity Charge \$0.02961

Capacity Charge \$0.04404

Power Supply Surcharges: \$0.00000

Distribution Charges:

Service Charge: \$1.95

Distribution Energy \$0.07220

Delivery Surcharges: \$0.006265

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	(d) Increase		(f) Proposed Unit Cost
				Amount	Percent	
1	100	\$16.78	\$17.16	\$0.38	2.26%	17.16¢
2	120	\$19.75	\$20.21	\$0.46	2.30%	16.84¢
3	140	\$22.72	\$23.25	\$0.53	2.34%	16.61¢
4	160	\$25.68	\$26.29	\$0.61	2.36%	16.43¢
5	180	\$28.65	\$29.33	\$0.68	2.38%	16.30¢
6	200	\$31.62	\$32.38	\$0.76	2.40%	16.19¢
7	240	\$37.55	\$38.46	\$0.91	2.42%	16.03¢
8	280	\$43.48	\$44.55	\$1.06	2.44%	15.91¢
9	300	\$46.45	\$47.59	\$1.14	2.45%	15.86¢
10	350	\$53.87	\$55.19	\$1.33	2.46%	15.77¢
11	400	\$61.28	\$62.80	\$1.52	2.48%	15.70¢
12	450	\$68.70	\$70.41	\$1.71	2.48%	15.65¢
13	500	\$76.12	\$78.01	\$1.90	2.49%	15.60¢
14	550	\$83.53	\$85.62	\$2.09	2.50%	15.57¢
15	600	\$90.95	\$93.23	\$2.28	2.50%	15.54¢
16	650	\$98.37	\$100.83	\$2.46	2.51%	15.51¢
17	700	\$105.78	\$108.44	\$2.65	2.51%	15.49¢
18	750	\$113.20	\$116.05	\$2.84	2.51%	15.47¢
19	800	\$120.62	\$123.65	\$3.03	2.52%	15.46¢
20	850	\$128.03	\$131.26	\$3.22	2.52%	15.44¢
21	900	\$135.45	\$138.86	\$3.41	2.52%	15.43¢
22	950	\$142.87	\$146.47	\$3.60	2.52%	15.42¢
23	1,000	\$150.29	\$154.08	\$3.79	2.52%	15.41¢
24	1,100	\$165.12	\$169.29	\$4.17	2.53%	15.39¢
25	1,200	\$179.95	\$184.50	\$4.55	2.53%	15.38¢
26	1,300	\$194.79	\$199.72	\$4.93	2.53%	15.36¢
27	1,400	\$209.62	\$214.93	\$5.31	2.53%	15.35¢
28	1,500	\$224.45	\$230.14	\$5.69	2.53%	15.34¢
29	2,000	\$298.62	\$306.20	\$7.58	2.54%	15.31¢
30	3,000	\$446.96	\$458.33	\$11.38	2.55%	15.28¢
31	4,000	\$595.29	\$610.46	\$15.17	2.55%	15.26¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Interruptible Space-Conditioning Service Rate - D1.1 Residential**  
**November thru May**

Case No.: U-20836  
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Present Rates and Current Surcharges:

Power Supply Charges:

Non Capacity Charge \$0.03292

Capacity Charge \$0.01067

Power Supply Surcharges: \$0.00000

Distribution Charges:

Service Charge: \$0.00

Distribution Energy \$0.06611

Delivery Surcharges: \$0.006265

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non Capacity Charge \$0.02961

Capacity Charge \$0.01092

Power Supply Surcharges: \$0.00000

Distribution Charges:

Service Charge: \$0.00

Distribution Energy \$0.07220

Delivery Surcharges: \$0.006265

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	(d) Increase		(f) Proposed Unit Cost
				Amount	(e) Percent	
1	100	\$11.60	\$11.90	\$0.30	2.62%	11.90¢
2	120	\$13.92	\$14.28	\$0.36	2.62%	11.90¢
3	140	\$16.24	\$16.66	\$0.43	2.62%	11.90¢
4	160	\$18.55	\$19.04	\$0.49	2.62%	11.90¢
5	180	\$20.87	\$21.42	\$0.55	2.62%	11.90¢
6	200	\$23.19	\$23.80	\$0.61	2.62%	11.90¢
7	240	\$27.83	\$28.56	\$0.73	2.62%	11.90¢
8	280	\$32.47	\$33.32	\$0.85	2.62%	11.90¢
9	300	\$34.79	\$35.70	\$0.91	2.62%	11.90¢
10	350	\$40.59	\$41.65	\$1.06	2.62%	11.90¢
11	400	\$46.39	\$47.60	\$1.21	2.62%	11.90¢
12	450	\$52.18	\$53.55	\$1.37	2.62%	11.90¢
13	500	\$57.98	\$59.50	\$1.52	2.62%	11.90¢
14	550	\$63.78	\$65.45	\$1.67	2.62%	11.90¢
15	600	\$69.58	\$71.40	\$1.82	2.62%	11.90¢
16	650	\$75.38	\$77.35	\$1.97	2.62%	11.90¢
17	700	\$81.18	\$83.30	\$2.13	2.62%	11.90¢
18	750	\$86.97	\$89.25	\$2.28	2.62%	11.90¢
19	800	\$92.77	\$95.20	\$2.43	2.62%	11.90¢
20	850	\$98.57	\$101.15	\$2.58	2.62%	11.90¢
21	900	\$104.37	\$107.10	\$2.73	2.62%	11.90¢
22	950	\$110.17	\$113.05	\$2.88	2.62%	11.90¢
23	1,000	\$115.97	\$119.00	\$3.04	2.62%	11.90¢
24	1,100	\$127.56	\$130.90	\$3.34	2.62%	11.90¢
25	1,200	\$139.16	\$142.80	\$3.64	2.62%	11.90¢
26	1,300	\$150.75	\$154.70	\$3.95	2.62%	11.90¢
27	1,400	\$162.35	\$166.60	\$4.25	2.62%	11.90¢
28	1,500	\$173.95	\$178.50	\$4.55	2.62%	11.90¢
29	2,000	\$231.93	\$238.00	\$6.07	2.62%	11.90¢
30	3,000	\$347.90	\$357.00	\$9.11	2.62%	11.90¢
31	4,000	\$463.86	\$476.01	\$12.15	2.62%	11.90¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Service Rate Enhanced TOU - D1.2**  
**June thru October**

Case No.: U-20836  
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Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge **\$0.04261**

Capacity Charges:

On-Peak Energy Rate: **\$0.11841**

Off-Peak Energy Rate: **\$0.01160**

Power Supply Surcharges: **\$0.00000**

REPS **\$0.00**

Distribution Charges:

Service Charge: **\$7.50**

Distribution Energy **\$0.06611**

Delivery Surcharges: **\$0.006265**

LIEAF **\$0.87**

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge **\$0.04037**

Capacity Charges:

On-Peak Energy Rate: **\$0.11557**

Off-Peak Energy Rate: **\$0.01213**

Power Supply Surcharges: **\$0.00000**

REPS **\$0.00**

Distribution Charges:

Service Charge: **\$8.50**

Distribution Energy **\$0.07220**

Delivery Surcharges: **\$0.006265**

LIEAF **\$0.87**

Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Increase Percent	(g) Proposed Unit Cost
1	100	20%	\$23.16	\$24.54	\$1.37	5.92%	24.54¢
2	100	25%	\$23.70	\$25.05	\$1.35	5.71%	25.05¢
3	100	30%	\$24.23	\$25.57	\$1.34	5.52%	25.57¢
4							
5	200	20%	\$37.96	\$39.70	\$1.74	4.59%	19.85¢
6	200	25%	\$39.03	\$40.74	\$1.71	4.38%	20.37¢
7	200	30%	\$40.10	\$41.77	\$1.67	4.18%	20.89¢
8							
9	300	20%	\$52.75	\$54.87	\$2.11	4.01%	18.29¢
10	300	25%	\$54.36	\$56.42	\$2.06	3.79%	18.81¢
11	300	30%	\$55.96	\$57.97	\$2.01	3.60%	19.32¢
12							
13	400	20%	\$67.55	\$70.03	\$2.48	3.68%	17.51¢
14	400	25%	\$69.69	\$72.10	\$2.42	3.47%	18.03¢
15	400	30%	\$71.82	\$74.17	\$2.35	3.27%	18.54¢
16							
17	500	20%	\$82.34	\$85.20	\$2.85	3.47%	17.04¢
18	500	25%	\$85.01	\$87.78	\$2.77	3.26%	17.56¢
19	500	30%	\$87.68	\$90.37	\$2.69	3.06%	18.07¢
20							
21	600	20%	\$97.14	\$100.36	\$3.23	3.32%	16.73¢
22	600	25%	\$100.34	\$103.47	\$3.12	3.11%	17.24¢
23	600	30%	\$103.55	\$106.57	\$3.02	2.92%	17.76¢
24							
25	700	20%	\$111.93	\$115.53	\$3.60	3.21%	16.50¢
26	700	25%	\$115.67	\$119.15	\$3.48	3.01%	17.02¢
27	700	30%	\$119.41	\$122.77	\$3.36	2.81%	17.54¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Service Rate Enhanced TOU - D1.2**  
**June thru October**

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Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Increase Percent	(g) Proposed Unit Cost
28	800	20%	\$126.73	\$130.70	\$3.97	3.13%	16.34¢
29	800	25%	\$131.00	\$134.83	\$3.83	2.93%	16.85¢
30	800	30%	\$135.27	\$138.97	\$3.70	2.73%	17.37¢
31							
32	1,000	20%	\$156.32	\$161.03	\$4.71	3.01%	16.10¢
33	1,000	25%	\$161.66	\$166.20	\$4.54	2.81%	16.62¢
34	1,000	30%	\$167.00	\$171.37	\$4.37	2.62%	17.14¢
35							
36	1,100	20%	\$171.11	\$176.19	\$5.08	2.97%	16.02¢
37	1,100	25%	\$176.99	\$181.88	\$4.90	2.77%	16.53¢
38	1,100	30%	\$182.86	\$187.57	\$4.71	2.58%	17.05¢
39							
40	1,200	20%	\$185.91	\$191.36	\$5.45	2.93%	15.95¢
41	1,200	25%	\$192.32	\$197.56	\$5.25	2.73%	16.46¢
42	1,200	30%	\$198.72	\$203.77	\$5.05	2.54%	16.98¢
43							
44	1,300	20%	\$200.70	\$206.52	\$5.82	2.90%	15.89¢
45	1,300	25%	\$207.64	\$213.25	\$5.60	2.70%	16.40¢
46	1,300	30%	\$214.59	\$219.97	\$5.38	2.51%	16.92¢
47							
48	1,400	20%	\$215.50	\$221.69	\$6.19	2.87%	15.83¢
49	1,400	25%	\$222.97	\$228.93	\$5.96	2.67%	16.35¢
50	1,400	30%	\$230.45	\$236.17	\$5.72	2.48%	16.87¢
51							
52	1,500	20%	\$230.29	\$236.85	\$6.56	2.85%	15.79¢
53	1,500	25%	\$238.30	\$244.61	\$6.31	2.65%	16.31¢
54	1,500	30%	\$246.31	\$252.37	\$6.06	2.46%	16.82¢
55							
56	2,000	20%	\$304.26	\$312.68	\$8.42	2.77%	15.63¢
57	2,000	25%	\$314.95	\$323.03	\$8.08	2.57%	16.15¢
58	2,000	30%	\$325.63	\$333.37	\$7.75	2.38%	16.67¢
59							
60	3,000	20%	\$452.21	\$464.34	\$12.13	2.68%	15.48¢
61	3,000	25%	\$468.23	\$479.86	\$11.62	2.48%	16.00¢
62	3,000	30%	\$484.25	\$495.37	\$11.12	2.30%	16.51¢
63							
64	4,000	20%	\$600.16	\$616.00	\$15.84	2.64%	15.40¢
65	4,000	25%	\$621.52	\$636.68	\$15.16	2.44%	15.92¢
66	4,000	30%	\$642.88	\$657.37	\$14.49	2.25%	16.43¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Service Rate Enhanced TOU - D1.2**  
**November thru May**

Case No.: U-20836  
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Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge \$0.04261

Capacity Charges:

On-Peak Energy Rate: \$0.09341

Off-Peak Energy Rate: \$0.00948

Power Supply Surcharges: \$0.00000

REPS \$0.00

Distribution Charges:

Service Charge: \$7.50

Distribution Energy \$0.06611

Delivery Surcharges: \$0.006265

LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge \$0.04037

Capacity Charges:

On-Peak Energy Rate: \$0.09136

Off-Peak Energy Rate: \$0.01008

Power Supply Surcharges: \$0.00000

REPS \$0.00

Distribution Charges:

Service Charge: \$8.50

Distribution Energy \$0.07220

Delivery Surcharges: \$0.006265

LIEAF \$0.87

Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase		(f)	(g) Proposed Unit Cost
					Amount	Percent		
1	100	20%	\$22.50	\$23.89	\$1.39	6.19%		23.89¢
2	100	25%	\$22.91	\$24.29	\$1.38	6.02%		24.29¢
3	100	30%	\$23.33	\$24.70	\$1.37	5.85%		24.70¢
4								
5	200	20%	\$36.62	\$38.40	\$1.78	4.87%		19.20¢
6	200	25%	\$37.46	\$39.22	\$1.76	4.69%		19.61¢
7	200	30%	\$38.30	\$40.03	\$1.73	4.52%		20.01¢
8								
9	300	20%	\$50.75	\$52.92	\$2.18	4.29%		17.64¢
10	300	25%	\$52.00	\$54.14	\$2.14	4.11%		18.05¢
11	300	30%	\$53.26	\$55.36	\$2.10	3.94%		18.45¢
12								
13	400	20%	\$64.87	\$67.44	\$2.57	3.96%		16.86¢
14	400	25%	\$66.55	\$69.06	\$2.52	3.78%		17.27¢
15	400	30%	\$68.23	\$70.69	\$2.46	3.61%		17.67¢
16								
17	500	20%	\$79.00	\$81.96	\$2.96	3.75%		16.39¢
18	500	25%	\$81.09	\$83.99	\$2.89	3.57%		16.80¢
19	500	30%	\$83.19	\$86.02	\$2.83	3.40%		17.20¢
20								
21	600	20%	\$93.12	\$96.47	\$3.35	3.60%		16.08¢
22	600	25%	\$95.64	\$98.91	\$3.27	3.42%		16.49¢
23	600	30%	\$98.16	\$101.35	\$3.19	3.25%		16.89¢
24								
25	700	20%	\$107.25	\$110.99	\$3.74	3.49%		15.86¢
26	700	25%	\$110.18	\$113.84	\$3.65	3.31%		16.26¢
27	700	30%	\$113.12	\$116.68	\$3.56	3.15%		16.67¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Service Rate Enhanced TOU - D1.2**  
**November thru May**

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Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Increase Percent	(g) Proposed Unit Cost
28	800	20%	\$121.37	\$125.51	\$4.14	3.41%	15.69¢
29	800	25%	\$124.73	\$128.76	\$4.03	3.23%	16.09¢
30	800	30%	\$128.09	\$132.01	\$3.92	3.06%	16.50¢
31							
32	1,000	20%	\$149.62	\$154.54	\$4.92	3.29%	15.45¢
33	1,000	25%	\$153.82	\$158.61	\$4.79	3.11%	15.86¢
34	1,000	30%	\$158.01	\$162.67	\$4.66	2.95%	16.27¢
35							
36	1,100	20%	\$163.75	\$169.06	\$5.31	3.24%	15.37¢
37	1,100	25%	\$168.36	\$173.53	\$5.17	3.07%	15.78¢
38	1,100	30%	\$172.98	\$178.00	\$5.02	2.90%	16.18¢
39							
40	1,200	20%	\$177.87	\$183.58	\$5.70	3.21%	15.30¢
41	1,200	25%	\$182.91	\$188.45	\$5.55	3.03%	15.70¢
42	1,200	30%	\$187.94	\$193.33	\$5.39	2.87%	16.11¢
43							
44	1,300	20%	\$192.00	\$198.09	\$6.10	3.18%	15.24¢
45	1,300	25%	\$197.45	\$203.38	\$5.92	3.00%	15.64¢
46	1,300	30%	\$202.91	\$208.66	\$5.75	2.84%	16.05¢
47							
48	1,400	20%	\$206.12	\$212.61	\$6.49	3.15%	15.19¢
49	1,400	25%	\$212.00	\$218.30	\$6.30	2.97%	15.59¢
50	1,400	30%	\$217.87	\$223.99	\$6.12	2.81%	16.00¢
51							
52	1,500	20%	\$220.25	\$227.13	\$6.88	3.12%	15.14¢
53	1,500	25%	\$226.54	\$233.22	\$6.68	2.95%	15.55¢
54	1,500	30%	\$232.84	\$239.32	\$6.48	2.78%	15.95¢
55							
56	2,000	20%	\$290.87	\$299.71	\$8.84	3.04%	14.99¢
57	2,000	25%	\$299.27	\$307.84	\$8.58	2.87%	15.39¢
58	2,000	30%	\$307.66	\$315.97	\$8.31	2.70%	15.80¢
59							
60	3,000	20%	\$432.12	\$444.89	\$12.76	2.95%	14.83
61	3,000	25%	\$444.71	\$457.08	\$12.36	2.78%	15.24
62	3,000	30%	\$457.30	\$469.27	\$11.97	2.62%	15.64
63							
64	4,000	20%	\$573.37	\$590.06	\$16.68	2.91%	14.75
65	4,000	25%	\$590.16	\$606.31	\$16.15	2.74%	15.16
66	4,000	30%	\$606.95	\$622.57	\$15.62	2.57%	15.56

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Service Rate Special Low Income Pilot - D1.6**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge: \$0.04176

Capacity Charges:

First 17 KWH/Day \$0.04500

Excess \$0.06484

Power Supply Surcharges: **\$0.00000**

REPS **\$0.00**

Service Charge **\$7.50**

Distribution Charge: \$0.06611

Income Assistance **(\$40.00)**

Delivery Surcharges: \$0.006265

LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge: \$0.03745

Capacity Charges:

First 17 KWH/Day \$0.04617

Excess \$0.06652

Power Supply Surcharges: **\$0.00000**

REPS **\$0.00**

Service Charge: \$8.50

Distribution Charge: \$0.07220

Income Assistance **(\$40.00)**

Delivery Surcharges: \$0.006265

LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	300	\$16.11	\$18.00	\$1.88	11.70%	6.00¢
2	350	\$24.07	\$26.10	\$2.03	8.44%	7.46¢
3	400	\$32.02	\$34.20	\$2.18	6.81%	8.55¢
4	450	\$39.98	\$42.31	\$2.33	5.82%	9.40¢
5	500	\$47.94	\$50.41	\$2.47	5.16%	10.08¢
6	550	\$56.69	\$59.33	\$2.64	4.66%	10.79¢
7	600	\$65.64	\$68.45	\$2.82	4.29%	11.41¢
8	650	\$74.59	\$77.57	\$2.99	4.01%	11.93¢
9	700	\$83.53	\$86.70	\$3.16	3.79%	12.39¢
10	750	\$92.48	\$95.82	\$3.33	3.61%	12.78¢
11	800	\$101.43	\$104.94	\$3.51	3.46%	13.12¢
12	850	\$110.38	\$114.06	\$3.68	3.34%	13.42¢
13	900	\$119.33	\$123.18	\$3.85	3.23%	13.69¢
14	950	\$128.28	\$132.31	\$4.03	3.14%	13.93¢
15	1,000	\$137.23	\$141.43	\$4.20	3.06%	14.14¢
16	1,100	\$155.12	\$159.67	\$4.55	2.93%	14.52¢
17	1,200	\$173.02	\$177.92	\$4.89	2.83%	14.83¢
18	1,300	\$190.92	\$196.16	\$5.24	2.74%	15.09¢
19	1,400	\$208.82	\$214.40	\$5.59	2.68%	15.31¢
20	1,500	\$226.71	\$232.65	\$5.93	2.62%	15.51¢
21	2,000	\$316.20	\$323.87	\$7.66	2.42%	16.19¢
22	2,750	\$450.43	\$460.70	\$10.26	2.28%	16.75¢
23	4,000	\$674.15	\$688.74	\$14.59	2.16%	17.22¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Geothermal Time of Day Rate - D1.7 Residential**  
**June thru September**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 14 of 54

Present Rates and Current Surcharges:

Power Supply Charges

Non-Capacity Charge: \$0.02432

Capacity Charges:

On-Peak Energy Rate \$0.11595

Off-Peak Energy Rate \$0.02214

Power Supply Surcharges \$0.00000

Distribution Charges

Service Charge \$2.01

Distribution Energy \$0.06611

Delivery Surcharges \$0.006265

Proposed Rates and Current Surcharges:

Power Supply Charges

Non-Capacity Charge: \$0.02210

Capacity Charges:

On-Peak Energy Rate \$0.11373

Off-Peak Energy Rate \$0.02289

Power Supply Surcharges \$0.00000

Distribution Charges

Service Charge \$2.01

Distribution Energy \$0.07220

Delivery Surcharges \$0.006265

Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Increase Percent	(g) Proposed Unit Cost
1	100	20%	\$15.77	\$16.17	\$0.40	2.56%	16.17¢
2	100	25%	\$16.24	\$16.63	\$0.39	2.39%	16.63¢
3	100	30%	\$16.71	\$17.08	\$0.37	2.23%	17.08¢
4							
5	200	20%	\$29.53	\$30.34	\$0.81	2.73%	15.17¢
6	200	25%	\$30.47	\$31.24	\$0.78	2.55%	15.62¢
7	200	30%	\$31.41	\$32.15	\$0.75	2.38%	16.08¢
8							
9	300	20%	\$43.29	\$44.50	\$1.21	2.79%	14.83¢
10	300	25%	\$44.70	\$45.86	\$1.16	2.61%	15.29¢
11	300	30%	\$46.10	\$47.22	\$1.12	2.43%	15.74¢
12							
13	400	20%	\$57.05	\$58.66	\$1.61	2.83%	14.67¢
14	400	25%	\$58.93	\$60.48	\$1.55	2.64%	15.12¢
15	400	30%	\$60.80	\$62.29	\$1.49	2.46%	15.57¢
16							
17	500	20%	\$70.81	\$72.82	\$2.02	2.85%	14.56¢
18	500	25%	\$73.15	\$75.09	\$1.94	2.65%	15.02¢
19	500	30%	\$75.50	\$77.37	\$1.87	2.47%	15.47¢
20							
21	600	20%	\$84.57	\$86.99	\$2.42	2.86%	14.50¢
22	600	25%	\$87.38	\$89.71	\$2.33	2.67%	14.95¢
23	600	30%	\$90.20	\$92.44	\$2.24	2.48%	15.41¢
24							
25	700	20%	\$98.33	\$101.15	\$2.82	2.87%	14.45¢
26	700	25%	\$101.61	\$104.33	\$2.72	2.67%	14.90¢
27	700	30%	\$104.89	\$107.51	\$2.61	2.49%	15.36¢
28							
29	800	20%	\$112.09	\$115.31	\$3.22	2.88%	14.41¢
30	800	25%	\$115.84	\$118.95	\$3.11	2.68%	14.87¢
31	800	30%	\$119.59	\$122.58	\$2.99	2.50%	15.32¢



**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Geothermal Time of Day Rate - D1.7 Residential**  
**June thru September**

Case No.: U-20836  
 Exhibit: S-6  
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 Witness: M.J. Pung  
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Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Increase Percent	(g) Proposed Unit Cost
32	1,000	20%	\$139.61	\$143.64	\$4.03	2.89%	14.36¢
33	1,000	25%	\$144.30	\$148.18	\$3.88	2.69%	14.82¢
34	1,000	30%	\$148.99	\$152.72	\$3.73	2.51%	15.27¢
35							
36	1,100	20%	\$153.37	\$157.80	\$4.43	2.89%	14.35¢
37	1,100	25%	\$158.53	\$162.80	\$4.27	2.69%	14.80¢
38	1,100	30%	\$163.69	\$167.79	\$4.11	2.51%	15.25¢
39							
40	1,200	20%	\$167.13	\$171.96	\$4.84	2.89%	14.33¢
41	1,200	25%	\$172.76	\$177.41	\$4.66	2.70%	14.78¢
42	1,200	30%	\$178.38	\$182.86	\$4.48	2.51%	15.24¢
43							
44	1,300	20%	\$180.89	\$186.13	\$5.24	2.90%	14.32¢
45	1,300	25%	\$186.98	\$192.03	\$5.05	2.70%	14.77¢
46	1,300	30%	\$193.08	\$197.93	\$4.85	2.51%	15.23¢
47							
48	1,400	20%	\$194.65	\$200.29	\$5.64	2.90%	14.31¢
49	1,400	25%	\$201.21	\$206.65	\$5.43	2.70%	14.76¢
50	1,400	30%	\$207.78	\$213.01	\$5.23	2.52%	15.21¢
51							
52	1,500	20%	\$208.41	\$214.45	\$6.05	2.90%	14.30¢
53	1,500	25%	\$215.44	\$221.26	\$5.82	2.70%	14.75¢
54	1,500	30%	\$222.48	\$228.08	\$5.60	2.52%	15.21¢
55							
56	2,000	20%	\$277.20	\$285.26	\$8.06	2.91%	14.26¢
57	2,000	25%	\$286.59	\$294.35	\$7.76	2.71%	14.72¢
58	2,000	30%	\$295.97	\$303.43	\$7.47	2.52%	15.17¢
59							
60	3,000	20%	\$414.80	\$426.89	\$12.09	2.91%	14.23¢
61	3,000	25%	\$428.87	\$440.52	\$11.65	2.72%	14.68¢
62	3,000	30%	\$442.94	\$454.14	\$11.20	2.53%	15.14¢
63							
64	4,000	20%	\$552.40	\$568.52	\$16.12	2.92%	14.21¢
65	4,000	25%	\$571.16	\$586.69	\$15.53	2.72%	14.67¢
66	4,000	30%	\$589.92	\$604.86	\$14.93	2.53%	15.12¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Geothermal Time of Day Rate - D1.7 Residential**  
**October thru May**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

Power Supply Charges

Non-Capacity Charge: 0.02432

Capacity Charges:

On-Peak Energy Rate \$0.03629

Off-Peak Energy Rate \$0.02330

Power Supply Surcharges \$0.00000

Distribution Charges

Service Charge \$2.01

Distribution Energy \$0.06611

Delivery Surcharges \$0.006265

Proposed Rates and Current Surcharges:

Power Supply Charges

Non-Capacity Charge: \$0.02210

Capacity Charges:

On-Peak Energy Rate \$0.03659

Off-Peak Energy Rate \$0.02401

Power Supply Surcharges \$0.00000

Distribution Charges

Service Charge \$2.01

Distribution Energy \$0.07220

Delivery Surcharges \$0.006265

Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Increase Percent	(g) Proposed Unit Cost
1	100	20%	\$14.27	\$14.72	\$0.45	3.16%	14.72¢
2	100	25%	\$14.33	\$14.78	\$0.45	3.13%	14.78¢
3	100	30%	\$14.40	\$14.85	\$0.45	3.10%	14.85¢
4							
5	200	20%	\$26.53	\$27.43	\$0.90	3.40%	13.71¢
6	200	25%	\$26.66	\$27.56	\$0.90	3.36%	13.78¢
7	200	30%	\$26.79	\$27.68	\$0.89	3.33%	13.84¢
8							
9	300	20%	\$38.79	\$40.14	\$1.35	3.48%	13.38¢
10	300	25%	\$38.98	\$40.33	\$1.35	3.45%	13.44¢
11	300	30%	\$39.18	\$40.52	\$1.34	3.42%	13.51¢
12							
13	400	20%	\$51.05	\$52.85	\$1.80	3.53%	13.21¢
14	400	25%	\$51.31	\$53.10	\$1.79	3.50%	13.28¢
15	400	30%	\$51.57	\$53.35	\$1.79	3.46%	13.34¢
16							
17	500	20%	\$63.31	\$65.56	\$2.25	3.56%	13.11¢
18	500	25%	\$63.63	\$65.87	\$2.24	3.52%	13.17¢
19	500	30%	\$63.96	\$66.19	\$2.23	3.49%	13.24¢
20							
21	600	20%	\$75.57	\$78.27	\$2.70	3.58%	13.04¢
22	600	25%	\$75.96	\$78.65	\$2.69	3.54%	13.11¢
23	600	30%	\$76.35	\$79.02	\$2.68	3.51%	13.17¢
24							
25	700	20%	\$87.83	\$90.98	\$3.15	3.59%	13.00¢
26	700	25%	\$88.28	\$91.42	\$3.14	3.56%	13.06¢
27	700	30%	\$88.73	\$91.86	\$3.12	3.52%	13.12¢
28							
29	800	20%	\$100.08	\$103.69	\$3.60	3.60%	12.96¢
30	800	25%	\$100.60	\$104.19	\$3.59	3.57%	13.02¢
31	800	30%	\$101.12	\$104.69	\$3.57	3.53%	13.09¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Geothermal Time of Day Rate - D1.7 Residential**  
**October thru May**

Case No.: U-20836  
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Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Percent	(g) Proposed Unit Cost
32	1,000	20%	\$124.60	\$129.11	\$4.50	3.62%	12.91¢
33	1,000	25%	\$125.25	\$129.74	\$4.48	3.58%	12.97¢
34	1,000	30%	\$125.90	\$130.37	\$4.46	3.55%	13.04¢
35							
36	1,100	20%	\$136.86	\$141.82	\$4.96	3.62%	12.89¢
37	1,100	25%	\$137.58	\$142.51	\$4.93	3.59%	12.96¢
38	1,100	30%	\$138.29	\$143.20	\$4.91	3.55%	13.02¢
39							
40	1,200	20%	\$149.12	\$154.53	\$5.41	3.63%	12.88¢
41	1,200	25%	\$149.90	\$155.28	\$5.38	3.59%	12.94¢
42	1,200	30%	\$150.68	\$156.04	\$5.36	3.55%	13.00¢
43							
44	1,300	20%	\$161.38	\$167.24	\$5.86	3.63%	12.86¢
45	1,300	25%	\$162.23	\$168.05	\$5.83	3.59%	12.93¢
46	1,300	30%	\$163.07	\$168.87	\$5.80	3.56%	12.99¢
47							
48	1,400	20%	\$173.64	\$179.95	\$6.31	3.63%	12.85¢
49	1,400	25%	\$174.55	\$180.83	\$6.28	3.60%	12.92¢
50	1,400	30%	\$175.46	\$181.71	\$6.25	3.56%	12.98¢
51							
52	1,500	20%	\$185.90	\$192.66	\$6.76	3.63%	12.84¢
53	1,500	25%	\$186.87	\$193.60	\$6.73	3.60%	12.91¢
54	1,500	30%	\$187.85	\$194.54	\$6.70	3.56%	12.97¢
55							
56	2,000	20%	\$247.20	\$256.21	\$9.01	3.64%	12.81¢
57	2,000	25%	\$248.50	\$257.46	\$8.97	3.61%	12.87¢
58	2,000	30%	\$249.79	\$258.72	\$8.93	3.57%	12.94¢
59							
60	3,000	20%	\$369.79	\$383.30	\$13.51	3.65%	12.78¢
61	3,000	25%	\$371.74	\$385.19	\$13.45	3.62%	12.84¢
62	3,000	30%	\$373.69	\$387.08	\$13.39	3.58%	12.90¢
63							
64	4,000	20%	\$492.38	\$510.40	\$18.02	3.66%	12.76¢
65	4,000	25%	\$494.98	\$512.92	\$17.94	3.62%	12.82¢
66	4,000	30%	\$497.58	\$515.43	\$17.85	3.59%	12.89¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Service Rate Dynamic Peak Pricing - D1.8**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

Power Supply Charges

Non-Capacity Charge: \$0.03576

Capacity Charges:

Off-Peak Energy Rate \$0.01218

Mid-Peak Energy Rate \$0.05645

On-Peak Energy Rate \$0.13025

Critical Peak Rate \$0.91424

Power Supply Surcharges \$0.00000

REPS \$0.00

Distribution Charges

Service Charge \$7.50

Distribution Energy \$0.06611

Delivery Surcharges \$0.006265

LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges

Non-Capacity Charge: \$0.03230

Capacity Charges:

Off-Peak Energy Rate \$0.01243

Mid-Peak Energy Rate \$0.05762

On-Peak Energy Rate \$0.13294

Critical Peak Rate \$0.91770

Power Supply Surcharges \$0.00000

REPS \$0.00

Distribution Charges

Service Charge \$8.50

Distribution Energy \$0.07220

Delivery Surcharges \$0.006265

LIEAF \$0.87

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	(d) Increase		(f) Proposed Unit Cost
				Amount	Percent	
1	100	\$23.69	\$25.04	\$1.35	5.71%	25.04¢
2	120	\$26.75	\$28.18	\$1.42	5.32%	23.48¢
3	160	\$32.88	\$34.45	\$1.57	4.76%	21.53¢
4	180	\$35.95	\$37.58	\$1.64	4.55%	20.88¢
5	200	\$39.01	\$40.72	\$1.71	4.38%	20.36¢
6	240	\$45.14	\$46.99	\$1.85	4.10%	19.58¢
7	280	\$51.27	\$53.26	\$1.99	3.88%	19.02¢
8	300	\$54.33	\$56.39	\$2.06	3.79%	18.80¢
9	350	\$61.99	\$64.23	\$2.24	3.61%	18.35¢
10	400	\$69.65	\$72.07	\$2.41	3.47%	18.02¢
11	450	\$77.31	\$79.90	\$2.59	3.35%	17.76¢
12	500	\$84.97	\$87.74	\$2.77	3.26%	17.55¢
13	550	\$92.63	\$95.58	\$2.95	3.18%	17.38¢
14	600	\$100.29	\$103.41	\$3.12	3.11%	17.24¢
15	650	\$107.95	\$111.25	\$3.30	3.06%	17.12¢
16	700	\$115.61	\$119.09	\$3.48	3.01%	17.01¢
17	750	\$123.27	\$126.93	\$3.65	2.96%	16.92¢
18	800	\$130.93	\$134.76	\$3.83	2.92%	16.85¢
19	850	\$138.59	\$142.60	\$4.01	2.89%	16.78¢
20	900	\$146.25	\$150.44	\$4.18	2.86%	16.72¢
21	950	\$153.91	\$158.27	\$4.36	2.83%	16.66¢
22	1,000	\$161.58	\$166.11	\$4.54	2.81%	16.61¢
23	1,100	\$176.90	\$181.79	\$4.89	2.76%	16.53¢
24	1,200	\$192.22	\$197.46	\$5.24	2.73%	16.45¢
25	1,300	\$207.54	\$213.13	\$5.60	2.70%	16.39¢
26	1,400	\$222.86	\$228.81	\$5.95	2.67%	16.34¢
27	1,500	\$238.18	\$244.48	\$6.30	2.65%	16.30¢
28	2,000	\$314.78	\$322.85	\$8.07	2.56%	16.14¢
29	3,000	\$467.99	\$479.59	\$11.61	2.48%	15.99¢
30	4,000	\$621.19	\$636.34	\$15.15	2.44%	15.91¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Electric Vehicle Rate - D1.9**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 19 of 54

Present Rates and Current Surcharges:

Power Supply Charges	
Non-Capacity Charges	
On-Peak Energy Rate	\$0.07889
Off-Peak Energy Rate	\$0.01972
Capacity Charges:	
On-Peak Energy Rate	\$0.09791
Off-Peak Energy Rate	\$0.02448
Power Supply Surcharges	\$0.00000

Proposed Rates and Current Surcharges:

Power Supply Charges	
Non-Capacity Charges	
On-Peak Energy Rate	\$0.07065
Off-Peak Energy Rate	\$0.01766
Capacity Charges:	
On-Peak Energy Rate	\$0.10055
Off-Peak Energy Rate	\$0.02514
Power Supply Surcharges	\$0.00000

Distribution Charges	
Service Charge	\$1.95
Distribution Energy	\$0.06611
Delivery Surcharges	\$0.006265

Distribution Charges	
Service Charge	\$1.95
Distribution Energy	\$0.07220
Delivery Surcharges	\$0.006265

Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase		(f) Proposed Unit Cost
					Amount	Percent	
1	100	20%	\$16.26	\$16.65	\$0.39	2.37%	16.65¢
2	100	25%	\$16.92	\$17.29	\$0.36	2.15%	17.29¢
3	100	30%	\$17.59	\$17.93	\$0.34	1.95%	17.93¢
4							
5	200	20%	\$30.57	\$31.34	\$0.77	2.52%	15.67¢
6	200	25%	\$31.90	\$32.62	\$0.73	2.29%	16.31¢
7	200	30%	\$33.22	\$33.91	\$0.69	2.07%	16.95¢
8							
9	300	20%	\$44.88	\$46.04	\$1.16	2.58%	15.35¢
10	300	25%	\$46.87	\$47.96	\$1.09	2.33%	15.99¢
11	300	30%	\$48.86	\$49.89	\$1.03	2.11%	16.63¢
12							
13	400	20%	\$59.19	\$60.73	\$1.54	2.61%	15.18¢
14	400	25%	\$61.84	\$63.30	\$1.46	2.36%	15.82¢
15	400	30%	\$64.49	\$65.87	\$1.37	2.13%	16.47¢
16							
17	500	20%	\$73.50	\$75.43	\$1.93	2.62%	15.09¢
18	500	25%	\$76.81	\$78.64	\$1.82	2.37%	15.73¢
19	500	30%	\$80.13	\$81.85	\$1.72	2.14%	16.37¢
20							
21	600	20%	\$87.81	\$90.12	\$2.31	2.64%	15.02¢
22	600	25%	\$91.79	\$93.97	\$2.19	2.38%	15.66¢
23	600	30%	\$95.76	\$97.83	\$2.06	2.15%	16.30¢
24							
25	700	20%	\$102.12	\$104.82	\$2.70	2.64%	14.97¢
26	700	25%	\$106.76	\$109.31	\$2.55	2.39%	15.62¢
27	700	30%	\$111.40	\$113.80	\$2.41	2.16%	16.26¢
28							
29	800	20%	\$116.43	\$119.51	\$3.09	2.65%	14.94¢
30	800	25%	\$121.73	\$124.65	\$2.92	2.40%	15.58¢
31	800	30%	\$127.03	\$129.78	\$2.75	2.16%	16.22¢
32							
33	1,000	20%	\$145.05	\$148.90	\$3.86	2.66%	14.89¢
34	1,000	25%	\$151.68	\$155.32	\$3.65	2.40%	15.53¢
35	1,000	30%	\$158.31	\$161.74	\$3.44	2.17%	16.17¢

**Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Residential Service Rate Space Heating - D2  
June thru October**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 24 of 54

Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge: \$0.04373

Capacity Charges:

First 17 KWH/Day \$0.04624

Excess \$0.06613

Power Supply Surcharges \$0.00000

REPS \$0.00

Service Charge \$7.50

Distribution Charge \$0.06611

Delivery Surcharges \$0.006265

LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge: \$0.04067

Capacity Charges:

First 17 KWH/Day \$0.04384

Excess \$0.06270

Power Supply Surcharges \$0.00000

REPS \$0.00

Service Charge \$8.50

Distribution Charge \$0.07220

Delivery Surcharges \$0.006265

LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	100	\$24.60	\$25.67	\$1.06	4.32%	25.67¢
2	120	\$27.85	\$28.93	\$1.08	3.86%	24.11¢
3	160	\$34.35	\$35.45	\$1.10	3.21%	22.15¢
4	180	\$37.59	\$38.71	\$1.11	2.96%	21.50¢
5	200	\$40.84	\$41.97	\$1.13	2.76%	20.98¢
6	240	\$47.33	\$48.48	\$1.15	2.43%	20.20¢
7	280	\$53.83	\$55.00	\$1.18	2.19%	19.64¢
8	300	\$57.07	\$58.26	\$1.19	2.08%	19.42¢
9	350	\$65.19	\$66.41	\$1.22	1.87%	18.97¢
10	400	\$73.31	\$74.56	\$1.25	1.71%	18.64¢
11	450	\$81.43	\$82.71	\$1.28	1.58%	18.38¢
12	500	\$89.54	\$90.86	\$1.32	1.47%	18.17¢
13	550	\$98.46	\$99.76	\$1.31	1.33%	18.14¢
14	600	\$107.57	\$108.85	\$1.29	1.20%	18.14¢
15	650	\$116.68	\$117.95	\$1.27	1.09%	18.15¢
16	700	\$125.79	\$127.04	\$1.25	0.99%	18.15¢
17	750	\$134.90	\$136.13	\$1.23	0.91%	18.15¢
18	800	\$144.01	\$145.22	\$1.21	0.84%	18.15¢
19	850	\$153.13	\$154.31	\$1.19	0.77%	18.15¢
20	900	\$162.24	\$163.40	\$1.17	0.72%	18.16¢
21	950	\$171.35	\$172.50	\$1.15	0.67%	18.16¢
22	1,000	\$180.46	\$181.59	\$1.13	0.62%	18.16¢
23	1,100	\$198.68	\$199.77	\$1.09	0.55%	18.16¢
24	1,200	\$216.91	\$217.95	\$1.05	0.48%	18.16¢
25	1,300	\$235.13	\$236.14	\$1.01	0.43%	18.16¢
26	1,400	\$253.36	\$254.32	\$0.97	0.38%	18.17¢
27	1,500	\$271.58	\$272.50	\$0.93	0.34%	18.17¢
28	2,000	\$362.70	\$363.42	\$0.73	0.20%	18.17¢
29	3,000	\$544.93	\$545.26	\$0.33	0.06%	18.18¢
30	4,000	\$727.17	\$727.09	-\$0.07	-0.01%	18.18¢

**Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Residential Service Rate Space Heating - D2  
November thru May**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 25 of 54

Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge: \$0.04373

Capacity Charges:

First 20 KWH/Day \$0.02728

Second Block: \$0.01065

Power Supply Surcharges \$0.00000

REPS \$0.00

Service Charge \$7.50

Distribution Charge \$0.06611

Delivery Surcharges \$0.006265

LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge: \$0.04067

Capacity Charges:

First 20 KWH/Day \$0.02586

Excess \$0.01010

Power Supply Surcharges \$0.00000

REPS \$0.00

Service Charge \$8.50

Distribution Charge \$0.07220

Delivery Surcharges \$0.006265

LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Monthly kWh Use	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase		Proposed Unit Cost
				Amount	Percent	
1	100	\$22.71	\$23.87	\$1.16	5.12%	23.87¢
2	120	\$25.58	\$26.77	\$1.19	4.67%	22.31¢
3	160	\$31.31	\$32.57	\$1.26	4.02%	20.36¢
4	180	\$34.18	\$35.47	\$1.29	3.78%	19.71¢
5	200	\$37.05	\$38.37	\$1.32	3.57%	19.19¢
6	240	\$42.78	\$44.17	\$1.39	3.24%	18.40¢
7	280	\$48.52	\$49.97	\$1.45	2.99%	17.85¢
8	300	\$51.39	\$52.87	\$1.48	2.89%	17.62¢
9	350	\$58.55	\$60.12	\$1.57	2.67%	17.18¢
10	400	\$65.72	\$67.37	\$1.65	2.51%	16.84¢
11	450	\$72.89	\$74.62	\$1.73	2.37%	16.58¢
12	500	\$80.06	\$81.87	\$1.81	2.26%	16.37¢
13	550	\$87.23	\$89.12	\$1.89	2.17%	16.20¢
14	600	\$94.40	\$96.37	\$1.97	2.09%	16.06¢
15	650	\$100.74	\$102.83	\$2.09	2.08%	15.82¢
16	700	\$107.08	\$109.29	\$2.22	2.07%	15.61¢
17	750	\$113.41	\$115.76	\$2.34	2.06%	15.43¢
18	800	\$119.75	\$122.22	\$2.47	2.06%	15.28¢
19	850	\$126.09	\$128.68	\$2.59	2.05%	15.14¢
20	900	\$132.43	\$135.14	\$2.71	2.05%	15.02¢
21	950	\$138.77	\$141.60	\$2.84	2.04%	14.91¢
22	1,000	\$145.10	\$148.06	\$2.96	2.04%	14.81¢
23	1,100	\$157.78	\$160.99	\$3.21	2.03%	14.64¢
24	1,200	\$170.45	\$173.91	\$3.46	2.03%	14.49¢
25	1,300	\$183.13	\$186.83	\$3.70	2.02%	14.37¢
26	1,400	\$195.81	\$199.76	\$3.95	2.02%	14.27¢
27	1,500	\$208.48	\$212.68	\$4.20	2.01%	14.18¢
28	2,000	\$271.86	\$277.30	\$5.44	2.00%	13.86¢
29	3,000	\$398.61	\$406.53	\$7.92	1.99%	13.55¢
30	4,000	\$525.37	\$535.77	\$10.40	1.98%	13.39¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Water Heating Service Rate - D5 Residential**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 26 of 54

Present Rates and Current Surcharges:

Power Supply Charges

Non-Capacity Charge \$0.02228

Capacity Charge \$0.02765

Power Supply Surcharges \$0.00000

Distribution Charges  
Service Charge \$1.95

Distribution Energy \$0.06611

Delivery Surcharges \$0.006265

Proposed Rates and Current Surcharges:

Power Supply Charges

Non-Capacity Charge \$0.01995

Capacity Charge \$0.02840

Power Supply Surcharges \$0.00000

Distribution Charges  
Service Charge \$1.95

Distribution Energy \$0.07220

Delivery Surcharges \$0.006265

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	(d) Increase		(e)	(f) Proposed Unit Cost
				Amount	Percent		
1	100	\$14.18	\$14.63	\$0.45	3.18%		14.63¢
2	200	\$26.41	\$27.31	\$0.90	3.42%		13.66¢
3	300	\$38.64	\$40.00	\$1.35	3.50%		13.33¢
4	400	\$50.87	\$52.68	\$1.81	3.55%		13.17¢
5	500	\$63.10	\$65.36	\$2.26	3.58%		13.07¢
6	600	\$75.33	\$78.04	\$2.71	3.60%		13.01¢
7	700	\$87.56	\$90.72	\$3.16	3.61%		12.96¢
8	800	\$99.79	\$103.41	\$3.61	3.62%		12.93¢
9	900	\$112.02	\$116.09	\$4.06	3.63%		12.90¢
10	1,000	\$124.26	\$128.77	\$4.51	3.63%		12.88¢
10	1,100	\$136.49	\$141.45	\$4.97	3.64%		12.86¢
10	1,200	\$148.72	\$154.13	\$5.42	3.64%		12.84¢



**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**General Service Rate - D3**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Proposed Rates and Current Surcharges:

Power Supply Charges:

Capacity Energy Charge      **\$0.03900**  
Non-capacity energy charge      **\$0.04345**

Power Supply Surcharges:      **\$0.000000**

Distribution Charges:

Service Charge      **\$11.25**

Distribution Energy      **\$0.03868**

Distribution Surcharges:      **\$0.000842**  
Energy Waste Reduction      **\$2.79**  
LIEAF Factor      **\$0.87**

Proposed Rates and Current Surcharges:

Power Supply Charges:

Capacity Energy Charge      **\$0.04122**  
Non-capacity energy charge      **\$0.03924**

Power Supply Surcharges:      **\$0.000000**

Distribution Charges:

Service Charge      **\$11.25**

Distribution Energy      **\$0.04473**

Distribution Surcharges:      **\$0.000842**  
Energy Waste Reduction      **\$2.79**  
LIEAF Factor      **\$0.87**

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	(d) Increase		(f) Proposed Unit Cost
				Amount	Percent	
1	400	\$63.70	\$65.32	\$1.62	2.55%	16.33¢
2	600	\$88.09	\$90.53	\$2.43	2.76%	15.09¢
3	800	\$112.49	\$115.73	\$3.24	2.88%	14.47¢
4	1,000	\$136.88	\$140.94	\$4.06	2.96%	14.09¢
5	1,200	\$161.28	\$166.14	\$4.87	3.02%	13.85¢
6	1,400	\$185.67	\$191.35	\$5.68	3.06%	13.67¢
7	1,600	\$210.07	\$216.55	\$6.49	3.09%	13.53¢
8	1,800	\$234.46	\$241.76	\$7.30	3.11%	13.43¢
9	2,000	\$258.85	\$266.96	\$8.11	3.13%	13.35¢
10	2,200	\$283.25	\$292.17	\$8.92	3.15%	13.28¢
11	2,400	\$307.64	\$317.38	\$9.73	3.16%	13.22¢
12	2,500	\$319.84	\$329.98	\$10.14	3.17%	13.20¢
13	3,000	\$380.83	\$392.99	\$12.17	3.19%	13.10¢
14	3,500	\$441.81	\$456.01	\$14.19	3.21%	13.03¢
15	4,000	\$502.80	\$519.02	\$16.22	3.23%	12.98¢
16	4,500	\$563.78	\$582.03	\$18.25	3.24%	12.93¢
17	5,000	\$624.77	\$645.05	\$20.28	3.25%	12.90¢
18	5,500	\$685.76	\$708.06	\$22.30	3.25%	12.87¢
19	6,000	\$746.74	\$771.07	\$24.33	3.26%	12.85¢
20	6,500	\$807.73	\$834.09	\$26.36	3.26%	12.83¢
21	7,000	\$868.71	\$897.10	\$28.39	3.27%	12.82¢
22	7,500	\$929.70	\$960.12	\$30.42	3.27%	12.80¢
23	8,000	\$990.69	\$1,023.13	\$32.44	3.27%	12.79¢
24	8,500	\$1,051.67	\$1,086.14	\$34.47	3.28%	12.78¢
25	9,000	\$1,112.66	\$1,149.16	\$36.50	3.28%	12.77¢
26	9,500	\$1,173.64	\$1,212.17	\$38.53	3.28%	12.76¢
27	10,000	\$1,234.63	\$1,275.18	\$40.55	3.28%	12.75¢
28	12,000	\$1,478.57	\$1,527.24	\$48.67	3.29%	12.73¢
29	15,000	\$1,844.49	\$1,905.32	\$60.83	3.30%	12.70¢
30	18,000	\$2,210.41	\$2,283.40	\$73.00	3.30%	12.69¢
31	21,000	\$2,576.32	\$2,661.49	\$85.16	3.31%	12.67¢
32	24,000	\$2,942.24	\$3,039.57	\$97.33	3.31%	12.66¢
33	27,000	\$3,308.15	\$3,417.65	\$109.50	3.31%	12.66¢
34	30,000	\$3,674.07	\$3,795.73	\$121.66	3.31%	12.65¢
35	35,000	\$4,283.93	\$4,425.87	\$141.94	3.31%	12.65¢
36	40,000	\$4,893.79	\$5,056.01	\$162.22	3.31%	12.64¢
37	45,000	\$5,503.65	\$5,686.14	\$182.49	3.32%	12.64¢
38	50,000	\$6,113.51	\$6,316.28	\$202.77	3.32%	12.63¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Secondary Educational Institute Rate - D3.2**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Proposed Rates and Current Surcharges:

Power Supply Charges:

Capacity Energy Charge      **\$0.03002**  
Non-capacity energy          **\$0.04356**

Power Supply Surcharges:    **\$0.000000**

Distribution Charges:

Service Charge                      **\$11.25**

Distribution Energy              **\$0.03730**

Distribution Surcharges:      **\$0.000842**  
Energy Waste Reduction        **\$2.79**  
LIEAF Factor                        **\$0.87**

Proposed Rates and Current Surcharges:

Power Supply Charges:

Capacity Energy Charge      **\$0.03393**  
Non-capacity energy          **\$0.03970**

Power Supply Surcharges:    **\$0.000000**

Distribution Charges:

Service Charge                      **\$11.25**

Distribution Energy              **\$0.04473**

Distribution Surcharges:      **\$0.000842**  
Energy Waste Reduction        **\$2.79**  
LIEAF Factor                        **\$0.87**

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	(d)      (e) Increase Amount      Percent		(f) Proposed Unit Cost
1	400	\$59.60	\$62.59	\$2.99	5.01%	15.65¢
2	600	\$81.94	\$86.43	\$4.48	5.47%	14.40¢
3	800	\$104.29	\$110.27	\$5.98	5.73%	13.78¢
4	1,000	\$126.63	\$134.10	\$7.47	5.90%	13.41¢
5	1,200	\$148.98	\$157.94	\$8.97	6.02%	13.16¢
6	1,400	\$171.32	\$181.78	\$10.46	6.11%	12.98¢
7	1,600	\$193.67	\$205.62	\$11.96	6.17%	12.85¢
8	1,800	\$216.01	\$229.46	\$13.45	6.23%	12.75¢
9	2,000	\$238.35	\$253.30	\$14.94	6.27%	12.66¢
10	2,200	\$260.70	\$277.14	\$16.44	6.31%	12.60¢
11	2,400	\$283.04	\$300.98	\$17.93	6.34%	12.54¢
12	2,500	\$294.22	\$312.90	\$18.68	6.35%	12.52¢
13	3,000	\$350.08	\$372.49	\$22.42	6.40%	12.42¢
14	3,500	\$405.94	\$432.09	\$26.15	6.44%	12.35¢
15	4,000	\$461.80	\$491.69	\$29.89	6.47%	12.29¢
16	4,500	\$517.66	\$551.28	\$33.62	6.50%	12.25¢
17	5,000	\$573.52	\$610.88	\$37.36	6.51%	12.22¢
18	5,500	\$629.38	\$670.48	\$41.10	6.53%	12.19¢
19	6,000	\$685.24	\$730.07	\$44.83	6.54%	12.17¢
20	6,500	\$741.10	\$789.67	\$48.57	6.55%	12.15¢
21	7,000	\$796.96	\$849.27	\$52.30	6.56%	12.13¢
22	7,500	\$852.83	\$908.87	\$56.04	6.57%	12.12¢
23	8,000	\$908.69	\$968.46	\$59.78	6.58%	12.11¢
24	8,500	\$964.55	\$1,028.06	\$63.51	6.58%	12.09¢
25	9,000	\$1,020.41	\$1,087.66	\$67.25	6.59%	12.09¢
26	9,500	\$1,076.27	\$1,147.25	\$70.99	6.60%	12.08¢
27	10,000	\$1,132.13	\$1,206.85	\$74.72	6.60%	12.07¢
28	12,000	\$1,355.57	\$1,445.24	\$89.67	6.61%	12.04¢
29	15,000	\$1,690.74	\$1,802.82	\$112.08	6.63%	12.02¢
30	18,000	\$2,025.91	\$2,160.40	\$134.50	6.64%	12.00¢
31	21,000	\$2,361.07	\$2,517.99	\$156.91	6.65%	11.99¢
32	24,000	\$2,696.24	\$2,875.57	\$179.33	6.65%	11.98¢
33	27,000	\$3,031.40	\$3,233.15	\$201.75	6.66%	11.97¢
34	30,000	\$3,366.57	\$3,590.73	\$224.16	6.66%	11.97¢
35	35,000	\$3,925.18	\$4,186.70	\$261.52	6.66%	11.96¢
36	40,000	\$4,483.79	\$4,782.67	\$298.88	6.67%	11.96¢
37	45,000	\$5,042.40	\$5,378.65	\$336.25	6.67%	11.95¢
38	50,000	\$5,601.01	\$5,974.62	\$373.61	6.67%	11.95¢

**Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Interruptible General Service Rate - D3.3**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 29 of 54

Proposed Rates and Current Surcharges:

Power Supply Charges:

Capacity Energy Charge      **\$0.03258**  
Non-capacity energy          **\$0.03630**

Power Supply Surcharges:    **\$0.000000**

Distribution Charges:

Service Charge                      **\$11.25**

Distribution Energy              **\$0.03868**

Distribution Surcharges:      **\$0.000842**

Energy Waste Reduction        **\$2.79**

LIEAF Factor                        **\$0.87**

Proposed Rates and Current Surcharges:

Power Supply Charges:

Capacity Energy Charge      **\$0.03443**  
Non-capacity energy          **\$0.03278**

Power Supply Surcharges:    **\$0.000000**

Distribution Charges:

Service Charge                      **\$11.25**

Distribution Energy              **\$0.04473**

Distribution Surcharges:      **\$0.000842**

Energy Waste Reduction        **\$2.79**

LIEAF Factor                        **\$0.87**

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	Increase		(f) Proposed Unit Cost
				Amount	Percent	
1	400	\$58.27	\$60.02	\$1.75	3.01%	15.01¢
2	600	\$79.95	\$82.58	\$2.63	3.29%	13.76¢
3	800	\$101.63	\$105.14	\$3.51	3.45%	13.14¢
4	1,000	\$123.31	\$127.70	\$4.38	3.55%	12.77¢
5	1,200	\$144.99	\$150.25	\$5.26	3.63%	12.52¢
6	1,400	\$166.67	\$172.81	\$6.14	3.68%	12.34¢
7	1,600	\$188.35	\$195.37	\$7.01	3.72%	12.21¢
8	1,800	\$210.03	\$217.92	\$7.89	3.76%	12.11¢
9	2,000	\$231.71	\$240.48	\$8.77	3.78%	12.02¢
10	2,200	\$253.39	\$263.04	\$9.64	3.81%	11.96¢
11	2,400	\$275.07	\$285.59	\$10.52	3.82%	11.90¢
12	2,500	\$285.92	\$296.87	\$10.96	3.83%	11.87¢
13	3,000	\$340.12	\$353.27	\$13.15	3.87%	11.78¢
14	3,500	\$394.32	\$409.66	\$15.34	3.89%	11.70¢
15	4,000	\$448.52	\$466.05	\$17.53	3.91%	11.65¢
16	4,500	\$502.72	\$522.44	\$19.73	3.92%	11.61¢
17	5,000	\$556.92	\$578.84	\$21.92	3.94%	11.58¢
18	5,500	\$611.12	\$635.23	\$24.11	3.94%	11.55¢
19	6,000	\$665.32	\$691.62	\$26.30	3.95%	11.53¢
20	6,500	\$719.52	\$748.01	\$28.49	3.96%	11.51¢
21	7,000	\$773.72	\$804.41	\$30.68	3.97%	11.49¢
22	7,500	\$827.93	\$860.80	\$32.88	3.97%	11.48¢
23	8,000	\$882.13	\$917.19	\$35.07	3.98%	11.46¢
24	8,500	\$936.33	\$973.59	\$37.26	3.98%	11.45¢
25	9,000	\$990.53	\$1,029.98	\$39.45	3.98%	11.44¢
26	9,500	\$1,044.73	\$1,086.37	\$41.64	3.99%	11.44¢
27	10,000	\$1,098.93	\$1,142.76	\$43.83	3.99%	11.43¢
28	12,000	\$1,315.73	\$1,368.33	\$52.60	4.00%	11.40¢
29	15,000	\$1,640.94	\$1,706.69	\$65.75	4.01%	11.38¢
30	18,000	\$1,966.15	\$2,045.05	\$78.90	4.01%	11.36¢
31	21,000	\$2,291.35	\$2,383.40	\$92.05	4.02%	11.35¢
32	24,000	\$2,616.56	\$2,721.76	\$105.20	4.02%	11.34¢
33	27,000	\$2,941.76	\$3,060.11	\$118.35	4.02%	11.33¢
34	30,000	\$3,266.97	\$3,398.47	\$131.50	4.03%	11.33¢
35	33,000	\$3,592.18	\$3,736.83	\$144.65	4.03%	11.32¢
36	36,000	\$3,917.38	\$4,075.18	\$157.80	4.03%	11.32¢
37	39,000	\$4,242.59	\$4,413.54	\$170.95	4.03%	11.32¢
38	42,000	\$4,567.79	\$4,751.90	\$184.10	4.03%	11.31¢
39	45,000	\$4,893.00	\$5,090.25	\$197.25	4.03%	11.31¢
40	50,000	\$5,435.01	\$5,654.18	\$219.17	4.03%	11.31¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Large General Service Rate - D4**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 30 of 54

Proposed Rates and Current Surcharges:  
Power Supply Charges:

**Capacity Charge:**  
Demand Charge \$14.07

**Non-capacity Charges:**

Demand Charge \$2.92  
Energy Charges:  
First 200kWh/kW \$0.04171  
Over 200kWh/kW \$0.03219

Power Supply Surcharges: \$0.000000

Distribution Charges:  
Service Charge: \$13.67  
Demand Charge: \$17.10  
Distribution Energy: \$0.00000

Distribution Surcharges: \$0.000842  
Energy Waste Reduction \$2.79  
LIEAF Factor \$0.87

Proposed Rates and Current Surcharges:  
Power Supply Charges:

**Capacity Charges:**  
Demand Charge \$14.44

**Non-capacity Charges:**

Demand Charge \$2.61  
Energy Charges:  
First 200kWh/kW \$0.03732  
Over 200kWh/kW \$0.02880

Power Supply Surcharges: \$0.000000

Distribution Charges:  
Service Charge: \$13.67  
Demand Charge: \$18.49  
Distribution Energy: \$0.00000

Distribution Surcharges: \$0.000842  
Energy Waste Reduction \$2.79  
LIEAF Factor \$0.87

Line No.	(a) Monthly kWh Use	(b) On-Peak Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase		(f)	(g) Proposed Unit Cost
					Amount	Percent		
1	5	300	\$246.85	\$247.99	\$1.15	0.46%		16.53¢
2	5	400	\$263.36	\$262.81	-\$0.55	-0.21%		13.14¢
3	5	500	\$279.88	\$277.63	-\$2.25	-0.80%		11.11¢
4								
5	10	300	\$476.37	\$478.66	\$2.29	0.48%		15.96¢
6	10	400	\$509.40	\$508.30	-\$1.10	-0.22%		12.71¢
7	10	500	\$542.43	\$537.94	-\$4.49	-0.83%		10.76¢
8								
9	25	300	\$1,164.92	\$1,170.65	\$5.73	0.49%		15.61¢
10	25	400	\$1,247.50	\$1,244.75	-\$2.75	-0.22%		12.45¢
11	25	500	\$1,330.08	\$1,318.85	-\$11.23	-0.84%		10.55¢
12								
13	50	300	\$2,312.51	\$2,323.97	\$11.46	0.50%		15.49¢
14	50	400	\$2,477.67	\$2,472.17	-\$5.50	-0.22%		12.36¢
15	50	500	\$2,642.83	\$2,620.38	-\$22.45	-0.85%		10.48¢
16								
17	75	300	\$3,460.10	\$3,477.29	\$17.19	0.50%		15.45¢
18	75	400	\$3,707.84	\$3,699.59	-\$8.25	-0.22%		12.33¢
19	75	500	\$3,955.58	\$3,921.90	-\$33.68	-0.85%		10.46¢
20								
21	100	300	\$4,607.69	\$4,630.60	\$22.91	0.50%		15.44¢
22	100	400	\$4,938.01	\$4,927.01	-\$11.00	-0.22%		12.32¢
23	100	500	\$5,268.33	\$5,223.42	-\$44.91	-0.85%		10.45¢
24								
25	200	300	\$9,198.05	\$9,243.88	\$45.83	0.50%		15.41¢
26	200	400	\$9,858.69	\$9,836.70	-\$21.99	-0.22%		12.30¢
27	200	500	\$10,519.33	\$10,429.52	-\$89.81	-0.85%		10.43¢
28								
29	300	300	\$13,788.41	\$13,857.15	\$68.74	0.50%		15.40¢
30	300	400	\$14,779.37	\$14,746.38	-\$32.99	-0.22%		12.29¢
31	300	500	\$15,770.33	\$15,635.61	-\$134.72	-0.85%		10.42¢
32								
33	400	300	\$18,378.77	\$18,470.42	\$91.65	0.50%		15.39¢
34	400	400	\$19,700.05	\$19,656.07	-\$43.98	-0.22%		12.29¢
35	400	500	\$21,021.33	\$20,841.71	-\$179.62	-0.85%		10.42¢
36								
37	500	300	\$22,969.13	\$23,083.70	\$114.57	0.50%		15.39¢
38	500	400	\$24,620.73	\$24,565.75	-\$54.98	-0.22%		12.28¢
39	500	500	\$26,272.33	\$26,047.80	-\$224.53	-0.85%		10.42¢
40								
41	750	300	\$34,445.03	\$34,616.88	\$171.85	0.50%		15.39¢
42	750	400	\$36,922.43	\$36,839.96	-\$82.47	-0.22%		12.28¢
43	750	500	\$39,399.83	\$39,063.04	-\$336.79	-0.85%		10.42¢
44								
45	1000	300	\$45,920.93	\$46,150.07	\$229.14	0.50%		15.38¢
46	1000	400	\$49,224.13	\$49,114.17	-\$109.96	-0.22%		12.28¢
47	1000	500	\$52,527.33	\$52,078.27	-\$449.06	-0.85%		10.42¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Water Heating Service Rate - D5 Commercial**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 31 of 54

Proposed Rates and Current Surcharges:

Power Supply Charges:

Energy Charge                    \$0.02296  
Non-capacity Energy            \$0.02558

Power Supply Surcharges:    \$0.000000

Distribution Charges:

Service Charge                    \$1.95

Distribution Energy              \$0.03589

Distribution Surcharges:      \$0.000842

Energy Waste Reduction        \$2.79

LIEAF Factor                      \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Energy Charge                    \$0.02427  
Non-capacity Energy            \$0.02310

Power Supply Surcharges:    \$0.000000

Distribution Charges:

Service Charge                    \$1.95

Distribution Energy              \$0.04473

Distribution Surcharges:      \$0.000842

Energy Waste Reduction        \$2.79

LIEAF Factor                      \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	100	\$14.14	\$14.90	\$0.77	5.42%	14.90¢
2	200	\$22.66	\$24.20	\$1.53	6.76%	12.10¢
3	300	\$31.19	\$33.49	\$2.30	7.37%	11.16¢
4	400	\$39.72	\$42.78	\$3.07	7.72%	10.70¢
5	500	\$48.25	\$52.08	\$3.83	7.94%	10.42¢
6	600	\$56.77	\$61.37	\$4.60	8.10%	10.23¢
7	700	\$65.30	\$70.67	\$5.37	8.22%	10.10¢
8	800	\$73.83	\$79.96	\$6.13	8.31%	9.99¢
9	900	\$82.35	\$89.25	\$6.90	8.38%	9.92¢
10	1,000	\$90.88	\$98.55	\$7.66	8.43%	9.85¢
11	1,100	\$99.41	\$107.84	\$8.43	8.48%	9.80¢
12	1,200	\$107.94	\$117.13	\$9.20	8.52%	9.76¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Greenhouse Lighting Service Rate - Standard Contract Rider No. R7**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 32 of 54

Proposed Rates and Current Surcharges:

Power Supply Charges:

Energy Charge: \$0.02228  
Non-capacity energy \$0.02482

Power Supply Surcharges: \$0.000000

Distribution Charges:

Service Charge: \$1.95

Distribution Energy \$0.03868

Distribution Surcharges: \$0.000842

Energy Waste Reduction \$2.79

LIEAF Factor \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Energy Charge: \$0.02355  
Non-capacity energy \$0.02242

Power Supply Surcharges: \$0.000000

Distribution Charges:

Service Charge: \$1.95

Distribution Energy \$0.04473

Distribution Surcharges: \$0.000842

Energy Waste Reduction \$2.79

LIEAF Factor \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	400	\$40.26	\$42.22	\$1.96	4.88%	10.56¢
2	600	\$57.58	\$60.53	\$2.95	5.12%	10.09¢
3	800	\$74.91	\$78.84	\$3.93	5.24%	9.85¢
4	1,000	\$92.23	\$97.14	\$4.91	5.32%	9.71¢
5	1,200	\$109.56	\$115.45	\$5.89	5.38%	9.62¢
6	1,400	\$126.88	\$133.75	\$6.87	5.42%	9.55¢
7	1,600	\$144.21	\$152.06	\$7.86	5.45%	9.50¢
8	1,800	\$161.53	\$170.37	\$8.84	5.47%	9.46¢
9	2,000	\$178.85	\$188.67	\$9.82	5.49%	9.43¢
10	2,500	\$222.17	\$234.44	\$12.27	5.52%	9.38¢
11	3,000	\$265.48	\$280.21	\$14.73	5.55%	9.34¢
12	4,000	\$352.10	\$371.74	\$19.64	5.58%	9.29¢
13	5,000	\$438.72	\$463.27	\$24.55	5.60%	9.27¢
14	6,000	\$525.34	\$554.80	\$29.46	5.61%	9.25¢
15	7,000	\$611.96	\$646.33	\$34.37	5.62%	9.23¢
16	8,000	\$698.59	\$737.86	\$39.28	5.62%	9.22¢
17	9,000	\$785.21	\$829.40	\$44.19	5.63%	9.22¢
18	10,000	\$871.83	\$920.93	\$49.10	5.63%	9.21¢
19	12,000	\$1,045.07	\$1,103.99	\$58.92	5.64%	9.20¢
20	15,000	\$1,304.94	\$1,378.59	\$73.65	5.64%	9.19¢



**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Commercial Space Conditioning Rate - Standard Contract Rider No. R8**  
**June Thru October**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 33 of 54

Proposed Rates and Current Surcharges:

Power Supply Charges:

Energy Charge                   \$0.06040  
Non-capacity energy           \$0.03726

Power Supply Surcharges:   \$0.000000

Distribution Charges:

Service Charge:               \$11.25

Distribution Energy           \$0.03868

Distribution Surcharges:   \$0.000842

Energy Waste Reduction       \$2.79

LIEAF Factor                   \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Energy Charge                   \$0.06241  
Non-capacity energy           \$0.03430

Power Supply Surcharges:   \$0.000000

Distribution Charges:

Service Charge:               \$11.25

Distribution Energy           \$0.04473

Distribution Surcharges:   \$0.000842

Energy Waste Reduction       \$2.79

LIEAF Factor                   \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	1,000	\$152.09	\$157.19	\$5.10	3.35%	15.72¢
2	3,000	\$426.46	\$441.76	\$15.30	3.59%	14.73¢
3	5,000	\$700.82	\$726.32	\$25.50	3.64%	14.53¢
4	7,000	\$975.18	\$1,010.88	\$35.70	3.66%	14.44¢
5	8,000	\$1,112.37	\$1,153.16	\$40.80	3.67%	14.41¢
6	9,000	\$1,249.55	\$1,295.45	\$45.90	3.67%	14.39¢
7	10,000	\$1,386.73	\$1,437.73	\$51.00	3.68%	14.38¢
8	12,000	\$1,661.09	\$1,722.29	\$61.20	3.68%	14.35¢
9	13,000	\$1,798.28	\$1,864.57	\$66.30	3.69%	14.34¢
10	15,000	\$2,072.64	\$2,149.14	\$76.50	3.69%	14.33¢
11	17,000	\$2,347.00	\$2,433.70	\$86.70	3.69%	14.32¢
12	20,000	\$2,758.55	\$2,860.54	\$101.99	3.70%	14.30¢
13	28,000	\$3,856.01	\$3,998.80	\$142.79	3.70%	14.28¢
14	30,000	\$4,130.37	\$4,283.36	\$152.99	3.70%	14.28¢
15	35,000	\$4,816.28	\$4,994.77	\$178.49	3.71%	14.27¢
16	40,000	\$5,502.19	\$5,706.18	\$203.99	3.71%	14.27¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Commercial Space Heating - Standard Contract Rider No. R8**  
**November Thru May**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 34 of 54

Proposed Rates and Current Surcharges:

Power Supply Charges:

Energy Charge  
1st 1,000 kWh \$0.06040  
Excess \$0.02003  
Non-capacity energy \$0.03726

Power Supply Surcharges: \$0.000000

Distribution Charges:

Service Charge: \$11.25

Distribution Energy \$0.03868

Distribution Surcharges: \$0.000842

Energy Waste Reduction \$2.79

LIEAF Factor \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Energy Charge  
1st 1,000 kWh \$0.06241  
Excess \$0.02070  
Non-capacity energy \$0.03430

Power Supply Surcharges: \$0.000000

Distribution Charges:

Service Charge: \$11.25

Distribution Energy \$0.04473

Distribution Surcharges: \$0.000842

Energy Waste Reduction \$2.79

LIEAF Factor \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	1,000	152.092	\$157.19	\$5.10	3.35%	15.72¢
2	3,000	\$345.72	\$358.33	\$12.61	3.65%	11.94¢
3	5,000	\$539.34	\$559.47	\$20.13	3.73%	11.19¢
4	7,000	\$732.96	\$760.61	\$27.65	3.77%	10.87¢
5	8,000	\$829.78	\$861.18	\$31.40	3.78%	10.76¢
6	9,000	\$926.59	\$961.75	\$35.16	3.79%	10.69¢
7	10,000	\$1,023.40	\$1,062.32	\$38.92	3.80%	10.62¢
8	12,000	\$1,217.02	\$1,263.46	\$46.43	3.82%	10.53¢
9	13,000	\$1,313.84	\$1,364.03	\$50.19	3.82%	10.49¢
10	15,000	\$1,507.46	\$1,565.17	\$57.71	3.83%	10.43¢
11	17,000	\$1,701.08	\$1,766.31	\$65.22	3.83%	10.39¢
12	20,000	\$1,991.52	\$2,068.01	\$76.49	3.84%	10.34¢
13	28,000	\$2,766.02	\$2,872.57	\$106.55	3.85%	10.26¢
14	30,000	\$2,959.64	\$3,073.71	\$114.07	3.85%	10.25¢
15	35,000	\$3,443.70	\$3,576.56	\$132.86	3.86%	10.22¢
16	40,000	\$3,927.76	\$4,079.41	\$151.65	3.86%	10.20¢



**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Primary Supply Rate - D11**  
**Primary Less Than 24kV**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 35 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$13.82  
Voltage Level Discount \$0.00

**Non-Capacity:**

Power Supply Demand \$3.30  
Voltage Level Discount \$0.00

Energy

On-Peak Rate \$0.04261  
Off-Peak Rate \$0.03261  
Voltage Discount \$0.00000

Surcharges:

PSCR \$0.00000  
REPS >41,500kWh/month \$0.00  
11,501-41,500 kWh/month \$0.00

**Distribution**

Service Charge: \$70

Distribution Charges:

Demand \$4.21

Energy

Substation Credit \$0.00

Surcharges:

NDS \$0.000842  
Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$14.46  
Voltage Level Adjustment \$0.00

**Non-Capacity:**

Power Supply Demand \$3.37  
Voltage Level Discount \$0.00

Energy

On-Peak Rate \$0.04066  
Off-Peak Rate \$0.03066  
Voltage Discount \$0.00000

Surcharges:

PSCR \$0.00000  
REPS \$0.00  
\$0.00

**Distribution**

Service Charge: \$75

Distribution Charges:

Demand \$5.49

Energy

Substation Credit \$0.00

Surcharges:

NDS \$0.000842  
Energy Waste Reduction \$1,161

Line No.	(a) Monthly kW Demand	(b) Hours Use		(c) Percent	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Percent	(h) Proposed Unit Cost
1	50	300	@	30%	\$2,845	\$2,920	\$75	2.65%	19.47¢
2	50	400	@	30%	\$3,027	\$3,092	\$66	2.17%	15.46¢
3	50	500	@	25%	\$3,197	\$3,253	\$56	1.75%	13.01¢
4	50	600	@	25%	\$3,376	\$3,423	\$46	1.37%	11.41¢
5	50	650	@	25%	\$3,466	\$3,508	\$41	1.19%	10.79¢
6									
7	100	300	@	30%	\$4,458	\$4,604	\$146	3.27%	15.35¢
8	100	400	@	30%	\$4,822	\$4,949	\$126	2.62%	12.37¢
9	100	500	@	25%	\$5,162	\$5,269	\$107	2.07%	10.54¢
10	100	600	@	25%	\$5,521	\$5,609	\$87	1.58%	9.35¢
11	100	650	@	25%	\$5,701	\$5,779	\$78	1.36%	8.89¢
12									
13	500	300	@	30%	\$17,364	\$18,073	\$709	4.08%	12.05¢
14	500	400	@	30%	\$19,187	\$19,799	\$612	3.19%	9.90¢
15	500	500	@	25%	\$20,884	\$21,399	\$515	2.46%	8.56¢
16	500	600	@	25%	\$22,682	\$23,099	\$417	1.84%	7.70¢
17	500	650	@	25%	\$23,581	\$23,949	\$368	1.56%	7.37¢
18									
19	1,000	300	@	30%	\$33,497	\$34,910	\$1,414	4.22%	11.64¢
20	1,000	400	@	30%	\$37,142	\$38,361	\$1,219	3.28%	9.59¢
21	1,000	500	@	25%	\$40,537	\$41,561	\$1,024	2.53%	8.31¢
22	1,000	600	@	25%	\$44,132	\$44,962	\$829	1.88%	7.49¢
23	1,000	650	@	25%	\$45,930	\$46,662	\$732	1.59%	7.18¢
24									
25	5,000	300	@	30%	\$162,559	\$169,607	\$7,048	4.34%	11.31¢
26	5,000	400	@	30%	\$180,785	\$186,859	\$6,074	3.36%	9.34¢
27	5,000	500	@	25%	\$197,761	\$202,861	\$5,100	2.58%	8.11¢
28	5,000	600	@	25%	\$215,737	\$219,864	\$4,126	1.91%	7.33¢
29	5,000	650	@	25%	\$224,725	\$228,365	\$3,640	1.62%	7.03¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Primary Supply Rate - D11  
Subtransmission 24 to 41.6kV

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$13.82  
Voltage Level Discount (\$0.56)

**Non-Capacity:**

Power Supply Demand \$3.30  
Voltage Level Discount (\$0.11)

**Energy**

On-Peak Rate \$0.04261  
Off-Peak Rate \$0.03261  
Voltage Discount (\$0.00113)

**Surcharges:**

PSCR \$0.00000  
REPS >41,500kWh/month \$0.00  
11,501-41,500 kWh/month \$0.00

**Distribution**

Service Charge: \$375

**Distribution Charges:**

Demand \$1.65

Energy

Substation Credit \$0.00

**Surcharges:**

NDS \$0.000842

Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$14.46  
Voltage Level Adjustment (\$0.29)

**Non-Capacity:**

Power Supply Demand \$3.37  
Voltage Level Discount (\$0.06)

**Energy**

On-Peak Rate \$0.04066  
Off-Peak Rate \$0.03066  
Voltage Discount (\$0.00059)

**Surcharges:**

PSCR \$0.00000  
REPS \$0.00  
\$0.00

**Distribution**

Service Charge: \$375

**Distribution Charges:**

Demand \$2.23

Energy

Substation Credit \$0.00

**Surcharges:**

NDS \$0.000842

Energy Waste Reduction \$1,161

	(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)
Line	Monthly	Hours		Percent	Present Net	Proposed Net	Increase		Proposed
No.	kW Demand	Use			Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	1,000	300	@	30%	\$30,233	\$31,420	\$1,187	3.93%	10.47¢
2	1,000	400	@	30%	\$33,765	\$34,811	\$1,046	3.10%	8.70¢
3	1,000	500	@	25%	\$37,047	\$37,953	\$906	2.45%	7.59¢
4	1,000	600	@	25%	\$40,529	\$41,295	\$765	1.89%	6.88¢
5	1,000	650	@	25%	\$42,271	\$42,966	\$695	1.64%	6.61¢
6									
7	5,000	300	@	30%	\$145,019	\$150,954	\$5,935	4.09%	10.06¢
8	5,000	400	@	30%	\$162,680	\$167,912	\$5,232	3.22%	8.40¢
9	5,000	500	@	25%	\$179,091	\$183,621	\$4,530	2.53%	7.34¢
10	5,000	600	@	25%	\$196,502	\$200,330	\$3,827	1.95%	6.68¢
11	5,000	650	@	25%	\$205,208	\$208,684	\$3,476	1.69%	6.42¢
12									
13	10,000	300	@	30%	\$288,502	\$300,371	\$11,869	4.11%	10.01¢
14	10,000	400	@	30%	\$323,824	\$334,289	\$10,464	3.23%	8.36¢
15	10,000	500	@	25%	\$356,646	\$365,706	\$9,060	2.54%	7.31¢
16	10,000	600	@	25%	\$391,468	\$399,123	\$7,655	1.96%	6.65¢
17	10,000	650	@	25%	\$408,879	\$415,832	\$6,952	1.70%	6.40¢
18									
19	50,000	300	@	30%	\$1,436,366	\$1,495,711	\$59,345	4.13%	9.97¢
20	50,000	400	@	30%	\$1,612,976	\$1,665,298	\$52,321	3.24%	8.33¢
21	50,000	500	@	25%	\$1,777,086	\$1,822,384	\$45,298	2.55%	7.29¢
22	50,000	600	@	25%	\$1,951,196	\$1,989,470	\$38,274	1.96%	6.63¢
23	50,000	650	@	25%	\$2,038,251	\$2,073,013	\$34,762	1.71%	6.38¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Primary Supply Rate - D11  
Transmission 120kV and above

Case No.: U-20836  
Exhibit: S-6  
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Witness: M.J. Pung  
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Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$13.82  
Voltage Level Discount (\$0.84)

**Non-Capacity:**

Power Supply Demand \$3.30  
Voltage Level Discount (\$0.18)

**Energy**

On-Peak Rate \$0.04261  
Off-Peak Rate \$0.03261  
Voltage Discount (\$0.00191)

**Surcharges:**

PSCR \$0.00000  
REPS >41,500kWh/month \$0.00  
11,501-41,500 kWh/month \$0.00

**Distribution**

Service Charge: \$375

**Distribution Charges:**

Demand \$0.70  
Energy

Substation Credit \$0.00

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$14.46  
Voltage Level Adjustment (\$0.61)

**Non-Capacity:**

Power Supply Demand \$3.37  
Voltage Level Discount (\$0.13)

**Energy**

On-Peak Rate \$0.04066  
Off-Peak Rate \$0.03066  
Voltage Level Adjustment (\$0.00131)

**Surcharges:**

PSCR \$0.00000  
REPS \$0.00  
\$0.00

**Distribution**

Service Charge: \$375

**Distribution Charges:**

Demand \$0.94  
Energy

Substation Credit \$0.00

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

Line No.	(a) Monthly kW Demand	(b) Hours Use		(c) Percent	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Percent	(h) Proposed Unit Cost
1	1,000	300	@	30%	\$28,699	\$29,531	\$832	2.90%	9.84¢
2	1,000	400	@	30%	\$32,153	\$32,851	\$698	2.17%	8.21¢
3	1,000	500	@	25%	\$35,357	\$35,921	\$563	1.59%	7.18¢
4	1,000	600	@	25%	\$38,761	\$39,190	\$429	1.11%	6.53¢
5	1,000	650	@	25%	\$40,464	\$40,825	\$362	0.89%	6.28¢
6									
7	5,000	300	@	30%	\$137,349	\$141,511	\$4,161	3.03%	9.43¢
8	5,000	400	@	30%	\$154,620	\$158,109	\$3,489	2.26%	7.91¢
9	5,000	500	@	25%	\$170,641	\$173,458	\$2,817	1.65%	6.94¢
10	5,000	600	@	25%	\$187,662	\$189,807	\$2,144	1.14%	6.33¢
11	5,000	650	@	25%	\$196,173	\$197,981	\$1,808	0.92%	6.09¢
12									
13	10,000	300	@	30%	\$273,162	\$281,485	\$8,323	3.05%	9.38¢
14	10,000	400	@	30%	\$307,704	\$314,682	\$6,978	2.27%	7.87¢
15	10,000	500	@	25%	\$339,746	\$345,379	\$5,633	1.66%	6.91¢
16	10,000	600	@	25%	\$373,788	\$378,077	\$4,289	1.15%	6.30¢
17	10,000	650	@	25%	\$390,809	\$394,425	\$3,616	0.93%	6.07¢
18									
19	50,000	300	@	30%	\$1,359,666	\$1,401,280	\$41,614	3.06%	9.34¢
20	50,000	400	@	30%	\$1,532,376	\$1,567,266	\$34,890	2.28%	7.84¢
21	50,000	500	@	25%	\$1,692,586	\$1,720,752	\$28,166	1.66%	6.88¢
22	50,000	600	@	25%	\$1,862,796	\$1,884,239	\$21,443	1.15%	6.28¢
23	50,000	650	@	25%	\$1,947,901	\$1,965,982	\$18,081	0.93%	6.05¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Primary Educational Institution Rate - D6.2  
Primary Less Than 24kV

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$14.81

**Non-Capacity:**

Power Supply Demand \$0.00

Voltage Level Discount

Energy

On-Peak Rate \$0.04307

Off-Peak Rate \$0.04007

Voltage Discount \$0.00000

**Surcharges:**

PSCR \$0.00000

REPS >41,500kWh/month \$0.00

11,501-41,500 kWh/month \$0.00

**Distribution**

Service Charge: \$70

**Distribution Charges:**

Demand \$4.21

Energy

Substation Credit \$0.00

**Surcharges:**

NDS \$0.000842

Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$14.55

Voltage Level Adjustment \$0.00

**Non-Capacity:**

Power Supply Demand \$0.00

Voltage Level Discount

Energy

On-Peak Rate \$0.04058

Off-Peak Rate \$0.03758

Voltage Discount \$0.00000

**Surcharges:**

PSCR \$0.00000

REPS \$0.00

\$0.00

**Distribution**

Service Charge: \$75

**Distribution Charges:**

Demand \$5.49

Energy

Substation Credit \$0.00

**Surcharges:**

NDS \$0.000842

Energy Waste Reduction \$1,161

Line No.	(a) Monthly kW Demand	(b) Hours Use	(c) Percent	(d) Present Net Monthly Bill	(e) Proposed Net Monthly Bill	(f) Increase Amount	(g) Percent	(h) Proposed Unit Cost
1	50	300	@ 30%	\$2,809	\$2,828	\$19	0.66%	18.85¢
2	50	400	@ 30%	\$3,019	\$3,025	\$6	0.20%	15.12¢
3	50	500	@ 25%	\$3,224	\$3,217	-\$6	-0.20%	12.87¢
4	50	600	@ 25%	\$3,432	\$3,413	-\$19	-0.55%	11.38¢
5	50	650	@ 25%	\$3,536	\$3,511	-\$25	-0.71%	10.80¢
6								
7	100	300	@ 30%	\$4,388	\$4,420	\$32	0.73%	14.73¢
8	100	400	@ 30%	\$4,806	\$4,813	\$7	0.15%	12.03¢
9	100	500	@ 25%	\$5,216	\$5,199	-\$18	-0.34%	10.40¢
10	100	600	@ 25%	\$5,633	\$5,590	-\$43	-0.76%	9.32¢
11	100	650	@ 25%	\$5,841	\$5,786	-\$55	-0.94%	8.90¢
12								
13	500	300	@ 30%	\$17,013	\$17,153	\$140	0.82%	11.44¢
14	500	400	@ 30%	\$19,104	\$19,119	\$16	0.08%	9.56¢
15	500	500	@ 25%	\$21,157	\$21,048	-\$109	-0.51%	8.42¢
16	500	600	@ 25%	\$23,240	\$23,007	-\$233	-1.00%	7.67¢
17	500	650	@ 25%	\$24,281	\$23,986	-\$296	-1.22%	7.38¢
18								
19	1,000	300	@ 30%	\$32,795	\$33,070	\$275	0.84%	11.02¢
20	1,000	400	@ 30%	\$36,976	\$37,002	\$26	0.07%	9.25¢
21	1,000	500	@ 25%	\$41,082	\$40,860	-\$223	-0.54%	8.17¢
22	1,000	600	@ 25%	\$45,248	\$44,777	-\$472	-1.04%	7.46¢
23	1,000	650	@ 25%	\$47,332	\$46,735	-\$596	-1.26%	7.19¢
24								
25	5,000	300	@ 30%	\$159,049	\$160,406	\$1,357	0.85%	10.69¢
26	5,000	400	@ 30%	\$179,955	\$180,067	\$112	0.06%	9.00¢
27	5,000	500	@ 25%	\$200,486	\$199,353	-\$1,133	-0.57%	7.97¢
28	5,000	600	@ 25%	\$221,317	\$218,939	-\$2,378	-1.07%	7.30¢
29	5,000	650	@ 25%	\$231,733	\$228,732	-\$3,001	-1.30%	7.04¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Primary Educational Institution Rate - D6.2  
Subtransmission 24 to 41.6kV

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$14.81  
Voltage Level Discount (\$0.60)

**Non-Capacity:**

Power Supply Demand \$0.00  
Voltage Level Discount

**Energy**

On-Peak Rate \$0.04307  
Off-Peak Rate \$0.04007  
Voltage Discount (\$0.00131)

**Surcharges:**

PSCR \$0.00000  
REPS >41,500kWh/month \$0.00  
11,501-41,500 kWh/month \$0.00

**Distribution**

Service Charge: \$375

**Distribution Charges:**

Demand \$1.65  
Energy

Substation Credit \$0.00

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$14.55  
Voltage Level Adjustment (\$0.30)

**Non-Capacity:**

Power Supply Demand \$0.00  
Voltage Level Discount \$0.00

**Energy**

On-Peak Rate \$0.04058  
Off-Peak Rate \$0.03758  
Voltage Discount (\$0.00068)

**Surcharges:**

PSCR \$0.00000  
REPS \$0.00  
\$0.00

**Distribution**

Service Charge: \$375

**Distribution Charges:**

Demand \$2.23  
Energy

Substation Credit \$0.00

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

	(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)
Line No.	Monthly kW Demand	Hours Use		Percent	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase Amount	Percent	Proposed Unit Cost
1	1,000	300	@	30%	\$29,547	\$29,610	\$63	0.21%	9.87¢
2	1,000	400	@	30%	\$33,597	\$33,474	-\$123	-0.37%	8.37¢
3	1,000	500	@	25%	\$37,572	\$37,263	-\$309	-0.82%	7.45¢
4	1,000	600	@	25%	\$41,607	\$41,112	-\$495	-1.19%	6.85¢
5	1,000	650	@	25%	\$43,625	\$43,037	-\$588	-1.35%	6.62¢
6									
7	5,000	300	@	30%	\$141,589	\$141,904	\$315	0.22%	9.46¢
8	5,000	400	@	30%	\$161,840	\$161,225	-\$615	-0.38%	8.06¢
9	5,000	500	@	25%	\$181,716	\$180,171	-\$1,545	-0.85%	7.21¢
10	5,000	600	@	25%	\$201,892	\$199,417	-\$2,475	-1.23%	6.65¢
11	5,000	650	@	25%	\$211,980	\$209,040	-\$2,940	-1.39%	6.43¢
12									
13	10,000	300	@	30%	\$281,642	\$282,272	\$630	0.22%	9.41¢
14	10,000	400	@	30%	\$322,144	\$320,914	-\$1,230	-0.38%	8.02¢
15	10,000	500	@	25%	\$361,896	\$358,806	-\$3,090	-0.85%	7.18¢
16	10,000	600	@	25%	\$402,248	\$397,298	-\$4,950	-1.23%	6.62¢
17	10,000	650	@	25%	\$422,424	\$416,544	-\$5,880	-1.39%	6.41¢
18									
19	50,000	300	@	30%	\$1,402,066	\$1,405,217	\$3,151	0.22%	9.37¢
20	50,000	400	@	30%	\$1,604,576	\$1,598,427	-\$6,149	-0.38%	7.99¢
21	50,000	500	@	25%	\$1,803,336	\$1,787,887	-\$15,449	-0.86%	7.15¢
22	50,000	600	@	25%	\$2,005,096	\$1,980,347	-\$24,749	-1.23%	6.60¢
23	50,000	650	@	25%	\$2,105,976	\$2,076,577	-\$29,399	-1.40%	6.39¢



Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Primary Educational Institution Rate - D6.2  
Transmission 120kV and above

Case No.: U-20836  
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Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$14.81  
Voltage Level Discount (\$0.90)

**Non-Capacity:**

Power Supply Demand \$0.00  
Voltage Level Discount

Energy

On-Peak Rate \$0.04307  
Off-Peak Rate \$0.04007  
Voltage Discount (\$0.00223)

Surcharges:

PSCR \$0.00000  
REPS >41,500kWh/month \$0.00  
11,501-41,500 kWh/month \$0.00

**Distribution**

Service Charge: \$375

Distribution Charges:

Demand \$0.70  
Energy

Substation Credit \$0.00

Surcharges:

NDS \$0.000842  
Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand \$14.55  
Voltage Level Adjustment (\$0.61)

**Non-Capacity:**

Power Supply Demand \$0.00  
Voltage Level Discount

Energy

On-Peak Rate \$0.04058  
Off-Peak Rate \$0.03758  
Voltage Discount (\$0.00151)

Surcharges:

PSCR \$0.00000  
REPS \$0.00  
\$0.00

**Distribution**

Service Charge: \$375

Distribution Charges:

Demand \$0.94  
Energy

Substation Credit \$0.00

Surcharges:

NDS \$0.000842  
Energy Waste Reduction \$1,161

	(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)
Line No.	Monthly kW Demand	Hours Use		Percent	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase Amount	Percent	Proposed Unit Cost
1	1,000	300	@	30%	\$28,021	\$27,756	-\$265	-0.95%	9.25¢
2	1,000	400	@	30%	\$31,979	\$31,537	-\$443	-1.38%	7.88¢
3	1,000	500	@	25%	\$35,862	\$35,242	-\$620	-1.73%	7.05¢
4	1,000	600	@	25%	\$39,805	\$39,008	-\$797	-2.00%	6.50¢
5	1,000	650	@	25%	\$41,777	\$40,891	-\$886	-2.12%	6.29¢
6									
7	5,000	300	@	30%	\$133,959	\$132,633	-\$1,326	-0.99%	8.84¢
8	5,000	400	@	30%	\$153,750	\$151,538	-\$2,213	-1.44%	7.58¢
9	5,000	500	@	25%	\$173,166	\$170,067	-\$3,099	-1.79%	6.80¢
10	5,000	600	@	25%	\$192,882	\$188,896	-\$3,986	-2.07%	6.30¢
11	5,000	650	@	25%	\$202,740	\$198,311	-\$4,429	-2.18%	6.10¢
12									
13	10,000	300	@	30%	\$266,382	\$263,730	-\$2,652	-1.00%	8.79¢
14	10,000	400	@	30%	\$305,964	\$301,539	-\$4,425	-1.45%	7.54¢
15	10,000	500	@	25%	\$344,796	\$338,598	-\$6,199	-1.80%	6.77¢
16	10,000	600	@	25%	\$384,228	\$376,256	-\$7,972	-2.07%	6.27¢
17	10,000	650	@	25%	\$403,944	\$395,086	-\$8,858	-2.19%	6.08¢
18									
19	50,000	300	@	30%	\$1,325,766	\$1,312,505	-\$13,261	-1.00%	8.75¢
20	50,000	400	@	30%	\$1,523,676	\$1,501,549	-\$22,127	-1.45%	7.51¢
21	50,000	500	@	25%	\$1,717,836	\$1,686,843	-\$30,993	-1.80%	6.75¢
22	50,000	600	@	25%	\$1,914,996	\$1,875,137	-\$39,859	-2.08%	6.25¢
23	50,000	650	@	25%	\$2,013,576	\$1,969,284	-\$44,292	-2.20%	6.06¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Interruptible Supply Rate - D8  
Primary Less Than 24kV

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 41 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand	\$5.94
Voltage Level Discount	\$0.00
Product Protection	\$13.82
Voltage Level Discount	\$0.00

**Non-Capacity:**

Power Supply Demand	\$4.00
Voltage Level Discount	\$0.00
Product Protection	\$3.30
Voltage Level Discount	\$0.00

Energy

On-Peak Rate	\$0.04261
Off-Peak Rate	\$0.03261
Voltage Discount	\$0.00000

Surcharges:

PSCR	\$0.00000
REPS >41,500kWh/month	\$0.00
11,501-41,500 kWh/month	\$0.00

**Distribution**

Service Charge:	\$70
Distribution Charges:	
Demand	\$4.21

Substation Credit \$0.00

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand	\$6.48
Voltage Level Adjustment	\$0.00
Product Protection	\$14.46
Voltage Level Adjustment	\$0.00

**Non-Capacity:**

Power Supply Demand	\$4.33
Voltage Level Adjustment	\$0.00
Product Protection	\$3.37
Voltage Level Adjustment	\$0.00

Energy

On-Peak Rate	\$0.04066
Off-Peak Rate	\$0.03066
Voltage Discount	\$0.00000

Surcharges:

PSCR	\$0.00000
REPS	\$0.00
	\$0.00

**Distribution**

Service Charge:	\$75
Distribution Charges:	
Demand	\$5.49

Substation Credit \$0.00

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

	(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)
Line No.	Monthly kW Demand	Hours Use		Percent	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase Amount	Percent	Proposed Unit Cost
1	50	300	@	30%	\$2,557	\$2,639	\$82	3.19%	17.59¢
2	50	400	@	25%	\$2,730	\$2,801	\$72	2.63%	14.01¢
3	50	500	@	25%	\$2,909	\$2,971	\$62	2.13%	11.89¢
4	50	600	@	25%	\$3,089	\$3,141	\$52	1.70%	10.47¢
5									
6	100	300	@	30%	\$3,883	\$4,042	\$158	4.07%	13.47¢
7	100	400	@	25%	\$4,228	\$4,367	\$139	3.28%	10.92¢
8	100	500	@	25%	\$4,587	\$4,707	\$119	2.60%	9.41¢
9	100	600	@	25%	\$4,947	\$5,047	\$100	2.02%	8.41¢
10									
11	500	300	@	30%	\$14,492	\$15,263	\$771	5.32%	10.18¢
12	500	400	@	25%	\$16,215	\$16,888	\$673	4.15%	8.44¢
13	500	500	@	25%	\$18,012	\$18,588	\$576	3.20%	7.44¢
14	500	600	@	25%	\$19,810	\$20,289	\$479	2.42%	6.76¢
15									
16	1,000	300	@	30%	\$27,753	\$29,290	\$1,537	5.54%	9.76¢
17	1,000	400	@	25%	\$31,198	\$32,540	\$1,342	4.30%	8.13¢
18	1,000	500	@	25%	\$34,793	\$35,940	\$1,147	3.30%	7.19¢
19	1,000	600	@	25%	\$38,388	\$39,341	\$952	2.48%	6.56¢
20									
21	5,000	300	@	30%	\$133,839	\$141,503	\$7,663	5.73%	9.43¢
22	5,000	400	@	25%	\$151,065	\$157,755	\$6,690	4.43%	7.89¢
23	5,000	500	@	25%	\$169,041	\$174,757	\$5,716	3.38%	6.99¢
24	5,000	600	@	25%	\$187,017	\$191,759	\$4,742	2.54%	6.39¢

1. The above bill comparison includes 20% product protection to better represent the total site bill versus only the interruptible portion.
2. The Hours-Use categories were changed to better reflect actual load characteristics

**Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Interruptible Supply Rate - D8  
Subtransmission 24 to 41.6kV**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 42 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand	\$5.94
Voltage Level Discount	(\$0.24)
Product Protection	\$13.82
Voltage Level Discount	(\$0.56)

**Non-Capacity:**

Power Supply Demand	\$4.00
Voltage Level Discount	(\$0.13)
Product Protection	\$3.30
Voltage Level Discount	(\$0.11)

Energy

On-Peak Rate	\$0.04261
Off-Peak Rate	\$0.03261
Voltage Discount	(\$0.00113)

Surcharges:

PSCR	\$0.00000
REPS >41,500kWh/month	\$0.00
11,501-41,500 kWh/	\$0.00

**Distribution**

Service Charge:	\$375
Distribution Charges:	
Demand	\$1.65

Substation Credit \$0.00

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand	\$6.48
Voltage Level Adjustment	(\$0.13)
Product Protection	\$14.46
Voltage Level Adjustment	(\$0.29)

**Non-Capacity:**

Power Supply Demand	\$4.33
Voltage Level Adjustment	(\$0.08)
Product Protection	\$3.37
Voltage Level Adjustment	(\$0.06)

Energy

On-Peak Rate	\$0.04066
Off-Peak Rate	\$0.03066
Voltage Discount	(\$0.00059)

Surcharges:

PSCR	\$0.00000
REPS	\$0.00
	\$0.00

**Distribution**

Service Charge:	\$375
Distribution Charges:	
Demand	\$2.23

Substation Credit \$0.00

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

	(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)
Line No.	Monthly kW Demand	Hours Use		Percent	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase Amount	Percent	Proposed Unit Cost
1	1,000	300	@	30%	\$24,729	\$25,915	\$1,186	4.80%	8.64¢
2	1,000	400	@	25%	\$28,061	\$29,107	\$1,046	3.73%	7.28¢
3	1,000	500	@	25%	\$31,543	\$32,449	\$905	2.87%	6.49¢
4	1,000	600	@	25%	\$35,025	\$35,790	\$765	2.18%	5.97¢
5									
6	5,000	300	@	30%	\$117,499	\$123,431	\$5,931	5.05%	8.23¢
7	5,000	400	@	25%	\$134,160	\$139,389	\$5,229	3.90%	6.97¢
8	5,000	500	@	25%	\$151,571	\$156,098	\$4,527	2.99%	6.24¢
9	5,000	600	@	25%	\$168,982	\$172,807	\$3,824	2.26%	5.76¢
10									
11	10,000	300	@	30%	\$233,462	\$245,325	\$11,863	5.08%	8.18¢
12	10,000	400	@	25%	\$266,784	\$277,242	\$10,458	3.92%	6.93¢
13	10,000	500	@	25%	\$301,606	\$310,660	\$9,053	3.00%	6.21¢
14	10,000	600	@	25%	\$336,428	\$344,077	\$7,649	2.27%	5.73¢
15									
16	50,000	300	@	30%	\$1,161,166	\$1,220,480	\$59,314	5.11%	8.14¢
17	50,000	400	@	25%	\$1,327,776	\$1,380,067	\$52,290	3.94%	6.90¢
18	50,000	500	@	25%	\$1,501,886	\$1,547,153	\$45,267	3.01%	6.19¢
19	50,000	600	@	25%	\$1,675,996	\$1,714,239	\$38,243	2.28%	5.71¢

1. The above bill comparison includes 20% product protection to better represent the total site bill versus only the interruptible portion.
2. The Hours-Use categories were changed to better reflect actual load characteristics



**Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Interruptible Supply Rate - D8  
Transmission 120kV and above**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 43 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand	\$5.94
Voltage Level Discount	(\$0.36)
Product Protection	\$13.82
Voltage Level Discount	(\$0.84)

**Non-Capacity:**

Power Supply Demand	\$4.00
Voltage Level Discount	(\$0.22)
Product Protection	\$3.30
Voltage Level Discount	(\$0.18)

Energy

On-Peak Rate	\$0.04261
Off-Peak Rate	\$0.03261
Voltage Discount	(\$0.00191)

Surcharges:

PSCR	\$0.00000
REPS >41,500kWh/month	\$0.00
11,501-41,500 kWh	\$0.00

**Distribution**

Service Charge:	\$375
Distribution Charges:	
Demand	\$0.70

Substation Credit \$0.00

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Power Supply Demand	\$6.48
Voltage Level Adjustment	(\$0.27)
Product Protection	\$14.46
Voltage Level Adjustment	(\$0.61)

**Non-Capacity:**

Power Supply Demand	\$4.33
Voltage Level Adjustment	(\$0.17)
Product Protection	\$3.37
Voltage Level Adjustment	(\$0.13)

Energy

On-Peak Rate	\$0.04066
Off-Peak Rate	\$0.03066
Voltage Discount	(\$0.00131)

Surcharges:

PSCR	\$0.00000
REPS	\$0.00
	\$0.00

**Distribution**

Service Charge:	\$375
Distribution Charges:	
Demand	\$0.94

Substation Credit \$0.00

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

	(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)
Line No.	Monthly kW Demand	Hours Use		Percent	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase Amount	Percent	Proposed Unit Cost
1	1,000	300	@	30%	\$23,307	\$24,147	\$840	3.60%	8.05¢
2	1,000	400	@	25%	\$26,561	\$27,267	\$706	2.66%	6.82¢
3	1,000	500	@	25%	\$29,965	\$30,536	\$571	1.91%	6.11¢
4	1,000	600	@	25%	\$33,369	\$33,806	\$437	1.31%	5.63¢
5									
6	5,000	300	@	30%	\$110,389	\$114,590	\$4,201	3.81%	7.64¢
7	5,000	400	@	25%	\$126,660	\$130,189	\$3,529	2.79%	6.51¢
8	5,000	500	@	25%	\$143,681	\$146,537	\$2,856	1.99%	5.86¢
9	5,000	600	@	25%	\$160,702	\$162,886	\$2,184	1.36%	5.43¢
10									
11	10,000	300	@	30%	\$219,242	\$227,644	\$8,402	3.83%	7.59¢
12	10,000	400	@	25%	\$251,784	\$258,841	\$7,057	2.80%	6.47¢
13	10,000	500	@	25%	\$285,826	\$291,539	\$5,712	2.00%	5.83¢
14	10,000	600	@	25%	\$319,868	\$324,236	\$4,368	1.37%	5.40¢
15									
16	50,000	300	@	30%	\$1,090,066	\$1,132,076	\$42,009	3.85%	7.55¢
17	50,000	400	@	25%	\$1,252,776	\$1,288,062	\$35,286	2.82%	6.44¢
18	50,000	500	@	25%	\$1,422,986	\$1,451,548	\$28,562	2.01%	5.81¢
19	50,000	600	@	25%	\$1,593,196	\$1,615,034	\$21,838	1.37%	5.38¢

1. The above bill comparison includes 20% product protection to better represent the total site bill versus only the interruptible portion.
2. The Hours-Use categories were changed to better reflect actual load characteristics

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**All Electric School Buildings Rate - D10**  
**November Thru May**

Case No.: U-20836  
 Exhibit: S-6  
 Schedule: F4  
 Witness: M.J. Pung  
 Page: 44 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy Charge \$0.02442

**Non-Capacity:**

Energy Charge \$0.05070

Surcharges:

PSCR \$0.00000

REPS >41,500kWh/month \$0.00

11,501-41,500 kWh/month \$0.00

**Distribution**

Service Charge \$70

Distribution Energy Charge \$0.01419

Surcharges:

NDS \$0.000842

Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy Charge \$0.02673

**Non-Capacity:**

Energy Charge \$0.04828

Surcharges:

PSCR \$0.00000

REPS \$0.00

\$0.00

**Distribution**

Service Charge \$75

Distribution Energy Charge \$0.01788

Surcharges:

NDS \$0.000842

Energy Waste Reduction \$1,161

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	Increase		(f) Proposed Unit Cost
				Amount	Percent	
1	40,000	\$4,837	\$4,985	\$148.14	3.06%	12.46¢
2	50,000	\$5,739	\$5,923	\$183.92	3.20%	11.85¢
3	60,000	\$6,640	\$6,860	\$219.70	3.31%	11.43¢
4	70,000	\$7,542	\$7,797	\$255.49	3.39%	11.14¢
5	80,000	\$8,443	\$8,735	\$291.27	3.45%	10.92¢
6	90,000	\$9,345	\$9,672	\$327.05	3.50%	10.75¢
7	100,000	\$10,246	\$10,609	\$362.84	3.54%	10.61¢
8	110,000	\$11,148	\$11,547	\$398.62	3.58%	10.50¢
9	120,000	\$12,050	\$12,484	\$434.41	3.61%	10.40¢
10	130,000	\$12,951	\$13,421	\$470.19	3.63%	10.32¢
11	140,000	\$13,853	\$14,359	\$505.97	3.65%	10.26¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
All Electric School Buildings Rate - D10  
June Thru October

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 45 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy Charge \$0.04455

**Non-Capacity:**

Energy Charge \$0.05070

Surcharges:

PSCR \$0.00000

REPS >41,500kWh/month \$0.00

11,501-41,500 kWh/month \$0.00

**Distribution**

Service Charge \$70

Distribution Energy Charge \$0.01419

Surcharges:

NDS \$0.000827

Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy Charge \$0.04686

**Non-Capacity:**

Energy Charge \$0.04828

Surcharges:

PSCR \$0.00000

REPS \$0.00

\$0.00

**Distribution**

Service Charge \$75

Distribution Energy Charge \$0.01788

Surcharges:

NDS \$0.000827

Energy Waste Reduction \$1,161

Line No.	(a) Monthly kWh Use	(b) Present Net Monthly Bill	(c) Proposed Net Monthly Bill	Increase		(f) Proposed Unit Cost
				Amount	Percent	
1	40,000	\$5,642	\$5,790	\$148.14	2.63%	14.48¢
2	60,000	\$7,847	\$8,067	\$219.70	2.80%	13.44¢
3	80,000	\$10,053	\$10,344	\$291.27	2.90%	12.93¢
4	100,000	\$12,258	\$12,621	\$362.84	2.96%	12.62¢
5	120,000	\$14,463	\$14,898	\$434.41	3.00%	12.41¢
6	140,000	\$16,669	\$17,175	\$505.97	3.04%	12.27¢
7	160,000	\$18,874	\$19,452	\$577.54	3.06%	12.16¢
8	180,000	\$21,079	\$21,728	\$649.11	3.08%	12.07¢
9	200,000	\$23,285	\$24,005	\$720.68	3.10%	12.00¢
10	220,000	\$25,490	\$26,282	\$792.24	3.11%	11.95¢
11	240,000	\$27,695	\$28,559	\$863.81	3.12%	11.90¢
12	260,000	\$29,901	\$30,836	\$935.38	3.13%	11.86¢
13	280,000	\$32,106	\$33,113	\$1,006.95	3.14%	11.83¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Alternative Metal Melting - Standard Contract Rider No. R1.1**  
**Secondary Voltage Level**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 46 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.02738  
Excess Hrs. Use \$0.01034

**Non-Capacity:**

Energy \$0.04394

**Surcharges:**

PSCR \$0.00000  
REPS \$0.00

**Distribution**

**Distribution Charges:**

1st 100 Hrs. Use \$0.03223  
Excess Hrs. Use \$0.03223

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.03012  
Excess Hrs. Use \$0.01137

**Non-Capacity:**

Energy \$0.04264

**Surcharges:**

PSCR \$0.00000  
REPS \$0.00

**Distribution**

**Distribution Charges:**

1st 100 Hrs. Use \$0.04029  
Excess Hrs. Use \$0.04029

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Monthly kW Demand	Hours Use	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase Amount	Percent	Proposed Unit Cost
1	50	100	\$1,683	\$1,731	\$47.46	2.82%	34.61¢
2	50	200	\$2,120	\$2,206	\$86.41	4.08%	22.06¢
3	50	300	\$2,557	\$2,682	\$125.35	4.90%	17.88¢
4	50	400	\$2,994	\$3,158	\$164.30	5.49%	15.79¢
5	50	500	\$3,430	\$3,634	\$203.24	5.92%	14.53¢
6	50	600	\$3,867	\$4,109	\$242.19	6.26%	13.70¢
7	50	700	\$4,304	\$4,585	\$281.13	6.53%	13.10¢
8							
9	500	100	\$6,381	\$6,855	\$474.60	7.44%	13.71¢
10	500	200	\$10,748	\$11,613	\$864.06	8.04%	11.61¢
11	500	300	\$15,116	\$16,370	\$1,253.51	8.29%	10.91¢
12	500	400	\$19,484	\$21,127	\$1,642.97	8.43%	10.56¢
13	500	500	\$23,851	\$25,884	\$2,032.42	8.52%	10.35¢
14	500	600	\$28,219	\$30,641	\$2,421.87	8.58%	10.21¢
15	500	700	\$32,586	\$35,398	\$2,811.33	8.63%	10.11¢
16							
17	1000	100	\$11,600	\$12,550	\$949.20	8.18%	12.55¢
18	1,000	200	\$20,336	\$22,064	\$1,728.11	8.50%	11.03¢
19	1,000	300	\$29,071	\$31,578	\$2,507.02	8.62%	10.53¢
20	1,000	400	\$37,806	\$41,092	\$3,285.93	8.69%	10.27¢
21	1,000	500	\$46,541	\$50,606	\$4,064.84	8.73%	10.12¢
22	1,000	600	\$55,276	\$60,120	\$4,843.75	8.76%	10.02¢
23	1,000	700	\$64,012	\$69,634	\$5,622.66	8.78%	9.95¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Alternative Metal Melting - Standard Contract Rider No. R1.1  
Primary Less Than 24kV

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 47 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.02035  
Excess Hrs. Use \$0.00743

**Non-Capacity:**

Energy \$0.04394

Surcharges:

PSCR \$0.00000  
REPS \$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use \$0.01231  
Excess Hrs. Use \$0.01231

Surcharges:

NDS \$0.000842  
Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.02238  
Excess Hrs. Use \$0.00817

**Non-Capacity:**

Energy \$0.04264

Surcharges:

PSCR \$0.00000  
REPS \$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use \$0.01604  
Excess Hrs. Use \$0.01604

Surcharges:

NDS \$0.000842  
Energy Waste Reduction \$1,161

Line No.	(a) Monthly kW Demand	(b) Hours Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Percent	(g) Proposed Unit Cost
1	50	100	\$1,548	\$1,571	\$22.31	1.44%	31.42¢
2	50	200	\$1,871	\$1,909	\$38.16	2.04%	19.09¢
3	50	300	\$2,194	\$2,248	\$54.02	2.46%	14.98¢
4	50	400	\$2,516	\$2,586	\$69.87	2.78%	12.93¢
5	50	500	\$2,839	\$2,925	\$85.72	3.02%	11.70¢
6	50	600	\$3,162	\$3,263	\$101.57	3.21%	10.88¢
7	50	700	\$3,484	\$3,602	\$117.43	3.37%	10.29¢
8							
9	500	100	\$5,033	\$5,256	\$223.09	4.43%	10.51¢
10	500	200	\$8,259	\$8,641	\$381.62	4.62%	8.64¢
11	500	300	\$11,486	\$12,026	\$540.15	4.70%	8.02¢
12	500	400	\$14,712	\$15,410	\$698.68	4.75%	7.71¢
13	500	500	\$17,938	\$18,795	\$857.22	4.78%	7.52¢
14	500	600	\$21,164	\$22,180	\$1,015.75	4.80%	7.39¢
15	500	700	\$24,390	\$25,564	\$1,174.28	4.81%	7.30¢
16							
17	1,000	100	\$8,905	\$9,352	\$446.18	5.01%	9.35¢
18	1,000	200	\$15,358	\$16,121	\$763.24	4.97%	8.06¢
19	1,000	300	\$21,810	\$22,890	\$1,080.31	4.95%	7.63¢
20	1,000	400	\$28,262	\$29,659	\$1,397.37	4.94%	7.41¢
21	1,000	500	\$34,714	\$36,429	\$1,714.43	4.94%	7.29¢
22	1,000	600	\$41,166	\$43,198	\$2,031.49	4.93%	7.20¢
23	1,000	700	\$47,619	\$49,967	\$2,348.55	4.93%	7.14¢
24							
25	5,000	100	\$39,882	\$42,113	\$2,230.90	5.59%	8.42¢
26	5,000	200	\$72,143	\$75,959	\$3,816.22	5.29%	7.60¢
27	5,000	300	\$104,404	\$109,806	\$5,401.53	5.17%	7.32¢
28	5,000	400	\$136,665	\$143,652	\$6,986.84	5.11%	7.18¢
29	5,000	500	\$168,926	\$177,498	\$8,572.15	5.07%	7.10¢
30	5,000	600	\$201,187	\$211,345	\$10,157.46	5.05%	7.04¢
31	5,000	700	\$233,448	\$245,191	\$11,742.77	5.03%	7.01¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Alternative Metal Melting - Standard Contract Rider No. R1.1**  
**Subtransmission 24 to 41.6kV**

Case No.: U-20836  
 Exhibit: S-6  
 Schedule: F4  
 Witness: M.J. Pung  
 Page: 48 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use	\$0.01987
Excess Hrs. Use	\$0.00691

**Non-Capacity:**

Energy	\$0.04394
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Surcharges:

PSCR	\$0.00000
REPS	\$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use	\$0.00541
Excess Hrs. Use	\$0.00541

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use	\$0.02186
Excess Hrs. Use	\$0.00760

**Non-Capacity:**

Energy	\$0.04264
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Surcharges:

PSCR	\$0.00000
REPS	\$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use	\$0.00643
Excess Hrs. Use	\$0.00643

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

Line No.	(a) Monthly kW Demand	(b) Hours Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Percent	(g) Proposed Unit Cost
1	50	100	\$1,512	\$1,520	\$8.48	0.56%	30.40¢
2	50	200	\$1,797	\$1,808	\$10.49	0.58%	18.08¢
3	50	300	\$2,083	\$2,095	\$12.50	0.60%	13.97¢
4	50	400	\$2,368	\$2,383	\$14.51	0.61%	11.91¢
5	50	500	\$2,654	\$2,670	\$16.52	0.62%	10.68¢
6	50	600	\$2,939	\$2,958	\$18.53	0.63%	9.86¢
7	50	700	\$3,225	\$3,245	\$20.54	0.64%	9.27¢
8							
9	500	100	\$4,664	\$4,749	\$84.85	1.82%	9.50¢
10	500	200	\$7,519	\$7,624	\$104.94	1.40%	7.62¢
11	500	300	\$10,375	\$10,500	\$125.03	1.21%	7.00¢
12	500	400	\$13,230	\$13,375	\$145.12	1.10%	6.69¢
13	500	500	\$16,085	\$16,250	\$165.21	1.03%	6.50¢
14	500	600	\$18,940	\$19,125	\$185.30	0.98%	6.38¢
15	500	700	\$21,795	\$22,000	\$205.39	0.94%	6.29¢
16							
17	1,000	100	\$8,167	\$8,337	\$169.70	2.08%	8.34¢
18	1,000	200	\$13,878	\$14,088	\$209.88	1.51%	7.04¢
19	1,000	300	\$19,588	\$19,838	\$250.06	1.28%	6.61¢
20	1,000	400	\$25,298	\$25,588	\$290.24	1.15%	6.40¢
21	1,000	500	\$31,008	\$31,339	\$330.42	1.07%	6.27¢
22	1,000	600	\$36,718	\$37,089	\$370.60	1.01%	6.18¢
23	1,000	700	\$42,429	\$42,839	\$410.79	0.97%	6.12¢
24							
25	5,000	100	\$36,192	\$37,041	\$848.50	2.34%	7.41¢
26	5,000	200	\$64,743	\$65,793	\$1,049.40	1.62%	6.58¢
27	5,000	300	\$93,294	\$94,545	\$1,250.31	1.34%	6.30¢
28	5,000	400	\$121,845	\$123,296	\$1,451.21	1.19%	6.16¢
29	5,000	500	\$150,396	\$152,048	\$1,652.12	1.10%	6.08¢
30	5,000	600	\$178,947	\$180,800	\$1,853.02	1.04%	6.03¢
31	5,000	700	\$207,498	\$209,552	\$2,053.93	0.99%	5.99¢
32							
33	10,000	100	\$71,223	\$72,920	\$1,696.99	2.38%	7.29¢
34	10,000	200	\$128,325	\$130,424	\$2,098.80	1.64%	6.52¢
35	10,000	300	\$185,427	\$187,928	\$2,500.61	1.35%	6.26¢
36	10,000	400	\$242,529	\$245,432	\$2,902.42	1.20%	6.14¢
37	10,000	500	\$299,631	\$302,935	\$3,304.23	1.10%	6.06¢
38	10,000	600	\$356,733	\$360,439	\$3,706.04	1.04%	6.01¢
39	10,000	700	\$413,835	\$417,943	\$4,107.85	0.99%	5.97¢



Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Alternative Metal Melting - Standard Contract Rider No. R1.1  
Transmission 120kV and above

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 49 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.01685  
Excess Hrs. Use \$0.00558

**Non-Capacity:**

Energy \$0.04394

**Surcharges:**

PSCR \$0.00000  
REPS \$0.00

**Distribution**

**Distribution Charges:**

1st 100 Hrs. Use \$0.00140  
Excess Hrs. Use \$0.00140

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.01853  
Excess Hrs. Use \$0.00614

**Non-Capacity:**

Energy \$0.04264

**Surcharges:**

PSCR \$0.00000  
REPS \$0.00

**Distribution**

**Distribution Charges:**

1st 100 Hrs. Use \$0.00205  
Excess Hrs. Use \$0.00205

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line	Monthly	Hours	Present Net	Proposed Net	Increase		Proposed
No.	kW Demand	Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	50	100	\$1,476	\$1,482	\$5.15	0.35%	29.63¢
2	50	200	\$1,735	\$1,740	\$4.66	0.27%	17.40¢
3	50	300	\$1,994	\$1,998	\$4.17	0.21%	13.32¢
4	50	400	\$2,253	\$2,257	\$3.69	0.16%	11.28¢
5	50	500	\$2,512	\$2,515	\$3.20	0.13%	10.06¢
6	50	600	\$2,770	\$2,773	\$2.72	0.10%	9.24¢
7	50	700	\$3,029	\$3,032	\$2.23	0.07%	8.66¢
8							
9	500	100	\$4,313	\$4,364	\$51.46	1.19%	8.73¢
10	500	200	\$6,901	\$6,948	\$46.60	0.68%	6.95¢
11	500	300	\$9,489	\$9,531	\$41.75	0.44%	6.35¢
12	500	400	\$12,077	\$12,114	\$36.89	0.31%	6.06¢
13	500	500	\$14,665	\$14,697	\$32.03	0.22%	5.88¢
14	500	600	\$17,253	\$17,281	\$27.18	0.16%	5.76¢
15	500	700	\$19,841	\$19,864	\$22.32	0.11%	5.68¢
16							
17	1,000	100	\$7,464	\$7,567	\$102.92	1.38%	7.57¢
18	1,000	200	\$12,641	\$12,734	\$93.20	0.74%	6.37¢
19	1,000	300	\$17,817	\$17,900	\$83.49	0.47%	5.97¢
20	1,000	400	\$22,993	\$23,067	\$73.78	0.32%	5.77¢
21	1,000	500	\$28,169	\$28,233	\$64.07	0.23%	5.65¢
22	1,000	600	\$33,345	\$33,400	\$54.35	0.16%	5.57¢
23	1,000	700	\$38,522	\$38,566	\$44.64	0.12%	5.51¢
24							
25	5,000	100	\$32,677	\$33,192	\$514.58	1.57%	6.64¢
26	5,000	200	\$58,558	\$59,024	\$466.02	0.80%	5.90¢
27	5,000	300	\$84,439	\$84,857	\$417.46	0.49%	5.66¢
28	5,000	400	\$110,320	\$110,689	\$368.90	0.33%	5.53¢
29	5,000	500	\$136,201	\$136,522	\$320.34	0.24%	5.46¢
30	5,000	600	\$162,082	\$162,354	\$271.77	0.17%	5.41¢
31	5,000	700	\$187,963	\$188,186	\$223.21	0.12%	5.38¢
32							
33	10,000	100	\$64,193	\$65,222	\$1,029.17	1.60%	6.52¢
34	10,000	200	\$115,955	\$116,887	\$932.04	0.80%	5.84¢
35	10,000	300	\$167,717	\$168,552	\$834.92	0.50%	5.62¢
36	10,000	400	\$219,479	\$220,217	\$737.80	0.34%	5.51¢
37	10,000	500	\$271,241	\$271,882	\$640.67	0.24%	5.44¢
38	10,000	600	\$323,003	\$323,547	\$543.55	0.17%	5.39¢
39	10,000	700	\$374,765	\$375,212	\$446.43	0.12%	5.36¢

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Electric Process Heat - Standard Contract Rider No. R1.2**  
**Secondary Voltage Level**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 50 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.02738  
Excess Hrs. Use \$0.01034

**Non-Capacity:**

Energy \$0.04394

**Surcharges:**

PSCR \$0.00000  
REPS \$0.00

**Distribution**

**Distribution Charges:**

1st 100 Hrs. Use \$0.03223  
Excess Hrs. Use \$0.03223

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.03012  
Excess Hrs. Use \$0.01137

**Non-Capacity:**

Energy \$0.04264

**Surcharges:**

PSCR \$0.00000  
REPS \$0.00

**Distribution**

**Distribution Charges:**

1st 100 Hrs. Use \$0.04029  
Excess Hrs. Use \$0.04029

**Surcharges:**

NDS \$0.000842  
Energy Waste Reduction \$1,161

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Monthly kW Demand	Hours Use	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase Amount	Percent	Proposed Unit Cost
1	50	100	\$1,683	\$1,731	\$47.46	2.82%	34.61¢
2	50	200	\$2,120	\$2,206	\$86.41	4.08%	22.06¢
3	50	300	\$2,557	\$2,682	\$125.35	4.90%	17.88¢
4	50	400	\$2,994	\$3,158	\$164.30	5.49%	15.79¢
5	50	500	\$3,430	\$3,634	\$203.24	5.92%	14.53¢
6	50	600	\$3,867	\$4,109	\$242.19	6.26%	13.70¢
7	50	700	\$4,304	\$4,585	\$281.13	6.53%	13.10¢
8							
9	500	100	\$6,381	\$6,855	\$474.60	7.44%	13.71¢
10	500	200	\$10,748	\$11,613	\$864.06	8.04%	11.61¢
11	500	300	\$15,116	\$16,370	\$1,253.51	8.29%	10.91¢
12	500	400	\$19,484	\$21,127	\$1,642.97	8.43%	10.56¢
13	500	500	\$23,851	\$25,884	\$2,032.42	8.52%	10.35¢
14	500	600	\$28,219	\$30,641	\$2,421.87	8.58%	10.21¢
15	500	700	\$32,586	\$35,398	\$2,811.33	8.63%	10.11¢
16							
17	1000	100	\$11,600	\$12,550	\$949.20	8.18%	12.55¢
18	1,000	200	\$20,336	\$22,064	\$1,728.11	8.50%	11.03¢
19	1,000	300	\$29,071	\$31,578	\$2,507.02	8.62%	10.53¢
20	1,000	400	\$37,806	\$41,092	\$3,285.93	8.69%	10.27¢
21	1,000	500	\$46,541	\$50,606	\$4,064.84	8.73%	10.12¢
22	1,000	600	\$55,276	\$60,120	\$4,843.75	8.76%	10.02¢
23	1,000	700	\$64,012	\$69,634	\$5,622.66	8.78%	9.95¢



Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Electric Process Heat - Standard Contract Rider No. R1.2  
Primary Less Than 24kV

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 51 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.02035  
Excess Hrs. Use \$0.00743

**Non-Capacity:**

Energy \$0.04394

Surcharges:

PSCR \$0.00000  
REPS \$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use \$0.01231  
Excess Hrs. Use \$0.01231

Surcharges:

NDS \$0.000842  
Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use \$0.02238  
Excess Hrs. Use \$0.00817

**Non-Capacity:**

Energy \$0.04264

Surcharges:

PSCR \$0.00000  
REPS \$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use \$0.01604  
Excess Hrs. Use \$0.01604

Surcharges:

NDS \$0.000842  
Energy Waste Reduction \$1,161

Line No.	(a) Monthly kW Demand	(b) Hours Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Percent	(g) Proposed Unit Cost
1	50	100	\$1,548	\$1,571	\$22.31	1.44%	31.42¢
2	50	200	\$1,871	\$1,909	\$38.16	2.04%	19.09¢
3	50	300	\$2,194	\$2,248	\$54.02	2.46%	14.98¢
4	50	400	\$2,516	\$2,586	\$69.87	2.78%	12.93¢
5	50	500	\$2,839	\$2,925	\$85.72	3.02%	11.70¢
6	50	600	\$3,162	\$3,263	\$101.57	3.21%	10.88¢
7	50	700	\$3,484	\$3,602	\$117.43	3.37%	10.29¢
8							
9	500	100	\$5,033	\$5,256	\$223.09	4.43%	10.51¢
10	500	200	\$8,259	\$8,641	\$381.62	4.62%	8.64¢
11	500	300	\$11,486	\$12,026	\$540.15	4.70%	8.02¢
12	500	400	\$14,712	\$15,410	\$698.68	4.75%	7.71¢
13	500	500	\$17,938	\$18,795	\$857.22	4.78%	7.52¢
14	500	600	\$21,164	\$22,180	\$1,015.75	4.80%	7.39¢
15	500	700	\$24,390	\$25,564	\$1,174.28	4.81%	7.30¢
16							
17	1,000	100	\$8,905	\$9,352	\$446.18	5.01%	9.35¢
18	1,000	200	\$15,358	\$16,121	\$763.24	4.97%	8.06¢
19	1,000	300	\$21,810	\$22,890	\$1,080.31	4.95%	7.63¢
20	1,000	400	\$28,262	\$29,659	\$1,397.37	4.94%	7.41¢
21	1,000	500	\$34,714	\$36,429	\$1,714.43	4.94%	7.29¢
22	1,000	600	\$41,166	\$43,198	\$2,031.49	4.93%	7.20¢
23	1,000	700	\$47,619	\$49,967	\$2,348.55	4.93%	7.14¢
24							
25	5,000	100	\$39,882	\$42,113	\$2,230.90	5.59%	8.42¢
26	5,000	200	\$72,143	\$75,959	\$3,816.22	5.29%	7.60¢
27	5,000	300	\$104,404	\$109,806	\$5,401.53	5.17%	7.32¢
28	5,000	400	\$136,665	\$143,652	\$6,986.84	5.11%	7.18¢
29	5,000	500	\$168,926	\$177,498	\$8,572.15	5.07%	7.10¢
30	5,000	600	\$201,187	\$211,345	\$10,157.46	5.05%	7.04¢
31	5,000	700	\$233,448	\$245,191	\$11,742.77	5.03%	7.01¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Electric Process Heat - Standard Contract Rider No. R1.2  
Subtransmission 24 to 41.6kV

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 52 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use	\$0.01987
Excess Hrs. Use	\$0.00691

**Non-Capacity:**

Energy	\$0.04394
--------	-----------

Surcharges:

PSCR	\$0.00000
REPS	\$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use	\$0.00541
Excess Hrs. Use	\$0.00541

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use	\$0.02186
Excess Hrs. Use	\$0.00760

**Non-Capacity:**

Energy	\$0.04264
--------	-----------

Surcharges:

PSCR	\$0.00000
REPS	\$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use	\$0.00643
Excess Hrs. Use	\$0.00643

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

Line No.	(a) Monthly kW Demand	(b) Hours Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase		(f)	(g) Proposed Unit Cost
					Amount	Percent		
1	50	100	\$1,512	\$1,520	\$8.48	0.56%		30.40¢
2	50	200	\$1,797	\$1,808	\$10.49	0.58%		18.08¢
3	50	300	\$2,083	\$2,095	\$12.50	0.60%		13.97¢
4	50	400	\$2,368	\$2,383	\$14.51	0.61%		11.91¢
5	50	500	\$2,654	\$2,670	\$16.52	0.62%		10.68¢
6	50	600	\$2,939	\$2,958	\$18.53	0.63%		9.86¢
7	50	700	\$3,225	\$3,245	\$20.54	0.64%		9.27¢
8								
9	500	100	\$4,664	\$4,749	\$84.85	1.82%		9.50¢
10	500	200	\$7,519	\$7,624	\$104.94	1.40%		7.62¢
11	500	300	\$10,375	\$10,500	\$125.03	1.21%		7.00¢
12	500	400	\$13,230	\$13,375	\$145.12	1.10%		6.69¢
13	500	500	\$16,085	\$16,250	\$165.21	1.03%		6.50¢
14	500	600	\$18,940	\$19,125	\$185.30	0.98%		6.38¢
15	500	700	\$21,795	\$22,000	\$205.39	0.94%		6.29¢
16								
17	1,000	100	\$8,167	\$8,337	\$169.70	2.08%		8.34¢
18	1,000	200	\$13,878	\$14,088	\$209.88	1.51%		7.04¢
19	1,000	300	\$19,588	\$19,838	\$250.06	1.28%		6.61¢
20	1,000	400	\$25,298	\$25,588	\$290.24	1.15%		6.40¢
21	1,000	500	\$31,008	\$31,339	\$330.42	1.07%		6.27¢
22	1,000	600	\$36,718	\$37,089	\$370.60	1.01%		6.18¢
23	1,000	700	\$42,429	\$42,839	\$410.79	0.97%		6.12¢
24								
25	5,000	100	\$36,192	\$37,041	\$848.50	2.34%		7.41¢
26	5,000	200	\$64,743	\$65,793	\$1,049.40	1.62%		6.58¢
27	5,000	300	\$93,294	\$94,545	\$1,250.31	1.34%		6.30¢
28	5,000	400	\$121,845	\$123,296	\$1,451.21	1.19%		6.16¢
29	5,000	500	\$150,396	\$152,048	\$1,652.12	1.10%		6.08¢
30	5,000	600	\$178,947	\$180,800	\$1,853.02	1.04%		6.03¢
31	5,000	700	\$207,498	\$209,552	\$2,053.93	0.99%		5.99¢
32								
33	10,000	100	\$71,223	\$72,920	\$1,696.99	2.38%		7.29¢
34	10,000	200	\$128,325	\$130,424	\$2,098.80	1.64%		6.52¢
35	10,000	300	\$185,427	\$187,928	\$2,500.61	1.35%		6.26¢
36	10,000	400	\$242,529	\$245,432	\$2,902.42	1.20%		6.14¢
37	10,000	500	\$299,631	\$302,935	\$3,304.23	1.10%		6.06¢
38	10,000	600	\$356,733	\$360,439	\$3,706.04	1.04%		6.01¢
39	10,000	700	\$413,835	\$417,943	\$4,107.85	0.99%		5.97¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Electric Process Heat - Standard Contract Rider No. R1.2  
Transmission 120kV and above

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
Page: 53 of 54

Present Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use	\$0.01685
Excess Hrs. Use	\$0.00558

**Non-Capacity:**

Energy	\$0.04394
--------	-----------

Surcharges:

PSCR	\$0.00000
REPS	\$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use	\$0.00140
Excess Hrs. Use	\$0.00140

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Capacity:**

Energy

1st 100 Hrs. Use	\$0.01853
Excess Hrs. Use	\$0.00614

**Non-Capacity:**

Energy	\$0.04264
--------	-----------

Surcharges:

PSCR	\$0.00000
REPS	\$0.00

**Distribution**

Distribution Charges:

1st 100 Hrs. Use	\$0.00205
Excess Hrs. Use	\$0.00205

Surcharges:

NDS	\$0.000842
Energy Waste Reduction	\$1,161

Line No.	(a) Monthly kW Demand	(b) Hours Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase		(f)	(g) Proposed Unit Cost
					Amount	Percent		
1	50	100	\$1,476	\$1,482	\$5.15	0.35%		29.63¢
2	50	200	\$1,735	\$1,740	\$4.66	0.27%		17.40¢
3	50	300	\$1,994	\$1,998	\$4.17	0.21%		13.32¢
4	50	400	\$2,253	\$2,257	\$3.69	0.16%		11.28¢
5	50	500	\$2,512	\$2,515	\$3.20	0.13%		10.06¢
6	50	600	\$2,770	\$2,773	\$2.72	0.10%		9.24¢
7	50	700	\$3,029	\$3,032	\$2.23	0.07%		8.66¢
8								
9	500	100	\$4,313	\$4,364	\$51.46	1.19%		8.73¢
10	500	200	\$6,901	\$6,948	\$46.60	0.68%		6.95¢
11	500	300	\$9,489	\$9,531	\$41.75	0.44%		6.35¢
12	500	400	\$12,077	\$12,114	\$36.89	0.31%		6.06¢
13	500	500	\$14,665	\$14,697	\$32.03	0.22%		5.88¢
14	500	600	\$17,253	\$17,281	\$27.18	0.16%		5.76¢
15	500	700	\$19,841	\$19,864	\$22.32	0.11%		5.68¢
16								
17	1,000	100	\$7,464	\$7,567	\$102.92	1.38%		7.57¢
18	1,000	200	\$12,641	\$12,734	\$93.20	0.74%		6.37¢
19	1,000	300	\$17,817	\$17,900	\$83.49	0.47%		5.97¢
20	1,000	400	\$22,993	\$23,067	\$73.78	0.32%		5.77¢
21	1,000	500	\$28,169	\$28,233	\$64.07	0.23%		5.65¢
22	1,000	600	\$33,345	\$33,400	\$54.35	0.16%		5.57¢
23	1,000	700	\$38,522	\$38,566	\$44.64	0.12%		5.51¢
24								
25	5,000	100	\$32,677	\$33,192	\$514.58	1.57%		6.64¢
26	5,000	200	\$58,558	\$59,024	\$466.02	0.80%		5.90¢
27	5,000	300	\$84,439	\$84,857	\$417.46	0.49%		5.66¢
28	5,000	400	\$110,320	\$110,689	\$368.90	0.33%		5.53¢
29	5,000	500	\$136,201	\$136,522	\$320.34	0.24%		5.46¢
30	5,000	600	\$162,082	\$162,354	\$271.77	0.17%		5.41¢
31	5,000	700	\$187,963	\$188,186	\$223.21	0.12%		5.38¢
32								
33	10,000	100	\$64,193	\$65,222	\$1,029.17	1.60%		6.52¢
34	10,000	200	\$115,955	\$116,887	\$932.04	0.80%		5.84¢
35	10,000	300	\$167,717	\$168,552	\$834.92	0.50%		5.62¢
36	10,000	400	\$219,479	\$220,217	\$737.80	0.34%		5.51¢
37	10,000	500	\$271,241	\$271,882	\$640.67	0.24%		5.44¢
38	10,000	600	\$323,003	\$323,547	\$543.55	0.17%		5.39¢
39	10,000	700	\$374,765	\$375,212	\$446.43	0.12%		5.36¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Comparison of Present and Proposed Monthly Bills  
Interruptible Supply Rider - Standard Contract Rider No. R10

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: M.J. Pung  
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Present Rates and Current Surcharges:

**Power Supply**

**Non-Capacity:**

Administrative Charge \$0.01676  
MISO Energy Charge \$0.02545  
Net Trans MISO Mkt \$0.00740

Voltage Level Service Adder:

Primary - 7% of HPSC \$0.00230  
Subtransmission - 2% of HPSC \$0.00066  
Transmission - 1% of HPSC \$0.00033

**Surcharges:**

REPS \$0.00

**Distribution**

Service Charge PV: \$70  
Service Charge SV: \$375  
Service Charge TV: \$375

**Distribution Charges:**

Primary \$4.21

Subtransmission \$1.65

Transmission \$0.70

**Surcharges:**

NDS \$0.000842

Energy Waste Reduction \$1,161

Proposed Rates and Current Surcharges:

**Power Supply**

**Non-Capacity:**

Administrative Charge \$0.00745  
MISO Energy Charge \$0.02790  
Net Trans MISO Mkt \$0.00756

Voltage Level Service Adder:

Primary - 5.5% of HPSC \$0.00195  
Subtransmission - 3.7% of HPSC \$0.00132  
Transmission - 1.6% of HPSC \$0.00055

**Surcharges:**

REPS \$0.00

**Distribution**

Service Charge: \$75  
Service Charge SV: \$375  
Service Charge TV: \$375

**Distribution Charges:**

Demand \$5.49

Demand \$2.23

Demand \$0.94

**Surcharges:**

NDS \$0.000842

Energy Waste Reduction \$1,161

Line No.	(a) Monthly kW Demand	(b) Hours Use	(c) Present Net Monthly Bill	(d) Proposed Net Monthly Bill	(e) Increase Amount	(f) Percent	(g) Proposed Unit Cost
Primary Less Than 24kV							
1	10,000	200	\$148,834	\$147,502	-\$1,332	-0.89%	7.38¢
2	10,000	300	\$201,586	\$193,206	-\$8,380	-4.16%	6.44¢
3	10,000	400	\$254,337	\$238,909	-\$15,428	-6.07%	5.97¢
4	10,000	500	\$307,089	\$284,613	-\$22,476	-7.32%	5.69¢
Subtransmission 24 to 41.6kV							
5	10,000	200	\$120,254	\$113,939	-\$6,316	-5.25%	5.70¢
6	10,000	300	\$171,363	\$159,015	-\$12,349	-7.21%	5.30¢
7	10,000	400	\$222,472	\$204,090	-\$18,382	-8.26%	5.10¢
8	10,000	500	\$273,581	\$249,166	-\$24,415	-8.92%	4.98¢
Transmission 120kV and Up							
9	10,000	200	\$110,097	\$99,535	-\$10,562	-9.59%	4.98¢
10	10,000	300	\$160,878	\$143,841	-\$17,036	-10.59%	4.79¢
11	10,000	400	\$211,658	\$188,148	-\$23,510	-11.11%	4.70¢
12	10,000	500	\$262,439	\$232,454	-\$29,984	-11.43%	4.65¢

Michigan Public Service Commission  
DTE Electric Company  
Staff's Calculation of Voltage Level Distribution Charges

Case No.: U-20836  
Exhibit: S-6  
Schedule: F5  
Witness: M.J. Pung  
Page: 1 of 1

Line No.		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
			Exh A-16, Sch F-1.2 Line 28	(a) + (b)			(c) - (d) - (e)		(f) ÷ (g)
		<b>Present Base Delivery Revenue</b>	<b>Revenue Def/(Suf)</b>	<b>Target Base Revenue</b>	<b>Proposed Service Charge Revenue</b>	<b>Substation Credit</b>	<b>Target Distribution Demand Rev</b>	<b>Distribution Demand</b>	<b>Primary Voltage Distribution Charge</b>
		(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	kW	\$/kW
1	<b>Primary Voltage</b>								
2	Rate								
3	D11	94,148						21,869,458	
4	D6.2	10,448						2,428,971	
5	D8	5,751						1,336,865	
6	D10	444						95,471	
7	R1.1/R1.2	4,673						1,087,868	
8	R3	389						89,273	
9	R10	998						234,552	
10	Primary Voltage Total	116,852	34,822	151,674	2,774	0	148,900	27,142,458	5.49
11									
12		<b>Present</b>							<b>Subtransmission</b>
13		<b>Base</b>							<b>Voltage</b>
14		<b>Delivery</b>							<b>Distribution</b>
15		<b>Revenue</b>	<b>Revenue</b>	<b>Base</b>	<b>Charge</b>	<b>Substation</b>	<b>Target</b>	<b>Distribution</b>	<b>Charge</b>
16		(\$000)	Def/(Suf)	Revenue	Revenue	Credit	Demand Rev	Demand	
17	<b>Subtransmission Voltage</b>		(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	kW	\$/kW
18	Rate								
19	D11	8,802						5,314,897	
20	D6.2	218						125,453	
21	D8	360						203,198	
22	R1.1/R1.2	430						227,776	
23	R3	1,061						616,987	
24	R10	616						362,538	
25	Subtransmission Voltage Total	11,487	3,891	15,378	545	(410)	15,244	6,850,850	2.23
26									
27		<b>Present</b>							<b>Transmission</b>
28		<b>Base</b>							<b>Voltage</b>
29		<b>Delivery</b>							<b>Distribution</b>
30		<b>Revenue</b>	<b>Revenue</b>	<b>Base</b>	<b>Charge</b>	<b>Substation</b>	<b>Target</b>	<b>Distribution</b>	<b>Charge</b>
31		(\$000)	Def/(Suf)	Revenue	Revenue	Credit	Demand Rev	Demand	
32	<b>Transmission Voltage</b>		(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	kW	\$/kW
33	Rate								
34	D11	5,827						9,397,019	
35	D6.2	0						0	
36	D8	120						284,483	
37	R1.1/R1.2	29						35,264	
38	R3	33						100,979	
39	R10	2,313						4,379,612	
40	Transmission Voltage Total	8,322	3,392	11,714	473	(2,084)	13,326	14,197,357	0.94

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Calculation of Nuclear Surcharge**

Case No.: U-20836  
Exhibit: A-16  
Schedule: F6  
Witness: M.J. Pung  
Page: 1 of 1

Line No.	(a) Description	(b) Amount (\$000)	(c) Source
1	<b>Proposed Nuclear Surcharge Revenue:</b>		
2	Site Security & Radiation Protection	\$ 30,195	Exh A-20, Sch J1, L2
3	Nuclear Decommissioning Funding	2,867	Exh A-20, Sch J1, L3
4	Low Level Radioactive Waste Disposal Funding	6,000	Exh A-20, Sch J1, L4
6	Total Proposed Nuclear Surcharge Revenue	\$ 39,062	Exh A-20, Sch J1, L5
7			
8	Forecast Jurisdictional Sales (MWh)	45,197,837	Exh S-6, Sch F2, Page 4, L47, col(b)
9	<b>Proposed Nuclear Surcharge</b>	<b>0.000864 \$/kWh</b>	L5 ÷ L7

Michigan Public Service Commission  
DTE Electric Company  
Staff's Residential Service Rate Standard TOU - D1.11  
Designed Revenue Neutral to D1

Case No.: U-20836  
Exhibit: S-6  
Schedule: F3  
Witness: N.M. Revere  
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Line No.	(a) Description	(b) Billing Determinants		(c) (d) Proposed D1 Rates		(e) (f) Revenue Neutral Design	
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
	<b>Full Service Power Supply</b>						
1	Power Supply Charges						
2	Non-Capacity Charge	13,461,299	MWh	\$0.03745	504,079		
3	June - September						
4	On Peak (3pm-7pm, M-F)	848,220	MWh			\$0.05855	49,666
5	Off Peak	4,682,291	MWh			\$0.03560	166,697
6	October - May						
7	On Peak (3pm-7pm, M-F)	994,455	MWh			\$0.04100	40,771
8	Off Peak	6,936,334	MWh			\$0.03560	246,945
9							
10	Capacity Charges:	13,461,299	MWh				0
11	June - September						
12	On Peak (3pm-7pm, M-F)	848,220				\$0.07751	65,742
13	All Other Hours	12,613,080				\$0.05167	651,727
14	First 17 KWH/Day	8,746,013	MWh	\$0.04617	403,791		
15	Excess	4,715,287	MWh	\$0.06652	313,679		
16	Power Supply Subtotal	13,461,299	MWh	9.07¢	1,221,548		1,221,548
17							
18	PSCR	13,461,299	MWh	\$0.00000	0	\$0.00000	0
19	REPS	1,943,596	Meters	\$0.00000	0	\$0.00000	0
20	Total Full Service Power Supply	13,461,299	MWh	9.07¢	1,221,548	9.07¢	1,221,548
21							
22	<b>Full Service Distribution</b>	Quantity	Units				
23							
24	Service Charge	1,943,596	Cust.	\$8.50	198,247	\$8.50	198,247
25	Income Assistance	31,255	Cust.	(\$8.50)	(3,188)	(\$8.50)	(3,188)
26	Senior Citizen Provision	90,000	Cust.	(\$4.25)	(4,590)	(\$4.25)	(4,590)
27							
28	Distribution Charge	13,461,299	MWh	\$0.07220	971,951	\$0.07220	971,951
29	Distribution System	13,461,299	MWh	8.64¢	1,162,420	8.64¢	1,162,420
30							
31	Nuclear Decomm.	13,461,299	MWh	\$0.000842	11,334	\$0.000842	11,334
32	Energy Waste Reduction	13,461,299	MWh	\$0.005423	73,001	\$0.005423	73,001
33	LIEAF	1,943,596	Cust.	\$0.870000	20,291	\$0.87	20,291
34	Distribution Surcharges	13,461,299	MWh	0.78¢	104,626	0.78¢	104,626
35							
36	Total Full Service Distribution			9.41¢	1,267,046	9.41¢	1,267,046
37	<b>Total Full Service D1.11</b>	13,461,299	MWh	18.49¢	2,488,594	18.49¢	2,488,594
38							
39	<b>Choice</b>	Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
40							
41	Capacity Charges:		MWh			\$0.00000	0
42	First 17 KWH/Day	0	MWh	\$0.04617	0	\$0.00000	0
43	Excess	0	MWh	\$0.06652	0	\$0.00000	0
44	Capacity Total	0	MWh		0		0
45							
46	Distribution Charges						
47	Service Charge	0	Cust.	\$8.50	0	\$8.50	0
48	Income Assistance	0	Cust.	(\$8.50)	0	(\$8.50)	0
49	Senior Citizen Provision	0	Cust.	(\$4.25)	0	(\$4.25)	0
50							
51	Distribution Charge	0	MWh	\$0.07220	0	\$0.07220	0
52	Distribution System	0	MWh		0		0
53							
54	Nuclear Decomm.	0	MWh	\$0.000842	0	\$0.000842	0
55	Energy Waste Reduction	0	MWh	\$0.005423	0	\$0.005423	0
56	LIEAF	0	Cust.	\$0.87	0	\$0.87	0
57	Distribution Surcharges	0	MWh		0		0
58							
59	<b>Total Choice D1.11</b>	0	MWh		0		0
60							
61	<b>Total D1.11</b>	13,461,299	MWh	18.49¢	2,488,594	18.49¢	2,488,594
62	Increase/Decrease (\$)						-



Line No.	(a) Description	(b) Billing Determinants		(c) Proposed D1 Rates		(e) Revenue Neutral Design	
		Quantity	Units	Rate	Revenue (\$000)	Rate	Revenue (\$000)
<b>Full Service Power Supply</b>							
1	Power Supply Charges						
2	Non-Capacity Charge	13,461,299	MWh	\$0.03745	504,079		
3	June - September						
4	On Peak (3pm-7pm, M-F)	848,220	MWh			\$0.05855	49,666
5	Off Peak	4,682,291	MWh			\$0.03560	166,697
6	October - May						
7	On Peak (3pm-7pm, M-F)	994,455	MWh			\$0.04100	40,771
8	Off Peak	6,936,334	MWh			\$0.03560	246,945
9							
10	Capacity Charges:	13,461,299	MWh				
11	First 17 KWH/Day	8,746,013	MWh	\$0.04617	403,791		
12	Excess	4,715,287	MWh	\$0.06652	313,679		
13							
14	Capacity Charges:						
15							
16	<1 kW	37,301	Cust.			\$0.00	0
17	1-2 kW	119,074	Cust.			\$7.01	10,010
18	2-3 kW	248,217	Cust.			\$14.01	41,732
19	3-4 kW	348,957	Cust.			\$21.02	88,004
20	4-5 kW	358,471	Cust.			\$28.02	120,538
21	5-6 kW	302,091	Cust.			\$35.03	126,975
22	6-7 kW	216,834	Cust.			\$42.03	109,368
23	7-8 kW	136,013	Cust.			\$49.04	80,037
24	8-9 kW	77,655	Cust.			\$56.04	52,224
25	>9 kW	98,981	Cust.			\$63.05	74,886
26	kW Excess of 9	162,909	kW			\$7.01	13,695
27							
28	Power Supply Subtotal	13,461,299	MWh	9.07¢	1,221,548	9.07¢	1,221,548
29							
30	PSCR	13,461,299	MWh	\$0.00000	0	\$0.00000	0
31	REPS	1,943,596	Meters	\$0.00000	0	\$0.00000	0
32	Total Full Service Power Supply	13,461,299	MWh	9.07¢	1,221,548	9.07¢	1,221,548
33							
34	<b>Full Service Distribution</b>	Quantity	Units				
35							
36	Service Charge	1,943,596	Cust.	\$8.50	198,247	\$8.50	198,247
37	Income Assistance	31,255	Cust.	(\$8.50)	(3,188)	(\$8.50)	(3,188)
38	Senior Citizen Provision	90,000	Cust.	(\$4.25)	(4,590)	(\$4.25)	(4,590)
39							
40	Distribution Charge						
41	<1 kW	37,301	Cust.			\$0.00	0
42	1-2 kW	119,074	Cust.			\$9.49	13,560
43	2-3 kW	248,217	Cust.			\$18.98	56,534
44	3-4 kW	348,957	Cust.			\$28.47	119,219
45	4-5 kW	358,471	Cust.			\$37.96	163,292
46	5-6 kW	302,091	Cust.			\$47.45	172,012
47	6-7 kW	216,834	Cust.			\$56.94	148,160
48	7-8 kW	136,013	Cust.			\$66.43	108,425
49	8-9 kW	77,655	Cust.			\$75.92	70,748
50	>9 kW	98,981	Cust.			\$85.41	101,448
51	kW Excess of 9	162,909	kW			\$9.49	18,552
52							
53	Distribution Charge	13,461,299	MWh	\$0.07220	971,951		
54	Distribution System	13,461,299	MWh	8.64¢	1,162,420	8.64¢	1,162,420
55							
56	Nuclear Decomm.	13,461,299	MWh	\$0.000842	11,334	\$0.000842	11,334
57	Energy Waste Reduction	13,461,299	MWh	\$0.005423	73,001	\$0.005423	73,001
58	LIEAF	1,943,596	Cust.	\$0.870000	20,291	\$0.87	20,291
59	Distribution Surcharges	13,461,299	MWh	0.78¢	104,626	0.78¢	104,626
60							
61	Total Full Service Distribution			9.41¢	1,267,046	9.41¢	1,267,046
62	<b>Total Full Service D1.12</b>	13,461,299	MWh	18.49¢	2,488,594	18.49¢	2,488,594



Line No.	(a) Description		(b) Billing Determinants		(c) Proposed D1 Rates		(e) Revenue Neutral Design	
	Choice	Quantity	Units		Rate	Revenue	Rate	Revenue
1								
2	Capacity Charges:		MWh					
3	First 17 KWH/Day	0	MWh		\$0.04617	0	\$0.00000	0
4	Excess	0	MWh		\$0.06652	0	\$0.00000	0
5								
6	Capacity Charges:							
7								
8	<1 kW	0	Cust.				\$0.00	0
9	1-2 kW	0	Cust.				\$7.01	0
10	2-3 kW	0	Cust.				\$14.01	0
11	3-4 kW	0	Cust.				\$21.02	0
12	4-5 kW	0	Cust.				\$28.02	0
13	5-6 kW	0	Cust.				\$35.03	0
14	6-7 kW	0	Cust.				\$42.03	0
15	7-8 kW	0	Cust.				\$49.04	0
16	8-9 kW	0	Cust.				\$56.04	0
17	>9 kW	0	Cust.				\$63.05	0
18	kW Excess of 9	0	kW				\$7.01	0
19								
20	Capacity Total	0	MWh			0		0
21								
22	Distribution Charges							
23	Service Charge	0	Cust.		\$8.50	0	\$8.50	0
24	Income Assistance	0	Cust.		(\$8.50)	0	(\$8.50)	0
25	Senior Citizen Provision	0	Cust.		(\$4.25)	0	(\$4.25)	0
26								
27	Distribution Charge							
28	<1 kW	0	Cust.				\$0.00	0
29	1-2 kW	0	Cust.				\$9.49	0
30	2-3 kW	0	Cust.				\$18.98	0
31	3-4 kW	0	Cust.				\$28.47	0
32	4-5 kW	0	Cust.				\$37.96	0
33	5-6 kW	0	Cust.				\$47.45	0
34	6-7 kW	0	Cust.				\$56.94	0
35	7-8 kW	0	Cust.				\$66.43	0
36	8-9 kW	0	Cust.				\$75.92	0
37	>9 kW	0	Cust.				\$85.41	0
38	kW Excess of 9	0	kW				\$9.49	0
39								
40	Distribution Charge	0	MWh		\$0.07220	0	\$0.00000	0
41	Distribution System	0	MWh			0		0
42								
43	Nuclear Decomm.	0	MWh		\$0.000842	0	\$0.000842	0
44	Energy Waste Reduction	0	MWh		\$0.005423	0	\$0.005423	0
45	LIEAF	0	Cust.		\$0.87	0	\$0.87	0
46	Distribution Surcharges	0	MWh			0		0
47								
48	Total Choice D1.12	0	MWh			0		0
49								
50	Total D1.12	13,461,299	MWh		18.49¢	2,488,594	18.49¢	2,488,594
51	Increase/Decrease (\$)							-

Michigan Public Service Commission  
DTE Electric Company  
Staff's Rider 18 Outflow Credits  
Calculation of Power Supply Transmission Rates

Case No.: U-20836  
Exhibit: S-6  
Schedule: F7  
Witness: N.M. Revere  
Page: 1 of 3

	(a)	(b)	(c)	(d)	(e)	(f)
Line						
No	Rate Schedule	Total Transmission Expense(1)	Power Supply Sales (kWh)	Power Supply Demand (kW)	Transmission Rate(2)	Unit
1	D1/Other	\$136,090	14,645,353		\$0.00929	per kWh
2	D1.2	\$1,395	183,469		\$0.00760	per kWh
3	D2	\$2,413	295,143		\$0.00817	per kWh
4	D3/Other	\$62,177	7,640,628		\$0.00814	per kWh
5	D3.2	\$2,137	298,459		\$0.00716	per kWh
6	D4	\$14,884		4,844,992	\$3.07	per kW
7	D11	\$76,733				
8	Primary	\$44,174		13,094,403	\$3.37	per kW
9	Subtransmission	\$11,292		3,407,644	\$3.31	per kW
10	Transmission	\$21,266		6,562,512	\$3.24	per kW
11	D6.2	\$2,595				
12	Primary	\$2,339	314,414		\$0.00744	per kWh
13	Subtransmission	\$256	35,001		\$0.00731	per kWh
14	Transmission		0		\$0.00715	per kWh
15	D8	\$3,892				
16	Primary	\$2,933		815,188	\$3.60	per kW
17	Subtransmission	\$449		127,137	\$3.53	per kW
18	Transmission	\$510		147,666	\$3.46	per kW
19	D10	\$124	16,164		\$0.00769	per kWh

(1) From Cost of Service Study  
(2) Column (b) / column (c) or (d), dependent on unit of transmission rate

Line	(a)	(b)	(c)	(d)	(e)	(f)	(g)
No	Rate Schedule	Non-Capacity Rate	Capacity Rate	Transmission Rate	<div>(b) + (c) - (d) COMPANY Method Outflow Credit</div>	<div>(b) + (c) STAFF Method Outflow Credit</div>	Unit
1	<u>RESIDENTIAL</u>						
2	<b>D1/D1.6</b>						
3	First 17 KWH/Day	\$0.03745	\$0.04617	\$0.00929	\$0.07432	\$0.08362	per kWh
4	Excess	\$0.03745	\$0.06652	\$0.00929	\$0.09468	\$0.10397	per kWh
5	<b>D1.1</b>						
6	Summer	0.02961	0.04404	\$0.00929	\$0.06437	\$0.07366	per kWh
7	Winter	0.02961	0.01092	\$0.00929	\$0.03124	\$0.04053	per kWh
8	<b>D1.2</b>						
9	Summer On Peak	\$0.04037	\$0.11557	\$0.00760	\$0.14834	\$0.15594	per kWh
10	Summer Off Peak	\$0.04037	\$0.01213	\$0.00760	\$0.04490	\$0.05250	per kWh
11	Winter On Peak	\$0.04037	\$0.09136	\$0.00760	\$0.12413	\$0.13173	per kWh
12	Winter Off Peak	\$0.04037	\$0.01008	\$0.00760	\$0.04285	\$0.05045	per kWh
13	<b>D1.7</b>						
14	Summer On Peak	\$0.02210	\$0.11373	\$0.00929	\$0.12654	\$0.13583	per kWh
15	Summer Off Peak	\$0.02210	\$0.02289	\$0.00929	\$0.03570	\$0.04499	per kWh
16	Winter On Peak	\$0.02210	\$0.03659	\$0.00929	\$0.04940	\$0.05869	per kWh
17	Winter Off Peak	\$0.02210	\$0.02401	\$0.00929	\$0.03682	\$0.04611	per kWh
18	<b>D1.8</b>						
19	Off Peak	\$0.03230	\$0.01243	\$0.00929	\$0.03544	\$0.04473	per kWh
20	Mid Peak	\$0.03230	\$0.05762	\$0.00929	\$0.08062	\$0.08992	per kWh
21	On Peak	\$0.03230	\$0.13294	\$0.00929	\$0.15595	\$0.16524	per kWh
22	Critical Peak	\$0.03230	\$0.91770	\$0.00929	\$0.94071	\$0.95000	per kWh
23	<b>D1.9</b>						
24	On Peak	\$0.07065	\$0.10055	\$0.00929	\$0.16191	\$0.17121	per kWh
25	Off Peak	\$0.01766	\$0.02514	\$0.00929	\$0.03351	\$0.04280	per kWh
26	<b>D1.11</b>						
27	June-Sept On Peak	\$0.05855	\$0.00000	\$0.00929	\$0.04926	\$0.05855	per kWh
28	June-Sept Off Peak	\$0.03560	\$0.00000	\$0.00929	\$0.02631	\$0.03560	per kWh
29	Oct-May On Peak	\$0.04100	\$0.00000	\$0.00929	\$0.03171	\$0.04100	per kWh
30	Oct-May Off Peak	\$0.03560	\$0.00000	\$0.00929	\$0.02631	\$0.03560	per kWh
31	<b>D2</b>						
32	Summer First 17 kWh/day	\$0.04067	\$0.04384	\$0.00817	\$0.07633	\$0.08451	per kWh
33	Summer Excess	\$0.04067	\$0.06270	\$0.00817	\$0.09519	\$0.10337	per kWh
34	Winter First 20 kWh/day	\$0.04067	\$0.02586	\$0.00817	\$0.05836	\$0.06653	per kWh
35	Winter Excess	\$0.04067	\$0.01010	\$0.00817	\$0.04259	\$0.05077	per kWh
36	<b>D5</b>						
37	All Outflow	\$0.01995	\$0.02840	\$0.00929	\$0.03906	\$0.04835	per kWh
38							
39	<u>COMMERCIAL SECONDARY</u>						
40	<b>D1.1 Commercial</b>						
41	Summer	\$0.03375	\$0.04206	0.00814	\$0.06767	\$0.07581	per kWh
42	Winter	\$0.03375	\$0.02034	0.00814	\$0.04595	\$0.05409	per kWh
43	<b>D1.7 Commercial</b>						
44	Summer On Peak	\$0.02243	\$0.03648	0.00814	\$0.05076	\$0.05890	per kWh
45	Summer Off Peak	\$0.02243	\$0.01896	0.00814	\$0.03325	\$0.04139	per kWh
46	Winter On Peak	\$0.02243	\$0.02334	0.00814	\$0.03763	\$0.04577	per kWh
47	Winter Off Peak	\$0.02243	\$0.02334	0.00814	\$0.03763	\$0.04577	per kWh
48	<b>D1.8</b>						
49	Off Peak	\$0.03513	\$0.00851	0.00814	\$0.03551	\$0.04365	per kWh
50	Mid Peak	\$0.03513	\$0.05511	0.00814	\$0.08211	\$0.09024	per kWh
51	On Peak	\$0.03513	\$0.13502	0.00814	\$0.16201	\$0.17015	per kWh
52	Critical Peak	\$0.03513	\$1.22103	0.00814	\$1.24802	\$1.25616	per kWh
53	<b>D1.9</b>						
54	On Peak	\$0.07065	\$0.10055	0.00814	\$0.16307	\$0.17121	per kWh
55	Off Peak	\$0.01766	\$0.02514	0.00814	\$0.03466	\$0.04280	per kWh
56	<b>D3</b>						
57	All Outflow	\$0.03924	\$0.04122	\$0.00814	\$0.07232	\$0.08046	per kWh
58	<b>D3.2</b>						
59	All Outflow	\$0.03970	\$0.03393	\$0.00716	\$0.06647	\$0.07362	per kWh
60	<b>D3.3</b>						
61	All Outflow	\$0.03278	\$0.03443	\$0.00814	\$0.05908	\$0.06722	per kWh
62	<b>D4</b>						
63	First 200 kWh per kW	\$0.03732	\$0.00000		\$0.03732	\$0.03732	per kWh
64	Excess	\$0.02880	\$0.00000		\$0.02880	\$0.02880	per kWh
65	Demand	\$2.61	\$14.44	\$3.07	\$13.98	\$17.05	per kW
66	<b>D5</b>						
67	All Outflow	\$0.02310	\$0.02427	\$0.00814	\$0.03923	\$0.04737	per kWh
68	<b>E1.1</b>						
69	All Outflow	\$0.02710	\$0.02817	\$0.00814	\$0.04713	\$0.05527	per kWh

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No	Rate Schedule	Non-Capacity Rate	Capacity Rate	Transmission Rate	COMPANY Method Outflow Credit	STAFF Method Outflow Credit	Unit
1	PRIMARY						
2	D11						
3	Primary						
4	On Peak	\$0.04066			\$0.04066	\$0.04066	per kWh
5	Off Peak	\$0.03066			\$0.03066	\$0.03066	per kWh
6	Demand	\$3.37	\$14.46	\$3.37	\$14.46	\$17.84	per kW
7	Subtransmission						
8	On Peak	\$0.04008			\$0.04008	\$0.04008	per kWh
9	Off Peak	\$0.03008			\$0.03008	\$0.03008	per kWh
10	Demand	\$3.31	\$14.17	\$3.31	\$14.17	\$17.48	per kW
11	Transmission						
12	On Peak	\$0.03936			\$0.03936	\$0.03936	per kWh
13	Off Peak	\$0.02936			\$0.02936	\$0.02936	per kWh
14	Demand	\$3.24	\$13.85	\$3.24	\$13.85	\$17.09	per kW
15	D6.2						
16	Primary						
17	On Peak	\$0.04058		\$0.00744	\$0.03314	\$0.04058	per kWh
18	Off Peak	\$0.03758		\$0.00744	\$0.03014	\$0.03758	per kWh
19	Demand	\$0	\$14.55		\$14.55	\$14.55	per kW
20	Subtransmission						
21	On Peak	\$0.03990		\$0.00731	\$0.03259	\$0.03990	per kWh
22	Off Peak	\$0.03690		\$0.00731	\$0.02959	\$0.03690	per kWh
23	Demand	\$0	\$14.26		\$14.26	\$14.26	per kW
24	Transmission						
25	On Peak	\$0.03907		\$0.00715	\$0.03192	\$0.03907	per kWh
26	Off Peak	\$0.03607		\$0.00715	\$0.02892	\$0.03607	per kWh
27	Demand	\$0	\$13.94		\$13.94	\$13.94	per kW
28	D8						
29	Primary						
30	On Peak	\$0.04066			\$0.04066	\$0.04066	per kWh
31	Off Peak	\$0.03066			\$0.03066	\$0.03066	per kWh
32	Demand	\$4.33	\$6.48	\$3.60	\$7.21	\$10.81	per kW
33	Subtransmission						
34	On Peak	\$0.04008			\$0.04008	\$0.04008	per kWh
35	Off Peak	\$0.03008			\$0.03008	\$0.03008	per kWh
36	Demand	\$4.26	\$6.35	\$3.53	\$7.07	\$10.60	per kW
37	Transmission						
38	On Peak	\$0.03936			\$0.03936	\$0.03936	per kWh
39	Off Peak	\$0.02936			\$0.02936	\$0.02936	per kWh
40	Demand	\$4.16	\$6.20	\$3.46	\$6.91	\$10.37	per kW
41	D10						
42	Summer	\$0.04828	\$0.04686	\$0.00769	\$0.08745	\$0.09514	per kWh
43	Winter	\$0.04828	\$0.02673	\$0.00769	\$0.06732	\$0.07501	per kWh

**Michigan Public Service Commission**

**DTE Electric Company**

**Staff's Comparison of Present D1 and Proposed D1.11 Monthly Bills**

**Residential Service Rate Standard TOU - D1.11**

**June Thru September**

Case No.: U-20836

Exhibit: S-6

Schedule: F4

Witness: N.M. Revere

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Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge \$0.04176

Capacity Charges:

First 17 KWH/Day \$0.04500

Excess \$0.06484

Power Supply Surcharges: \$0.00000

REPS \$0.00000

Service Charge \$7.50000

Distribution Charge: \$0.06611

Delivery Surcharges: \$0.006265

LIEAF \$0.87000

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge

June-Sept On Peak \$0.05855

June-Sept Off Peak \$0.03560

Capacity Charges:

June-Sept On Peak \$0.07751

June-Sept Off Peak \$0.05167

Power Supply Surcharges: \$0.00000

REPS \$0.00

Service Charge: \$8.50

Distribution Charge: \$0.07220

Delivery Surcharges: \$0.006265

LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	100	\$24.28	\$26.69	\$2.41	9.92%	26.69¢
2	120	\$27.47	\$30.16	\$2.69	9.80%	25.13¢
3	140	\$30.65	\$33.62	\$2.97	9.70%	24.02¢
4	160	\$33.83	\$37.09	\$3.25	9.62%	23.18¢
5	180	\$37.01	\$40.55	\$3.54	9.55%	22.53¢
6	200	\$40.20	\$44.01	\$3.82	9.50%	22.01¢
7	240	\$46.56	\$50.94	\$4.38	9.41%	21.23¢
8	280	\$52.93	\$57.87	\$4.94	9.34%	20.67¢
9	300	\$56.11	\$61.34	\$5.23	9.31%	20.45¢
10	350	\$64.07	\$70.00	\$5.93	9.26%	20.00¢
11	400	\$72.02	\$78.66	\$6.64	9.21%	19.66¢
12	450	\$79.98	\$87.32	\$7.34	9.18%	19.40¢
13	500	\$87.94	\$95.98	\$8.04	9.15%	19.20¢
14	550	\$96.69	\$104.64	\$7.95	8.23%	19.03¢
15	600	\$105.64	\$113.30	\$7.67	7.26%	18.88¢
16	650	\$114.59	\$121.97	\$7.38	6.44%	18.76¢
17	700	\$123.53	\$130.63	\$7.09	5.74%	18.66¢
18	750	\$132.48	\$139.29	\$6.80	5.14%	18.57¢
19	800	\$141.43	\$147.95	\$6.52	4.61%	18.49¢
20	850	\$150.38	\$156.61	\$6.23	4.14%	18.42¢
21	900	\$159.33	\$165.27	\$5.94	3.73%	18.36¢
22	950	\$168.28	\$173.93	\$5.65	3.36%	18.31¢
23	1,000	\$177.23	\$182.59	\$5.37	3.03%	18.26¢
24	1,100	\$195.12	\$199.92	\$4.79	2.46%	18.17¢
25	1,200	\$213.02	\$217.24	\$4.22	1.98%	18.10¢
26	1,300	\$230.92	\$234.56	\$3.64	1.58%	18.04¢
27	1,400	\$248.82	\$251.88	\$3.07	1.23%	17.99¢
28	1,500	\$266.71	\$269.20	\$2.49	0.93%	17.95¢
29	2,000	\$356.20	\$355.82	-\$0.39	-0.11%	17.79¢
30	2,750	\$490.43	\$485.73	-\$4.70	-0.96%	17.66¢
31	4,000	\$714.15	\$702.26	-\$11.89	-1.66%	17.56¢

Assumes ~15% of June-September usage is on peak (per rate design billing determinants)

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present D1 and Proposed D1.11 Monthly Bills**  
**Residential Service Rate Standard TOU - D1.11**  
**October thru May**

Case No.: U-20836  
Exhibit: S-6  
Schedule: F4  
Witness: N.M. Revere  
Page: 21 of 54

Present Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge \$0.04176

Capacity Charges:

First 17 KWH/Day \$0.04500  
Excess \$0.06484

Power Supply Surcharges:

REPS \$0.00000  
\$0.00

Service Charge \$7.50

Distribution Charge: \$0.06611

Delivery Surcharges: \$0.006265

LIEAF \$0.87

Proposed Rates and Current Surcharges:

Power Supply Charges:

Non-Capacity Charge

Oct-May On Peak \$0.04100

Oct-May Off Peak \$0.03560

Capacity Charges:

\$0.05167

Power Supply Surcharges:

REPS \$0.00000  
\$0.00

Service Charge: \$8.50

Distribution Charge: \$0.07220

Delivery Surcharges: \$0.006265

LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	kWh Use	Monthly Bill	Monthly Bill	Amount	Percent	Unit Cost
1	100	\$24.28	\$26.01	\$1.73	7.12%	26.01¢
2	120	\$27.47	\$29.34	\$1.87	6.82%	24.45¢
3	140	\$30.65	\$32.67	\$2.02	6.59%	23.33¢
4	160	\$33.83	\$36.00	\$2.17	6.40%	22.50¢
5	180	\$37.01	\$39.33	\$2.31	6.24%	21.85¢
6	200	\$40.20	\$42.65	\$2.46	6.11%	21.33¢
7	240	\$46.56	\$49.31	\$2.75	5.90%	20.55¢
8	280	\$52.93	\$55.97	\$3.04	5.74%	19.99¢
9	300	\$56.11	\$59.30	\$3.18	5.68%	19.77¢
10	350	\$64.07	\$67.62	\$3.55	5.54%	19.32¢
11	400	\$72.02	\$75.94	\$3.91	5.43%	18.98¢
12	450	\$79.98	\$84.26	\$4.28	5.35%	18.72¢
13	500	\$87.94	\$92.58	\$4.64	5.28%	18.52¢
14	550	\$96.69	\$100.90	\$4.21	4.36%	18.35¢
15	600	\$105.64	\$109.22	\$3.58	3.39%	18.20¢
16	650	\$114.59	\$117.54	\$2.96	2.58%	18.08¢
17	700	\$123.53	\$125.86	\$2.33	1.88%	17.98¢
18	750	\$132.48	\$134.18	\$1.70	1.28%	17.89¢
19	800	\$141.43	\$142.50	\$1.07	0.76%	17.81¢
20	850	\$150.38	\$150.82	\$0.44	0.30%	17.74¢
21	900	\$159.33	\$159.15	-\$0.18	-0.12%	17.68¢
22	950	\$168.28	\$167.47	-\$0.81	-0.48%	17.63¢
23	1,000	\$177.23	\$175.79	-\$1.44	-0.81%	17.58¢
24	1,100	\$195.12	\$192.43	-\$2.69	-1.38%	17.49¢
25	1,200	\$213.02	\$209.07	-\$3.95	-1.85%	17.42¢
26	1,300	\$230.92	\$225.71	-\$5.21	-2.25%	17.36¢
27	1,400	\$248.82	\$242.35	-\$6.46	-2.60%	17.31¢
28	1,500	\$266.71	\$259.00	-\$7.72	-2.89%	17.27¢
29	2,000	\$356.20	\$342.20	-\$14.00	-3.93%	17.11¢
30	2,750	\$490.43	\$467.02	-\$23.41	-4.77%	16.98¢
31	4,000	\$714.15	\$675.04	-\$39.11	-5.48%	16.88¢

Assumes ~13% of Oct-May usage is on peak (per rate design billing determinants)

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Service Rate Stable Bill Service Level - D1.12**  
**June Thru September**  
**FOR REFERENCE ONLY**

Case No.: U-20836  
 Exhibit: S-6  
 Schedule: F4  
 Witness: N.M. Revere  
 Page: 22 of 54

Present Rates and Current Surcharges:  
 N/A

Proposed Rates and Current Surcharges:  
 Power Supply Charges:  
  
 Non-Capacity Charge  
 June-Sept On Peak \$0.05855  
 June-Sept Off Peak \$0.03560  
  
 Capacity Charges:  
 <1 kW \$0.00  
 1-2 kW \$7.01  
 2-3 kW \$14.01  
 3-4 kW \$21.02  
 4-5 kW \$28.02  
 5-6 kW \$35.03  
 6-7 kW \$42.03  
 7-8 kW \$49.04  
 8-9 kW \$56.04  
 >9 kW \$63.05  
 kW Excess of 9 \$7.01  
  
 Power Supply Surcharges: \$0.00000  
 REPS \$0.00  
  
 Service Charge: \$8.50  
 Distribution Charge:  
 <1 kW \$0.00  
 1-2 kW \$9.49  
 2-3 kW \$18.98  
 3-4 kW \$28.47  
 4-5 kW \$37.96  
 5-6 kW \$47.45  
 6-7 kW \$56.94  
 7-8 kW \$66.43  
 8-9 kW \$75.92  
 >9 kW \$85.41  
 kW Excess of 9 \$9.49  
  
 Delivery Surcharges: \$0.006265  
 LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Monthly kW Demand	Load Factor	Proposed Net Monthly Bill	Increase		Proposed Unit Cost
				Amount	Percent	
1	2.5	10%	\$50.53	-	-	28.07¢
2	2.5	17%	\$56.25	-	-	18.38¢
3	2.5	20%	\$58.70	-	-	16.31¢
4						
5	3.5	10%	\$70.29	-	-	27.89¢
6	3.5	17%	\$78.30	-	-	18.28¢
7	3.5	20%	\$81.73	-	-	16.22¢
8						
9	4.5	10%	\$90.06	-	-	27.80¢
10	4.5	17%	\$100.35	-	-	18.22¢
11	4.5	20%	\$104.76	-	-	16.17¢
12						
13	5.5	10%	\$109.82	-	-	27.73¢
14	5.5	17%	\$122.40	-	-	18.18¢
15	5.5	20%	\$127.79	-	-	16.14¢
16						
17	6.5	10%	\$129.58	-	-	27.69¢
18	6.5	17%	\$144.45	-	-	18.16¢
19	6.5	20%	\$150.82	-	-	16.11¢

Assumes ~15% of June-September usage is on peak (per rate design billing determinants)

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Staff's Comparison of Present and Proposed Monthly Bills**  
**Residential Service Rate Stable Bill Service Level - D1.12**  
**October thru May**  
**FOR REFERENCE ONLY**

Case No.: U-20836  
 Exhibit: S-6  
 Schedule: F4  
 Witness: N.M. Revere  
 Page: 23 of 54

Present Rates and Current Surcharges:  
 N/A

Proposed Rates and Current Surcharges:  
 Power Supply Charges:  
  
 Non-Capacity Charge  
 Oct-May On Peak \$0.04100  
 Oct-May Off Peak \$0.03560  
  
 Capacity Charges:  
 <1 kW \$0.00  
 1-2 kW \$7.01  
 2-3 kW \$14.01  
 3-4 kW \$21.02  
 4-5 kW \$28.02  
 5-6 kW \$35.03  
 6-7 kW \$42.03  
 7-8 kW \$49.04  
 8-9 kW \$56.04  
 >9 kW \$63.05  
 kW Excess of 9 \$7.01  
  
 Power Supply Surcharges: \$0.00  
 REPS \$0.00  
  
 Service Charge: \$8.50  
 Distribution Charge:  
 <1 kW \$0.00  
 1-2 kW \$9.49  
 2-3 kW \$18.98  
 3-4 kW \$28.47  
 4-5 kW \$37.96  
 5-6 kW \$47.45  
 6-7 kW \$56.94  
 7-8 kW \$66.43  
 8-9 kW \$75.92  
 >9 kW \$85.41  
 kW Excess of 9 \$9.49  
  
 Delivery Surcharges: \$0.006265  
 LIEAF \$0.87

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Monthly kW Demand	Load Factor	Proposed Net Monthly Bill	Increase		Proposed Unit Cost
				Amount	Percent	
1	2.5	10%	\$50.02	-	-	27.79¢
2	2.5	17%	\$55.38	-	-	18.10¢
3	2.5	20%	\$57.68	-	-	16.02¢
4						
5	3.5	10%	\$69.58	-	-	27.61¢
6	3.5	17%	\$77.08	-	-	17.99¢
7	3.5	20%	\$80.30	-	-	15.93¢
8						
9	4.5	10%	\$89.14	-	-	27.51¢
10	4.5	17%	\$98.78	-	-	17.93¢
11	4.5	20%	\$102.92	-	-	15.88¢
12						
13	5.5	10%	\$108.69	-	-	27.45¢
14	5.5	17%	\$120.49	-	-	17.90¢
15	5.5	20%	\$125.54	-	-	15.85¢
16						
17	6.5	10%	\$128.25	-	-	27.40¢
18	6.5	17%	\$142.19	-	-	17.87¢
19	6.5	20%	\$148.16	-	-	15.83¢

Assumes ~13% of Oct-May usage is on peak (per rate design billing determinants)



<b>MPSC Case No.:</b>	U-20836
<b>Requestor:</b>	Staff
<b>Question No.:</b>	DWI-1.1
<b>Respondent:</b>	N. Foley
	1 of 2

**Question:** Has the Company developed an alternative proposal for the full implementation of residential TOU rates? If so, please provide the Company's alternative proposal.

**Answer:** Yes, the Company has developed an alternative proposal for its residential TOU Full Implementation. The Company's alternative proposal ("Alternative TOU Full Implementation proposal") differs from its original proposal discussed in testimony ("Original TOU Full Implementation proposal") in the following two areas:

- Rate Design (originally discussed starting at NTF-19, line 17). The Company's Alternative TOU Full Implementation proposal introduces a TOU pricing structure to both the Non-Capacity and Capacity portions of Power Supply. This structure mimics the D1-B rate that was established and tested through the Company's Advanced Customer Pricing Pilot (ACPP).

The Company's Alternative TOU Full Implementation proposal maintains this TOU structure year-round, although pricing is determined separately for summer and non-summer months. Maintaining year-round TOU pricing is consistent with both the D1-B rate and the Company's Original TOU Full Implementation proposal.

- Customer Transition Strategy (originally discussed starting at NTF-27, line 7). The Company's Alternative TOU Full Implementation proposal uses a "mandatory" enrollment strategy. Under this structure, all residential customers taking service on the Company's D1 rate would be automatically transitioned to the D1.11 rate (as proposed in the "Rate Design" section above) after being given at least 60 days' notice of their upcoming transition. Customers would not have the opportunity to "opt-out" and remain on the D1 rate, however customers would

**Co-Respondent(s):** A. Willis

<b>MPSC Case No.:</b>	U-20836
<b>Requestor:</b>	Staff
<b>Question No.:</b>	DWI-1.1
<b>Respondent:</b>	N. Foley
	2 of 2

continue to be able to take service on any other residential whole home rate for which they are eligible.

The only exception to this mandatory transition would be for the roughly 7,000 residential AMI opt-out customers that the Company serves given the complexity and cost associated with billing these customers on a TOU rate. Under the Company's Alternative TOU Full Implementation proposal, AMI opt-out customers would be exempt from the transition to the D1.11 rate and would remain on the legacy D1 rate. Under this proposal, the D1 rate would be renamed to the "Residential Service Rate - Non-Transmitting Meter" and would be made available only to AMI opt-out customers subject to Section C5.7.

The Company's Alternative TOU Full Implementation proposal maintains the other elements of the Company's Original TOU Full Implementation proposal, except where affected by the Rate Design and/or Customer Transition Strategy proposals discussed above.

The Company clarifies that it is not updating its Original TOU Full Implementation proposal discussed in testimony; but views its Alternative TOU Full Implementation proposal as a second viable and reasonable path forward for TOU Full Implementation. As such, it is supportive of a Commission order directing the Company to implement either its Original TOU Full Implementation proposal or its Alternative TOU Full Implementation proposal.

**Attachment:** *None*

**Co-Respondent(s):** A. Willis

<b>MPSC Case No.:</b>	U-20836
<b>Requestor:</b>	Staff
<b>Question No.:</b>	DWI-1.2
<b>Respondent:</b>	N. Foley
	1 of 2

**Question:** Please provide any updates to projected costs for the Company's full implementation of residential TOU rates, identifying if they are associated with the alternative proposal referenced above. Please separate any updated projected costs by capital, O&M, and contingency. Also please identify where in the Company's filed revenue requirement model these changes would be appropriately incorporated.

**Answer:** The Company has assessed the cost to implement the Alternative TOU Full Implementation proposal discussed in response to DWI-1.1. It estimates the following costs for its Alternative TOU Full Implementation proposal:

- Capital costs. The Company anticipates needing to spend a total of \$19.5 million of capital in 2022 and 2023 in support of its Alternative TOU Full Implementation proposal. This differs from the \$31.8 million of projected capital spend in 2022 and 2023 for the Company's Original TOU Full Implementation discussed in testimony.

The key drivers of the \$19.5 million of capital include:

- SAP Customer Relationship & Billing (CR&B) system modifications, including its interfaces to the Company's Meter Data Management system, reporting database, and customer channels
- Automated exceptions handling tools and process updates
- AMI infrastructure upgrades and scaling, including interval billing profile creation in the SAP CR&B system for all residential customers
- Technical conversion and billing cutover of all impacted customers onto the D1.11 rate
- Enabling TOU for all customers and customer programs

**Co-Respondent(s):** A. Willis, A. Pizzuti, J. Sparks, B. Burns

**MPSC Case No.:** U-20836

**Requestor:** Staff

**Question No.:** DWI-1.2

**Respondent:** N. Foley

2 of 2

The Company has included \$2.6 million contingency in 2022-23 in the Alternative TOU Full Implementation proposal capital cost estimates provided above. This differs from the \$4.2 million contingency in 2022-23 for the Company's Original TOU Full Implementation proposal capital cost estimate. The contingency is needed to mitigate the risk of cost increases due to unforeseen circumstances.

- O&M costs. The Company anticipates needing to spend a total of \$11.9 million of one-time O&M in 2022 and 2023 in support of its Alternative TOU Full Implementation proposal. This differs from the \$17.1 million of projected one-time O&M spend in 2022 and 2023 for the Company's Original TOU Full Implementation proposal that was discussed in testimony.

The key drivers of the \$11.9 million of O&M include:

- Robust outreach and ongoing education to impacted customers about the transition to the D1.11 rate
- Contact center and exceptions processing "surge" staff as customers are transitioned to the D1.11 rate
- Planning & Analysis and post go-live support for new technology solutions needed to accommodate TOU

For its Alternative TOU Full Implementation proposal, the Company maintains its proposal for Regulatory Asset Treatment of these O&M costs, as it did for its Original TOU Full Implementation proposal.

A summary of the costs for both the Original and Alternative proposals is provided in the attachment and the location for changes to the model are as follows:

- IT Capital costs and contingency amounts (reference: Exhibit A-12, Schedule B5.7.3)
- O&M Project Costs/Regulatory Asset Deferral (reference: Exhibit A-13, schedule C5.9.2)

**Attachment:** *U-20836 DWI-1.2 Time of Use Cost Summary.xls*

**Co-Respondent(s):** A. Willis, A. Pizzuti, J. Sparks, B. Burns

Michigan Public Service Commission  
DTE Electric Company  
Time of Use - Original and Alternative Proposal  
Amounts in \$000

Case No.: U-20836  
Audit Request: DWI-1.2  
Date of Request: 4/13/2022  
Respondent: N. Foley  
Page: 1 of 1

**IT Capital Expenditures sponsored by Witness Pizzuti on Exh. A-12 B5.7.3**

Capital Expenditures			Capital Contingency (included)		
	<u>Original Filing</u>	<u>Alternative</u>		<u>Original Filing</u>	<u>Alternative</u>
2022	24,235	14,484	2022	2,800	1,400
2023	7,517	4,979	2023	1,370	1,150
2022-23 Total	31,752	19,463	2022-23 Total	4,170	2,550
<u>Test Period View:</u>			<u>Test Period View:</u>		
10 mo. end 10/31/22	18,932	10,059	10 mo. End 10/31/22	2,102	670
12 mo. end 10/31/23	11,175	9,404	12 mo. End 10/31/23	2,068	1,880
22 mo. end 10/31/23 Total	30,108	19,463	22 mo. end 10/31/23 Total	4,170	2,550

**O&M Project Costs Deferral per Exhibit A-13 C5.9.2**

	Original Filing			<u>Witness</u>	Alternative		
	<u>2022</u>	<u>2023</u>	<u>Total</u>		<u>2022</u>	<u>2023</u>	<u>Total</u>
Information Technology	2,392	1,708	4,100	A. Pizzuti	935	1,472	2,407
Customer Outreach	4,725	3,375	8,100	B. Burns	2,197	2,903	5,100
Customer Service	-	4,900	4,900	J. Sparks	<u>300</u>	<u>4,100</u>	4,400
Total TOU Deferral	7,117	9,983	17,100		3,432	8,475	11,906

Michigan Public Service Commission  
DTE Electric Company  
STAFF 2022/2023 Forecast Energy Allocation Schedule

MPSC Case No.: U-20836  
Exhibit: S-23.02  
Schedule: G1.1  
Witness: N.M.Revere  
Page: 1 of 1

(a)		(b)	
Line No.	Rate Description	COS Class	Forecast Nov. 2022 - Oct. 2023 Energy (MWh)
1	<u>Residential</u>		
2	Residential	D1 & Other	16,011,764.3
3	Time-of-Day	D1.2	200,586.6
4	Space Heating	D2	322,679.6
5	Residential O.P.L.	E1/E2/D9	7,613.2
6	<b>Total Residential</b>		16,542,643.8
7			
8	<u>Secondary</u>		
9	General Service	D3 & Other	8,359,511.2
10	Large General Service	D4	2,209,677.1
11	Secondary Schools	D3.2	326,305.2
12	Commercial O.P.L.	E1/E2/D9	29,812.9
13	Traffic and Signal Lights	E1/E2/D9	65,081.3
14	<b>Total Secondary</b>		10,990,387.7
15			
16	<u>Primary</u>		
17	Primary Supply	D11 & Other	
18	Transmission Customer Owned Substation		1,349,173.4
19	Transmission DTE Owned Substation		3,049,276.5
20	Subtransmission Customer Owned Substation		440,883.8
21	Subtransmission DTE Owned Substation		1,751,555.7
22	Primary Distribution		6,432,738.4
23	<b>Total Primary Supply</b>		13,023,627.7
24			
25	Schools	D6.2	
26	Transmission Customer Owned Substation		0.0
27	Transmission DTE Owned Substation		0.0
28	Subtransmission Customer Owned Substation		4,880.2
29	Subtransmission DTE Owned Substation		31,426.0
30	Primary Distributuon		331,706.9
31	<b>Total Schools</b>		368,013.1
32			
33	Interruptible Primary Supply	D8	
34	Transmission Customer Owned Substation		130,210.5
35	Transmission DTE Owned Substation		0.0
36	Subtransmission Customer Owned Substation		3,854.9
37	Subtransmission DTE Owned Substation		68,223.7
38	Primary Distribution		413,646.3
39	<b>Total Interruptible Primary</b>		615,935.4
40			
41	Combined Alt. Metal Mltg. and Process Heat	R1.1/R1.2	
42	Transmission Customer Owned Substation		0.0
43	Transmission DTE Owned Substation		20,861.4
44	Subtransmission Customer Owned Substation		5,569.3
45	Subtransmission DTE Owned Substation		79,153.9
46	Primary Distribution		391,208.4
47	Secondary Distribution		45,997.7
48	<b>Total Combined Alt. Metal Mltg. And Process Heat</b>		542,790.8
49			
50	Interruptible Rider	R10	
51	Transmission Customer Owned Substation		283,215.6
52	Transmission DTE Owned Substation		288,007.8
53	Subtransmission Customer Owned Substation		13,252.7
54	Subtransmission DTE Owned Substation		47,815.7
55	Primary Distribution		20,685.8
56	<b>Total Interruptible Rider</b>		652,977.7
57			
58	<b>Total Primary</b> (lines 23 + 31 + 39 + 48 + 56)		15,203,344.7
59			
60	Street Lighting	E1/E2/D9	146,765.3
61			
62	<b>TOTAL LOAD</b> (lines 6 + 14 + 58 + 60)		42,883,141.4

**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Power Plant Energy Production**  
**Allocation Schedule 100 - Total Energy**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 1 of 11

Line No.	(a) Rate Description	(b) COS Class	(c) Nov. 2022 - Oct. 2023 Total Energy Schedule 100 Allocation Factors
1	<u>Residential</u>		
2	Residential	D1 & Other	0.37338
3	Time-of-Day	D1.2	0.00468
4	Space Heating	D2	0.00752
5	Residential O.P.L.	E1/E2/D9	0.00018
6	<b>Total Residential</b>		0.38576
7			
8	<u>Secondary</u>		
9	General Service	D3 & Other	0.19494
10	Large General Service	D4	0.05153
11	Schools - Secondary	D3.2	0.00761
12	Commercial O.P.L.	E1/E2/D9	0.00070
13	Traffic and Signal Lights	E1/E2/D9	0.00152
14	<b>Total Secondary</b>		0.25629
15			
16	<u>Primary</u>		
17	Primary Supply	D11 & Other	0.30370
18	Schools - Primary	D6.2	0.00858
19	Interruptible Primary Supply	D8	0.01436
20	Combined Alt. Metal Mltg. and Process Heat	R1.1/R1.2	0.01266
21	Interruptible Rider	R10	0.01523
22	<b>Total Primary</b>		0.35453
23			
24	<u>Street Lighting</u>	E1/E2/D9	0.00342
25			
26	<b>TOTAL</b>		1.00000

**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Production System Output**  
**Allocation Schedule 200A - 12CP**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 2 of 11

(a)		(b)	(c)
Line			Nov. 2022 - Oct. 2023
No.		COS Class	12CP Demand
Rate Description			Schedule 200A
			Allocation Factors
1	Residential		
2	Residential	D1 & Other	0.44064
3	Time-of-Day	D1.2	0.00427
4	Space Heating	D2	0.00741
5	Residential O.P.L.	E1/E2/D9	0.00012
6	<b>Total Residential</b>		0.45245
7			
8	<u>Secondary</u>		
9	General Service	D3 & Other	0.19341
10	Large General Service	D4	0.04631
11	Schools - Secondary	D3.2	0.00663
12	Commercial O.P.L.	E1/E2/D9	0.00048
13	Traffic and Signal Lights	E1/E2/D9	0.00104
14	<b>Total Secondary</b>		0.24787
15			
16	<u>Primary</u>		
17	Primary Supply	D11 & Other	0.23653
18	Schools - Primary	D6.2	0.00794
19	Interruptible Primary Supply	D8	0.01189
20	Combined Alt. Metal Mltg. and Process Heat	R1.1/R1.2	0.01066
21	Interruptible Rider	R10	0.03031
22	<b>Total Primary</b>		0.29734
23			
24	Street Lighting	E1/E2/D9	0.00234
25			
26	<b>TOTAL</b>		1.00000



**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Production System Output**  
**Allocation Schedule 200B - 4CP**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 3 of 11

(a)		(b)	(c)
Line			Nov. 2022 - Oct. 2023
No.		COS Class	4CP Demand
Rate Description			Schedule 200B
			Allocation Factors
1	<u>Residential</u>		
2	Residential	D1 & Other	0.51040
3	Time-of-Day	D1.2	0.00366
4	Space Heating	D2	0.00533
5	Residential O.P.L.	E1/E2/D9	0.00000
6	<b>Total Residential</b>		0.51939
7			
8	<u>Secondary</u>		
9	General Service	D3 & Other	0.20034
10	Large General Service	D4	0.04496
11	Schools - Secondary	D3.2	0.00650
12	Commercial O.P.L.	E1/E2/D9	0.00000
13	Traffic and Signal Lights	E1/E2/D9	0.00085
14	<b>Total Secondary</b>		0.25264
15			
16	<u>Primary</u>		
17	Primary Supply	D11 & Other	0.20986
18	Schools - Primary	D6.2	0.00818
19	Interruptible Primary Supply	D8	0.00584
20	Combined Alt. Metal Mltg. and Process Heat	R1.1/R1.2	0.00409
21	Interruptible Rider	R10	0.00000
22	<b>Total Primary</b>		0.22796
23			
24	<u>Street Lighting</u>	E1/E2/D9	0.00000
25			
26	<b>TOTAL</b>		1.00000

**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Input to Transmission Substation**  
**Allocation Schedule 201 - 12CP**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 4 of 11

Line No.	(a) Rate Description	(b) COS Class	(c) Nov. 2022 - Oct. 2023 12CP Demand Schedule 201 Allocation Factors
1	<u>Residential</u>		
2	Residential	Residential Secondary	0.44700
3	Residential O.P.L.	E1/E2/D9	0.00010
4	<b>Total Residential</b>		0.44710
5			
6	<u>Secondary</u>		
7	General Service	Commercial Secondary	0.28293
8	Commercial O.P.L.	E1/E2/D9	0.00038
9	Traffic and Signal Lights	E1/E2/D9	0.00108
10	<b>Total Secondary</b>		0.28440
11			
12	<u>Primary</u>		
13	Primary Distribution	Primary	0.22289
14	Subtransmission	Subtransmission	0.04355
15	Transmission	Transmission	-
16	<b>Total Primary</b>		0.26644
17			
18	Street Lighting	E1/E2/D9	0.00206
19			
20	<b>TOTAL</b>		1.00000

**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Input to Subtransmission Lines**  
**Allocation Schedule 202**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 5 of 11

Line No.	(a) Rate Description	(b) COS Class	(c) Nov. 2022 - Oct. 2023 Demand Schedule 202 Allocation Factors
1	<u>Residential</u>		
2	Residential	Residential Secondary	0.50737
3	Residential O.P.L.	E1/E2/D9	0.00031
4	<b>Total Residential</b>		0.50768
5			
6	<u>Secondary</u>		
7	General Service	Commercial Secondary	0.26000
8	Commercial O.P.L.	E1/E2/D9	0.00096
9	Traffic and Signal Lights	E1/E2/D9	0.00065
10	<b>Total Secondary</b>		0.26162
11			
12	<u>Primary</u>		
13	Primary Distribution	Primary	0.18909
14	Subtransmission	Subtransmission	0.03787
15	Transmission	Transmission	-
16	<b>Total Primary</b>		0.22696
17			
18	Street Lighting	E1/E2/D9	0.00373
19			
20	<b>TOTAL</b>		1.00000

**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Primary Voltage Substation**  
**Allocation Schedule 203A**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 6 of 11

(a)		(b)	(c)
Line No.		COS Class	Nov. 2022 - Oct. 2023 Demand Schedule 203A Allocation Factors
1	<u>Residential</u>		
2	Residential	Residential Secondary	0.52734
3	Residential O.P.L.	E1/E2/D9	0.00032
4	<b>Total Residential</b>		0.52766
5			
6	<u>Secondary</u>		
7	General Service	Commercial Secondary	0.27024
8	Commercial O.P.L.	E1/E2/D9	0.00100
9	Traffic and Signal Lights	E1/E2/D9	0.00068
10	<b>Total Secondary</b>		0.27192
11			
12	<u>Primary</u>		
13	Primary Distribution	Primary	0.19654
14	Subtransmission	Subtransmission	-
15	Transmission	Transmission	-
16	<b>Total Primary</b>		0.19654
17			
18	Street Lighting	E1/E2/D9	0.00388
19			
20	<b>TOTAL</b>		1.00000

**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Primary Voltage Substation**  
**Allocation Schedule 203B**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 7 of 11

(a)		(b)	(c)
Line No.		COS Class	Nov. 2022 - Oct. 2023 Demand Schedule 203B Allocation Factors
1	<u>Residential</u>		
2	Residential	Residential Secondary	-
3	Residential O.P.L.	E1/E2/D9	-
4	<b>Total Residential</b>		0.00000
5			
6	<u>Secondary</u>		
7	General Service	Commercial Secondary	-
8	Commercial O.P.L.	E1/E2/D9	-
9	Traffic and Signal Lights	E1/E2/D9	-
10	<b>Total Secondary</b>		0.00000
11			
12	<u>Primary</u>		
13	Primary Distribution	Primary	-
14	Subtransmission	Subtransmission	0.46880
15	Transmission	Transmission	0.53120
16	<b>Total Primary</b>		1.00000
17			
18	Street Lighting	E1/E2/D9	-
19			
20	<b>TOTAL</b>		1.00000

**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Primary Voltage Substation**  
**Allocation Schedule 203C**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 8 of 11

Line No.	(a) Rate Description	(b) COS Class	(c) Nov. 2022 - Oct. 2023 Demand Schedule 203C Allocation Factors
1	<u>Residential</u>		
2	Residential	Residential Secondary	0.49307
3	Residential O.P.L.	E1/E2/D9	0.00030
4	<b>Total Residential</b>		0.49337
5			
6	<u>Secondary</u>		
7	General Service	Commercial Secondary	0.25267
8	Commercial O.P.L.	E1/E2/D9	0.00094
9	Traffic and Signal Lights	E1/E2/D9	0.00064
10	<b>Total Secondary</b>		0.25425
11			
12	<u>Primary</u>		
13	Primary Distribution	Primary	0.18376
14	Subtransmission	Subtransmission	0.03047
15	Transmission	Transmission	0.03453
16	<b>Total Primary</b>		0.24876
17			
18	Street Lighting	E1/E2/D9	0.00363
19			
20	<b>TOTAL</b>		1.00000

**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Primary Lines**  
**Allocation Schedule 204**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 9 of 11

Line No.	(a) Rate Description	(b) COS Class	(c) Nov. 2022 - Oct. 2023 Demand Schedule 204 Allocation Factors
1	<u>Residential</u>		
2	Residential	Residential Secondary	0.58621
3	Residential O.P.L.	E1/E2/D9	0.00036
4	<b>Total Residential</b>		0.58657
5			
6	<u>Secondary</u>		
7	General Service	Commercial Secondary	0.30040
8	Commercial O.P.L.	E1/E2/D9	0.00111
9	Traffic and Signal Lights	E1/E2/D9	0.00076
10	<b>Total Secondary</b>		0.30227
11			
12	<u>Primary</u>		
13	Primary Distribution	Primary	0.10732
14	Subtransmission	Subtransmission	-
15	Transmission	Transmission	-
16	<b>Total Primary</b>		0.10732
17			
18	Street Lighting	E1/E2/D9	0.00383
19			
20	<b>TOTAL</b>		1.00000

**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Secondary Line Transformers**  
**Allocation Schedule 205**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 10 of 11

Line No.	(a) Rate Description	(b) COS Class	(c) Nov. 2022 - Oct. 2023 Demand Schedule 205 Allocation Factors
1	<u>Residential</u>		
2	Residential	Residential Secondary	0.65635
3	Residential O.P.L.	E1/E2/D9	0.00040
4	<b>Total Residential</b>		0.65675
5			
6	<u>Secondary</u>		
7	General Service	Commercial Secondary	0.33633
8	Commercial O.P.L.	E1/E2/D9	0.00125
9	Traffic and Signal Lights	E1/E2/D9	0.00085
10	<b>Total Secondary</b>		0.33842
11			
12	<u>Primary</u>		
13	Primary Distribution	Primary	-
14	Subtransmission	Subtransmission	-
15	Transmission	Transmission	-
16	<b>Total Primary</b>		0.00000
17			
18	Street Lighting	E1/E2/D9	0.00483
19			
20	<b>TOTAL</b>		1.00000



**Michigan Public Service Commission**  
**DTE Electric Company**  
**STAFF Demand and Energy Allocation**  
**Percentages By Rate Class**  
**2022/2023 Forecast Power Supply**  
**Secondary Distribution Lines**  
**Allocation Schedule 300**

MPSC Case No.: U-20836  
 Exhibit: S-23.02  
 Schedule: G1.2  
 Witness: N.M.Revere  
 Page: 11 of 11

(a)		(b)	(c)
Line			Nov. 2022 - Oct. 2023
No.			Demand
Rate Description		COS Class	Schedule 300
			Allocation Factors
1	<u>Residential</u>		
2	Residential	Residential Secondary	0.72617
3	Residential O.P.L.	E1/E2/D9	0.00020
4	<b>Total Residential</b>		0.72638
5			
6	<u>Secondary</u>		
7	General Service	Commercial Secondary	0.27010
8	Commercial O.P.L.	E1/E2/D9	0.00063
9	Traffic and Signal Lights	E1/E2/D9	0.00043
10	<b>Total Secondary</b>		0.27117
11			
12	<u>Primary</u>		
13	Primary Distribution	Primary	-
14	Subtransmission	Subtransmission	-
15	Transmission	Transmission	-
16	<b>Total Primary</b>		0.00000
17			
18	Street Lighting	E1/E2/D9	0.00246
19			
20	<b>TOTAL</b>		1.00000

Michigan Public Service Commission  
DTE Electric Company  
Uncollectible Accounts Expense  
for the Projected Test-Period Ending October 31,2023  
(000's)

Case No.: U-20836  
Exhibit No.: S-18  
Page: 1 of 1  
Witness: Rueckert  
Date: 5/19/2022

Ln	Description	Company Projection	Adjustment	Staff Projection	Source
	(a.)	(b.)	(c.)	(d.)	(e.)
1	Uncollectible Accounts Expense	\$ 59,573	\$ (9,560)	\$ 50,013	S-18.1 Rueckert

Line No.	Description	Gross Write-Offs (a.)	Less Recoveries (b.)	Net Write-Offs (Col. (b)-Col. (c)) (d.)	Less Non-Energy Net Write-Offs (e.)	Direct Charges (f.)	Net Energy Write-Offs (Sum; Col. (d), (e.), and (f)) (g.)	Revenue MPSC P-521 Pg. 300 Line 10 (h.)	BDLR (Col. (d)/Col. (e)) (i.)
1	2019	\$ 107,564,349	\$ 35,771,421	\$ 71,792,927	\$ (1,891,985)	\$ 2,927,117	\$ 72,828,059	\$ 4,935,971,016	1.4755%
2	2020	\$ 79,896,130	\$ 30,169,706	\$ 49,726,424	\$ (2,185,494)	\$ 2,780,072	\$ 50,321,001	\$ 5,215,244,507	0.9649%
3	2021	\$ 76,776,300	\$ 36,732,295	\$ 40,044,005	\$ (362,091)	\$ (145,979)	\$ 39,535,936	\$ 5,522,666,038	0.7159%
4	3-Year Average 2019-21						\$ 54,228,332	\$ 5,224,627,187	1.0379%
5	Electric Sales Revenue: Exhibit S-3, Schedule C3, (ln. 3, col. F)							\$ 4,993,828,000	
6	Average BDLR							1.0379%	
7	Projected Uncollectible Accounts Expense							<u>\$ 51,832,782</u>	
8	<u>Projected Reductions from Capital Investments</u>								
9	Click Soft (SMR-2.1)							\$ (200,000)	
10	BRF+ (SMR-2.2)							<u>\$ (1,620,000)</u>	
11	Total Projected Uncollectible Accounts Expense							<u>\$ 50,012,782</u>	

**MPSC Case No.:** U-20836  
**Requestor:** SMR  
**Question No.:** SMR-2.1  
**Respondent:** A. Pizzuti  
1 of 1

**Question:** AMP-66 lines 10-18. Please provide DTE electric's portion of the potential annualized reduction to uncollectibles expense of \$1 million from RM&P (ClickSoft).

**Answer:** DTE Electric's portion of ClickSoft's potential annualized uncollectible expense would be \$0.2M.

**Attachment:** None

**MPSC Case No.:** U-20836  
**Requestor:** SMR  
**Question No.:** SMR-2.2  
**Respondent:** A. Pizzuti  
1 of 1

**Question:** AMP-67 lines 11-13. Please provide DTE electric's portion of potential annualized reduction to uncollectibles expense of \$ \$2.7 million from BRF+.

**Answer:** The DTE Electric portion of the BRF+ potential annualized reduction of uncollectible expense is approximately \$1.62M. This is based on 2019 historical data.

**Attachment:** None.

**MPSC Case No.:** U-20836

**Requestor:** Staff

**Question No.:** JSG-1.2

**Respondent:** T. Uzenski

**Page:** 1 of 1

**Question:** Does the company agree that the accounts in question one above should be removed from the company's test year working capital since the balances are the result of transactions not necessary for DTE Electric to provide core utility services to its ratepayers?

**Answer:** No. Although these balances are not due from utility customers, a substantial portion relates to amounts due from others related to providing utility service. Unfortunately, these sub-accounts do not distinguish amounts related to utility service versus non-utility service.

The Company asserts that only \$8,055,225 of the balance within the accounts in question should be considered non-recoverable. As shown below, \$6,073,654 relates to utility service and should remain in working capital.

Other Accounts Receivable – Accounts 100820 and 100835

Electric property damage claims due from customers	\$1,974,020
Home heating credit due from State of Michigan	815,998
Medco rebates related to prescription drugs	370,440
Retiree co-payments for healthcare	113,915
Affordable Care Act - reinsurance fee reimbursement	33,355
Michigan Energy Assistance Program (MEAP)	976,854
Nuclear Department of Energy Reimbursement	1,636,849
Fuel Railcar transportation and leases	<u>152,224</u>
Sub-total Utility Related	\$6,073,654
Non-Utility Related	<u>8,055,225</u>
Total 100820 and 100835	\$14,128,879

**Attachments:** None

Case No: U-20836

Witness: J. E. Ufolla

Exhibit No: S-4

Schedule No: D-1

Date: 5/19/2022

Page: 1 of 1

DTE Electric Company

Staff Overall Ratemaking Capital Structure

Recommended for Test Year Ending October 31, 2023

Line	Description	Amount (000)	Permanent Ratio	Total Capital Ratio	Cost Rate	Weighted Cost	Conversion Factor	Pre-Tax Weighted Cost
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Long-Term Debt	\$ 8,410,859	49.95%	39.55%	3.69%	1.46%	1.0000	1.46%
2	Preferred Stock	\$0	0.00%	0.00%	0.00%	0.00%	1.3496	0.00%
3	Common Equity	\$ 8,426,264	50.05%	39.62%	9.60%	3.80%	1.3496	5.13%
4	Total Permanent Capital	\$16,837,123	100.00%					
5	Short-Term Debt	\$265,492		1.25%	1.74%	0.02%	1.0000	0.02%
6	Deferred FIT	\$4,117,952		19.36%	0.00%	0.00%	1.0000	0.00%
7	ITC							
8	Def ITC - Long Term Debt	\$23,666		0.11%	3.69%	0.00%	1.0000	0.00%
9	Def ITC - Preferred Stock	\$0		0.00%	0.00%	0.00%	1.3496	0.00%
10	Def ITC - Common Equity	\$23,710		0.11%	9.60%	0.01%	1.3496	0.01%
11	Total ITC	\$47,376				0.01%		0.02%
12	Total Capitalization	\$21,267,943		100.00%		5.30%		6.63%

DTE Electric Company  
Cost of Long-Term Debt  
Projected 12 Months Ending October 31, 2023

Case No: U-20836  
Witness: J. E. Ufolla  
Exhibit No: S-4  
Schedule No: D-2  
Date: 5/19/2022  
Page: 1 of 1

Line No.	Issue Name	Original Issue Date	Stated Maturity	Interest Rate	Amount of Offering (\$)	Price to Public (%)	Expenses of Financing (%)	Net Proceeds to the Company (%)	Cost Based On Net Proceeds (%)	9/30/2021 Amount Outstanding (\$)	Annual Cost (\$)
1	2002 Series B	10/23/02	10/15/32	6.350%	\$ 225,000	99.33%	1.00%	98.369%	6.47%	\$ 225,000	\$ 14,566
2	2005 Seires BR	2/7/05	2/15/35	5.450%	\$ 200,000	99.59%	1.00%	98.562%	5.55%	\$ 200,000	\$ 11,098
3	2005 Series E	10/6/05	10/1/37	5.700%	\$ 250,000	99.40%	1.00%	98.420%	5.81%	\$ 250,000	\$ 14,523
4	2006 Series A	6/1/06	6/1/36	6.625%	\$ 250,000	99.95%	1.00%	98.954%	6.71%	\$ 250,000	\$ 16,766
5	2007 Series A	12/18/07	3/15/38	6.470%	\$ 50,000	100.00%	0.80%	99.168%	6.53%	\$ 50,000	\$ 3,266
6	2011 Series E	9/1/11	9/1/26	4.460%	\$ 77,000	100.00%	0.60%	99.411%	4.51%	\$ 77,000	\$ 3,476
7	2011 Series F	9/1/11	9/1/41	5.670%	\$ 46,000	100.00%	0.60%	99.411%	5.71%	\$ 46,000	\$ 2,627
8	2011 Series H	9/20/11	9/1/41	4.500%	\$ 140,000	98.87%	1.10%	97.814%	4.64%	\$ 140,000	\$ 6,490
9	2012 Series B	6/22/12	6/15/42	3.950%	\$ 250,000	99.57%	1.00%	98.541%	4.03%	\$ 250,000	\$ 10,086
10	2013 Series A	3/27/13	4/1/43	4.000%	\$ 375,000	99.55%	1.00%	98.500%	4.09%	\$ 375,000	\$ 15,327
11	2013 Series B	8/27/13	3/15/24	3.650%	\$ 400,000	99.59%	0.80%	98.798%	3.79%	\$ 400,000	\$ 15,156
12	2014 Series A	6/4/14	6/1/26	3.770%	\$ 100,000	100.00%	0.60%	99.392%	3.83%	\$ 100,000	\$ 3,834
13	2014 Series B	6/4/14	6/1/44	4.600%	\$ 150,000	100.00%	0.60%	99.392%	4.64%	\$ 150,000	\$ 6,957
14	2014 Series D	7/2/14	3/1/25	3.375%	\$ 350,000	99.86%	0.80%	99.069%	3.48%	\$ 350,000	\$ 12,180
15	2014 Series E	7/2/14	7/1/44	4.300%	\$ 350,000	99.85%	1.00%	98.832%	4.37%	\$ 350,000	\$ 15,296
16	2015 Series A	3/11/15	3/15/45	3.700%	\$ 500,000	99.77%	1.00%	98.735%	3.77%	\$ 500,000	\$ 18,854
17	2016 Series A	5/17/16	6/1/46	3.700%	\$ 300,000	99.93%	1.10%	98.824%	3.77%	\$ 300,000	\$ 11,297
18	2017 Series B	8/9/17	8/15/47	3.750%	\$ 440,000	99.95%	1.10%	98.850%	3.81%	\$ 440,000	\$ 16,784
19	2018 Series A	5/7/18	5/15/48	4.050%	\$ 525,000	99.55%	1.10%	98.456%	4.14%	\$ 525,000	\$ 21,736
20	2019 Series A	2/15/19	3/1/49	3.950%	\$ 650,000	99.20%	1.10%	98.111%	4.06%	\$ 650,000	\$ 26,385
21	2020 Series A	2/26/20	3/1/30	2.250%	\$ 600,000	99.88%	0.80%	99.042%	2.36%	\$ 600,000	\$ 14,148
22	2020 Series B	2/26/20	3/1/50	2.950%	\$ 500,000	99.96%	1.10%	98.893%	3.01%	\$ 500,000	\$ 15,031
23	2020 Series C	4/6/20	3/1/31	2.625%	\$ 600,000	99.83%	0.80%	99.004%	2.73%	\$ 600,000	\$ 16,387
24	2021 Series A	3/29/21	4/1/28	1.900%	\$ 575,000	99.88%	0.80%	99.048%	2.05%	\$ 575,000	\$ 11,768
25	2021 Series B	3/29/21	4/1/51	3.250%	\$ 425,000	99.95%	1.10%	98.872%	3.31%	\$ 425,000	\$ 14,066
26	1995 CC - remarke	9/1/21	9/1/30	1.450%	\$ 82,350	100.00%	0.80%	99.200%	1.55%	\$ 82,350	\$ 1,273
27	2008ET-2 - remark	9/1/21	8/1/29	1.350%	\$ 59,175	100.00%	0.80%	99.200%	1.46%	\$ 59,175	\$ 862
28	2022 Series A	3/1/22	3/1/52	3.100%	\$ 500,000	100.00%	1.00%	99.000%	3.15%	\$ 500,000	\$ 15,759
29	2022 Series B	5/1/22	5/1/52	3.100%	\$ 400,000	100.00%	1.00%	99.000%	3.15%	\$ 400,000	\$ 12,607
30	2023 Series A	2/1/23	2/1/53	3.200%	\$ 400,000	100.00%	1.00%	99.000%	3.25%	\$ 400,000	\$ 13,010
31	2023 Series B	10/1/23	10/1/53	3.200%	\$ 340,000	100.00%	1.00%	99.000%	3.25%	\$ 340,000	\$ 11,058
32											
33	Cost Rate								3.686%	\$ 10,109,525	\$ 372,673
34	13 Month Average - SUM(K11:K39)+(K40*9/12)+(K41*1/12)									\$ 9,697,858	

Treasury 30-Year Bond Yield

IHS Markit US Economic Outlook

Date	2022 Yield	2023 Yield
Mar-22	2.290%	2.850%
Feb-22	2.280%	2.840%
Jan-22	2.180%	2.780%
Average	2.250%	2.823%

Case No: U-20836

Witness: J. E. Ufolla

Exhibit No: S-4

Schedule No: D-3

Date: 5/19/2022

Page: 1 of 1

DTE Electric Company

Cost of Short-Term Debt

Projected 12 Months Ending October 31, 2023

(a)	(b)	(c)	(d)	(e)
		Average Short Term	Cost	Total
<u>Line</u>	<u>Description</u>	<u>Debt Balance</u>	<u>Rate</u>	<u>Cost</u>
1	Short-Term Debt	\$ 265,492.00	1.74%	\$ 4,619.56



DTE Electric Company  
Cost of Preferred Stock  
Projected 12 Months Ending October 31, 2023

Case No: U-20836  
Witness: J. E. Ufolla  
Exhibit No: S-4  
Schedule No: D-4  
Date: 5/19/2022  
Page: 1 of 1

(a)	(b)	(c)	(d)	(e)
		Amount	Cost	Total
<u>Line</u>	<u>Description</u>	<u>Outstanding</u>	<u>Rate</u>	<u>Cost</u>
1	Preferred Stock	-	0%	-

Case No: U-20836

Witness: J. E. Ufolla

Exhibit No: S-4

Schedule No: D-5

Date: 5/19/2022

Page: 1 of 13

DTE Electric Company  
Cost of Common Equity  
Projected 12 Months Ending October 31, 2023

(a)	(b)	(c)	(d)	(e)
		Amount	Cost	Total
<u>Line</u>	<u>Description</u>	<u>Outstanding</u>	<u>Rate</u>	<u>Cost</u>
1	Common Equity	\$ 8,426,264	9.60%	\$ 808,921

**Electric Proxy Group Corporate Statistics**

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line			Moody's	S&P	Dividend	Value	Holding
<u>No.</u>	<u>Company</u>	<u>Ticker</u> <u>Symbol</u>	<u>Issuer</u> <u>Rating</u>	<u>Issuer</u> <u>Rating</u>	<u>Payout</u> <u>%</u>	<u>Line</u> <u>Beta</u>	<u>Company</u> <u>Equity %</u>
1	Allete	ALE	Baa1	BBB	78%	0.90	57.80%
2	Ameren	AEE	Baa1	BBB+	57%	0.80	43.30%
3	MGE Energy Inc.	MGEE	A1	N/A	52%	0.75	61.90%
4	OGE Energy Corp.	OGE	Baa1	BBB+	69%	1.05	47.40%
5	Otter Tail Corp.	OTTR	A3	BBB	37%	0.85	57.40%
6	WEC Energy Group	WEC	Baa1	A-	66%	0.80	44.60%
7	Eversource Energy	ES	Baa1	A-	62%	0.90	47.10%
8	NextEra Energy	NEE	Baa1	A-	66%	0.95	46.50%
9	Hawaiian Electric	HE	Baa1	BBB-	73%	0.85	52.70%
10	IDACORP Inc.	IDA	Baa1	BBB	58%	0.80	56.10%
11	Portland General	POR	A3	BBB+	90%	0.90	46.40%
12	Xcel Energy	XEL	Baa1	A-	58%	0.80	42.60%
13	Average		Baa2	BBB+	64%	0.86	50.32%
14	DTE Electric		Aa3	A-			50.00%

Selection Criteria:

Value Line Natural Gas Utility  
Has available Value Line Report  
Currently paying Dividend to Shareholders  
Must not be a target of a merger or acquisition  
Moody's rating of Baa1 or higher

Sources:

(f) (g) (h) Value Line Reports (February 2021)

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

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Line		Ticker	Closing	Closing	Closing	Average	Last	Annualized	
<u>No.</u>	<u>Company</u>	<u>Symbol</u>	<u>Stock Price</u>	<u>Stock Price</u>	<u>Stock Price</u>	<u>3-Month</u>	<u>Quarter</u>	<u>Dividend</u>	<u>Dividend</u>
			<u>22-Jan</u>	<u>22-Feb</u>	<u>22-Mar</u>	<u>Price</u>	<u>Dividend</u>	<u>Rate</u>	<u>Yield</u>
1	Allete	ALE	62.28	66.98	63.82	64.36	0.650	2.60	4.04%
2	Ameren	AEE	85.95	93.76	94.79	91.50	0.590	2.36	2.58%
3	MGE Energy Inc.	MGEE	72.02	79.79	81.42	77.74	0.388	1.55	1.99%
4	OGE Energy Corp.	OGE	37.55	40.78	41.28	39.87	0.410	1.64	4.11%
5	Otter Tail Corp.	OTTR	61.86	62.50	64.32	62.89	0.413	1.65	2.62%
6	WEC Energy Group	WEC	90.88	99.81	101.13	97.27	0.728	2.91	2.99%
7	Eversource Energy	ES	81.80	88.19	89.84	86.61	0.638	2.55	2.94%
8	NextEra Energy	NEE	78.27	84.71	85.71	82.90	0.425	1.70	2.05%
9	Hawaiian Electric	HE	40.98	42.31	43.38	42.22	0.350	1.40	3.32%
10	IDACORP Inc.	IDA	103.95	115.36	117.55	112.29	0.750	3.00	2.67%
11	Portland General	POR	50.77	55.15	55.73	53.88	0.430	1.72	3.19%
12	Xcel Energy	XEL	67.33	72.17	72.75	70.75	0.488	1.95	2.76%
13	Average		69.47	75.13	75.98	73.52	0.521	2.09	2.94%

Source:  
Yahoo Finance

**Projected Growth Rates (%)**

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line		Ticker	5-Year	5-Year	5-Year	Average
<u>No.</u>	<u>Company</u>	<u>Symbol</u>	<u>Yahoo</u>	<u>ValueLine</u>	<u>Zacks</u>	<u>Growth</u>
			<u>Earnings</u>	<u>Earnings</u>	<u>Earnings</u>	
1	Allete	ALE	5.67%	6.00%	N/A	5.84%
2	Ameren	AEE	7.40%	6.50%	7.45%	7.12%
3	MGE Energy Inc.	MGEE	6.50%	4.50%	6.49%	5.83%
4	OGE Energy Corp.	OGE	1.90%	6.50%	3.47%	3.96%
5	Otter Tail Corp.	OTTR	9.00%	4.50%	N/A	6.75%
6	WEC Energy Group	WEC	6.10%	6.00%	6.03%	6.04%
7	Eversource Energy	ES	7.10%	5.50%	6.24%	6.28%
8	NextEra Energy	NEE	9.07%	11.00%	8.82%	9.63%
9	Hawaiian Electric	HE	1.30%	3.00%	3.18%	2.49%
10	IDACORP Inc.	IDA	4.40%	4.00%	4.34%	4.25%
11	Portland General	POR	4.60%	7.00%	4.55%	5.38%
12	Xcel Energy	XEL	6.70%	6.00%	6.36%	6.35%
13	Average		5.81%	5.88%	5.69%	5.83%

Case No: U-20836

Witness: J. E. Ufolla

Exhibit No: S-4

Schedule No: D-5

Date: 5/19/2022

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**Discounted Cash flow Model (DCF)**

(a) Line <u>No.</u>	(b) <u>Company</u>	(c) Ticker <u>Symbol</u>	(d) Dividend <u>Yield</u>	(e) Growth <u>Rate</u>	(f) Cost of Equity <u>DCF</u>	(g) Adjusted <u>DCF</u>
1	Allete	ALE	4.04%	5.84%	9.87%	9.99%
2	Ameren	AEE	2.58%	7.12%	9.70%	9.79%
3	MGE Energy Inc.	MGEE	1.99%	5.83%	7.82%	7.88%
4	OGE Energy Corp.	OGE	4.11%	3.96%	8.07%	8.15%
5	Otter Tail Corp.	OTTR	2.62%	6.75%	9.37%	9.46%
6	WEC Energy Group	WEC	2.99%	6.04%	9.03%	9.13%
7	Eversource Energy	ES	2.94%	6.28%	9.22%	9.32%
8	NextEra Energy	NEE	2.05%	9.63%	11.68%	11.78%
9	Hawaiian Electric	HE	3.32%	2.49%	5.81%	5.85%
10	IDACORP Inc.	IDA	2.67%	4.25%	6.92%	6.98%
11	Portland General	POR	3.19%	5.38%	8.58%	8.66%
12	Xcel Energy	XEL	2.76%	6.35%	9.11%	9.20%
13	Proxy Average					<b>8.85%</b>
14	Proxy Low Value					5.85%
15	Proxy High Value					11.78%
16	Proxy Median					9.16%

DCF = Dividend Yield + Growth Rate

Adjusted DCF = Growth Rate + (Dividend Yield)(1 + 0.5 Growth Rate)

**Capital Asset Pricing Model (CAPM)**

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
<u>Line</u>	<u>Company</u>	<u>Ticker Symbol</u>	<u>Value Line Beta</u>	<u>Risk Free Rate</u>	<u>1926-2019 Risk Premium</u>	<u>Historical CAPM</u>	<u>Value Line Projected Risk Premium</u>	<u>Value Line Projected CAPM</u>
1	Allete	ALE	0.90	2.823%	7.25%	9.35%	9.12%	11.03%
2	Ameren	AEE	0.80	2.823%	7.25%	8.63%	9.12%	10.12%
3	MGE Energy Inc.	MGEE	0.75	2.823%	7.25%	8.26%	9.12%	9.66%
4	OGE Energy Corp.	OGE	1.05	2.823%	7.25%	10.44%	9.12%	12.40%
5	Otter Tail Corp.	OTTR	0.85	2.823%	7.25%	8.99%	9.12%	10.57%
6	WEC Energy Group	WEC	0.80	2.823%	7.25%	8.63%	9.12%	10.12%
7	Eversource Energy	ES	0.90	2.823%	7.25%	9.35%	9.12%	11.03%
8	NextEra Energy	NEE	0.95	2.823%	7.25%	9.71%	9.12%	11.49%
9	Hawaiian Electric	HE	0.85	2.823%	7.25%	8.99%	9.12%	10.57%
10	IDACORP Inc.	IDA	0.80	2.823%	7.25%	8.63%	9.12%	10.12%
11	Portland General	POR	0.90	2.823%	7.25%	9.35%	9.12%	11.03%
12	Xcel Energy	XEL	0.80	2.823%	7.25%	8.63%	9.12%	10.12%
13	Proxy Average		<u>0.86</u>			<u>9.08%</u>		<u>10.69%</u>
14	Proxy Low Value		<u>0.75</u>			<u>8.26%</u>		<u>9.66%</u>
15	Proxy High Value		<u>1.05</u>			<u>10.44%</u>		<u>12.40%</u>
16	Proxy Median		<u>0.85</u>			<u>8.99%</u>		<u>10.57%</u>

Source:

(f) Ibbotson SBB1 1926-2020 (page 9/13)

# **Projected Risk Premium**

<u>Line</u>	<u>(a)</u>	<u>(b)</u>
1	Value Line Growth Projection 3-5 Years	47%
2	Annualized Growth <sup>1</sup>	10.07%
3	Projected Dividend Yield	1.87%
4	Annualized Total Return (2) + (3)	11.94%
5	30-Year Treasury Yield	2.82%
6	<b>Projected Risk Premium (4) - (5)</b>	<b>9.12%</b>

<sup>1</sup>Assuming 4 years of even growth

## Value Line Summary & Index - Growth Projection 3-5 Years

Date	Growth	Dividend Yield
4/8/2022	50%	1.9%
4/1/2022	50%	1.9%
3/25/2022	60%	2.0%
3/18/2022	60%	2.0%
3/11/2022	50%	1.9%
3/4/2022	50%	1.9%
2/25/2022	50%	1.9%
2/18/2022	50%	1.9%
2/11/2022	50%	1.9%
2/4/2022	45%	1.8%
1/28/2022	35%	1.8%
1/21/2022	35%	1.8%
1/14/2022	35%	1.7%
1/7/2022	35%	1.8%
<b>3 Month Average</b>	<b>47%</b>	<b>1.87%</b>



**Historical Risk Premium**

Year	Long		Difference
	Large	Term Gov	
	Company Total Returns	Bonds Income Returns	
1926	11.62%	3.73%	7.89%
1927	37.49%	3.41%	34.08%
1928	43.61%	3.22%	40.39%
1929	-8.42%	3.47%	-11.89%
1930	-24.90%	3.32%	-28.22%
1931	-43.34%	3.33%	-46.67%
1932	-8.19%	3.69%	-11.88%
1933	53.99%	3.12%	50.87%
1934	-1.44%	3.18%	-4.62%
1935	47.67%	2.81%	44.86%
1936	33.92%	2.77%	31.15%
1937	-35.03%	2.66%	-37.69%
1938	31.12%	2.64%	28.48%
1939	-0.41%	2.40%	-2.81%
1940	-9.78%	2.23%	-12.01%
1941	-11.59%	1.94%	-13.53%
1942	20.34%	2.46%	17.88%
1943	25.90%	2.44%	23.46%
1944	19.75%	2.46%	17.29%
1945	36.44%	2.34%	34.10%
1946	-8.07%	2.04%	-10.11%
1947	5.71%	2.13%	3.58%
1948	5.50%	2.40%	3.10%
1949	18.79%	2.25%	16.54%
1950	31.71%	2.12%	29.59%
1951	24.02%	2.38%	21.64%
1952	18.37%	2.66%	15.71%
1953	-0.99%	2.84%	-3.83%
1954	52.62%	2.79%	49.83%
1955	31.56%	2.75%	28.81%
1956	6.56%	2.99%	3.57%
1957	-10.78%	3.44%	-14.22%
1958	43.36%	3.27%	40.09%
1959	11.96%	4.01%	7.95%
1960	0.47%	4.26%	-3.79%
1961	26.89%	3.83%	23.06%
1962	-8.73%	4.00%	-12.73%
1963	22.80%	3.89%	18.91%
1964	16.48%	4.15%	12.33%
1965	12.45%	4.19%	8.26%
1966	-10.06%	4.49%	-14.55%
1967	23.98%	4.59%	19.39%
1968	11.06%	5.50%	5.56%
1969	-8.50%	5.95%	-14.45%
1970	3.86%	6.74%	-2.88%
1971	14.30%	6.32%	7.98%
1972	18.99%	5.87%	13.12%
1973	-14.69%	6.51%	-21.20%
1974	-26.47%	7.27%	-33.74%
1975	37.23%	7.99%	29.24%
1976	23.93%	7.89%	16.04%
1977	-7.16%	7.14%	-14.30%
1978	6.57%	7.90%	-1.33%

Year	Long		Difference
	Large	Term Gov	
	Company Total Returns	Bonds Income Returns	
1979	18.61%	8.86%	9.75%
1980	32.50%	9.97%	22.53%
1981	-4.92%	11.55%	-16.47%
1982	21.55%	13.50%	8.05%
1983	22.56%	10.38%	12.18%
1984	6.27%	11.74%	-5.47%
1985	31.73%	11.25%	20.48%
1986	18.67%	8.98%	9.69%
1987	5.25%	7.92%	-2.67%
1988	16.61%	8.97%	7.64%
1989	31.69%	8.81%	22.88%
1990	-3.10%	8.19%	-11.29%
1991	30.47%	8.22%	22.25%
1992	7.62%	7.26%	0.36%
1993	10.08%	7.17%	2.91%
1994	1.32%	6.59%	-5.27%
1995	37.58%	7.60%	29.98%
1996	22.96%	6.18%	16.78%
1997	33.36%	6.64%	26.72%
1998	28.58%	5.83%	22.75%
1999	21.04%	5.57%	15.47%
2000	-9.10%	6.50%	-15.60%
2001	-11.89%	5.53%	-17.42%
2002	-22.10%	5.59%	-27.69%
2003	28.68%	4.80%	23.88%
2004	10.88%	5.02%	5.86%
2005	4.91%	4.69%	0.22%
2006	15.79%	4.68%	11.11%
2007	5.49%	4.86%	0.63%
2008	-37.00%	4.45%	-41.45%
2009	26.46%	3.47%	22.99%
2010	15.06%	4.25%	10.81%
2011	2.11%	3.82%	-1.71%
2012	16.00%	2.46%	13.54%
2013	32.39%	2.88%	29.51%
2014	13.69%	3.41%	10.28%
2015	1.38%	2.47%	-1.09%
2016	11.96%	2.30%	9.66%
2017	21.83%	2.67%	19.16%
2018	-4.80%	2.97%	-7.77%
2019	33.07%	2.58%	30.49%
2020	17.63%	1.58%	16.05%

1926-2020

Average 12.16% 4.91% 7.25%

Case No: U-20836  
 Witness: J. E. Ufolla  
 Exhibit No: S-4  
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**Dow Jones Utility Average**

<u>Line</u>	<u>(a) Date</u>	<u>(b) Index value</u>	<u>(c) Price Return %</u>	<u>(d) TR Index Value</u>	<u>(e) TR % avg</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
17	31-Dec-15	577.82	(6.51)	2230.94	(3.06)
18	31-Dec-16	659.61	14.15	2636.44	18.18
19	31-Dec-17	723.37	9.67	2988.41	13.35
20	31-Dec-18	712.93	(1.44)	3047.76	1.99
21	31-Dec-19	879.17	23.32	3879.67	27.30
22	31-Dec-20	864.64	(1.65)	3939.83	1.55
22	31-Dec-21	980.78	13.43	4609.97	17.01

Source

Column (b & d): data source from S&P Global with reference to the Dow Jones Utility Average Total Return  
 Address is <https://www.spglobal.com/spdji/en/indices/equity/dow-jones-utility-average/#overview>

**Historical Utility Equity and Bond Data**

**ELECTRIC UTILITY**

**Bond Yields**

Period	Market Price - Weighted Average - \$ Per Share (End of Dec)	Capital Gain/Loss % Growth (Loss) on Nat. Gas Stock	Dividend Yield on Nat. Gas Stock (End of Dec) (Mergent)	Total Return (Capital Gain +Dividend Yield)	Yields on A-Rated Public Utility Bonds (end of Dec)	30-Year Treasury Yields (1954-2021)
1931	43.23		7.40	7.40	6.24	
1932	39.42	(8.81)	5.63	(3.18)	5.85	
1933	28.73	(27.12)	6.09	(21.03)	7.22	
1934	21.06	(26.70)	6.74	(19.96)	5.36	
1935	36.06	71.23	3.69	74.92	4.29	
1936	41.60	15.36	4.28	19.64	3.83	
1937	24.24	(41.73)	6.93	(34.80)	4.03	
1938	27.55	13.66	5.26	18.92	3.74	
1939	28.85	4.72	5.23	9.95	3.38	
1940	22.22	(22.98)	7.07	(15.91)	3.10	
1941	13.45	(39.47)	9.44	(30.03)	3.06	
1942	14.29	6.25	8.96	15.21	3.06	
1943	21.01	47.03	6.66	53.69	2.99	
1944	21.09	0.38	6.40	6.78	2.97	
1945	31.14	47.65	4.40	52.05	2.75	
1946	32.71	5.04	4.52	9.56	2.76	
1947	25.60	(21.74)	6.17	(15.57)	3.05	
1948	26.20	2.34	6.22	8.56	3.06	
1949	30.57	16.68	5.50	22.18	2.78	
1950	30.81	0.79	6.00	6.79	2.86	
1951	33.85	9.87	5.61	15.48	3.29	
1952	37.85	11.82	5.07	16.89	3.22	
1953	39.61	4.65	5.28	9.93	3.38	
1954	47.56	20.07	4.50	24.57	3.11	
1955	49.35	3.76	4.60	8.36	3.35	2.75
1956	48.96	(0.79)	4.84	4.05	3.91	2.99
1957	50.30	2.74	4.89	7.63	4.36	3.44
1958	66.37	31.95	3.87	35.82	4.49	3.27
1959	65.77	(0.90)	4.01	3.11	4.96	4.01
1960	76.82	16.80	3.57	20.37	4.65	4.26
1961	99.32	29.29	2.88	32.17	4.65	3.83
1962	96.49	(2.85)	3.18	0.33	4.44	4
1963	102.31	6.03	3.25	9.28	4.46	3.89
1964	115.54	12.93	3.19	16.12	4.54	4.15
1965	114.86	(0.59)	3.50	2.91	4.83	4.19
1966	105.99	(7.72)	3.94	(3.78)	5.67	4.49
1967	98.19	(7.36)	4.52	(2.84)	6.67	4.59
1968	104.04	5.96	4.40	10.36	6.87	5.5
1969	84.62	(18.67)	5.47	(13.20)	8.59	5.95
1970	88.59	4.69	5.34	10.03	8.48	6.74
1971	85.56	(3.42)	5.62	2.20	7.90	6.32
1972	83.61	(2.28)	5.88	3.60	7.48	5.87
1973	60.87	(27.20)	8.28	(18.92)	8.24	6.51
1974	41.17	(32.36)	11.73	(20.63)	10.27	7.27
1975	55.66	35.20	8.97	44.17	10.11	7.99
1976	66.29	19.10	7.92	27.02	8.62	7.89
1977	68.19	2.87	8.33	11.20	8.64	7.14
1978	59.75	(12.38)	10.01	(2.37)	9.70	7.9
1979	56.41	(5.59)	11.24	5.65	11.79	8.86
1980	54.42	(3.53)	12.26	8.73	14.63	9.97
1981	57.20	5.11	12.52	17.63	16.29	11.55
1982	70.26	22.83	10.87	33.70	14.43	13.5
1983	72.03	2.52	11.11	13.63	13.52	10.38
1984	80.16	11.29	10.44	21.73	13.11	11.74
1985	94.98	18.49	9.17	27.66	10.97	11.25
1986	113.66	19.67	7.89	27.56	9.12	8.98
1987	94.24	(17.09)	9.68	(7.41)	10.98	7.92
1988	100.94	7.11	8.63	15.74	10.06	8.97
1989	122.52	21.38	7.22	28.60	9.44	8.81
1990	117.77	(3.88)	7.44	3.56	9.73	8.19
1991	144.02	22.29	6.26	28.55	8.88	8.22
1992	141.06	(2.06)	6.25	4.19	8.43	7.26
1993	146.70	4.00	6.16	10.16	7.34	7.17
1994	115.50	(21.27)	7.80	(13.47)	8.76	6.59
1995	142.90	23.72	6.34	30.06	7.23	7.6
1996	136.00	(4.83)	6.67	1.84	7.59	6.18
1997	155.73	14.51	5.82	20.33	7.16	6.64
1998	181.84	16.77	4.40	21.17	6.91	5.83
1999	137.30	(24.49)	5.87	(18.62)	8.14	5.57
2000	227.09	65.40	3.84	69.24	7.84	6.5
2001	200.50	(11.71)	4.47	(7.24)	7.83	5.53
2002	169.50	(15.46)	5.21	(10.25)	6.93	5.59
Dow Jones Utility Average (Total Return)						
2003				29.39	6.27	4.8
2004				30.24	5.92	5.02
2005				25.14	5.80	4.69
2006				16.63	5.81	4.68
2007				20.11	6.16	4.86
2008				(27.84)	6.54	4.45
2009				12.47	5.79	3.47
2010				6.46	5.56	4.25
2011				19.71	4.33	3.82
2012				1.64	4.00	2.46
2013				12.69	4.81	2.88
2014				30.65	3.94	3.41
2015				(3.06)	4.39	2.47
2016				18.18	4.22	2.3
2017				13.35	3.75	2.67
2018				1.99	4.26	2.97
2019				27.30	3.48	2.58
2020				1.55	2.71	1.58
2021				17.01	3.02	2.06

1932 - 2021 Electric Utility Return Average	11.05		
1932 - 2021 Average Yield on Public Utility Bonds		6.30	
1955 - 2021 Average Yield on Treasury Bonds			5.81

1931-2002 Electric Utility stocks data from Mergent Public Utility Manual and Bond Record  
2003-2021 Dow Jones Utility Average TR Index from S&P Global  
Public Utility Bond Yields - Mergent Bond Record

## Risk Premium Method

(a) Line No.	(b)	(c)	(d)
1	Electric Utility Realized Market Return Average (1955 - 2021) <sup>(1)</sup>	11.05%	
2	Realized Utility Bond Yield Average (1955 - 2021) <sup>(2)</sup>	6.30%	
3	Treasury Bond Yield Average (1955 - 2021)	5.81%	
4	Historical Spread Utility Equity-Bond [1] - [2]	4.75%	
5	Historical Spread Utility Bond-Treasury Bond [1] - [3]	5.24%	

## Utility Bond Risk Premium

		Utility Bond Rating	
		<u>A</u>	<u>Baa</u>
6	Value Line Long Term Utility Bond Returns <sup>(a)</sup>	3.56%	3.85%
7	Historical Cost of Equity Estimate [4] + [6]	8.31%	8.60%

## Treasury Bond Risk Premium

8	Treasury Bond Yield Page 8	2.82%
9	Historical Cost of Equity Estimate [5] + [8]	8.06%

## Sources

(a) Value Line Selection and Options Utility (25/30-year) A and Baa/BBB

Date	Utility A-rated	Utility Baa/BBB-rated
4/8/2022	4.07	4.42
4/1/2022	4.02	4.34
3/25/2022	3.98	4.44
3/18/2022	3.77	4.10
3/11/2022	3.68	3.99
3/4/2022	3.68	3.96
2/25/2022	3.66	3.93
2/18/2022	3.53	3.79
2/11/2022	3.40	3.65
2/4/2022	3.32	3.57
1/28/2022	3.28	3.52
1/21/2022	3.25	3.49
1/14/2022	3.18	3.41
1/7/2022	3.03	3.28
<b>Average</b>	<b>3.56</b>	<b>3.85</b>

(1) Historical Market data from Mergent Public Utility Manual for 1932-2002, per Exhibit S-4, Schedule D5, pg 10  
- 2003-2017 data derived from the Dow Jones Utility Average TR Index per Exhibit S-4, Schedule D-5, page 9 of 13  
and shown at the bottom of Exhibit S-4, Schedule D-5, page 10 of 13.

Case No: U-20836

Witness: J. E. Ufolla

Exhibit No: S-4

Schedule No: D-5

Date: 5/19/2022

Page: 12 of 13

**Allowed Returns on Common Equity  
Electric Utility Rate Case Decisions  
State Commissions Across the United States  
(2020 - 2021)**

<u>Time Period</u>	<u>ROE Allowed</u>	<u>Number of Rate Cases</u>
Q1 2021	9.46%	10
Q2 2021	9.40%	10
Q3 2021	9.38%	13
Q4 2021	9.33%	21
Full Year Average	<b>9.38%</b>	54
Q1 2020	9.58%	19
Q2 2020	9.48%	8
Q3 2020	9.90%	11
Q4 2020	8.97%	17
Full Year Average	<b>9.44%</b>	55

Source:

S&P Global Market Intelligence

Regulatory Research Associates

RRA Regulatory Focus

Major Rate Case Decisions

Date: February 10, 2022

**Summary of Cost of Equity Estimates**

(a)	(b)	(c)	(d)
Line No.	Methodology		Proxy Results
1	DCF Single Step	Average	8.85%
2		Median	9.16%
3	Historical CAPM	Average	9.08%
4		Median	8.99%
5	Value Line Projected CAPM	Average	10.69%
6		Median	10.57%
7	Utility Bond Risk Premium: A-Rated Bonds		8.31%
8	Utility Bond Risk Premium: Baa-Rated Bonds		8.60%
9	Treasury Bond Risk Premium		8.06%
10	Average Gas Utility Other State ROE Decision 2021:		9.38%
11	Average Gas Utility Other State ROE Decision 2020:		9.44%
12	ROE Range		8.90 - 9.90%
13	ROE used in Overall Cost of Capital:		<b>9.60%</b>

**MPSC Case No.:** U-20836

**Requestor:** Staff

**Question No.:** JEU-1.13

**Respondent:** B. Villadsen

**Page:** 1 of 1

**Question:** On page 32 of her testimony, Dr. Villadsen states "... it is not possible to identify publicly traded companies that replicate every aspect of DTE Electric's business profile." Does Dr. Villadsen believe that if it were possible, this would create an ideal proxy group?

**Answer:** If there was a sufficiently large group of companies that replicated all aspects of DTE Electric's business profile, yes, it would create an ideal proxy group.

**Attachments:** None

**MPSC Case No.:** U-20836

**Requestor:** Staff

**Question No.:** JEU-1.14

**Respondent:** B. Villadsen

**Page:** 1 of 1

**Question:** What is the minimum number of companies that can be used in a reasonably sized proxy group?

**Answer:** The minimum number of companies depend on (i) how well they proxy the target (DTE Electric) and (ii) how reliable and stable the data are. For example, during times of substantial changes, it may be necessary to increase the number of companies in the proxy group.

**Attachments:** None



**MPSC Case No.:** U-20836

**Requestor:** Staff

**Question No.:** JEU-1.15

**Respondent:** B. Villadsen

**Page:** 1 of 1

**Question:** What is the maximum number of companies that can be used in a reasonably sized proxy group?

**Answer:** There is no maximum of companies that can be used in a proxy group. However, if there are sufficient companies available for selection, it may be possible to match the proxy group better to the target.

**Attachments:** None

STATE OF MICHIGAN  
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

\* \* \* \* \*

**In the matter of the application of** )  
**DTE ELECTRIC COMPANY** )  
**for authority to increase its rates,** )  
**amend its rate schedules and rules** )  
**governing the distribution and** )  
**supply of electric energy, and for** )  
**miscellaneous other accounting authority** )  
\_\_\_\_\_ )


**Case No. U-20836**

**PROOF OF SERVICE**

Jennifer Brooks, being duly sworn, deposes and says that on May 19, 2022, A.D., she  
emailed a copy of the attached MPSC Testimony and Exhibits to the persons as shown on  
the attached list.

  
\_\_\_\_\_  
Jennifer Brooks

Subscribed and sworn to before me  
this 19<sup>th</sup> day of May 2022.

  
\_\_\_\_\_

Brianna L. Brown, Notary Public  
State of Michigan, County of Gratiot  
Acting in County of Eaton  
My Commission Expires July 4, 2028

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