

**STATE OF MICHIGAN**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter, on the Commission's own )  
motion, regarding the regulatory reviews, )  
revisions, determinations, and/or approvals )  
necessary for **DTE Electric Company** )  
to fully comply with Public Act 295 OF 2008 )

Case No. U-18232

QUALIFICATIONS  
AND  
DIRECT TESTIMONY  
OF  
TERRI L. SCHROEDER

**DTE ELECTRIC COMPANY**  
**QUALIFICATIONS OF TERRI L. SCHROEDER**

Line  
No.

1 **Q. Please state your full name, title, and business address.**

2 A. Terri Schroeder, Manager of Business Development in Renewable Energy. My  
3 business address is One Energy Plaza, Detroit, Michigan 48226.

4

5 **Q. On whose behalf are you testifying?**

6 A. I am testifying on behalf of DTE Electric Company (DTE Electric or Company).

7

8 **Q. What is your educational background?**

9 A. I graduated from DePaul University in 2002 with a Bachelor of Science Degree in  
10 Business. In 2008, I received a Master of Business Administration from the  
11 University of Michigan Ross School of Business and a Master of Science from the  
12 University of Michigan School of Natural Resources and Environment.

13

14 **Q. Please describe your work experience?**

15 A. I began my career in the marketing department at Jenner & Block, an Am Law 100  
16 law firm based in Chicago. In 2004-2005, I served one year with AmeriCorps at City  
17 Year Detroit. During graduate school, I had internships at Ford Motor Company and  
18 Environmental Law and Policy Center. After graduate school, I worked at two  
19 different consulting firms: first at Shepherd Advisors (2008-2012) and later at Public  
20 Sector Consultants (2012-2014), where I focused on energy policy, energy  
21 marketing, and program management.

22

23 My employment with DTE Electric began in 2014 when I joined the Renewable  
24 Energy team as a Senior Strategist in Business Development. In this role, I executed  
25 on our approved plans to meet the requirements of 2008 PA 295, administering RFPs

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1 for our renewable energy projects, filing contract approval applications with the  
2 Michigan Public Service Commission (MPSC), supporting development of the  
3 Company's renewable energy plan and reconciliation cases, and maintaining our  
4 Renewable Energy Credit (REC) compliance records. In 2017, I assumed my current  
5 role as Manager of Business Development in Renewable Energy.

6

7 **Q. What is your current position and what are your current responsibilities?**

8 A. Currently, I am Manager of Business Development in DTE Electric's Renewable  
9 Energy. I am a member of the Company's Renewable Energy Management team and  
10 responsible for planning and executing renewable energy activities for the Company.

11

12 **Q. Have you previously sponsored testimony before the Michigan Public Service  
13 Commission?**

14 A. Yes. I sponsored testimony in the following cases:

15 U-18242 Reconciliation of the DTE Electric 2016 REP Program

16 U-18352 Section 61 of 2016 PA 342

17 U-18419 DTE Electric 2017 Certificate of Necessity

**DTE ELECTRIC COMPANY**  
**DIRECT TESTIMONY OF TERRI L. SCHROEDER**

Line  
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1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my direct testimony is to:

3 1) Provide an overview of the statutory framework under 2008 PA 295, as amended  
4 by 2016 PA 342 (hereinafter “the Act” or “2016 PA 342”) and address specific  
5 policy issues;

6 2) Provide an overview of and rationale for the Company’s proposal to amend its  
7 currently approved Renewable Energy Plan (REP);

8 3) Support and explain how the Company’s amended REP is reasonable, prudent,  
9 and consistent with the requirements of the Act; and

10 4) Introduce the other Company witnesses in this proceeding and preview their  
11 testimony.

12

13 My testimony will explain the major components and assumptions associated with the  
14 Company’s proposal to amend its currently approved REP. My testimony refers to  
15 relevant information and data that may be supported by other witnesses in this  
16 proceeding.

17

18 **Q. Who will present evidence in support of the Company’s REP in this case?**

19 A. The Company will present its case through six witnesses, in addition to myself, as  
20 follows:

21 **Mr. Marcus J. Rivard**, Principal Market Engineer, Generation Optimization -  
22 Tactical Merchant Analytics, will present the Company’s Transfer Price schedules  
23 for the Company’s 2016 PA 342 Renewable Energy Contracts and Company-owned  
24 Renewable Energy Systems and provide the projected expenses for 2016 through

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1 August 2029 which will be transferred for recovery through DTE Electric’s Power  
2 Supply Cost Recovery (PSCR) mechanism.

3 **Mr. Patrick D. Kauffman**, Principal Supervisor – Renewable Energy Program, will  
4 summarize DTE Electric’s projected Renewable Energy capital, operation and  
5 maintenance (O&M) and other expenses associated with implementing DTE  
6 Electric’s Amended 2016 PA 342 REP. In addition, he will outline key accounting  
7 practices related to the Company’s amended REP including: (1) the removal of REP  
8 financial impacts from the Company’s traditional base rate accounting, and (2) the  
9 accounting for and calculation of production tax credits.

10 **Mr. Thomas W. Lacey**, Principal Financial Analyst, Regulatory Affairs, will present  
11 the incremental cost of compliance calculation based on the costs and Renewable  
12 Energy Plan Surcharge (a/k/a Revenue Recovery Mechanism surcharge) revenues  
13 associated with the Company’s 2018 amended REP that were supplied to him and  
14 are supported in this application by Witnesses Rivard, Kauffman, Sherri Wisniewski,  
15 and myself. He will also be supporting the pre-tax cost of capital that he uses to  
16 calculate the return on rate base, and the calculation of interest on regulatory  
17 liabilities.

18 **Mr. Philip W. Dennis**, Manager, Regulatory Economics, will explain and support:  
19 (1) the forecast of meter counts used to calculate the forecast metered REPS revenue;  
20 and (2) a proposed mechanism to refund overcollections associated with a renewable  
21 energy surcharge originally approved in Case No. U-13808.

22 **Mr. Markus B. Leuker**, Manager, Corporate Energy Forecasting, is supporting the  
23 sales forecast and customer count projection for the period 2018-2029.

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1       **Ms. Sherri Wisniewski**, Director, Taxation, is supporting the reasonableness of  
2       deferred taxes, investment tax credits and property tax expense in the Company's  
3       REP.

4

5       **Q. Are you sponsoring any exhibits?**

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

7	<u>Exhibit</u>	<u>Description</u>
8	A-1	Renewable Energy Plan Overview
9	A-2	Renewable Energy Plan Summary
10	A-3	DTE Electric Owned Renewable Energy Facilities Generation
11	A-4	RECs/ACECs and Associated Expense for the Years 2016-2029
12	A-5	NREL – ATB Installed Cost Projections

13

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

15       A. Yes, they were.

16

17       **Q. How is your testimony organized?**

18       A. My testimony consists of the following five (5) parts:

19	Part I	Statutory Framework
20	Part II	The Company's Amended Renewable Energy Plan
21	Part III	Policy Assumptions and Other Requests
22	Part IV	Addressing Renewable Energy Plan Requirements
23	Part V	Summary and Conclusions

24

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1

**Part I: Statutory Framework**

2

**Q. Why is the Company filing this Renewable Energy Plan amendment?**

3

A. Section 22(3) of the Act states “Within 1 year after the effective date of the 2016 amendatory act that added this section, the commission shall review each electric provider’s plan pursuant to a filing schedule established by the commission.” The purpose of this filing is to amend the Company’s currently approved REP to meet the new renewable energy requirements of the Act, and to provide the Commission with the information necessary for the review noted in Section 22(3) of the Act.

9

10

**Q. In general, what does the Act provide with respect to REC standards?**

11

A. In general, the Company is directed to meet a compliance requirement equal to that required under former section 27 in 2016-2018, 12.5% in 2019 and 2020 and 15% by 2021 and thereafter. A summary reflecting achievement of the renewable energy targets is provided in Exhibit A-2, lines 12-21.

15

16

**Q. What is the number of RECs the Company will need to achieve the portfolio targets?**

17

18

A. Based on the Company’s forecasted prior year annual retail sales provided by Witness Leuker, I have calculated the quantity of RECs the Company must obtain to comply with the REC requirements of the Act and included the results on Exhibit A-2 line 10.

21

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1 **Part II: The Company's Amended Renewable Energy Plan**

2 **Overview & Key Assumptions**

3 **PLAN OVERVIEW**

4 **Q. Why is the Company proposing to amend its currently approved REP?**

5 A. Pursuant to the Act, the Company proposes the amendments included in this filing to  
6 meet the updated renewable energy targets of 12.5% in 2019 and 2020, and 15% by  
7 2021 through the remainder of the Plan.

8  
9 The Company's currently approved REP was based on the Company's best  
10 knowledge and information about renewable energy markets and project operations  
11 as of early 2016, and this Amended Plan filing will update assumptions included in  
12 the REP.

13  
14 In this section of my testimony, I will highlight the Company's current key  
15 assumptions and provide an overview of the Company's amended REP.

16  
17 **Q. What is the purpose of Exhibit A-1?**

18 A. Exhibit A-1 is required by the Commission's Order in Case No. U-18409. The  
19 Exhibit summarizes RECs by generation type, ownership and program type through  
20 August 2029.

21  
22 **Q. Can you provide an overview of the Company's Amended REP?**

23 A. Yes. The Company's 2018 amended REP includes a portfolio adding approximately  
24 4.3 million RECs in 2017 up to approximately 5.7 million RECs in 2028, the last full  
25 year of the Plan (Exhibit A-2, line 16).



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1 The Company-owned renewable energy systems will be comprised of 1,456 MW of  
2 wind energy generating facilities and 77 MW<sub>AC</sub> of solar generating assets by 2022.  
3 In comparison, the Company's currently approved REP forecasted 841 MW of  
4 Company-owned renewable generating assets. Of the Company-owned assets,  
5 approximately 316 MW of wind and 30 MW of solar are allocated to the Company's  
6 current and prospective voluntary green pricing programs, a requirement of Section  
7 61 of the Act.

8

9 **Q. Does the Company's amended REP satisfy the targets set forth in the Act?**

10 A. Yes. As shown on lines 12 – 21 of Exhibit A-2, the Company expects to generate or  
11 purchase RECs to satisfy the Act's REC standards through 2029. Additionally, the  
12 REP will contribute at least 15% to the Act's combined renewable energy and energy  
13 waste reduction 35% goal in 2025.

14

15 Forecasted levels of generation and purchased RECs are highly dependent on, and  
16 sensitive to, a number of critical assumptions which are detailed later in my  
17 testimony. The Company's ability to comply with the renewable portfolio standard  
18 throughout the term of the Plan is highly dependent upon the actual performance of  
19 the renewable assets closely matching the capacity factor projections and the  
20 assumptions made in developing the Plan. The Company expects to be in compliance  
21 with the Act consistent with the provisions outlined in MCL 460.1028 by making a  
22 good faith effort to achieve the REC standards and by reasonably and prudently  
23 incurring incremental costs of compliance consistent with the cost recovery limits  
24 reflected in the Act.

25

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1 **Q. Has the Company proposed going beyond the 15% compliance requirement**  
2 **through 2029?**

3 A. No. Consistent with the December 20, 2017 Commission Order in Case No. U-  
4 15896, *“For incremental renewable energy beyond the 15% requirement in 2021 and*  
5 *any renewable energy to be constructed or purchased after the conclusion of the 20-*  
6 *year renewable planning period ending in 2029, the utility shall file as set forth [in*  
7 *the IRP filing requirements].”*

8

9 As reflected in Exhibit A-2, column (o), line 21, the Plan currently forecasts an  
10 ending balance of 2.5 million RECs. Given the uncertainties involved in the plan,  
11 DTE Electric assumes this is a small contingency used to help buffer variances to  
12 plan assumptions.

13

14 **Q. Does the Company foresee building additional renewable energy beyond that**  
15 **which is required for compliance with the Act?**

16 A. Yes. Consistent with the Company’s commitment to reduce carbon emissions by  
17 more than 80% by 2050, DTE Electric is planning additional renewable energy  
18 beyond what is required for compliance with the Act.

19

20 **Q. What time period is reflected in the Company’s amended REP?**

21 A. The exhibits supporting the Company’s amended REP reflect actual numbers for  
22 2016; however, as of the time of this filing, the Company’s 2016 Renewable Energy  
23 Reconciliation Case No. U-18242 is still pending with the Commission. Therefore,  
24 in the exhibits, 2016 is listed, “as filed” in Case No. U-18242, and any changes will

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1 be reflected accordingly in subsequent REP filings. From the 2016 base, the exhibits  
2 project Plan information through August 2029.

3

4 **Q. What is the total incremental cost of compliance forecasted within the**  
5 **Company's amended REP?**

6 A. The total incremental cost of compliance forecasted in the Company's amended REP  
7 for years 2017 through August of 2029 is approximately \$102.5 million (Exhibit A-  
8 2 sum of line 35). Line 35 of Exhibit A-2 summarizes the incremental costs of  
9 compliance within the Company's amended REP. The incremental cost of  
10 compliance is supported by Witness Lacey and by Exhibit A-16.

11

12 **Q. What are the Renewable Energy Plan Surcharge (REPS) revenues forecasted**  
13 **within the Company's amended REP?**

14 A. Lines 42-45 of Exhibit A-2 summarize planned REPS revenues within the  
15 Company's REP. Given the current REPS is zero and the Company is not proposing  
16 to change that, the REPS revenue is forecasted to be zero.

17

18 **Q. Has the Company modeled any assets attributable to a voluntary green pricing**  
19 **(VGP) program in its filing?**

20 A. Yes. In Case No. U-18111, the Company included the assets for the MIGreenPower  
21 program in the REP. Subscribed portions of the assets attributable to MIGreenPower  
22 have been subtracted from the REP and the revenue from those subscriptions as  
23 shown on line 34 of Exhibit A-2. Additionally, the Company has received interest in  
24 a new large customer VGP program, and the Company is currently examining the  
25 potential for such a program. Approximately 300 MW of new wind capacity has

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1        been modeled in this plan to meet the needs of such a program. The wind capacity  
2        is contemplated to commence operation in late 2020 to take advantage of 100%  
3        PTCs. Revenue from the subscribed assets is shown in the incremental cost of  
4        compliance as one of the costs recovered to offset the revenue requirement. These  
5        costs are calculated based on the actual or projected subscription fee for the VGP  
6        program.

7

8        **Q. Do the subscribed portions of the VGP programs count toward the 15%  
9        compliance?**

10      A. No. Subscribed portions of the VGP programs are incremental to the REP and the  
11      associated RECs are retired on behalf of subscribers.

12

13      **Q. How is the new large customer VGP program planned to be priced?**

14      A. At this time, pricing of the large customer VGP program is planned to be based on  
15      the levelized cost of energy from the assets in the program. The revenues from these  
16      programs will offset the project costs in the REP as reflected in line 14 of Exhibit A-  
17      16. The program credit is based off generation weighted LMP forecast for the energy  
18      portion of the credit and the forecasted auction clearing price for capacity in zone 7  
19      for the capacity portion of the credit. The credit payment is reflected in line 15 of  
20      Exhibit A-16. It is offset in a PSCR reduction noted in line 16 of Exhibit A-17.

21

22      **Q. How will the new large customer VGP program be sized?**

23      A. The Company is currently assessing the interest level in a large customer program. If  
24      the Company files a tariff for such a VGP program, the Company will have estimated  
25      the demand for such a program and will size the actual wind assets appropriately.

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1           However, the Company may also choose to reduce the size of wind parks in 2021  
2           and 2022 if there is excess capacity in the VGP program from the 2020 wind parks.

3

4   **Q.   What other technology is considered in the REP?**

5   A.   The Company has included capital for two pilot projects in the REP to help diversify  
6       the resources used to reliably meet the energy needs of our customers.  The pilot  
7       projects are expected to be small scale and total less than 15 MW of installed capacity.  
8       The projects are expected to be implemented by 2020 to give the Company ample  
9       time to learn from these new technology installations within the Plan period.  These  
10      pilots are expected to include solar paired with battery storage, microgrid technology  
11      and potentially electric vehicle charging.

12

13       As noted in the 2017 annual report for GreenCurrents in Case No. U-14569, DTE  
14       proposes to offset capital costs associated with the pilot projects with the balance of  
15       funds from GreenCurrents.  The April 2007 Order in Case No. U-14569 states that  
16       any revenues in excess of the costs must be used to develop renewable energy  
17       generation projects in Michigan.

18

19   **KEY ASSUMPTIONS**

20   **Q.   What are some of the key assumptions within the Company's amended REP**  
21       **which significantly impact forecasted achievement of REC targets?**

22   A.   The Company's amended REP runs through August 2029 and is based on the  
23       Company's best estimates and forecasts regarding a wide range of factors.  The  
24       Company's REC portfolio could vary from what is depicted in Exhibit A-2 if any of  
25       the following critical forecasted assumptions prove to be materially inaccurate:

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- 1 • Capacity factors
- 2 • Cost and/or cost escalation factors
- 3 • Applicable property taxes
- 4 • Annual retail sales volume
- 5 • Accumulated impacts of minor forecast variances

6

7 The remainder of this section of my testimony will provide more details about these  
8 key plan assumptions.

9

10 **Q. What are the Company's assumptions regarding transfer prices within the**  
11 **Company's amended REP?**

12 A. Section 47 of the Act requires the MPSC to annually establish transfer prices that an  
13 electric provider will use for planning its renewable energy resource procurement.

14

15 The Company is requesting, and therefore is assuming, that the schedule of MPSC  
16 Staff Transfer Prices pending approval in Case No. U-18242 will be applied to any  
17 contracts that are executed and filed for approval after the application is filed in this  
18 case. Witness Rivard discusses the Company's assumptions regarding transfer prices  
19 for the Company's amended REP. Line 30 of Exhibit A-2 reflects the prices at which  
20 renewable energy is assumed to be sold, and line 32 shows the amounts which would  
21 be recovered through the Company's PSCR plan and reconciliation process.

22

23 The Company's amended REP assumes that the transfer price for purchased  
24 renewable energy will be the lesser of the transfer price or the contract price, and,  
25 similarly, the transfer price for DTE Electric-generated renewable energy will be the

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1 lesser of the transfer price or the levelized cost of energy for the renewable energy  
2 project.

3

4 **Q. What are the Company's assumptions regarding wind farm capacity factors**  
5 **within the Company's amended REP?**

6 A. For Company-owned and PPA wind projects that are operational at the time of the  
7 filing, the forward-looking capacity factor projections are consistent with the  
8 approved Plan from Case No. U-18111.

9

10 There are five future parks in the Plan. Two of these parks were approved in U-  
11 18111 and use the capacity factor as filed with the corresponding contracts. For the  
12 2018 park, the capacity factor is 30%. The 2020 park uses 34%. The additional 300  
13 MW planned to come online in 2020 assumes 34% capacity factor consistent with  
14 the contracted 2020 park. The remaining two (2021 and 2022) assume 34.5% and  
15 35% capacity factor.

16

17 **Q. How do deviations from the forecasted capacity factors impact the incremental**  
18 **cost of compliance?**

19 A. A small change in the capacity factor can drive a significant variance in the  
20 incremental cost of compliance. Thus, the Company's incremental costs of  
21 compliance and corresponding REC creation would be different from what is  
22 depicted in Exhibit A-2 if actual capacity factors are different than those assumed in  
23 the Company's amended REP. Variations from the long-term averages can affect  
24 REC creation and transfer price revenues in any given year. For example, the annual  
25 average wind speed can vary by as much as 10% from long-term averages. Further,

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1 future changes in energy market rules can impact the dispatch of renewable energy  
2 systems and result in curtailment, even if a given wind resource is available.

3

4 **Q. What are the Company's assumptions regarding costs within the Company's**  
5 **amended REP?**

6 A. In this amended REP, the Company utilized forecasts from the National Renewable  
7 Energy Lab - Annual Technology Baseline (NREL-ATB). This is a publicly  
8 available forecast published in August of each year, and the Commission suggested  
9 its use for renewable projections in the November 21, 2017 order in Case No. U-  
10 18418.

11

12 For the wind installed cost, the contracted installed cost is used in the 2018 and the  
13 2020 forecast based on the contract filed for these parks. For the 2021 and 2022  
14 parks, the Company used NREL-ATB's Low CAPEX for Techno-Resource Group  
15 (TRG) 7 forecast, consistent with the average Michigan wind speeds of 5.4 – 8.3 m/s.  
16 To normalize the forecast from the 2015 base dollars, DTE Electric used the  
17 escalation chart provided in Exhibit A-5. Due to the gap between actuals and  
18 forecast, DTE Electric used an average of 2020 wind installed costs and 2021 NREL-  
19 ATB forecast for projects commencing in 2021. As a result, the Company's amended  
20 REP assumes installed capital costs for future wind generating assets of \$1,677 per  
21 kW in 2021 and \$1,817 per kW in 2022.

22

23 **Q. What are the Company's assumptions regarding ongoing operating and**  
24 **maintenance and capital costs in the REP?**

25 A. The Company's REP includes forecasts of operating and maintenance (O&M), and



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1 ongoing capital costs based primarily on DTE Electric experience and benchmarking.  
2 Capital costs reflect the probability that some equipment, such as inverters for solar  
3 assets or gear boxes for wind turbines, will need to be replaced during the life of each  
4 renewable generating asset. Witness Kauffman provides more information on these  
5 O&M and ongoing capital assumptions included in this Plan.

6

7 **Q. What are the Company's assumptions regarding property taxes within the**  
8 **Company's amended REP?**

9 A. The Company has assumed that the industrial personal property tax rate will be  
10 utilized for assessing property taxes on the Company-owned renewable generating  
11 assets. Witness Wisniewski details the Company's assumptions regarding property  
12 taxes. If property taxes are higher or lower than assumed, then the Company's  
13 incremental costs of compliance would increase or decrease.

14

15 **Q. What are the Company's assumptions regarding tax credits within the**  
16 **Company's amended REP?**

17 A. The Company has assumed projects will achieve the maximum tax credits allowed  
18 based on their timing. Exhibit A-8 outlines expected production tax credits generated.  
19 In this filing, we use best estimates for utilization of those tax credits based on DTE  
20 Electric current forecast. Tax credit utilization is further detailed by Witness  
21 Wisniewski.

22

23 **Q. What other assumptions has the Company contemplated in this plan?**

24 A. The Company has modeled all future build for compliance as Company-owned assets  
25 in this plan. DTE has over ten years of renewable energy development experience,

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1 and the Company has owned and operated wind parks for the past six years. Through  
2 this experience, DTE has become a leader in renewable energy project development,  
3 construction, and operations. The Company has demonstrated top quartile operations  
4 through turbine availability. Additionally, the Company has been actively acquiring  
5 land and has safe harbored turbines for future self-build wind park(s). The Company  
6 will continue to competitively bid all major contracts for renewable energy assets,  
7 and the bid process will be audited by the Commission Staff for prudence.

8  
9 Additionally, based on the Company's forecasts described above, wind continues to  
10 be the most cost effective way to achieve compliance with the Act. Therefore, the  
11 Company has modeled primarily wind energy assets to achieve compliance. Changes  
12 in these forecasts could impact which technology is the most prudent means to  
13 achieve compliance.

14  
15 **RECs Acquired from Third Parties**

16 **Q. What are the Company's cost assumptions regarding third-party purchases**  
17 **within the Company's amended REP?**

18 A. The costs associated with purchases of RECs are reflected on pages 3 and 4, lines 7  
19 and 17 of Exhibit A-4 and reflect the Company's actual price paid for contracted  
20 purchases. The REC prices from third-party Renewable Energy Contracts will  
21 essentially be the difference between the total contract price and the transfer price.  
22 To the extent that the authorized transfer price as reflected in Witness Rivard's  
23 exhibits exceeds the total contract price, the transfer price utilized will be the same  
24 as the total contract price. The RECs from REC-only contracts will reflect their  
25 actual delivered expense.

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1 **PURPA Renewable Energy Systems**

2 **Q. What are the Company's assumptions about RECs from future PURPA**  
3 **contracts?**

4 A. The Commission's interim Order in Case No. U-18091 indicated that RECs from  
5 PURPA facilities will not be bundled with the energy purchase. Therefore, no RECs  
6 from future PURPA contracts were assumed to come from future PURPA contracts.  
7 Going forward, if new PURPA contracts prove to be the least cost means of acquiring  
8 RECs for compliance or for VGP programs, DTE Electric would consider negotiating  
9 RECs from associated PURPA facilities.

10

11 **Company-Owned Renewable Energy Systems**

12 **Q. To what extent does the Company's amended REP utilize RECs, Advanced**  
13 **Cleaner Energy Credits (ACECs), or Michigan Incentive RECs produced by**  
14 **Company-owned generating systems?**

15 A. Line 13 of Exhibit A-2 reflects the volumes of RECs, including incentive RECs,  
16 expected to be produced by generating assets owned by the Company. The costs and  
17 volumes of ACECs expected to be generated using Company-owned assets is zero.

18

19 **Q. What are your cost assumptions regarding the RECs and ACECs produced by**  
20 **Company-owned generating assets?**

21 A. Revenue requirements for DTE Electric-owned generating assets are summarized on  
22 lines 23 and 26 of Exhibit A-2 and are based on the best of the Company's knowledge  
23 and experience at the time this filing was submitted to the Commission. Witness  
24 Lacy supports the calculation of revenue requirements, utilizing data provided by  
25 other Company witnesses.

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1 Actual costs will result from contracts and activities implemented to engineer,  
2 procure, construct and operate renewable energy systems. All significant contracts  
3 for engineering, procurement, and construction of DTE Electric-owned renewable  
4 projects will be submitted to the MPSC for approval.

5

6 **Q. Can you describe Exhibit A-3, “DTE Electric Owned Renewable Energy**  
7 **Facilities Generation?”**

8 A. Exhibit A-3 shows the Company’s 2016-2029 projected installed capacity and  
9 generation output in thousands of MWh for DTE Electric-owned renewable energy  
10 facilities. Wind parks are shown individually on lines 2 through 21. Solar projects  
11 are shown on lines 26 through 35. Solar projects included within the Company-  
12 owned SolarCurrents pilot program are split into two groups in order to distinguish  
13 the applicable transfer prices. Lines 22-25, 36 and 37 reflect portions of the wind  
14 and solar parks that are projected to be subscribed through MIGreenPower and a  
15 future large customer VGP program.

16

17 **REC Additions**

18 **Q. What are the Company’s forecasts for REC and ACEC additions to its**  
19 **compliance inventory?**

20 A. A projection of the RECs and ACECs that the Company will either self-generate or  
21 receive from third party renewable energy is provided in Exhibit A-4. The RECs or  
22 ACECs from the Company’s self-generation or the Company’s Michigan Incentive  
23 RECs will be booked at zero value.

24

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1 **Q. Were any of the RECs shown on Exhibit A-4 used by the Company in a**  
2 **Commission approved voluntary renewable energy program?**

3 A. No. None of the RECs shown on Exhibit A-4 were used in a voluntary renewable  
4 energy program. To date, the Company has offered two voluntary renewable energy  
5 programs. One, the GreenCurrents program, is a customer REC purchase program  
6 that is separate and distinct from the REP. RECs generated for the purpose of 2016  
7 PA 342 compliance will not be used for the GreenCurrents program. The second  
8 program is MIGreenPower. Customers currently may subscribe to MIGreenPower in  
9 increments of 5% to receive up to 100% of their power attributed from renewable  
10 sources. The Company retires RECs on behalf of customers for subscribed portions  
11 of the MIGreenPower program. The forecast assumes 100,000 MWh subscription  
12 level for MIGreenPower. RECs attributed to the MIGreenPower and a future large  
13 customer VGP program are drawn from the generation shown on Exhibit A-3, lines  
14 22-25, 36, and 37. The RECs from this generation are tracked separately in MIRECS  
15 and are not utilized for 2016 PA 342 compliance.

16

17 **Q. What do the lines titled “Transferred Energy Optimization (EO) Credits” on**  
18 **Exhibit A-4 represent?**

19 A. These RECs are excess EO credits that the Company achieved as part of its EO  
20 program. The Company transferred the EO credits to its REC inventory as approved  
21 in prior cost reconciliation and amended REP filings and is requesting that the 2016  
22 excess EO credits reflected in column (b) be transferred to its REC inventory.

23

24 **Q. Does the 2016 ending balance of the associated costs of RECs align with the**  
25 **reconciliation case?**

Line  
No.

1 A. Yes. The ending balance in 2016 of \$29.4 million on line 25, page 3 of Exhibit A-4  
2 aligns with Exhibit U-18242 Exhibit A-2 2016 ending balance.

3

4 **Part III: Policy Assumptions & Other Requests**

5 **Q. Is the Company proposing any modifications of the Renewable Energy Plan**  
6 **Surcharge to recover its Incremental Cost of Compliance?**

7 A. No. Based on the Company's forecast, the Company does not foresee a need for a  
8 surcharge at this time.

9

10 However, the Company realizes that the remainder of the 20-year Plan is not without  
11 risks. Variations from the Company's long-term energy production forecasts,  
12 operating cost forecasts, or revenues could all contribute to a reduction in the accrued  
13 regulatory liability balance. Furthermore, if the actual qualification of production tax  
14 credits differs from the plan or if there are changes to the build plan, the projected  
15 regulatory liability balance will change. Given these uncertainties, the Company  
16 believes it is prudent to maintain a regulatory liability balance to ensure that a  
17 regulatory asset does not accrue, consistent with MCL 460.1049(3)(b).

18

19 **Q. Are imputed debt costs included in the Company's amended REP?**

20 A. Not at this time. At some point in the future, the Company expects that rating  
21 agencies will view the Company's portfolio of Renewable Energy Contracts as  
22 similar to capital leases and will then impute associated debt.

23

Line  
No.

1

**Part IV: Renewable Energy Plan Requirements**

2

**Q. What are the primary elements of an REP?**

3

A. The questions in this section will address the following Plan requirements:

4

a) Describe how DTE Electric will address the renewable energy standards consistent with Section 28.

5

6

b) Specify whether the number of megawatt-hours of electricity used in the calculation of the REC portfolio will be weather-normalized or based on the average number of megawatt-hours of electricity sold by the Company annually during the previous 3 years to retail customers in this state per Section 28.

7

8

9

10

c) Include the expected incremental cost of compliance with the renewable energy standards for a 20-year period consistent with Section 47.

11

12

d) Describe the bidding process to be used by the Company per Section 28.

13

14

e) Establish a non-volumetric revenue recovery mechanism for the recovery of the incremental costs of compliance consistent with Section 22 (2),

15

16

f) Summarize why the plan is reasonable and prudent as required by Section 22(5), taking into consideration projected costs and whether previous plan costs were exceeded; and that the plan is consistent with the purpose and goal set forth in Sections 1(2) and 1(3), and meets the REC standard through 2021.

17

18

19

20

**Q. Does the Company's amended REP forecast achievement of the targets set forth in the Act?**

21

22

A. Yes. In Part II of my testimony and consistent with Section 22(5)(b) of the Act, the Company's amended REP is forecasted to achieve the targets set forth in 2016 PA 342. A summary reflecting projected achievement of the REC targets for 2017 through 2029, is provided in Exhibit A-2, lines 12-21

23

24

25

Line  
No.

1 The Company expects to continue to be in compliance with the Act consistent with  
2 the provisions outlined in MCL 460.1028 by making a good faith effort to maintain  
3 the REC standards and by reasonably and prudently spending the full amount of  
4 incremental costs of compliance approved within this plan.

5

6 **Q. Upon what sales basis is the Company calculating its REC portfolio?**

7 A. Consistent with the Company's originally-approved REP and per Section 28(2)(b) of  
8 the Act, the Company used weather normalized megawatt-hours of electricity sold  
9 during the previous year as a basis for the determination of RECs required to address  
10 the REC standards under Section 28 as summarized on line 6 of Exhibit A-2.

11

12 **Q. What are the incremental costs of compliance within the Company's proposed**  
13 **REP?**

14 A. Consistent with Section 47(2), line 35 of Exhibit A-2 summarizes the incremental  
15 costs of compliance within the Company's REP.

16

17 **Q. How does the Company's competitive bidding processes ensure that each bidder**  
18 **is treated in a fair and nondiscriminatory manner?**

19 A. The Company has implemented a number of competitive RFP processes associated  
20 with implementation of the Company's REP, consistent with the competitive bidding  
21 procedures described in Case No. U-15806 and approved by the Commission in its  
22 August 25, 2009 Order in that case. The MPSC Staff has audited all of the RFP  
23 processes conducted to date and has found them to be compliant with the Act's  
24 requirements and consistent with Section 5 of Attachment D to the December 4, 2008  
25 Temporary Order in MPSC Case No. U-15800. The Company intends to continue



Line  
No.

- 1 following its established and audited processes in any future RFPs that may be  
2 needed, which generally includes the following steps:
- 3 • Maintain a list of potential qualified suppliers. DTE Electric maintains a list of  
4 companies who have contacted the Company regarding interest in future  
5 Requests for Information or Requests for Proposals.
  - 6 • Meet with the MPSC Staff to review the goals of each RFP and bid evaluation  
7 methodologies consistent with Section 5 of Attachment D to the December 4,  
8 2008 Temporary Order in MPSC Case No. U-15800.
  - 9 • Develop timelines for individual RFPs, which may vary depending on the  
10 complexity of the product(s) being sought and other potential factors, such as the  
11 use of a Request for Information (RFI) in which the Company provides bidders  
12 with a notification of a future RFP and seeks input to the RFP’s design.
  - 13 • Include the following information for each RFP:
    - 14 ○ Description of the key attributes that will be considered when evaluating  
15 proposals
    - 16 ○ Detailed instructions on how to organize proposals and what specific  
17 information is required in each section of a bidder’s response; how to submit  
18 proposals, and how to navigate through the bidding platform or bidding  
19 process,
    - 20 ○ A confidentiality agreement between the Company and potential supplier to  
21 be executed and included with the proposal submission
    - 22 ○ Pro forma contracts for the products(s) described in the RFP
  - 23 • Receive all RFP responses via a secure, web-based bidding platform, and  
24 maintain those bids consistent with industry practices, fair competitive practices  
25 and the DTE Energy Confidentiality Policy GV11.

Line  
No.

- 1 • Evaluate each proposal against any minimum or threshold criteria. Depending
- 2 on the number of submittals that meet the threshold evaluation criteria, and the
- 3 type of product being sought, the Company may then rank the proposals based on
- 4 bid price to select a subset of the lowest priced bids for further evaluation.
- 5 • Evaluate the proposals selected for further review as follows:
- 6 ○ If necessary, the Renewable Energy Management team will develop a list of
- 7 clarifying questions required to adequately complete the reviews.
- 8 ○ Subject matter experts from outside the Renewable Energy Management team
- 9 may be asked to review specific, redacted sections.
- 10 ○ Bids will be ranked based on ratings and weightings of the evaluation criteria.
- 11 ○ From this ranking, a smaller subset of supplier proposals may be selected, or
- 12 "short listed" for negotiation. It is at this point that the Renewable Energy
- 13 Implementation team may be requested to participate in technical due
- 14 diligence activities for projects that will transfer ownership to the Company
- 15 or be jointly owned by the Company.

16

17 The Company monitors RFP trends in the renewable industry market and conducts  
18 continuous improvement evaluations after each RFP is implemented. These market  
19 intelligence and continuous improvement findings will be reviewed with the MPSC  
20 Staff and factored into subsequent RFPs as appropriate.

21

22 **Q. What Renewable Energy Plan Surcharges will be required to recover the**  
23 **incremental costs of compliance within the Company's REP?**

24 A. Consistent with Section 22(2), lines 42-45 of Exhibit A-2 summarizes planned  
25 Renewable Energy Plan Surcharge revenue levels within the Company's REP. Given

Line  
No.

1 the surcharge is currently set to zero and not proposed to change, the planned  
2 surcharge revenue shown is zero.

3

4 **Q. Does the Company plan to create an accumulation of reserve funds or a**  
5 **regulatory liability as allowed by the Act?**

6 A. Yes. The Company had previously set Renewable Energy Plan Surcharges with the  
7 intent to recover the incremental costs of compliance of the plan and build an  
8 accumulation of reserve funds in advance of plan expenditures which creates a  
9 regulatory liability. The current projected regulatory liability balance through  
10 August of 2029 is approximately \$55.9 million, The minimum balance is \$5.2 million  
11 in 2025. The running balance of the regulatory liability is highly variable based on  
12 the assumptions in the Plan. DTE Electric will reconcile to the plan, and if the  
13 balance forecast projects a negative balance, the Company will submit an amended  
14 plan to update assumptions and/or implement a surcharge if necessary.

15

16 The determination of the projected regulatory liability, including the interest expense,  
17 is explained and supported in the testimony and exhibits of Witness Lacey and is  
18 summarized on lines 47-50 of Exhibit A-2. Furthermore, the Company is requesting  
19 to maintain a regulatory liability balance for the purposes of Section 47(4) of the Act,  
20 as shown on line 50 of Exhibit A-2.

21

22 **Q. How is the REP consistent with the stated purpose of the Act?**

23 A. The REP diversifies the resources used to reliably meet the energy needs of  
24 consumers in this state. DTE Electric's fuel mix includes 65 percent coal, 21 percent  
25 nuclear, 7 percent wind, 5 percent natural gas, 1 percent biomass, and 1 percent other

Line  
No.

1 renewables. This plan doubles the wind resources in the fuel mix and increases the  
2 solar resources by 20 percent. Additionally, this plan introduces pilot technologies  
3 in energy storage and micro grid testing to increase reliability of intermittent  
4 resources and the grid.

5  
6 The REP provides greater energy security through the use of indigenous energy  
7 resources available within the state. None of the proposed build relies on fuels  
8 sourced outside of the state. Furthermore, DTE Electric is committed to identifying  
9 Michigan labor and Michigan-based suppliers where possible.

10  
11 This REP encourages private investment in renewable energy. The development of  
12 the renewable energy assets will drive nearly \$1.7 billion in investment.  
13 Additionally, private investment is driven by companies in the supply chain, such as  
14 engineering firms, construction firms, operations and maintenance contractors, and  
15 parts suppliers, to name a few.

16

17 **Part V: Summary and Conclusions**

18 **Q. Can you summarize your conclusions regarding the Company's amended REP?**

19 A. The Company has worked diligently to develop a workable and economic amended  
20 REP which runs through August 2029 and is designed to achieve the requirements of  
21 2008 PA 295 as amended by 2016 PA 342. The Company's amended REP presents  
22 reasonable and prudent costs with regard to both the incremental cost of compliance  
23 and transfer price and reasonable and prudent Renewable Energy Plan Surcharges,  
24 all of which properly address the various elements of the Act. Therefore, the MPSC  
25 should approve all elements of the Company's amended REP.

Line  
No.

1 **Q. Does this conclude your direct testimony?**

2 A. Yes, it does.

**STATE OF MICHIGAN**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter, on the Commission's own )  
motion, regarding the regulatory reviews, )  
revisions, determinations, and/or approvals )  
necessary for **DTE Electric Company** )  
to fully comply with Public Act 295 OF 2008 )

Case No. U-18232

QUALIFICATIONS  
AND  
DIRECT TESTIMONY  
OF  
PATRICK. D. KAUFFMAN

**DTE ELECTRIC COMPANY**  
**QUALIFICATIONS OF PATRICK D. KAUFFMAN**

Line  
No.

1 **Q. What is your name, business address and by whom are you employed?**

2 A. My name is Patrick Kauffman. My business address is: One Energy Plaza, Detroit,  
3 MI 48226. I am employed by DTE Energy Corporate Services, LLC within the  
4 Controller's department as a Principal Supervisor – Renewable Energy Program.

5

6 **Q. On whose behalf are you testifying?**

7 A. I am testifying on behalf of DTE Electric Company (DTE Electric or the  
8 Company).

9

10 **Q. What is your educational background?**

11 A. In 1989, I received a Bachelor of Arts degree in Economics from The University of  
12 Notre Dame. In 1991, I received a Master of Business Administration degree in  
13 Finance from Michigan State University.

14

15 **Q. What is your work experience?**

16 A. After obtaining my Master's degree from Michigan State University in the  
17 spring of 1991, I was employed by General Motors Corporation and held several  
18 positions there until 1999. My responsibilities included financial analysis and  
19 reporting, budgeting and forecasting, business case development and cost  
20 accounting.

21

22 I started my employment with Detroit Edison in November 1999, as Supervisor  
23 of Forecasting, Budgeting and Corporate Reporting in the Controller's  
24 Organization. I held several positions of increasing responsibilities within the  
25 Controller's Organization including Gross Margin Analysis, Detroit Edison

Line  
No.

1 Financial Planning and Analysis, Budgeting, Forecasting and Reporting and  
2 Corporate Support. In 2008, I transferred to Regulatory Affairs and was a Case  
3 Manager for Gas Cost Recovery and Power Supply Cost Recovery cases. In  
4 2010, I transferred back to the Controller's Organization and was responsible for  
5 benefits forecasting and reporting. In 2013, I obtained the position of Principal  
6 Financial Analyst responsible for forecasting and reporting for the Nuclear  
7 Generation organization. In August 2016, I was appointed to my current  
8 position.

9

10 **Q. What are your current job responsibilities?**

11 A. My current position is Principal Supervisor for the Renewable Energy group  
12 which includes the 2008 PA 295 and 2016 PA 342 Renewable Energy activities of  
13 the Company. My group is responsible for providing budgeting, forecasting,  
14 planning, regulatory case support, and reporting expenses and capitalized cost for  
15 the Renewable Energy group.

16

17 **Q. Have you previously sponsored testimony before the Michigan Public Service**  
18 **Commission?**

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

20 U-15417-R 2008 Power Supply Cost Recovery Reconciliation

21 U-18242 Reconciliation of the DTE Electric 2016 REP Program



**DTE ELECTRIC COMPANY**  
**DIRECT TESTIMONY OF PATRICK D. KAUFFMAN**

Line  
No.

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

2 A. The purpose of my testimony and supporting exhibits is to explain the Company's  
3 projected Renewable Energy capital, O&M and other expenses associated with  
4 implementing the Company's Commission-approved 2008 PA 295 and 2016 PA  
5 342 Renewable Energy Plan (REP) and to outline key accounting practices related  
6 to DTE Electric's amended REP.

7

8 **Q. Are you sponsoring any exhibits?**

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

<u>Exhibit</u>	<u>Description</u>
A-6	Expense Elements of Incremental Cost of Compliance
A-7	Rate Base Financial Data
A-8	Production Tax Credits

14

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

16 A. Yes, they were.

17

18 **Capital, O&M, Other Expenses, and PTCs**

19 **Q. Can you describe the line items shown on Exhibit A-6, Expense Elements of**  
20 **Incremental Cost of Compliance?**

21 A. Yes. I describe the line items below.

22

23 Line 1 - Total Royalty and Easement Payments are the ongoing contractual  
24 payments to land grantors in areas where wind parks have been completed.

25

Line  
No.

1        Line 2 - Administrative Expense is the ongoing incremental program administrative  
2        expenses associated with the Renewable Energy Plan primarily related to  
3        commercial and regulatory activities related to administering the Plan.

4

5        Line 3 - O&M Expense (MPSC Accounts 920, 921, 923, and 553) are the ongoing  
6        incremental program administrative expenses associated with the Renewable  
7        Energy Plan and related expenses associated with the cost of maintaining solar and  
8        wind assets. Included in this total are the MIREC fees paid for tracking of the  
9        Renewable Energy Credits (REC) in the database.

10

11       Line 4 - Insurance Expense is the calculated payments for protection of property for  
12       wind and solar programs. The REP assumes that annual insurance costs represent  
13       approximately 0.075% of the capital equipment costs which is consistent with the  
14       Company's experience related to other utility capital investment.

15

16       Line 5 - Property Tax Expense is discussed in Company Witness Ms. Wisniewski's  
17       testimony.

18

19       Line 6 - Miscellaneous Other Power is the Coke Oven Gas Expense recorded  
20       related to the purchase of Coke Oven Gas used to create Advanced Cleaner Energy  
21       Credits (ACECs). The company stopped purchasing Coke oven gas in 2013.

22

23       Line 7 - Book Depreciation represents the depreciation recorded on the Company's  
24       books associated with Plant in Service assets for the Renewable Energy Plan based  
25       on balances as of the commercial operation date of these assets.

Line  
No.

1        Line 8 - Interest Received from ITC Holdings Corp represents interest received on  
2        sums advanced to ITC for construction of interconnection facilities and/or network  
3        upgrades to the transmission system owned by ITC (which sums will be reimbursed  
4        to DTE Electric upon its generation facilities being interconnected to the ITC  
5        facilities). The interest received is credited to the incremental cost of compliance to  
6        offset the working capital costs associated with carrying a balance receivable from  
7        ITC.

8

9        **Q.    What depreciation rates were used to calculate the expense shown on line 7 of**  
10       **Exhibit A-6?**

11       A.    The September 26, 2014 order in Case No. U-16991 revised depreciation rates for  
12       the wind and solar REP plant, effective upon issuance of a final Commission order  
13       in the next REP Plan case. The next case (U-17793) was filed June 2, 2015. The  
14       U-17793 plan was approved by a Commission order dated November 5, 2015. In  
15       that order the Commission made the U-16991 depreciation rates effective  
16       December 1, 2015. As a result, the Company was using the interim rates of 4.24%  
17       for wind and 5.26% for solar until December 1, 2015. Starting in December of  
18       2015 the revised rates of 3.71% for wind and 4.93% for solar are applied.

19

20       **Q.    What comprises the Plant in Service shown on Exhibit A-7?**

21       A.    Plant in Service, shown on lines 1 through 5 of Exhibit A-7, is comprised of the  
22       cost of completed solar and wind projects that have been placed in service per the  
23       REP overview discussed in the direct testimony of Company Witness Ms.  
24       Schroeder.

25

Line  
No.

1 **Q. What does Depreciation Reserve represent in the Rate Base Financial Data in**  
2 **Exhibit A-7?**

3 A. Depreciation Reserve, shown on lines 7 through 10 of Exhibit A-7, is the  
4 accumulated book depreciation associated with the depreciation of the Company's  
5 2008 PA 295 and 2016 PA 342 Renewable Energy program plant in service.

6  
7 **Q. What does Construction Work In Progress represent in the Rate Base**  
8 **Financial Data in Exhibit A-7?**

9 A. Construction Work in Progress (CWIP), shown on lines 12 through 17 of Exhibit  
10 A-6, represents the costs related to erecting wind and solar assets. As they are  
11 completed, project costs are moved from CWIP to plant in service.

12  
13 **Q. What is the Renewable Energy Credit (REC) Inventory shown in the Rate**  
14 **Base Financial Data in Exhibit A-7?**

15 A. The REC Inventory Balance, shown on lines 19 through 22 of Exhibit A-6, contains  
16 the dollar value of renewable energy credits that are part of the Company's 2008  
17 PA 295 as amended by 2016 PA 342 Renewable Energy program as further  
18 explained in the testimony of Witness Schroeder.

19  
20 **Q. How did you develop the Production Tax Credit (PTC) amount on Exhibit A-**  
21 **8, line 5?**

22 A. The production tax credit is calculated by multiplying the eligible in-service  
23 megawatt hours provided by Witness Schroeder, by the tax credit rate to get the  
24 production tax credit amounts. The production tax credit rate is the product of the  
25 IRS 2017 PTC rate of 2.4 cents per kilowatt hour and an assumed 2% inflation

Line  
No.

1 factor in 2018 through 2029. The calculated tax credit amount is then grossed up  
2 for taxes.

3

4 **Q. Why are the tax credits grossed up for taxes?**

5 A. Since tax credits are post tax adjustments, in order to include them in the pre-tax  
6 incremental cost of compliance, they must be grossed up (increased) for taxes. This  
7 gross up decreases the revenue requirement included in the REP Surcharge and  
8 ensures DTE Electric doesn't earn above its authorized return for this item when the  
9 credits are applied to net income.

10

11 **Q. How will DTE Electric's customers receive the benefit of the production tax  
12 credits?**

13 A. Production tax credits are used to reduce the incremental cost of compliance on  
14 Witness Lacey's Exhibit A-16, line 10. The tax credits reduce the REP cost of  
15 compliance effective upon the in-service date of the eligible assets.

16

17 **Accounting Practices**

18 **Q. Are the accounting practices outlined in this case consistent with the  
19 accounting practices approved by the Commission in Case No. U-18111?**

20 A. Yes. DTE Electric is currently using the accounting practices outlined in Case No.  
21 U-18111 for its approved, amended REP program.

22

23 **Q. Is the Company accruing an Allowance for Funds Used During Construction  
24 (AFUDC) for the renewable assets under construction?**

Line  
No.

1 A. No. The cost of construction work in progress (CWIP) is included in the  
2 incremental cost of compliance. Therefore, adding an accrual for AFUDC is not  
3 appropriate as it would be duplicative to the return resulting from including CWIP  
4 in rate base.

5

6 **Q. Is any part of the REP financial statements included in DTE Electric's base**  
7 **rates?**

8 A. Yes. The revenue received from the REP Surcharge is netted against the  
9 incremental costs of compliance for the REP, including the cost of debt and equity  
10 used to finance this program, and the variance is recorded as a regulatory liability.  
11 DTE Electric uses the REP regulatory liability balance as a source of short-term  
12 capitalization. DTE Electric included this funding source in its most recently filed  
13 general rate case, Case No. U-18255. The interest on this financing source in base  
14 rates is credited to the REP incremental cost of compliance on Company Witness  
15 Mr. Lacey's Exhibit A-16, line 26.

16

17 **Q. Does this complete your direct testimony?**

18 A. Yes, it does.

**STATE OF MICHIGAN**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter, on the Commission's own )  
motion, regarding the regulatory reviews, )  
revisions, determinations, and/or approvals )  
necessary for **DTE Electric Company** )  
to fully comply with Public Act 295 of 2008 )

Case No. U-18232

QUALIFICATIONS  
AND  
DIRECT TESTIMONY  
OF  
MARCUS J. RIVARD

**DTE ELECTRIC COMPANY**  
**QUALIFICATIONS OF MARCUS J. RIVARD**

Line  
No.

1 **Q. What is your name, business address and by whom are you employed?**

2 A. My name is Marcus J. Rivard. My business address is 414 S. Main Street, Suite  
3 300, Ann Arbor, Michigan 48104. I am employed by DTE Electric Company  
4 (hereafter DTE Electric or Company).

5

6 **Q. What is your current position with the Company?**

7 A. I am currently a Principal Market Engineer in the Strategic Merchant Analytics  
8 team within the Generation Optimization department.

9

10 **Q. What is your educational background?**

11 A. I received a Bachelor of Science Degree in Nuclear Engineering from the  
12 University of Michigan in 2010. I received a Master of Business Administration  
13 Degree from the University of Toledo in 2015.

14

15 **Q. Do you hold any certifications?**

16 A. Yes. I have attended Utility Rate School hosted by the National Association of  
17 Regulatory Utility Commissioners (NARUC) and The Institute of Public Utilities at  
18 Michigan State University.

19

20 **Q. What is your work experience?**

21 A. In 2010, I was hired by DTE Energy as an Associate Engineer at Fermi II nuclear  
22 generating station and worked in the System Engineering department. In that role, I  
23 supported the safe and economical operation of the nuclear plant by tracking,  
24 trending, and troubleshooting plant system operations as the primary subject matter  
25 expert on several plant safety systems. I also ensured plant processes and



Line  
No.

1 procedures for maintenance and operational activities remained in compliance with  
2 Code of Federal Regulation standards in positions of increasing responsibility  
3 within System Engineering.

4

5 In 2015, I transferred to my current position in the Generation Optimization  
6 department as a Principal Market Engineer.

7

8 **Q. What are your duties and responsibilities in your current position?**

9 A. My current responsibilities include developing forecasts of Company generation  
10 asset performance, including renewable energy facilities, to support internal  
11 Company budget forecasts as well as Power Supply Cost Recovery (PSCR) case  
12 proceedings before the Michigan Public Service Commission (hereafter  
13 Commission or MPSC). I also perform analysis and develop strategies to optimize  
14 Company generation assets within the wholesale power market.

15

16 **Q. Have you previously provided or supported testimony before the MPSC?**

17 A. Yes. I supported development of testimony in the following MPSC cases:

18 U-17680-R DTE Electric's 2015 PSCR Reconciliation

19 U-17920-R DTE Electric's 2016 PSCR Reconciliation

20 U-18082 DTE Electric's 2015 Renewable Energy Plan Reconciliation

21 U-18111 DTE Electric's 2016 Amended Renewable Energy Plan

22 U-18143 DTE Electric's 2017 PSCR Plan

23 U-18403 DTE Electric's 2018 PSCR Plan

24

Line  
No.

- 1 I sponsored testimony in the following MPSC case:
- 2 U-18242            DTE Electric's 2016 Renewable Energy Plan Reconciliation

**DTE ELECTRIC COMPANY**  
**DIRECT TESTIMONY OF MARCUS J. RIVARD**

Line  
No.

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to:

3 1) Present the Company's transfer prices for the Company's 2008 PA 295, as  
4 amended by 2016 PA 342, Renewable Energy Contracts and Company-owned  
5 Renewable Energy Systems as follows:

6 • U-15806 Transfer Prices - approved for the following contracts:

7 • Heritage Stoney Corners Wind Farm I, LLC

8 • L'Anse Warden Electric Company, LLC

9 • WM Renewable Energy, LLC

10 • Gratiot County Wind, LLC

11 • Blue Water Renewables, Inc.

12 • Tuscola Bay Wind, LLC

13 and, Company-owned projects:

14 • Gratiot Wind Park

15 • Thumb Wind Parks

16 • DTE Owned Solar (~13.75 MW)

17 • 2012 MPSC Staff Transfer Prices – approved in MPSC Case No. U-16656  
18 (2011 Renewable Reconciliation) for the following contracts:

19 • Tuscola Wind II, LLC

20 • Pheasant Run Wind, LLC

21 • Big Turtle Wind Farm, LLC

22 and, Company-owned projects:

23 • Echo Wind Park

24 • Brookfield Wind Park

25 • DTE Owned Solar (~1.25 MW)

Line  
No.

- 1 • 2014 MPSC Staff Transfer Prices – approved in MPSC Case No. U-17632
- 2 (2013 Renewable Cost Reconciliation) for the following Company-owned
- 3 projects:
- 4 • Pinnebog Wind Farm
- 5 • 2017 DTE Owned Solar (50 MW)
- 6 • 2015 MPSC Staff Transfer Prices – approved in MPSC Case No. U-17804
- 7 (2014 Renewable Cost Reconciliation) for the following Company-owned
- 8 project:
- 9 • Pine River Wind Park
- 10 • 2016 MPSC Staff Transfer Prices – approved in MPSC Case No. U-18082
- 11 (2015 Renewable Cost Reconciliation) for the following Company-owned
- 12 project:
- 13 • Polaris Wind Park (pending approval)
- 14 • 2017 MPSC Staff Transfer Prices – presented in MPSC Case No. U-18242
- 15 (2016 Renewable Cost Reconciliation) and in this case for potential future
- 16 projects in the Company’s proposed REP.
- 17 2) Present the projected renewable energy generation expense for the Company for
- 18 years 2016 through 2029 which will be transferred for recovery through the
- 19 Company’s PSCR mechanism.

20

21 **Q. Are you sponsoring any exhibits in this proceeding?**

22 A. Yes. I am supporting the following exhibits:

<u>Exhibit</u>	<u>Schedule</u>	<u>Description</u>
24	A-9	U-15806 Transfer Prices
25	A-10	2012 MPSC Staff Transfer Prices

Line  
No.

1	A-11		2014 MPSC Staff Transfer Prices
2	A-12		2015 MPSC Staff Transfer Prices
3	A-13		2016 MPSC Staff Transfer Prices
4	A-14	A1	2017 MPSC Staff Transfer Prices
5	A-14	A2	2017 MPSC Staff Combined Cycle Levelized Cost
6	A-14	A3	2017 MPSC Staff Combined Cycle Levelized Fuel Price
7	A-15		PSCR Transfer Expense

8

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

10 A. Yes, they were.

11

12 **Q. What is the purpose of Exhibits A-9, A-10, A-11, A-12, and A-13?**

13 A. The purpose of Exhibits A-9, A-10, A-11, A-12, and A-13 are to present the  
14 Company's Commission-approved transfer prices for the Company's 2008 PA 295  
15 Renewable Energy Contracts and Company-owned Renewable Energy Systems.  
16 Exhibit A-9 provides the transfer prices approved in MPSC Case No. U-15806,  
17 referred to herein as U-15806 Transfer Prices. Exhibit A-10 provides the transfer  
18 prices approved in MPSC Case No. U-16656, referred to herein as 2012 MPSC  
19 Staff Transfer Prices. Exhibit A-11 provides the transfer prices approved in MPSC  
20 Case No. U-17632, referred to herein as 2014 MPSC Staff Transfer Prices. Exhibit  
21 A-12 provides the transfer prices approved in MPSC Case No. U-17804, referred to  
22 herein as 2015 MPSC Staff Transfer Prices. Exhibit A-13 provides the transfer  
23 prices approved in MPSC Case No. U-18082, referred to herein as 2016 MPSC  
24 Staff Transfer Prices.

25

Line  
No.

1 **Q. What is the basis of the Company's proposed 2017 MPSC Staff Transfer**  
2 **Prices presented in Exhibit A-14?**

3 A. The 2017 MPSC Staff Transfer Prices were developed by the MPSC Staff and filed  
4 in Case No. U-15800 on April 24, 2017; the 2017 Staff Transfer Prices are  
5 presented in Exhibit A-14, Schedule A1. MPSC Staff filed additional information  
6 on the transfer prices they developed in Case No. U-15800 on May 16, 2017; this  
7 information is reflected in Exhibit A-14, Schedule A2. The MPSC Staff developed  
8 a projection of the total cost of a natural gas combined cycle gas turbine (CCGT)  
9 plant. The basis for these transfer prices is the calculation of the levelized cost of  
10 energy (LCOE) of a CCGT for the base year 2021 shown on Exhibit A-14,  
11 Schedule A2 using a levelized natural gas price calculated from the U.S. Energy  
12 Information Administration's projection of natural gas prices at the Henry Hub  
13 shown on Exhibit A-14, Schedule A3. The 2017 MPSC Staff Transfer Prices are  
14 presented in this case and were presented in DTE Electric's 2016 Renewable Cost  
15 Reconciliation for Commission approval.

16

17 **Q. How do the MPSC Staff's CCGT LCOE calculation assumptions differ from**  
18 **the Company's projected CCGT LCOE for its proposed CCGT plant?**

19 A. The CCGT plant assumptions used by the MPSC Staff in Case No. U-15800 differ  
20 in operating characteristics and projection of natural gas prices from the CCGT  
21 plant that has been proposed in the Company's Certificate of Necessity application  
22 (MPSC Case No. U-18419).

23

Line  
No.

1 **Q. What is your conclusion of the MPSC Staff's transfer price methodology?**

2 A. The Company has reviewed the MPSC Staff's transfer price methodology,  
3 including the levelized cost calculation variables, and finds it to be reasonable for  
4 the purpose of determining the transfer price schedule. The Company does not  
5 believe the plant and fuel assumptions used by Staff in its methodology are  
6 representative of the specific plant and fuel characteristics of a CCGT that the  
7 Company would actually build and therefore would not be representative of the  
8 Company's avoided cost of capacity and energy. However, the assumptions and  
9 calculations used by Staff to develop the LCOE of a generic CCGT plant and the  
10 associated transfer price schedule are comparable to those used in previous  
11 renewable energy case proceedings that have been approved by the Commission.

12

13 **Q. How is the Company implementing transfer prices?**

14 A. The transfer prices the Commission approves for each 2008 PA 295 and 2016 PA  
15 342 Renewable Energy Contract and Company-owned Renewable Energy System  
16 are established for the life of the contract or project. Doing so ensures that the  
17 economic viability of projects that have been committed to will not be jeopardized  
18 by transfer prices that change in future years.

19

20 The Renewable Energy purchased by the Company under each 2008 PA 295 and  
21 2016 PA 342 Renewable Energy Contract is recovered through the PSCR process at  
22 the lesser of the approved transfer price or renewable energy contract cost. The  
23 Renewable Energy generated by Company-owned Renewable Energy Systems is  
24 recovered through the PSCR process at the lesser of the approved transfer price or  
25 Levelized Cost of Energy (LCOE) projected for the specific Company-owned

Line  
No.

1 Renewable Energy System at the time the construction contracts were approved by  
2 the Commission.

3

4 **Q. What is the purpose of Exhibit A-15?**

5 A. The purpose of Exhibit A-15 is to provide a projection of the renewable energy  
6 expense which will be recovered through the PSCR mechanism. Exhibit A-15  
7 identifies each Renewable Energy Contract and Company-owned Renewable  
8 Energy System with their associated transfer prices as well as the forecasted volume  
9 and expense of voluntary green pricing (VGP) programs. The forecasted volume  
10 and expense of VGP programs, referred to in Exhibit A-15 as MIGreenPower  
11 Subscribed Wind/Solar and VGP Subscribed Wind, are carved out of the total  
12 Generation and PSCR Transfer Expense as these expenses are borne by VGP  
13 customers rather than the Company's PSCR customers.

14

15 The projected owned generation volumes from Exhibit A-3 are used along with  
16 projected PPA volumes and each project's associated transfer prices to determine  
17 the projected PSCR expense in each year.

18

19 **Q. Does this complete your direct testimony?**

20 A. Yes, it does.



**STATE OF MICHIGAN**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter, on the Commission's own )  
motion, regarding the regulatory reviews, )  
revisions, determinations, and/or approvals )  
necessary for **DTE Electric Company** )  
to fully comply with Public Act 295 OF 2008 )

Case No. U-18232

QUALIFICATIONS  
AND  
DIRECT TESTIMONY  
OF  
THOMAS W. LACEY

**DTE ELECTRIC COMPANY**  
**QUALIFICATIONS OF THOMAS W. LACEY**

Line  
No.

1 **Q. What is your name, business address and by whom are you employed?**

2 A. My name is Thomas W. Lacey. My business address is One Energy Plaza, Detroit,  
3 Michigan, 48226. I am employed by DTE Energy Corporate Services, LLC (DTE  
4 Energy or DTE) as a Principal Financial Analyst in the Revenue Requirements  
5 Department of the Regulatory Affairs Organization.

6

7 **Q. On whose behalf are you testifying?**

8 A. I am testifying on behalf of DTE Electric Company (DTE Electric or the  
9 Company).

10

11 **Q. What is your educational background and business experience?**

12 A. I received a Bachelor of Science Degree in Accounting from Michigan State  
13 University in 1981 and a Masters in Business Administration from Wayne State  
14 University in 1992. From 1982 until 2001, I was employed by ANR Pipeline  
15 Company (ANR) in the Rates and Regulatory Affairs department. I had several  
16 positions of increasing responsibilities within the Rates area, ultimately rising to the  
17 position of Senior Rates Analyst. During my nineteen years with ANR, I worked  
18 on numerous rate proceedings and filings before the Federal Energy Regulatory  
19 Commission (FERC) including rate cases (FERC Docket Nos. RP82-80, RP83-79,  
20 RP86-169, RP89-161, RS92-1 and RP94-43). My work was primarily in the areas  
21 of cost-of-service and rate design. In 2002, I joined DTE as a Financial Analyst in  
22 the Load Research department of Regulatory Affairs. I worked in Load Research  
23 until December 2005. My responsibilities within Load Research included extensive  
24 work on the 2003 Michigan Consolidated Gas Company (MichCon) rate case (U-  
25 13898) and The Detroit Edison Company (Detroit Edison) rate filings. In

Line  
No.

1 December 2005, I accepted my current position.

2

3 **Q. What are your responsibilities as a Principal Financial Analyst for both DTE**  
4 **Electric and DTE Gas?**

5 A. As a Principal Financial Analyst, my responsibilities include the preparation of  
6 revenue requirements, cost of service and rate design, testimony, exhibits and  
7 workpapers, in cases for both DTE Gas and DTE Electric. I am also responsible for  
8 managing certain MPSC filings such as DTE Electric's Renewable Energy Plan  
9 (REP) Plan case: U-17793 and DTE Electric's most recent depreciation case U-  
10 18150.

11

12 **Q. Have you previously sponsored testimony in cases before the Michigan Public**  
13 **Service Commission (MPSC or Commission)?**

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

15 U-13898 MichCon's 2006 Uncollectible Expense True-up Mechanism and  
16 Safety and Training Related Expenditure Report

17 U-15985 MichCon's 2009 General Rate Case Proceeding

18 U-16290 Reconciliation of MichCon's 2010 Energy Optimization (EO)  
19 Program

20 U-16730 MichCon's 2011 Updated Energy Optimization Plan

21 U-16730 MichCon 2011 Updated Energy Optimization Plan

22 U-16751 Reconciliation of the MichCon 2011 EO Program

23 U-16999 MichCon 2011 General Rate Case Proceeding

24 U-17288 Reconciliation of the DTE Gas 2012 EO Program

25 U-17602 Reconciliation of the DTE Electric 2013 EO Program

Line  
No.

- |    |         |   |
|----|---------|---|
| 1  | U-17608 | Reconciliation of the DTE Gas 2013 EO Program       |
| 2  | U-17632 | Reconciliation of the DTE Electric 2013 REP Program |
| 3  | U-17762 | DTE Electric 2016/2017 Energy Optimization Plan     |
| 4  | U-17763 | DTE Gas 2016/2017 Energy Optimization Plan          |
| 5  | U-17804 | Reconciliation of the DTE Electric 2014 REP Program |
| 6  | U-17832 | Reconciliation of the DTE Electric 2014 EO Program  |
| 7  | U-17841 | Reconciliation of the DTE Gas 2014 EO Program       |
| 8  | U-18014 | DTE Electric General Rate Case Proceeding           |
| 9  | U-18111 | DTE Electric REP Plan Proceeding                    |
| 10 | U-18248 | DTE Electric Capacity Charge                        |
| 11 | U-18255 | DTE Electric General Rate Case Proceeding           |

12

13 **Q. Have you previously testified or submitted testimony in any other regulatory**  
14 **proceedings?**

15 A. Yes. I sponsored testimony in ANR's general rate case in Docket No. RP94-43. I  
16 testified at a hearing before the FERC in Docket No. RP94-43.

**DTE ELECTRIC COMPANY**  
**DIRECT TESTIMONY OF THOMAS W. LACEY**

Line  
No.

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to present the incremental cost of compliance  
3 calculation based on the information, costs and Renewable Energy Plan (REP)  
4 surcharge revenues associated with DTE Electric's 2018 Amended REP that were  
5 supplied to me and are supported in this application by DTE Electric Witnesses Mr.  
6 Dennis, Mr. Kauffman, Mr. Leuker, Mr. Rivard, Ms. Wisniewski and Ms.  
7 Schroeder. I am also supporting the pre-tax cost of capital that I use to calculate the  
8 return on rate base, and the calculation of interest on regulatory liabilities.

9  
10 **Q. Are you sponsoring any exhibits?**

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

<u>Exhibit</u>	<u>Description</u>
A-16	Incremental Cost of Compliance Summary
A-17	Revenue Requirement
A-18	Interest on Regulatory Liability
A-19	Pre-Tax Rate of Return and Revenue Conversion Factors

17  
18 **Q. Were these exhibits prepared by you or under your supervision?**

19 A. Yes, they were.

20  
21 **Q. Is the calculation of incremental cost of compliance that you support in this**  
22 **proceeding performed in the same manner as it was in the Company's**  
23 **Commission-approved REP plan?**

24 A. Yes, except that for the first time, the subtractions for the Voluntary Green Power  
25 (VGP), MiGreen Power, and the Tax Cuts and Jobs Act of 2017 (TCJA)

Line  
No.

1 amortization, are included, Otherwise, the calculation of the incremental cost of  
2 compliance I support in this proceeding was performed in the same manner as it  
3 was in the Company's Commission-approved REP plan.

4

5 **Q. Can you describe the information displayed on Exhibit A-16, "Incremental**  
6 **Cost of Compliance Summary"?**

7 A. Exhibit A-16 displays the incremental cost of compliance calculation. The exhibit  
8 is arranged in three sections to match the language contained in MCL 460.1047 that  
9 describes the components of the incremental cost of compliance. Exhibit A-16  
10 displays the gross sum of the costs described in MCL 460.1047 (2) (a), the  
11 revenues/credits to be subtracted described in MCL 460.1047 (2) (b), and carrying  
12 costs on regulatory assets described in MCL 460.1047 (3). It should be noted that  
13 several of these lines or subcomponents described within a line have zero values but  
14 are included on the exhibit for completeness and possible future use.

15

16 **Q. Can you describe in more detail the incremental costs defined in MCL**  
17 **460.1047 (2) (a) and (b) included on Exhibit A-16?**

18 A. Exhibit A-16, line 2 addresses subparts (i, ii, iii, iv) of MCL 460.1047 (2) (a) and  
19 consists of Capital, Operating and Maintenance (O&M), Return on Equity (ROE),  
20 Financing, Interconnect, and Ancillary service costs. Line 3 addresses subpart (v)  
21 (A) and consists of costs of renewable energy credits (RECs) or advanced cleaner  
22 energy credits (ACECs) purchases. Line 4 addresses subpart (v) (B) and consists of  
23 costs of contracts described under former MCL 460.1033(1) (i.e., estimated third  
24 party purchase power agreements (PPAs) charges). Line 5 addresses subpart (vi)  
25 and consists of state and federal government actions related to renewable energy

Line  
No.

1 (presently zero). Line 6 addresses subpart (vii) and consists of additional costs  
2 determined necessary by the Commission (presently zero). Line 7 shows the sum of  
3 lines 1 through 6, DTE Electric’s 2008 PA 295, as amended by 2016 PA 342, REP  
4 Gross Revenue Requirement. Line 9 addresses subpart (i) of MCL 460.1047 (2) (b)  
5 and consists of revenue from the sale of environmental attributes (i.e. REC sales)  
6 (presently zero). Lines 10 and 11 address subpart (iii) and consist of tax credits to  
7 promote renewable energy (i.e. production tax credits (PTC), tax benefits of solar  
8 grants and solar investment tax credits (ITC)”. Line 12 addresses subpart (iv) and  
9 consists of costs subject to recovery through the Power Supply Cost Recovery  
10 (PSCR). These costs were supplied by Witness Rivard. Line 13 addresses subpart  
11 (v) and consists of revenue from wholesale renewable energy sales (presently zero).  
12 The basis for the assumption for planning purposes that revenue from wholesale  
13 renewable energy sales is zero is based upon Witness Schroeder’s testimony and  
14 exhibits which reflects renewable and advanced cleaner energy being recovered  
15 from PSCR customers through the transfer price. Lines 14-19 addresses subpart  
16 (vi) and consists of additional revenue as determined by the Commission, and  
17 consists of MIGreen Power and the planned VGP subscription revenue, credit and  
18 PSCR reimbursement of the credit, and are addressed by Witnesses Rivard and  
19 Schroeder. Line 20 (which is presently zero) addresses subpart (vi) and consists of  
20 additional revenue as determined by the Commission, not reflected on lines 14-19.  
21 Line 21 addresses subpart (vii) and consists of revenue recovered in rates for  
22 renewable energy costs included in MCL 460.1047 (2) (a) (presently proposed to be  
23 zero). Line 22 is for the amortization of the Regulatory Liability associated the  
24 TCJA and is supported by Witness Wisniewski. Line 24 is a subtotal of all  
25 subtractions (lines 8 through 22). Line 25 is the net of lines 7 and 24 and is the

Line  
No.

1 incremental cost of compliance prior to adding interest.

2

3 **Q. Can you describe the remaining lines included on Exhibit A-16?**

4 A. Line 26 is the interest on regulatory liabilities that I calculate on Exhibit A-18  
5 pursuant to MCL 460.1047 (2) (a) (ii) and the applicable interest rate [the average  
6 short-term borrowing rate available to the electric provider (in this instance DTE  
7 Electric) during the appropriate period] is specified in MCL 460.1047 (3). Line 27  
8 contains the carrying charges for regulatory assets that is described in MCL  
9 460.1047 (3), and is presently zero. Line 29 shows the total incremental cost of  
10 compliance for the years 2016 through 2029.

11

12 **Q. What is DTE Electric's criterion for determining which years to display on its**  
13 **REP Exhibits?**

14 A. MCL 460.1049 requires annual REP reconciliation proceedings. Years for which  
15 the Commission has issued a final order in an REP reconciliation filing approving  
16 the actual REP costs (i.e., reconciled years) will not be included in any amended  
17 plans subsequently filed by the Company. The amended plan will carry forward the  
18 approved balances and start with the year immediately following the most recently  
19 reconciled year. The most recent approved REP reconciliation case was filed on  
20 August 31, 2016 in Case No. U-18082 for the plan year: 2015. An order was issued  
21 in that case on February 28, 2017; therefore, I will only reflect the years 2016-2029  
22 on these REP exhibits.

23

24 **Q. Can you describe the information displayed on Exhibit A-17?**

25 A. Exhibit A-17 titled "Revenue Requirement" includes the calculation of average net



Line  
No.

1 rate base and gross revenue requirements. Line 10, average net rate base, is  
2 comprised of the following components: Plant in Service, Construction Work in  
3 Progress (CWIP), Accumulated Depreciation Reserve, REC/ACEC inventory,  
4 International Transmission Company (ITC) Accounts Receivable, and Accumulated  
5 Deferred Income Taxes. Line 22, gross revenue requirement, is comprised of the  
6 following cost components: Pre-Tax Return on Net Rate Base, PPA Purchased  
7 Power, RECs and ACECs consumed, O&M, Royalty Payments, Depreciation,  
8 Property Taxes, Insurance, and Interest Received from ITC Holdings Corp.

9

10 **Q. What is the source of the information you used to calculate the revenue**  
11 **requirement?**

12 A. In addition to the pre-tax return on equity that I calculated on Exhibit A-19, I relied  
13 upon information supplied by Witnesses Kauffman, Rivard, Wisniewski and  
14 Schroeder. Specifically, Witness Kauffman provided the O&M, Royalty Payments,  
15 Depreciation, Property Taxes, Insurance, Interest Received from ITC Holdings  
16 Corp., the average Plant-In-Service, CWIP, Depreciation Reserve, and ITC  
17 Holdings Corp. Accounts Receivable. Witness Wisniewski provided deferred  
18 taxes. Witness Schroeder supplied the RECs/ACECs consumed. She also provided  
19 renewable power expense and REC/ACEC purchases and consumption expense to  
20 Witness Kauffman who in turn supplied me with the average REC/ACEC inventory  
21 balances. Witness Rivard supplied the PPA Purchased Power.

22

23 **Q. What is the traditional definition of rate base used in general rate case filings**  
24 **in Michigan?**

Line  
No.

1 A. Rate base is comprised of Plant-In-Service less Depreciation Reserve plus CWIP,  
2 Working Capital, and Future Use.

3

4 **Q. How was rate base determined in this REP filing?**

5 A. REP rate base in this case follows the traditional definition used in general rate  
6 cases, but is adjusted to reflect the impacts of accumulated deferred income taxes  
7 and prepaid taxes.

8

9 **Q. Why is REP rate base adjusted to reflect accumulated pre-paid and deferred**  
10 **income taxes for this REP filing?**

11 A. Consistent with the treatment of accumulated pre-paid and deferred income taxes  
12 used in DTE Electric's original Commission-approved 2008 PA 295 REP,  
13 accumulated pre-paid and deferred income taxes are included as part of rate base  
14 determination because, unlike in general rate cases, they have not been included in  
15 the development of the 2008 PA 295, as amended by 2016 PA 342, REP's Pre-tax  
16 Rate of Return. Therefore, these income taxes must be taken into account as part of  
17 rate base in order to accurately determine the REP's required pre-tax return. This  
18 REP rate base treatment for taxes is required to match the pre-tax weighted average  
19 cost of permanent capital that is used to calculate the return on rate base. Absent  
20 this tax adjustment to each year's REP rate base, it would be necessary to calculate  
21 a rate of return for each year in order to reflect the effects of changes in zero cost  
22 capital that result from pre-paid and deferred income taxes.

23

24 **Q. Are there any costs that, due to Commission Orders, the Company is required**  
25 **to address outside of the REP?**

Line  
No.

1 A. Yes. The June 2, 2009 Order in MPSC Case No. U-15806 indicated uncollectible  
2 expenses reflected in the original proposed 2008 PA 295 REP would be addressed  
3 in the Company's next general rate case. Therefore, uncollectible expenses are  
4 excluded from this Amended REP. The Commission in its June 2, 2009  
5 Commission Order in Case No. U-15806, page 22 indicated that Net Equity Costs  
6 Due to Imputed Debt would be considered at the time of PPA approval. In  
7 subsequent Commission Orders<sup>1</sup> approving PPAs the Commission indicated that  
8 requests for imputed debt-related cost recovery would be handled in general rate  
9 cases. Therefore, Net Equity Costs Due to Imputed Debt are excluded from this  
10 Amended REP.

11

12 **Q. What information is reflected on Exhibit A-18?**

13 A. Exhibit A-18 titled "Interest on Regulatory Liability" shows the calculation of the  
14 average regulatory liability balance and the interest on that balance. Line 1 contains  
15 the REP Surcharge (a/k/a Revenue Recovery Mechanism surcharge) revenue, which  
16 is zero given the surcharge is currently, and is proposed to remain, at zero. Line 2  
17 contains the incremental cost of compliance from Exhibit A-16, line 29. Line 3  
18 contains the regulatory liability increase or (decrease) for each year and is the result  
19 of subtracting the incremental cost of compliance in line 2 from the REP surcharge  
20 revenues in line 1. Line 4 is the regulatory liability ending balance for each year  
21 and is the sum of the prior year ending balance and the current year change from  
22 line 3. Line 5 is the average regulatory liability that is used to calculate line 6, the  
23 interest on the average liability balance. I use average short term interest rates that I

---

<sup>1</sup> September 14, 2010 Commission Order in Case No. U-15806, page 6 and October 31, 2012 Commission Order in Case No. U-16582, page 7.

Line  
No.

1 confirmed with DTE Energy’s Treasury department to calculate the interest on the  
2 average regulatory liability. The short-term interest rates are as follows: 0.85% for  
3 2016 1.16% for 2017, 2.06% for 2018, 2.75% for 2019, 3.0% for 2020 through  
4 2029.

5

6 In accordance with MCL 460.1047 (2) (a) (ii), the interest on the regulatory liability  
7 is subtracted from the cost of compliance and the result is displayed on Exhibit A-  
8 16, line 29.

9

10 **Q. Did the Commission provide guidance regarding the weighted average cost of**  
11 **capital that should be used to calculate the “Return On” Rate Base?**

12 A. Yes. In Attachment A to the December 4, 2008 Temporary Order in Case No. U-  
13 15800, the Commission stated “Recovery to include the authorized rate of return on  
14 equity, which will remain fixed at the rate of return and debt to equity ratio that was  
15 in effect in base rates when the renewable plan was approved (MCL 460.1047 (1)).”  
16 In Exhibit A to the August 23, 2017 Order in Case No. U-18409, the Commission  
17 includes the same directive.

18

19 **Q. What pre-tax rate of return have you used to calculate the return on rate base**  
20 **for the years 2016-2017?**

21 A. I used the annual pre-tax rate of return shown on line 10 of Exhibit A-19 titled “Pre-  
22 Tax Rate of Return,” page 1 of 3. This pre-tax rate of return includes the 11.0%  
23 rate of return on equity and the debt to equity ratio that was authorized at the time  
24 DTE Electric’s Original REP was approved and is based on the December 23, 2008

Line  
No.

1 order in Case No. U-15244.<sup>2</sup> The long-term debt component of the rate of return is  
2 calculated using the actual cost of debt for 2016 that was included in case No. U-  
3 18242, the 2016 REP reconciliation. The revenue conversion factors are calculated  
4 in columns (d) and (e), Exhibit A-19, page 3 of 3, and reflect the actual 2016 Excise  
5 Tax rate and Michigan Corporate Income tax<sup>3</sup> and for 2016-2017 are not adjusted  
6 for the recent federal tax reduction. The Michigan Corporate Income tax used in  
7 this case is 5.82% because DTE Electric applies an apportionment factor to account  
8 for business conducted outside of the State of Michigan.

9

10 **Q. What pre-tax rate of return have you used for years 2018 through 2029?**

11 A. I used the pre-tax rate of return shown on columns (a) and (b) of Exhibit A-19 titled  
12 “Pre-Tax Rate of Return and Revenue Conversion Factors,” page 3 of 3. This pre-  
13 tax rate of return includes the 11.0% rate of return on equity and the debt to equity  
14 ratio that was authorized at the time DTE Electric’s Original REP was approved  
15 and is based on the December 23, 2008 order in Case No. U-15244. The long-term  
16 debt component of the rate of return is calculated using the 4.61% cost of debt that  
17 was approved in the January 31, 2017 Order in Case No. U-18014.<sup>4</sup> The revenue  
18 conversion factors are based on the Municipal Excise Tax rate forecast by DTE  
19 Electric’s Tax Department and a 5.82% effective Michigan Corporate Income Tax  
20 and have been adjusted for the recent federal tax reduction.

21

---

<sup>2</sup> The December 23, 2008 Order in MPSC Case No. U-15244 at page 15 approves a long-term debt rate of 5.76% and at page 21 approves a rate of return on equity of 11.0%.

<sup>3</sup> On May 25, 2011, Governor Rick Snyder signed into law 2011 Public Act 38, that replaces the MBT and Gross Receipts tax with a flat 6% Michigan Corporate Income Tax, effective January 1, 2012.

<sup>4</sup> The January 31, 2017 Order in MPSC Case No. U-18014 at page 67 approves a long-term debt rate of 4.61%.

Line  
No.

1 **Q. What are the equity revenue multipliers shown on Exhibit A-19?**

2 A. There are two different equity revenue multipliers derived within the pages of Exhibit  
3 A-19. The need for multiple equity revenue multipliers is driven by the different  
4 tax rates in effect for different periods within the plan. Generally, the overall  
5 revenue multiplier derived on Exhibit A-19 is a multiplication factor that I use to  
6 convert the after-tax return on equity component to its pre-tax equivalent. Revenue  
7 collected to cover a Utility's equity return is subject to Michigan income tax,  
8 municipal taxes, and federal income tax.

9

10 **Q. Have you included an Allowance for Funds Used During Construction**  
11 **(AFUDC) offset in the REP revenue requirement calculation?**

12 A. No. As supported by Witness Kauffman, I have included average CWIP in rate  
13 base thus allowing for immediate recognition of financing costs in the incremental  
14 cost of compliance and eliminating the need for an AFUDC accrual.

15

16 **Q. Will there be ongoing costs of compliance after the 20-year REP period ends?**

17 A. Most likely there will be ongoing costs of compliance after the 20-year REP period  
18 ends. As shown on Exhibit A-17 the Company projects that it will continue to have  
19 an ongoing revenue requirement associated with its REP at the end of the 20-year  
20 REP period. Unless these costs are completely offset by the subtractions described  
21 in MCL 460.1047 (2) (b), there will be ongoing costs of compliance after the 20-  
22 year REP period ends.

23

24 **Q. Does this conclude your direct testimony?**

25 A. Yes, it does.

**STATE OF MICHIGAN**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter, on the Commission's own )  
motion, regarding the regulatory reviews, )  
revisions, determinations, and/or approvals )  
necessary for **DTE Electric Company** )  
to fully comply with Public Act 295 OF 2008 )

Case No. U-18232

QUALIFICATIONS  
AND  
DIRECT TESTIMONY  
OF  
MARKUS B. LEUKER

**DTE ELECTRIC COMPANY**  
**QUALIFICATIONS OF MARKUS B. LEUKER**

Line  
No.

1 **Q. What is your name, business address and who are you testifying on behalf of?**

2 A. My name is Markus B. Leuker. My business address is: One Energy Plaza, Detroit,  
3 Michigan 48226. I am testifying on behalf of DTE Electric Company (DTE  
4 Electric or the Company).

5

6 **Q. What is your present position with the Company?**

7 A. I am the Manager of Corporate Energy Forecasting.

8

9 **Q. What is your educational background?**

10 A. I received a Bachelor of Science in Business Administration from Xavier  
11 University in Cincinnati, Ohio with a concentration in Marketing and Management  
12 in 1991. I received a Master of Business Administration from Xavier University in  
13 Cincinnati, Ohio in 1998. I have also completed several Company sponsored  
14 courses and attended various seminars to further my professional development.

15

16 **Q. What work experience do you have?**

17 A. I joined the Company in November, 2010 as Manager, Corporate Energy  
18 Forecasting. Prior to DTE Electric, I worked for IHS/CSM Worldwide as a Sr.  
19 Manager, North American Advisory Services where I led the pursuit, development,  
20 execution and delivery of key client projects. Some of my experiences at IHS/CSM  
21 Worldwide included: Market Research & Analysis, Market Opportunity Analysis,  
22 Business Modeling and Strategic Analysis, Regulatory Market Assessment, and  
23 Financial and Scenario Analysis. In addition to my experience with DTE Electric  
24 and IHS, I worked as North American Manager, Market Research & Analysis for  
25 Visteon Corporation where I managed global coordination of the research function



Line  
No.

1 and led a team of researchers in various studies including customer and competitor  
2 research, new product creation, and customer satisfaction. I have also had prior  
3 experience in the utility industry working as a Senior Analyst at Cinergy  
4 Corporation (currently Duke Energy). While at Cinergy, I worked on various non-  
5 regulated activities and regulated marketing activities.

6

7 **Q. What are your duties as Manager, Corporate Energy Forecasting?**

8 A. I am responsible for the development of the economic and electric sales forecasting  
9 activities for DTE Electric. These activities include data collection, statistical  
10 analysis of data, forecast model building and interaction with other departments on  
11 forecast-related activities. My role also includes the preparation of long-term (one  
12 year or greater) sales forecasts, short-term (monthly) forecasts, next day forecasts,  
13 and the economic forecast that supports the sales forecast.

14

15 **Q. Do you belong to any professional organizations?**

16 A. I am a member of Edison Electric Institute's (EEI's) Load Forecasting Group  
17 (LFG). The LFG's purpose is to enhance load forecasting capabilities by  
18 exchanging information among the group's base of experienced and knowledgeable  
19 load forecasters. I am also a member of the Detroit Association for Business  
20 Economics (DABE). DABE discusses economic issues affecting Southeastern  
21 Michigan. I serve on the Board for SAS (Utility Analytics Group) and as a member  
22 of Itron's Electric Forecasting Group

23

24 **Q. Have you previously sponsored testimony before the Michigan Public Service**  
25 **Commission?**

Line  
No.

- 1 Yes. I sponsored testimony in the following cases:
- |    |         |                                    |
|----|---------|------------------------------------|
| 2  | U-17049 | 2012 Energy Optimization Plan      |
| 3  | U-17097 | 2013 PSCR Plan                     |
| 4  | U-17302 | 2013 Renewable Energy Plan Update  |
| 5  | U-17319 | 2014 PSCR Plan                     |
| 6  | U-17680 | 2015 PSCR Plan                     |
| 7  | U-17762 | 2016-17 Energy Optimization Plan   |
| 8  | U-17767 | DTE Electric General Rate Case     |
| 9  | U-17793 | 2015 Renewable Energy Plan         |
| 10 | U-17920 | 2016 PSCR Plan                     |
| 11 | U-18014 | DTE Electric General Rate Case     |
| 12 | U-18111 | 2016 Amended Renewable Energy Plan |
| 13 | U-18143 | 2017 PSCR Plan                     |
| 14 | U-18255 | DTE Electric General Rate Case     |
| 15 | U-18262 | 2018-19 Energy Optimization Plan   |
| 16 | U-18403 | 2018 PSCR Plan                     |
| 17 | U-18419 | 2017 Certificate of Necessity      |

**DTE ELECTRIC COMPANY**  
**DIRECT TESTIMONY OF MARKUS B. LEUKER**

Line  
No.

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to provide DTE Electric's current electric sales  
3 forecast for the period 2018-2029 and to explain the basis for this forecast. In  
4 addition, I am supporting the customer count projection for the period 2018-2029.

5

6 **Q. Are you sponsoring any exhibits?**

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

8	<u>Exhibit</u>	<u>Description</u>
9	A-20	Annual Service Area Sales
10	A-21	Annual Bundled Sales
11	A-22	Annual Electric Choice Sales
12	A-23	Summary of Economic Outlook
13	A-24	Annual Customer Count

14

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

16 A. Yes, they were.

17

18 **Q. Can you explain the Company's current electric load forecast?**

19 A. The current forecast of annual sales for DTE Electric's service area for the years  
20 2018 through 2029 is reflected on Exhibit A-20. The current forecast of full service  
21 sales, also described as "bundled", and the current forecast of Electric Choice sales  
22 are shown on Exhibit A-21 and Exhibit A-22, respectively.

23

Line  
No.

1 **Q. What is shown on Exhibit A-20?**

2 A. Exhibit A-20 shows DTE Electric's annual service area sales by customer  
3 classification: Residential, Commercial, Industrial, Street Lighting, Pumping and  
4 Wholesale. The years 2008 through 2017 are historical and the years 2018 through  
5 2029 are forecast. 2029 is a partial year forecast with only eight months of forecast.  
6 Temperature-normalized (T-N) sales for the years 2016 and 2017 is also shown.

7

8 **Q. What is shown on Exhibit A-21?**

9 A. Exhibit A-21 shows DTE Electric's annual bundled sales by customer classification:  
10 Residential, Commercial, Industrial, Street Lighting, Pumping and Wholesale. In  
11 addition, retail electric sales, identified as Total less Wholesale, are shown. The years  
12 2008 through 2017 are historical and the years 2018 through 2029 are forecast. 2029 is  
13 a partial year forecast with only eight months of forecast. Temperature-normalized (T-  
14 N) sales for the years 2016 and 2017 is also shown.

15

16 **Q. What is shown on Exhibit A-22?**

17 A. Exhibit A-22 shows annual Electric Choice sales for the four major customer  
18 classifications: Residential, Commercial, Industrial, and Other. The years 2008  
19 through 2017 are historical and the years 2018 through 2029 are forecast. 2029 is a  
20 partial year forecast with only eight months of forecast. Temperature-normalized (T-  
21 N) sales for the years 2016 and 2017 is also shown.

22

Line  
No.

1 **Q. What is shown on Exhibit A-23?**

2 A. Exhibit A-23 shows the major economic parameters used in the forecast models. The  
3 years 2008 through 2016 are historical. The years 2017 through 2029 are the  
4 Company's forecast.

5

6 **Q. What is shown on Exhibit A-24?**

7 A. Exhibit A-24 shows DTE Electric's annual average service area customer count by  
8 customer classification: Residential, Commercial, Industrial, Street Lighting, Pumping  
9 and Wholesale. Commercial Class customers are further broken down into Secondary,  
10 Secondary Pumping and Primary. The years 2009 through 2017 are historical and the  
11 years 2018 through 2029 are forecast. Electric Choice and bundled customer counts  
12 are also provided.

13

14 **Q. What is the compound annual growth rate of DTE Electric's service area and  
15 bundled sales over the forecast period?**

16 A. DTE Electric's service area sales are forecast to decrease from temperature-  
17 normalized sales of 47,551 GWh in 2016 to 46,734 GWh in 2028. This represents a  
18 0.1% average annual decrease in sales.

19

20 Similarly, bundled sales are forecast to decrease from temperature-normalized sales of  
21 42,660 GWh in 2016 to 41,834 GWh in 2028. This represents a 0.2% average annual  
22 decrease in sales. The growth rates of DTE Electric's service area sales and bundled  
23 sales are similar due to the stable forecast of Electric Choice sales.

24

Line  
No.

1 **Q. What has been the compound annual growth rate of DTE Electric's service area**  
2 **sales over the last few years?**

3 A. On a temperature-normalized basis, service area sales decreased from 52,110 GWh in  
4 2008 to 47,551 GWh in 2016. This represents a 1.1% average annual decrease in  
5 sales. One factor contributing to this decline is the loss of wholesale customers.  
6 When these customers' sales are excluded from 2008 sales, the average annual  
7 decrease is 0.4%.

8

9 **Q. What is the general approach used in developing this forecast of DTE Electric's**  
10 **service area sales?**

11 A. The general approach reflects widely accepted industry standards for electricity  
12 forecasting, including regression and end-use modeling. It has, over time, also  
13 provided reasonable forecasts for DTE Electric service area electric sales with, on  
14 average, small variances from actual historical annual sales.

15

16 For most sectors of the forecast, electricity sales levels are related to the various  
17 economic, technological, regulatory, and demographic factors that have affected them  
18 in the past. The procedure begins with the assembly of historical data relating to the  
19 various sectors of the forecast. These data are examined and the factors that are  
20 statistically significant in explaining electricity sales are identified using regression  
21 techniques. Forecast models are developed employing the appropriate regression  
22 equations.

23

24 The Company receives economic forecasts from various sources that are then entered  
25 into the forecast models to calculate projected future sales levels. Economic variables

Line  
No.

1 (explanatory factors) include motor vehicle production, steel production, employment,  
2 and others. These forecasts can be adjusted to incorporate unique local market  
3 dynamics not accounted for by national data forecast services.

4

5 **Q. What is the condition of the national economy just prior to the forecast period?**

6 A. Economic growth was weak to moderate in early 2017. Real gross domestic product  
7 (GDP) grew at a seasonally adjusted annualized rate (SAAR) of 1.4% in the first  
8 quarter, a significant decline from the 2.1% SAAR achieved in the fourth quarter of  
9 2016. (Note: All growth rates of GDP and components discussed herein are  
10 seasonally adjusted and annualized unless otherwise noted.) A number of factors  
11 contributed to slower growth. First of all, consumer spending grew by only 1.1%,  
12 adding just 0.8% to total real GDP growth. This stands in marked contrast to 3.5%  
13 spending growth in the previous quarter. Additionally, a decline in private nonfarm  
14 inventories reduced overall growth by 1.1% while imports cut growth by 0.6%.

15

16 Although real GDP grew fairly slowly in the first quarter, some of its components  
17 showed surprising strength. Nonresidential structures grew 22.6% while residential  
18 fixed investment climbed 13.0%. In total, gross private domestic investment rose  
19 3.7% in the first quarter after increasing by 9.4% in the previous quarter. Exports  
20 rose by 7.0% in the first quarter, following a decline of 4.5% in the fourth.  
21 Government consumption expenditures and gross investment fell by 0.9% in the  
22 first quarter after rising by 0.2% in the fourth.

23

24 Motor vehicle production rose by 2.9% in the first quarter following a decline of  
25 2.0% in the fourth.

Line  
No.

1 Seasonally adjusted housing starts fell by 0.9% in the first quarter after rising by  
2 8.6% in the fourth.

3

4 The seasonally adjusted Consumer Price Index for All Urban Consumers (CPI-U),  
5 which is based on a specified assortment of goods and services bought by the  
6 average household, rose at an annualized rate of 3.1% in the first quarter following  
7 a rise of 3.0% in the fourth.

8

9 **Q. What is the outlook for the national economy in 2018?**

10 A. Real GDP is forecast to increase by 2.7%, real disposable personal income by 3.7%,  
11 and real personal consumption expenditures by 3.1%.

12

13 Total light vehicle production in the United States is forecast to decline by 0.9%  
14 while sales are expected to rise by 0.9%.

15

16 The CPI-U is forecast to increase by 1.6%.

17

18 Exports are expected to grow 2.7% and imports by 5.3%, continuing the recent  
19 pattern of import growth exceeding export growth.

20

21 In summary, major influences on overall business activity, such as employment,  
22 income, and interest rates, are in place to promote continued growth in 2018, and  
23 the economy is likely to benefit accordingly.

24



Line  
No.

1 **Q. What is the outlook for Southeast Michigan's economy in 2018?**

2 A. Overall employment is forecast to increase by 0.9% in 2018. Mining, logging, and  
3 construction employment is expected to rise 2.6%. Construction is the largest  
4 component of this category. Some construction firms have recently struggled to  
5 find replacements for retiring workers, and if this labor shortage continues into  
6 2018, job growth would likely suffer.

7

8 Total private non-manufacturing employment is expected to rise by 1.0% in 2018.  
9 Professional and business services, the largest component of this category, is  
10 expected to increase by 3.5%.

11

12 Cutbacks in federal spending are expected to result in a 0.4% decline in government  
13 employment.

14

15 Manufacturing employment is expected to rise by 0.6%. Despite a decline in local  
16 auto production, other manufacturing subsectors are poised to pick up the slack in  
17 jobs.

18

19 Local auto production is forecast at 1.4 million vehicles in 2018, an 8.4% decrease  
20 from 2017. Although vehicle sales are forecast to rise slightly following their 2017  
21 decline, an unfavorable product mix and some extended model changeovers  
22 coincide to depress the output of Detroit's assembly plants.

23

Line  
No.

1 Local raw steel production is expected to decline by 0.8% in 2018. The slowdown  
2 in automotive production and transition to alternative automotive materials combine  
3 to work against steel output.

4

5 Population is forecast to experience another year of anemic growth in 2018, rising  
6 only 0.1%. Nevertheless, this is an improvement over the outright population  
7 decline of 0.8% suffered ten years earlier.

8

9 Southeast Michigan's economy is in position to expand again in 2018. Transition  
10 in the auto industry seems likely to take some luster off that expansion, but overall  
11 conditions should remain fairly positive.

12

13 **Q. How was the Residential Class forecast developed?**

14 A. Electricity sales in the Residential Class were forecast by an end-use method  
15 including 39 different appliances or appliance groups. For each forecast year, three  
16 separate items were forecast: (1) number of residential customers, (2) saturations of  
17 major appliances, and (3) average electricity use per appliance. For each appliance,  
18 the product of these three forecast values yields the annual electricity sales. The  
19 total for all appliances is the total annual Residential Class electricity sales.

20

21 The number of Residential customers were forecast using the annual percentage  
22 change in households. This percentage change each year is applied to the prior  
23 year's customer count to obtain the forecast of customers for that year.

24

Line  
No.

1 The Company conducts a Residential appliance saturation survey, usually every  
2 other year. The most recent survey used in this forecast was conducted in late 2016.  
3 The survey is sent to a representative sample of DTE Electric's Residential  
4 customers. Among the questions asked are ones related to whether or not the  
5 customer has certain appliances and if the appliances were replaced in the last two  
6 years. The responses help us understand the penetration of appliances in our  
7 service area. These insights are then applied to the Residential forecast model.

8  
9 The federal government has enacted energy efficiency standards for many  
10 appliances. The end-use approach incorporates projected increases in energy  
11 efficiency of the various appliances into the Residential Class electricity sales. The  
12 Company uses federal efficiency standards to determine the decrease in use per  
13 appliance. As most customers do not buy a new appliance just because a more  
14 energy efficient one becomes available, the Company phases in the decrease in  
15 energy usage which over time drives down Residential customer electricity usage.

16

17 **Q. What is the outlook for Residential Class sales?**

18 A. DTE Electric's service area Residential Class sales will decline 0.2% annually, on  
19 average, through 2028. This growth rate utilizes 2016 temperature-normalized  
20 sales as the base year in its computation. This approach is used on all class growth  
21 rate calculations in my testimony.

22

23 Modest average annual growth of 0.4% in residential customer count is expected  
24 through 2029 due to a moderating housing market. However, use-per-customer  
25 through 2029 is expected to decrease by 0.5% annually on average. This is due to

Line  
No.

1 the long-term trend of increases in the saturation of appliances being offset by more  
2 efficient electric appliances and especially due to the adoption of energy efficient  
3 lighting.

4

5 Based on historical behavior, Electric Choice is not expected to have a significant  
6 effect on residential customers. DTE Electric bundled Residential Class sales equal  
7 service area Residential Class sales in the forecast.

8

9 **Q. How was the Commercial Class forecast developed?**

10 A. Sales for most sectors of the Commercial Class were forecast using regression  
11 models. Explanatory variables include county level employment, local automotive  
12 production and population.

13

14 Other markets, such as agricultural supply, farming and apartments, were forecasted  
15 with time trend models and were combined with the previous regression models to  
16 obtain total Commercial Class electricity sales.

17

18 Commercial Secondary and Primary rate class sales were obtained using historical  
19 allocations for each market, which were then summed to get total Commercial  
20 Secondary and Primary sales.

21

22 **Q. What is the outlook for Commercial Class sales?**

23 A. DTE Electric's service area Commercial Class sales will decline 0.1% annually, on  
24 average, through 2028.

25

Line  
No.

1 Sales in Offices and Lodging will increase due to a slight rise in population and age  
2 of population in our service area.

3

4 These increases are offset by a decline in sales from Universities as three  
5 Universities build co-generation facilities. Also, Other Services decreases due to a  
6 decrease in demand for these services (i.e., entertainment, community centers,  
7 churches, parking lots/garages, fitness/sports complexes).

8

9 Growth in the Commercial Class is also constrained by increasing energy efficiency  
10 longer-term.

11

12 DTE Electric temperature-normalized bundled Commercial Class sales will  
13 decrease 0.1% annually, on average, through 2028. Since temperature-normalized  
14 Electric Choice sales in this class remain essentially flat, the growth rate for DTE  
15 Electric bundled sales is the same as the growth rate for service area sales.

16

17 **Q. How was the Industrial Class Sales forecast developed?**

18 A. For the development of the Industrial Class forecast, the automotive sector was  
19 disaggregated into seven groups of automotive facilities (i.e., assembly plants,  
20 stamping plants, powertrain/drivetrain plants, research and administrative facilities  
21 (technical), other parts plants and parts suppliers, foundries, and other automotive  
22 plants). Electricity sales for most of these groups were forecast using regression-  
23 based models with automotive production as the primary explanatory variable.  
24 Additional effects from announced plant closings or expansions and plant specific  
25 information were also factored into these models.

Line  
No.

1 The steel market is dominated by three large producers that account for almost 60%  
2 of steel sales. Because of this high concentration and volatility in the market, it can  
3 be difficult to forecast steel sales. Global market conditions can have a significant  
4 impact on local steel production.

5  
6 The other manufacturing sector was disaggregated into ten markets and submarkets  
7 (i.e., chemicals, petroleum, rubber and plastics (R&MP), mining, non-metal  
8 processing (NMP), metal fabrication, manufacturing equipment, other  
9 manufacturing, Big 3 R&MP, and Big 3 manufacturing equipment). Electricity  
10 sales for most of these markets were also forecast using regression-based models  
11 with automotive production, manufacturing employment and other economic  
12 indicators as variables.

13

14 **Q. What is the outlook for Industrial Class sales?**

15 A. DTE Electric's service area Industrial Class sales are expected to decline 0.2%  
16 annually, on average, through 2028. Industrial Class sales are comprised of three  
17 large subclasses: automotive, primary metals (steel) and other manufacturing sales.  
18 It is necessary to examine each subclass separately.

19

20 First, DTE Electric's service area automotive sales will decrease 0.2% annually, on  
21 average, through 2028. Most of the decrease in sales occurs in 2018 and 2019 as  
22 local assembly plants go down for changeover to new products and react to slowing  
23 vehicle sales. Production ramps up slowly in the following years. In addition, sales  
24 growth is constrained by efficiency measures at automotive facilities.

25

Line  
No.

1 Second, DTE Electric's service area steel sales will decrease 0.6% annually, on  
2 average, through 2028. Global over-capacity continues to put downward pressure  
3 on local steel facilities. Additionally, increased use of alternative materials in  
4 automotive manufacturing lowers the forecast for steel.

5  
6 Third, DTE Electric's service area other manufacturing sales will increase 0.3%  
7 annually, on average, through 2028. The growth in sales will be mainly due to 1)  
8 increased operations in rubber & plastics to meet the demands of the auto industry,  
9 2) expansions at several auto suppliers and 3) increases in the Chemical sector.

10

11 DTE Electric temperature-normalized bundled Industrial Class sales will decrease  
12 0.2% annually, on average, through 2028. Since temperature-normalized Electric  
13 Choice sales in this class remain essentially flat, the growth rate for DTE Electric  
14 bundled sales is the same as the growth rate for service area sales.

15

16 **Q. What were Electric Choice sales in 2016?**

17 A. Electric Choice sales in 2016 were 4,936 GWh. On a temperature-normalized  
18 basis, they were 4,892 GWh.

19

20 **Q. What is the forecast for Electric Choice sales for 2018 through 2029?**

21 A. The forecast for Electric Choice sales by rate classification is shown on Exhibit A-  
22 22.

23

Line  
No.

1 **Q. How was the Electric Choice sales forecast developed?**

2 A. The Electric Choice sales forecast was based on the temperature-normalized sales  
3 level expected for 2017 through June of 4,921 GWh. The forecast was then  
4 adjusted lower in the Commercial Primary sub-class to account for a declining sales  
5 trend. The Electric Choice sales forecast was held constant beyond 2018.

6

7 **Q. Does this conclude your direct testimony?**

8 A. Yes, it does.



**STATE OF MICHIGAN**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter, on the Commission's own )  
motion, regarding the regulatory reviews, )  
revisions, determinations, and/or approvals )  
necessary for **DTE Electric Company** )  
to fully comply with Public Act 295 OF 2008 )

Case No. U-18232

QUALIFICATIONS  
AND  
DIRECT TESTIMONY  
OF  
SHERRI L. WISNIEWSKI

**DTE ELECTRIC COMPANY**  
**QUALIFICATIONS OF SHERRI L. WISNIEWSKI**

Line  
No.

1 **Q. What is your name, business address, and by whom are you employed?**

2 A. My name is Sherri L. Wisniewski. My business address is DTE Energy, One  
3 Energy Plaza, Detroit, Michigan 48226. I am employed by DTE Energy Corporate  
4 Services, LLC.

5

6 **Q. On whose behalf are you testifying?**

7 A. I am testifying on behalf of DTE Electric Company (DTE Electric or Company).

8

9 **Q. What is your educational background?**

10 A. I earned a Bachelor of Business Administration from Western Michigan University  
11 in 1993 and a Master of Business Administration from The University of Michigan  
12 in 1998.

13

14 **Q. What work experience do you have?**

15 A. I have been with DTE Energy Company in the Tax Department since 1996. I  
16 became Director of Tax Operations in July 2016 and am currently responsible for  
17 state and local income and franchise returns, tax accounting, tax forecasting, and  
18 regulatory tax.

19

20 **Q. Have you previously sponsored testimony before the Michigan Public Service  
21 Commission?**

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

23 U-18255 DTE Electric 2017 General Rate Case

24 U-18999 DTE Gas 2017 General Rate Case

25 U-20051 Year 2017 Reconciliation of Transitional Reconciliation

Line  
No.

1

Mechanism associated with the disposition of the City of Detroit

2

Public Lighting System.

**DTE ELECTRIC COMPANY**  
**DIRECT TESTIMONY OF SHERRI L. WISNIEWSKI**

Line  
No.

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

2 A. The purpose of my testimony is to discuss and support the reasonableness of  
3 deferred taxes, investment tax credits and property tax expense in DTE Electric's  
4 Renewable Energy Plan (REP) Amendment.

5  
6 **Q. What exhibits are you supporting?**

7 A. I am supporting the following exhibit:

<u>Exhibit</u>	<u>Description</u>
8 A-25	Deferred Income Taxes

10

11 **Q. Was this exhibit prepared by you or under your direction?**

12 A. Yes, it was.

13

14 **Q. What are solar Investment Tax Credits (ITC)?**

15 A. Taxpayers are allowed an ITC for a portion of the expenditures they make in  
16 placing solar energy property in service. The ITC for solar energy property is  
17 determined by multiplying 30% by the ITC-eligible basis of the solar energy  
18 property placed in service during that year.

19

20 **Q. What is the accounting for solar ITC?**

21 A. The ITC will be recorded in an accumulated deferred investment tax credit account  
22 and amortized as a reduction to expense over the book life of the assets under the  
23 normalization rules issued by the Internal Revenue Service. The accumulated  
24 deferred investment tax credit account will be reflected as a source of financing in  
25 the REP capital structure, and the cost of capital assigned to the accumulated

Line  
No.

1 deferred investment tax credit will be equal to the weighted cost of capital  
2 excluding the ITC. This ensures there is no impact to the program's rate of return  
3 or total capital structure.

4

5 **Q. When will DTE Electric's customers receive the benefit of the ITC?**

6 A. ITC's reduce the incremental cost of compliance as they are amortized over the  
7 book life of the assets. The amortization of ITC begins the year in which DTE  
8 Electric can utilize the ITC to reduce income taxes payable on a tax return. The  
9 reduction to the incremental cost of compliance for ITC's is shown on Company  
10 Witness Mr. Lacey's Exhibit A-16, line 11.

11

12 **Q. How did you develop the ITC amount on Exhibit A-16, line 11?**

13 A. The ITC amount on Exhibit A-16, line 11, is calculated by taking the amortization  
14 of the ITC deferred credit and grossing it up. Since the amortization of the ITC  
15 deferred credit is post tax adjustments, in order to include them in the pre-tax  
16 incremental cost of compliance, they must be grossed up (increased) for taxes. This  
17 gross up decreases the revenue requirement included in the Renewable Energy Plan  
18 Surcharge and ensures DTE Electric doesn't earn above its authorized return for  
19 this item when the credits are applied to net income.

20

21 **Q. What are wind Production Tax Credits (PTC)?**

22 A. Taxpayers are allowed a PTC of 2.4 cents per kilowatt-hour for electricity generated  
23 using qualified wind energy resources for the first ten years of the facility's  
24 operation. To receive 100% of the value of the wind PTC, construction must have  
25 begun before January 1, 2017. The wind PTC then phases out over three years,

Line  
No.

1 with the credit being reduced by 20% for projects that commence construction after  
2 12/31/2016 and before January 1, 2018, 40% for projects that commence  
3 construction after 12/31/2017 and before January 1, 2019, and 60% for projects that  
4 commence construction after 12/31/2018 and before January 1, 2020. Projects  
5 beginning construction on or after January 1, 2020, do not qualify for PTCs.

6  
7 The production tax credit calculation is shown on Company Witness Mr.  
8 Kaufman's Exhibit A-8.

9

10 **Q. How is property tax liability and expense being calculated in the REP**  
11 **Amendment?**

12 A. Property tax liability refers to the amount of property taxes payable to local  
13 governments, whereas property tax expense refers to the amount of property taxes  
14 deducted for book purposes. Property tax liability is calculated by multiplying the  
15 ending plant in service and CWIP by the historical composite millage rate. The  
16 property tax liability is expensed over a two-year period, with the liability of each  
17 year being expensed 39% the current year and 61% the subsequent year. This two-  
18 year allocation methodology has been used for many years and is based, generally,  
19 on the fiscal years of the various taxing jurisdictions to which property taxes are  
20 paid. The property tax expense is shown on Witness Kauffman's Exhibit A-6, line  
21 5 which is carried to Witness Lacey's Exhibit A-17, line 19.

22

23 **Q. Is deferred tax treatment necessary for REP accounting?**

24 A. Yes. Financial statement items that are treated differently for book purposes than  
25 they are for tax purposes will result in deferred tax assets or liabilities. There are

Line  
No.

1 four items that drive deferred taxes within the Company's Renewable Energy Plan:

- 2 • Fixed asset differences, including depreciation and solar ITC
- 3 • Regulatory Liability
- 4 • Production Tax Credits
- 5 • Renewable Energy Credits

6

7 Deferred taxes are calculated by multiplying the book to tax differences by a  
8 composite rate that represents federal, state, and local income taxes for DTE  
9 Electric. The composite rate used through 2017 was 39%. As a result of the Tax  
10 Cuts and Jobs Act of 2017, the composite rate used beginning January 1, 2018 is  
11 25.86%.

12

13 **Q. What is the deferred tax item related to Plant?**

14 A. Deferred taxes related to plant on Exhibit A-25, line 12 results primarily from the  
15 difference between accelerated tax depreciation and book depreciation. There is  
16 also a deferred tax related to the solar ITC basis differences.

17

18 **Q. What drives the difference between accelerated tax depreciation and book  
19 depreciation?**

20 A. Tax depreciation is calculated by utilizing the Modified Accelerated Cost Recovery  
21 System (MACRS). MACRS allows depreciation to be deducted over a five-year  
22 period for wind and solar assets and a twenty-year period for distribution assets. In  
23 addition, the bonus depreciation percentage is 50% for property placed in service  
24 during 2015, 2016, and 2017 and then is eliminated for regulated entities by the Tax  
25 Cuts and Jobs Act of 2017. Both bonus and MACRS result in a faster depreciation

Line  
No.

1 of the investment as compared to the longer lives and straight line methodology  
2 used to calculate book depreciation.

3

4 **Q. Why are there deferred taxes on the solar ITC basis adjustment?**

5 A. For tax purposes, plant is reduced by 50% of the solar ITC. Thus, a basis difference  
6 is created, equal to 50% of the solar ITC amount. Since the plant balance for tax  
7 purposes is lower than the book balance, the future depreciation expense for tax  
8 purposes will be lower than the book expense for these assets.

9

10 **Q. What is the deferred tax asset related to the regulatory liability on Exhibit A-**  
11 **25, line 19?**

12 A. The revenue DTE Electric collected through the REP Surcharge initially exceeds  
13 the incremental costs of compliance. The net is recorded as an increase in the  
14 regulatory liability. Taxes must be paid on the net increase in the regulatory  
15 liability, which creates a deferred tax asset. As the incremental costs of compliance  
16 exceeds the revenue received from the REP Surcharge, the regulatory liability  
17 balance and the deferred tax asset decreases.

18

19 **Q. What is the deferred tax asset related to PTC's on Exhibit A-25, line 5?**

20 A. The deferred tax asset related to PTC's represents the PTC's that have been  
21 generated but not yet utilized to reduce income taxes payable on a tax return, which  
22 is referred to as a PTC carryforward. PTC's are not refundable credits, and there  
23 are limits to how many credits can be utilized each year based on DTE Electric's  
24 Federal income tax liability. DTE Electric is forecasting to fully utilize the PTC  
25 carryforward in 2026.



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1 **Q. What is the deferred tax asset related to Renewable Energy Credits (REC) on**  
2 **Exhibit A-25, line 26?**

3 A. DTE Electric acquires REC's by either purchasing them or generating them. The  
4 cost of purchased credits equals the amount paid for them and the cost of the  
5 Company-generated credits is zero. For book purposes, the REC's are expensed  
6 using a weighted-average cost method. For tax purposes, the REC's are expensed  
7 using specific identification, expensing each REC at its original cost when acquired  
8 or generated. The deferred tax asset related to REC's results from this difference  
9 between book expense and tax expense. Similar to prior plan filings, the Company  
10 is unable to accurately estimate the tax costs of the forecasted REC retirements and  
11 has, therefore, assumed tax expense equals book expense. Deferred tax activity  
12 related to the book to tax difference of REC retirements will continue to be  
13 reflected in REP's reconciliation filings.

14

15 **Q. Does the 2017 Tax Cuts and Job Act (TCJA) have an impact on the calculation**  
16 **of deferred taxes in the amended plan filing?**

17 A. Yes. The 2017 Tax Cuts and Job Act (TCJA) enacted by Congress on December  
18 22, 2017 reduced the federal corporate income tax rate from 35% to 21% effective  
19 January 1, 2018. As a result of the tax rate reduction, the composite rate used to  
20 calculate deferred taxes was reduced from 39% to 25.86% beginning January 1,  
21 2018.

22

23 In addition, as discussed in the Company's response to the Commission Order in  
24 Case No. U-18494, book accounting under ASC 740 requires that the impacts of a  
25 tax law change be recorded in the period of enactment. Therefore, DTE Electric's

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1 deferred taxes were re-measured as of December 31, 2017 to reflect the reduction in  
2 the federal corporate income tax rate. This resulted in a one-time reduction to the  
3 REP deferred tax liability for plant of \$98.7 million as shown on Exhibit A-25, line  
4 11. It also resulted in a one-time reduction to the REP deferred tax assets for REP  
5 regulatory liability of \$14.7 million and renewable energy credits of \$0.5 million, as  
6 shown on Exhibit A-25, lines 18 and 25, respectively. In accordance with the  
7 Commission Order in Case No. U-18494 dated December 27, 2017, the reduction in  
8 REP's deferred tax assets and liability was offset by a new regulatory liability of  
9 \$83.4 million, which is shown on Exhibit A-25, line 31. The new regulatory  
10 liability represents the excess deferred income taxes that will flow back to the  
11 customer as the regulatory liability is amortized.

12

13 The one-time reduction to the REP deferred tax assets and liability as well as the  
14 new regulatory liability are estimates that are subject to change upon completion of  
15 the 2017 Federal income tax return in September 2018.

16

17 **Q. Is the amortization of the new tax regulatory liability reflected as a reduction**  
18 **to the incremental cost of compliance for this filing?**

19 A. Yes. An estimate of the amortization of the new regulatory liability is being  
20 reflected as a reduction to the incremental cost of compliance on Witness Lacey's  
21 Exhibit A-16, line 22 starting in January, 2019.

22

23 **Q. How did you calculate the amortization of the new tax regulatory liability**  
24 **reflected on Exhibit A-16, line 22?**

25 A. The new tax regulatory liability is being amortized over 23 years, which represents

Line  
No.

1 the average book life of wind and solar assets per Depreciation Case No. U-16991.

2

3 Since the amortization of the new tax regulatory liability is post tax adjustments, in  
4 order to include it in the pre-tax incremental cost of compliance, it must be grossed  
5 up (increased) for taxes. This gross up decreases the revenue requirement included  
6 in the Renewable Energy Plan Surcharge and ensures DTE Electric doesn't earn  
7 above its authorized return for this amortization.

8

9 The amortization of the new tax regulatory liability is an estimate that is subject to  
10 change based on resolution of Case No. U-18494.

11

12 **Q. Does this complete your direct testimony?**

13 A. Yes, it does.

**STATE OF MICHIGAN**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter, on the Commission's own )  
motion, regarding the regulatory reviews, )  
revisions, determinations, and/or approvals )  
necessary for **DTE Electric Company** )  
to fully comply with Public Act 295 OF 2008 )

Case No. U-18232

QUALIFICATIONS  
AND  
DIRECT TESTIMONY  
OF  
PHILIP W. DENNIS

**DTE ELECTRIC COMPANY**  
**QUALIFICATIONS OF PHILIP W. DENNIS**

Line  
No.

1 **Q. Please state your name, business address and by whom you are employed.**

2 A. My name is Philip W. Dennis. My business address is One Energy Plaza, Detroit,  
3 Michigan 48226. I am employed by DTE Energy Corporate Services, LLC, a  
4 subsidiary of DTE Energy Company as Manager, Regulatory Economics.

5

6 **Q. On whose behalf are you testifying?**

7 A. I am testifying on behalf of DTE Electric Company (DTE Electric or Company).

8

9 **Q. What is your education background?**

10 A. I received a Bachelor of Science Degree in Business Administration from Central  
11 Michigan University. In addition, I received a Master of Finance Degree from  
12 Walsh College.

13

14 **Q. What work experience do you have?**

15 A. I was previously employed by ANR Pipeline Company (ANR) in several different  
16 capacities. ANR is an interstate natural gas (gathering, storage and transmission)  
17 company regulated by the Federal Energy Regulatory Commission (FERC). I had  
18 varying and increasing responsibilities within ANR, including positions in their  
19 Controller's organization, Regulatory Affairs and Marketing groups. While  
20 working in the Regulatory Affairs organization, I assisted in the preparation and  
21 analysis of general rate cases, purchased gas adjustments, and various surcharge  
22 recovery filings. While in Regulatory Affairs, I presented testimony at the FERC  
23 sponsoring various cost of service components and participated as a witness in  
24 ANR's rate case hearings. In 1994, I was promoted to Manager of Transportation  
25 Rates. I transferred to ANR's Marketing department in 1999 as Manager of Market

Line  
No.

1 Analysis. I remained there until early 2001, when ANR, as part of a merger, was  
 2 moved to Houston and I left the Company. In 2001, I began working for Michigan  
 3 Consolidated Gas Company (MichCon) as a Principal Financial Analyst in the  
 4 Regulatory Affairs department. In 2001, MichCon’s parent, MCN Energy, was  
 5 acquired by DTE Energy, DTE Electric’s (formerly The Detroit Edison Company)  
 6 parent. In 2005, I was promoted to Regulatory Affairs Consultant and was project  
 7 manager for DTE Electric’s general rate cases Case Nos. U-15244, U-15768 and U-  
 8 16472. In 2011, I assumed my present position of Manager, Regulatory  
 9 Economics.

10

11 **Q. What are your current duties and responsibilities with DTE Electric?**

12 A. My responsibilities include the management of regulatory activities relative to DTE  
 13 Electric’s Load Research, Tariffs, Pricing, and Rate Design.

14

15 **Q. Have you previously sponsored testimony before the Michigan Public Service  
 16 Commission (MPSC or Commission)?**

17 A. Yes. I sponsored testimony and exhibits in the following DTE Electric cases:

18	<u>Case No.</u>	<u>Description</u>
19	U-17437	Transitional cost recovery plan associated with the disposition of the City of Detroit Public Lighting System
20		Years 2013/2014 Reconciliation of Transitional Reconciliation Mechanism associated with the disposition of the City of Detroit Public Lighting System.
21	U-17761	
22		
23		
24	U-18005	Year 2015 Reconciliation of Transitional Reconciliation Mechanism associated with the disposition of the City of Detroit
25		

Line  
No.

1		Public Lighting System.
2	U-18248	Implementation of Section 6w of 2016 PA341 (“Capacity
3		Filing”)
4	U-18251	Year 2016 Reconciliation of Transitional Reconciliation
5		Mechanism associated with the disposition of the City of Detroit
6		Public Lighting System.
7	U-18262	Years 2018/2019 Energy Waste Reduction Plan Filing
8	U-18419	Certificate of Necessity
9	U-20051	Year 2017 Reconciliation of Transitional Reconciliation
10		Mechanism associated with the disposition of the City of Detroit
11		Public Lighting System.

**DTE ELECTRIC COMPANY**  
**DIRECT TESTIMONY OF PHILIP W. DENNIS**

Line  
No.

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is twofold, (1) provide actual and forecasted meter  
3 counts by class as required by the Commission's filing requirements established in  
4 Case No. U-18409, and (2) propose a mechanism to refund overcollections  
5 associated with a renewable energy surcharge originally approved in Case No. U-  
6 13808.

7

8 **Q. Are you sponsoring any exhibits?**

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

<u>Exhibit</u>	<u>Description</u>
A-26	Actual and Forecast Meter Counts by Class – 2016 through 2029
A-27	Calculation of Renewable Energy Refund Associated with U-13808
A-28	Proposed Tariff Sheet

14

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

16 A. Yes, they were.

17

18 **ACTUAL AND FORECAST METER COUNTS BY CLASS**

19 **Q. Can you describe Exhibit A-26?**

20 A. Exhibit A-26 provides the Company's actual (2016, 2017) and forecast (2018 –  
21 2029) retail customer meter counts by class which are required pursuant to the  
22 Commission's filing requirements established in the August 23, 2017 Order issued  
23 in Case No. U-18409 (see Exhibit A pages 2 and 8 attached to Order).

24



Line  
No.

1 **Q. How were the meter counts in Exhibit A-26 determined?**

2 A. The starting point for determining the number of meters was a current forecast of  
3 the number of bundled customers provided on Exhibit A-24, sponsored by  
4 Company Witness Mr. Leuker. To translate the bundled customer counts to meter  
5 counts, I multiplied the customer counts by the average number of meters per  
6 customer for each class. The Company performed an analysis to determine the  
7 relationship between customer counts and customer meters by class (Commercial  
8 Secondary, Commercial / Industrial Primary), using historical billing data. The  
9 customer to meter ratio (as shown below) is the same as used in DTE Electric's  
10 Energy Waste Reduction Plan Filing (U-18262), which was filed on June 29, 2017.  
11 Since Witness Leuker shows street lighting customers on a separate line on his  
12 Exhibit A-24, I have added these customer counts to the bundled commercial  
13 secondary customer counts in order to determine the total bundled commercial  
14 secondary customer count. In addition, the bundled commercial secondary  
15 customer counts from Witness Leuker do not include the Company's pumping  
16 customers, as these customers are excluded from paying the REPS surcharge  
17 pursuant to PA342, Section 3(g). The Company determined the following meter to  
18 customer ratios:

19 Residential = 1.0 meter per customer

20 Commercial Secondary = 1.0 meters per customer

21 Commercial & Industrial Primary = 1.20 meters per customer.

22

23 **REFUND OF U-13808 RENEWABLE ENERGY SURCHARGE**

24 **Q. Can you provide a chronology of the activities associated with the regulatory**  
25 **liability amount accrued through the U-13808 five cent per meter surcharge?**

Line  
No.

1 A. The November 23, 2004 Order in the Case No. U-13808 approved an  
2 implementation of a five cent per meter surcharge as follows:

3 "Accordingly, with the rates approved in this case, Detroit Edison  
4 shall begin implementing a five-cent per-meter, per-billing-cycle  
5 charge on all meters within the Detroit Edison system for all  
6 customers whose rates are no longer capped pursuant to MCL  
7 460.10d(2), and then so forth as the caps expire for the remaining  
8 customers. (footnote omitted). The revenue collected from this five-  
9 cent-per-meter charge must be segregated on the company's books  
10 and records into a separate renewable resource fund account, to  
11 accrue interest at Detroit Edison's average short-term interest rate.  
12 Monies from this fund account shall be used by Detroit Edison to  
13 cover any short-fall in the amounts actually received by the company  
14 for its sale of renewable resource energy under its to-be-filed REP.  
15 Should the fund balance become significant, and unnecessary for this  
16 initial purpose, the Commission may direct other appropriate uses for  
17 the fund, such as (but not limited to) advertising to promote  
18 renewable energy or educational programs that will promote the use  
19 of renewable energy resources. (November 23, 2004 Order in MPSC  
20 Case No. U-13808, p. 126).

21 Pursuant to the U-13808 Order, the Company implemented the five cent per meter  
22 surcharge for commercial and industrial customers whose demand was equal to or  
23 greater than 15 kW on November 24, 2004, for commercial and industrial  
24 customers whose demand was less than 15 kW on January 1, 2005, and residential  
25 customers on January 1, 2006.

26  
27 Subsequently, in the August 31, 2006 Commission Order Approving a Settlement  
28 Agreement in MPSC Case No. U-14838, the Commission ordered the Company to  
29 prospectively suspend further collections of the surcharge which the Company  
30 accomplished in September 2006 (August 31, 2006 Order Approving Settlement  
31 Agreement in MPSC Case No. U-14838, pages 2-3). The Commission indicated  
32 that it did not have the authority to order a refund of the REP surcharges pursuant to  
33 the Attorney General's request due to the pending appeal of MSPC Case No. U-

Line  
No.

1 13808 at the Michigan Court of Appeals. Subsequently, on July 3, 2007, the  
2 Michigan Court of Appeals reversed the Commission's Order in MPSC Case No. U-  
3 13808 which established the REP surcharge.

4

5 On August 31, 2010, in Case No. U-16356, the Company requested Commission  
6 direction on the disposition of the then \$1.166 million related to the five cent per  
7 meter surcharge. The Company suggested two alternatives: 1) use the U-13808  
8 five cent per meter surcharge regulatory liability amount to offset the Company's  
9 incremental costs of compliance, or 2) refund the regulatory liability amount to  
10 customers through use of a one-time credit to its customers' bills.

11

12 **Q. What direction did the Commission provide the Company on the disposition of**  
13 **the amount related to the five cent per meter surcharge in its Order dated**  
14 **March 8, 2012 in Case No. U-16356?**

15 A. The Commission adopted the Staff's recommendation, that the Company refund the  
16 revenue, including appropriate interest in its next general rate case. Staff's  
17 recommendation was based on its concern that if the five cent per meter fund was  
18 used to offset the incremental costs of compliance, the rate impact limits pursuant to  
19 MCL 460.1045(2) may be exceeded as the renewable energy plan surcharges at that  
20 time were set at the maximum level (Case No. U-16356 TR225, lines 15-18).

21

22 **Q. Did the Company include a proposal to refund the revenue, including interest**  
23 **in its next general rate case after the issuance of the Order?**

Line  
No.

1 A. No. The Company's subsequent general rate cases filed after the Order in Case  
2 No. U-16356 was issued, unintentionally failed to include a proposal to refund the  
3 revenue, including interest.

4

5 **Q. What is the amount of the refund which the Company is proposing to return to**  
6 **customers in this case?**

7 A. As shown on Exhibit A-27, page 1, the total amount of the refund (including both  
8 principal and interest) through the end of December 31 2018 is \$1,443,141. This  
9 amount assumes a refund in the month of January 2019. Additional interest (if the  
10 refund is returned to customers after January 2019) will accrue on the outstanding  
11 balance until the Commission issues a final order in this proceeding.

12

13 **Q. How is the Company proposing to refund the approximate \$1.4 million from**  
14 **the U-13808 five cent per meter surcharge as part of this proceeding?**

15 A. Although the amount of refund per customer would be very small, given the delay  
16 in returning the amount to customers, it would be appropriate to calculate a one-  
17 time refund to the Company's customers. Exhibit A-27 supports the amount of the  
18 refund and allocation to customers which I propose be effective on the 1<sup>st</sup> of the  
19 month following a final order in this proceeding. The refund would be on a per  
20 customer basis.

21

22 **Q. Assuming the Commission approves of your proposal to dispense of the**  
23 **revenue collected from customers from the five cent per meter renewable**  
24 **surcharge, what is your proposal to compute interest if the Commission issues**  
25 **a final order in this proceeding different from the timing you discuss above?**

Line  
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1 A. I propose working with the Commission Staff to develop the refund amount, which  
2 will include interest calculated up to the time of the refund, based on the final order  
3 in this case.

4

5 **PROPOSED RENEWABLE ENERGY REFUND TARIFF SHEETS**

6 **Q. Can you explain the information presented on Exhibit A-28?**

7 A. Exhibit A-28 is the tariff sheets associated with the Company's proposed  
8 Renewable Energy refund, which reflect the calculations from Exhibits A-27. This  
9 tariff sheet is illustrative in nature and will be updated to reflect the actual  
10 surcharges in effect at the time of implementation.

11

12 **Q. Does this conclude your direct testimony?**

13 A. Yes, it does.