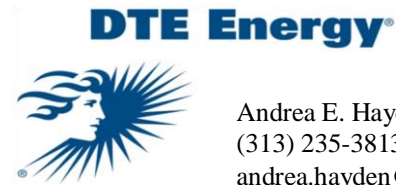


DTE Electric Company
One Energy Plaza, 1635 WCB
Detroit, MI 48226-1279



Andrea E. Hayden
(313) 235-3813
andrea.hayden@dteenergy.com

February 4, 2019

Ms. Kavita Kale
Executive Secretary
Michigan Public Service Commission
7109 West Saginaw Highway
Lansing, MI 48917

RE: In the matter on the Commission's own motion, regarding the regulatory reviews, revisions, determinations and/or approvals necessary for DTE Electric Company to comply with Section 61 of 2016 PA 342
MPSC Case No. U-18352

Dear Ms. Kale:

Attached for electronic filing in the above referenced matter is DTE Electric Company's Revised Application for Approval of its MIGreenPower Voluntary Renewable Energy Program, Testimony and Exhibits of Terri L. Schroeder and Proof of Service.

Very truly yours,

Andrea E. Hayden

AEH/kbk
Attachments
cc: Service List

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 comply)
with Section 61 of 2016 PA 342)
_____)

Case No. U-18352

**DTE ELECTRIC COMPANY'S REVISED APPLICATION FOR APPROVAL OF ITS
MIGREENPOWER VOLUNTARY RENEWABLE ENERGY PROGRAM**

DTE Electric Company ("DTE Electric" or the "Company") files this Application pursuant to 2008 PA 295, as amended, by 2016 PA 342, MCL 460.1001 *et seq.*, the Rules of Practice and Procedure Before the Michigan Public Service Commission ("Commission") (R 460.17101 *et seq.*), the Michigan Administrative Procedures Act (MCL 24.201 *et seq.*), and the Commission's October 5, 2018 Order in this case. DTE Electric requests that the Commission grant ex parte approval of the Company's Voluntary Renewable Energy Program – MIGreenPower (MIGreenPower or "Program") pursuant to MCL 460.1061. In support of this request, DTE Electric states as follows:

1. DTE Electric is a corporation organized and existing under and by virtue of the laws of the State of Michigan, with its principal office at One Energy Plaza, Detroit, Michigan 48226. DTE Electric is a wholly-owned subsidiary of DTE Energy Company supplying retail electric service to customers located in Southeast Michigan. The Company is a public utility and Electric Provider (as defined under MCL 460.1005(a)(i)) with more than 1,000,000 retail customers in Michigan and is therefore subject to the jurisdiction of the Commission per various provisions of 1919 PA 419, as amended, MCL 460.51 *et seq.*; 1939 PA 3, as amended MCL 460.1 *et seq.*; and 2008 PA 295, as amended MCL 460.1001 *et seq.*

2. DTE Electric presently serves its jurisdictional metered retail electric customers under the rates and charges contained in the Company's Commission approved tariffs.

3. On December 21, 2016, 2008 PA 295, the "Clean, Renewable, and Efficient Energy Act" was amended by Public Act 342. Section 61 of 2016 PA 342 requires that electric providers offer customers the opportunity to participate in a voluntary green pricing program. This Application is filed in accordance with Section 61 of 2016 PA 342 (MCL 460.1061), 2008 PA 295, as amended, and the Commission's July 12, 2017 Order in Case No. U-18349.

4. DTE Electric's MIGreenPower program and the accompanying Standard Contract Rider No. 17 were approved by the Commission in Case No. U-18076 on October 11, 2016 as a pilot program.

5. On October 18, 2017, DTE Electric filed an application seeking approval of MIGreenPower and the associated Standard Contract Rider No. 17 to satisfy Section 61 of PA 342, MCL 460.1061 with certain minor amendments, which included a change to the approved method of calculating the amount of consumption the subscription fee and credit applies to; an extension of the enrollment period for the Program through December 31, 2019; and the addition of a provision so that, pursuant to MCL 460.1061(a) a customer that receives at least 50% of the customer's average monthly electricity consumption through the program is exempt from paying surcharges for incremental cost of compliance. The Company filed a revised application on January 16, 2018.

6. Following a contested proceeding in this matter, the Commission issued an order on October 5, 2018 rejecting MIGreenPower as a voluntary green pricing program compliant with 2016 PA 342, Section 61, MCL 460.1061 as it was proposed, and directing the Company to submit a revised MIGreenPower application within 120 days. The Commission also instructed the

Company to file at least one additional voluntary green pricing (“VGP”) program so that the Company has multiple VGP programs to offer customers.

7. On November 15, 2018, DTE Electric filed an application in Case No. U-18076 for approval to extend the customer enrollment period of its MIGreenPower Program through December 31, 2019, which the Commission approved through its Order issued December 20, 2018.

8. Consistent with the October 5, 2018 Order issued in Case No. U-18352, on November 1, 2018, DTE Electric filed an application in Case No. U-20343 for approval of its large customer VGP. That program was approved as a pilot on January 18, 2019. DTE Electric now files this revised application for approval of its MIGreenPower program pursuant to the Commission’s Order.

9. DTE Electric has modified its MIGreenPower program consistent with the discussion in the October 5, 2018 Order.

10. On December 20, 2018, the Staff issued a report with findings and recommendations, and found that the Company’s administrative and marketing expense adder was calculated correctly by the Company.

11. In this filing, the Company has revised MIGreenPower to address the Commission’s concerns. To address optionality, the Company now has a Large Customer Voluntary Green Pricing Program, which the Commission approved as a pilot in Case No. U-20343. Additionally, the Company will allow customers to choose a blended wind and solar option, or a wind-only option. The wind-only option will provide energy from the Pinnebog Wind Park and will have a lower subscription fee. With respect to enrollment limitations or the “cap”, the Company has eliminated the enrollment period and amended the Standard Contract Rider to

allow additional assets to be added into the Program, as needed, to meet the Commission's requirement for the programs to be uncapped.

12. Participants in MIGreenPower will be charged a subscription fee based on the option they choose (blended or wind-only) and the number of subscribed kWh. Customers will also receive a credit for each subscribed kWh based on energy and capacity such that there is no increase in the cost of service compared to what was assumed in DTE Electric's approved and amended REP.

13. The fixed subscription fee for the blended option (wind and solar) will remain \$0.072/kWh. As explained by the Company in its prior filing, this fee is derived from the Commission-approved costs of the Program Renewable Resources described above (\$0.07/kWh) and the program marketing and administrative costs (\$0.002/kWh). The Program Renewable Resources portion (\$0.07/kWh) reflects 50/50 allocation of the costs to develop, construct, operate and maintain the portion of the wind and solar resources that are utilized within MIGreenPower. Revenue resulting from the collection of subscription fees will be accounted for in the Company's future REP and annual Reconciliation case filings in accordance with MCL 460.1047(2)(b)(vi).

14. The subscription fee for the wind-only option will be \$0.052/kWh, which is based on a \$0.05/kWh for the Pinnebog Wind Park that has been verified by the Commission Staff in their December 20, 2018 report, and \$0.002/kWh for marketing and administrative fees.

15. In addition to paying a subscription fee for the Program, customers enrolled in the Program receive a bill credit for each subscribed kWh based on energy and capacity. The Company does not propose a change to the Commission-approved credit calculation methodology for the blended wind and solar option or the wind-only option. The energy portion of the credit will remain the same under both options. The capacity portion of the credit is adjusted to reflect the MISO

Effective Load Carrying Capacity for the wind-only option. This reduces the average Effective Load Carrying Capability (ELCC) of 33% from the blended wind and solar option in 2019 to 12.7% for the wind-only option. Additional detail regarding the subscription fees, program credits, and total net cost to customers is provided in the attached testimony and exhibits of Terri Schroeder.

16. The Company intends to forecast demand for MIGreenPower on a biannual basis, per the Commission's October 5, 2018 Order. When a 3-year forecast indicates MIGreenPower will be sold out, the Company may seek to add assets to the Program through the Renewable Energy Plan. If the assets to be added are outside the Renewable Energy Plan, the Company will solicit interest, administer an RFP for cost effective projects, and contract for assets when at least 75% of the capacity is confirmed through a customer contract.

17. In addition to the above modifications DTE Electric also proposes to remove the early termination fee, and in accordance with MCL 460.1061(a), the Company proposes to amend MIGreenPower such that a customers who receive at least 50% of their average monthly electricity consumption through the Program are exempt from paying surcharges for incremental costs of compliance, and customers receiving less than 50% of their average monthly electricity consumption through the Program will be notified that they remain responsible for any fees associated with the incremental cost of compliance in accordance with the Act.

18. Staff made several recommendations regarding MIGreenPower in its December 2018 report. The testimony of Ms. Schroeder, attached hereto, also provides comments regarding each of those recommendations.

19. Further details regarding DTE Electric's proposed implementation of MIGreenPower are provided in the testimony, exhibits and proposed tariff accompanying this Application, which is incorporated herein by reference.

20. The Company is requesting *ex parte* approval of the revised MIGreenPower program. *Ex parte* approval is appropriate where there are no rate increases or amendments of rate or rate schedules per MCL 460.6a(1), as the Commission acknowledged in case No. U-20343. The approvals and assurances requested in this Application will not result in "an alteration or amendment in rates or rate schedules" and "will not result in an increase in the cost of service to customers" under MCL 460.6a because, as proposed in this Application and supported by the attached testimony and Tariff, there will be no increase in the cost of service to customers and all costs are voluntary. Thus, approval of this Application without notice or hearing is lawful and appropriate.

WHEREFORE, for the reasons stated above, DTE Electric respectfully requests that the Commission expeditiously issue an *ex parte* order in this case that:

- (i) Determines that the Program satisfies MCL 460.1061 and is consistent with all other applicable provisions of 2008 PA 295, as amended, and the Commission's July 12, 2017 Order;
- (ii) Approves the MIGreenPower program in its entirety and the associated attached amended Rider;
- (iii) Determines that the revised MIGreenPower program is consistent with the Commission's October 5, 2018 Order in this case;
- (iv) Determines that the Program and related approvals and assurances will not result in an alteration or amendment in DTE Electric's rates or rate schedules, and will

not result in an increase in the cost of service to DTE Electric's customers and, therefore, may be authorized and approved without notice or hearing; and

- (v) Grants such further relief as the Commission may deem necessary or appropriate.

Respectfully submitted,

DTE ELECTRIC COMPANY

Dated: February 4, 2019

By: _____

Andrea Hayden (P71976)
Attorney for DTE Electric Company
One Energy Plaza, 1635 WCB
Detroit, Michigan 48226-1221
(313) 235-3813

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 comply)	
with Section 61 of 2016 PA 342)	Case No. U-18352
<hr/>		

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 for Environment and Sustainability (formerly the
13 School of Natural Resources and Environment).

14

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

16 A. I began my career in the marketing department at Jenner & Block, an Am Law 100
17 law firm based in Chicago. Prior to graduate school, I served one year with
18 AmeriCorps at City Year Detroit. After graduate school, I worked at two different
19 consulting firms: first at Shepherd Advisors (2008-2012) and later at Public Sector
20 Consultants (2012-2014), where I focused on energy policy, energy marketing, and
21 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

Line
No.

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 January of 2017, I assumed
5 my current 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-20343 Large Customer Voluntary Green Pricing Program

16 U-20172 Reconciliation of DTE Electric 2017 REP Program

17 U-18232 DTE Electric's 2018 Amended Renewable Energy Plan (REP)

18 U-18242 Reconciliation of DTE Electric 2016 REP Program

19 U-18352 Section 61 of 2016 PA 342

20 U-18419 DTE Electric's 2017 Certificate of Necessity

DTE ELECTRIC COMPANY
DIRECT TESTIMONY OF TERRI L. SHCROEDER

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

2 A. The purpose of my direct testimony is to address the Commission's directive noted in
3 its October 5, 2018 Order in Case No. U-18352, specifically "DTE Energy Company
4 shall submit a revised MIGreenPower application or an application for a replacement
5 voluntary green pricing program in this docket within 120 days from the date of this
6 order that includes a plan to dedicate additional renewable energy resources to a revised
7 MIGreenPower program or any other voluntary green pricing program."

8

9 The October 5, 2018 Order directed that, "The company shall also include in the filing
10 at least one additional voluntary green pricing program such that the company has
11 multiple voluntary green pricing options to offer customers." The Company has
12 addressed this directive in Case No. U-20343, which it filed on November 1, 2018.

13

14 In addition to addressing the direct requests of the order, my testimony will also address
15 the requirements of Section 61 of PA 342, the subsequent direction of the Commission,
16 and the MPSC Staff report issued in this case on December 20, 2018.

17

18 **Q. Are you sponsoring any exhibits in the proceeding?**

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

<u>Exhibit</u>	<u>Description</u>
A-5	Standard Contract Rider No. 17
A-6	Marketing and Admin Costs per kWh
A-7	MIGreenPower Credits Calculation

Line
No.

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

2 A. Yes, they were.

3

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

5 A. My testimony has the following four sections:

6 Part I: Addressing Section 61 of PA 342

7 Part II: Addressing Commission comments on Section 61 filings

8 Part III: Addressing October 5th Order in Case No. U-18352

9 Part IV: Addressing Staff Report issued December 20, 2018

10

11 **Part I: Addressing Section 61 of PA 342 (“Section 61”)**

12 **Q. Does MIGreenPower meet the requirements of Section 61?**

13 A. Yes, as the Company has demonstrated in its previous testimony filed in this case,
14 the Program as designed meets the requirements of Section 61:

- 15 • It is available to all customer classes;
- 16 • It provides customers options to specify the amount of electricity from
17 renewable energy;
- 18 • It is cost-based, as further discussed later in my testimony, and as confirmed by
19 Staff in their testimony previously filed in this case (2T 134) and in their report
20 filed in this case on December 20, 2018 on page 7; and
- 21 • It passes benefits received by the utility on to the customer. The Commission’s
22 October 5, 2018 Order in U-18352 found the Program’s proposed credit to be
23 reasonable and compliant with Section 61 (see page 17 of order)

Line
No.

Part II: Addressing Commission Comments on Section 61 Filings

Q. In addition to what is required in Section 61 regarding voluntary green pricing programs, is there any additional direction related to these programs?

A. The Commission's December 20, 2017 Order in Case No. U-18349 stated that "the Commission highlighted several points regarding what the proposed VGP programs should optimally contain, including: (1) a menu of options for customers with varying renewable energy (RE) needs to choose from; (2) RE generation that is additional to the 15% requirement in Act 295, as amended by PA 342, and located within the provider's service territory (taking into account certain constraints and a need for flexibility); (3) a tracking and verification mechanism through Michigan Renewable Energy Certification System (MIRECS) or a similar third party for any REC produced under the VGP programs to avoid overlap with a provider's REP; (4) a bar on program enrollment caps at this time; (5) minimum enrollment terms if desired by the provider; and (6) transparency in program terms, price, costs, and savings."

Q. Has DTE met the requirements outlined by the Commission?

A. Yes with this filing and Case No. U-20343, DTE has addressed all the requirements outlined by the Commission as follows:

The Commission is seeking "a menu of options for customers with varying renewable energy (RE) needs to choose from." Customers have the option of selecting an amount of renewable energy up to 100%, in increments of 5%, above the amount of renewable energy provided through the portfolio standard. Additionally, the Company now has multiple voluntary green pricing programs: MIGreenPower (wind and solar or wind only, as explained further below) and the Large Customer

Line
No.

1 Voluntary Green Pricing (LCVGP) Program, which was approved by the
2 Commission as a pilot in Case No. U-20343.

3
4 The Commission requires “RE generation that is additional to the 15% requirement
5 in Act 295 and located within the provider’s service territory (taking into account
6 certain constraints and a need for flexibility).” The renewable energy for
7 MIGreenPower is incremental to the 15% requirement, which was confirmed in the
8 October 5, 2018 Order. Also, the assets for MIGreenPower are located within DTE’s
9 service territory. Assets for the large customer program have not yet been finalized,
10 but will be located within the state of Michigan and will also be in addition to the
11 15% requirement.

12
13 The Commission seeks “a tracking and verification mechanism through Michigan
14 Renewable Energy Certification System (MIRECS) or a similar third party for any
15 REC produced under the VGP programs to avoid overlap with a provider’s REP.”
16 All RECs for all voluntary programs will be managed through MIRECS.

17
18 The Commission has required “a bar on program enrollment caps at this time.” This
19 filing addresses adding additional assets to the VGP programs as needed so programs
20 are not limited to the generation capacity currently allocated.

21
22 The Commission requests “minimum enrollment terms if desired by the provider.”
23 MIGreenPower has no minimum enrollment term, and Case No. U-20343 addressed
24 minimum terms.

Line
No.

1 The Commission has requested “transparency in program terms, price, costs, and
2 savings.” As suggested in previous Staff testimony in this proceeding, DTE has added
3 a detailed explanation of the Program pricing and credit to the Website and to the
4 materials available for outreach staff. This information is available on the
5 Company’s Frequently Asked Questions Web page¹ under the label “How is program
6 pricing determined?” and there is a link to the information from the home page.

7
8 **Part III: Addressing October 5th Order in Case No. U-18352**

9 **Q. In addition to what is required in PA 342 and the December 2017 Order, what**
10 **direction was given in the October 5, 2018 Order related to MIGreenPower?”**

11 A. The Commission ordered that “DTE Energy Company shall submit a revised
12 MIGreenPower application or an application for a replacement voluntary green
13 pricing program in this docket within 120 days from the date of this order that
14 includes a plan to dedicate additional renewable energy resources to a revised
15 MIGreenPower program or any other voluntary green pricing program. The
16 company shall also include in the filing at least one additional voluntary green pricing
17 program such that the company has multiple voluntary green pricing options to offer
18 customers.” Additionally, the Commission noted other areas of concern including
19 DTE’s marketing and admin fee calculation (p. 18, October 5, 2018 Order) and the
20 relatively higher cost of MIGreenPower (p. 17, October 5, 2018 Order).

¹ MIGreenPower FAQ: <https://newlook.dteenergy.com/wps/wcm/connect/dte-web/quicklinks/migreenpower/homepage>

Line
No.

1 **Q. Has the Company filed at least one additional voluntary green pricing option to**
2 **offer customers?**

3 A. Yes, the Company filed Standard Contract Rider No. 19, in Case No. U-20343, which
4 has been approved by the Commission as a pilot.

5
6 **Q. Does the Company propose any changes to the MIGreenPower Program tariff,**
7 **Standard Contract Rider No. 17?**

8 A. Yes. Please see the redline Rider No. 17 in my Exhibit A-5. The edits are intended
9 to update the tariff to address the Commission requirements. I have outlined many
10 of the changes below:

11 1. DTE eliminates the enrollment period and allows additional assets into the
12 Program, as needed, to meet the Commission's requirement for the programs to
13 be uncapped.

14 2. DTE has proposed adding an option, utilizing the already approved Program
15 assets, so that customers can continue to enroll in the blended wind and solar
16 assets or choose a new proposed option of a wind-only Program, using the same
17 Pinnebog Wind Park.

18 3. If/when additional assets are added to the Program, the Company proposes a
19 methodology for updating the subscription rate and expiration.

20 4. In accordance with MCL 460.1061(a), the Company is also proposing to amend
21 the Program such that a customers who receive at least 50% of their average
22 monthly electricity consumption through the Program are exempt from paying
23 surcharges for incremental costs of compliance, and customers receiving less than
24 50% of their average monthly electricity consumption through the Program will
25 be notified that they remain responsible for any fees associated with the

Line
No.

1 incremental cost of compliance in accordance with the Act.

2 5. The Company removed the \$50 early termination fee provision.

3

4 **Q. Have assets been allocated to MIGreenPower?**

5 A. Yes, as noted in the tariff and my previous testimony in this docket, MIGreenPower
6 is currently served by Pinnebog Wind Park, Lapeer Solar, and O'Shea Solar, which
7 were approved by the Commission's Order in Case No. U-17793 issued December
8 11, 2015 ("the Company Renewable Resources"). The costs of the approved assets
9 have been verified by Commission Staff, and have determined \$0.07/kWh of the
10 \$0.072/kWh fee, which is allocated to cost recovery of the renewable assets. The
11 cost of the new wind-only option is described below.

12

13 **Q. Has DTE proposed a change in assets to the Program?**

14 A. No, DTE has not proposed removing assets from the Program or adding any new
15 assets at this time.

16

17 **Q. Has DTE proposed any changes to the asset mix in the Program?**

18 A. Yes. DTE proposes to give customers an additional option to choose a wind-only
19 Program.

20

21 **Q. How does this impact Program subscription fees?**

22 A. The subscription fee for the proposed wind-only option is \$0.052/kWh. This is based
23 on \$0.05/kWh for the Pinnebog Wind Park that has been verified by the Commission
24 Staff (see page 7 of Staff's December 20, 2018 Report filed in this case) and
25 \$0.002/kWh for marketing and administrative fees, which remains the same whether

Line
No.

the customer chooses the wind and solar option or the wind-only option.

Q. How does this impact Program credits?

A. The Company does not propose a change to the Commission-approved credit calculation methodology for the MIGreenPower wind-only option. My Exhibit A-7 contains the credit calculation for the wind and solar and the wind-only offerings for MIGreenPower. The energy portion of the credit will remain the same under both options. The capacity portion of the credit is adjusted to reflect the MISO Effective Load Carrying Capacity for the wind-only option. This reduces the average Effective Load Carrying Capability (ELCC) of 33% from the blended wind and solar option in 2019 to 12.7% for the wind-only option, which reduces the calculated capacity credit for the wind-only option by approximately one cent.

A summary of Program subscription fees, credits, and the net cost per subscribed kWh to customers, based on 2019 inputs for each option is included below:

MIGreenPower Renewable Energy Options		
	Wind + Solar	Wind Only
Subscription Fee (£/kWh)	7.2	5.2
Program Credit (£/kWh)	3.9	2.9
Net Cost to Customers ((£/kWh)	3.3	2.3

Q. Will new assets be added to the Program as the Program sells out?

A. Yes. Similar to the program expansion plan filed in Case No. U-20343, the Company will administer a competitive bid process for adding additional renewable assets in the Program when necessary. The competitive bid process will be run in accordance

Line
No.

1 with the process approved in Case No. U-15806 for the Company's REP. Future
2 contracts can include renewable energy resources as defined by 2016 PA 342. The
3 resulting contracts will be submitted to the Commission for approval to be designated
4 renewable assets in the Program.

5
6 **Q. When do you propose adding additional assets to the Program?**

7 A. The Company will be forecasting Program demand on a biannual basis per the Order
8 in U-18352. When a 3-year forecast indicates that the Program being sold out, the
9 Company may seek to add assets to the Program, if the asset can be backed by the
10 Company's Renewable Energy Plan framework.

11
12 If assets to be added are outside the Renewable Energy Plan framework, the Company
13 will solicit interest, administer an RFP for cost effective projects, and will contract
14 for assets when at least 75% of the capacity is confirmed through a customer contract.
15 In this scenario, customers may be required to commit to a contract term to ensure
16 the assets are not abandoned. The Company may explore options similar to the REP
17 framework, such that subscription fees may be levelized and unsubscribed portions
18 of voluntary renewable energy assets are sold to the PSCR at the levelized cost of
19 energy.

20
21 **Q. How should assets be handled in a VGP if prices on future renewable energy**
22 **projects change?**

23 A. If lower cost renewable energy assets are added to the Program in future phases, the
24 rate for the newer assets will be included in the total Program subscription fee on a
25 weighted average basis and existing subscribers' fees will be adjusted downward to

Line
No.

1 this weighted average. New assets will only be factored into the proposed wind-only
2 Program pricing if they are wind assets. If future assets are higher cost, the rate of
3 the new assets will only apply to new subscribers. This is to ensure that early
4 subscribers are not penalized for joining the Program early, and to ensure that the
5 early assets in the Program are not abandoned as the Program progresses.

6
7 **Q. Will the current Program assets be abandoned if newer, lower cost assets are**
8 **added?**

9 A. No. The Company does not intend to move assets and associated costs previously
10 approved for the voluntary Program back to non-subscribing customers through the
11 compliance portion of the REP so that a select few customers can benefit from newer,
12 lower cost assets. Section 61 states, “the customer is responsible for any additional
13 costs incurred...” If assets are removed from VGP programs whenever a less
14 expensive asset becomes available, other customers must then cover the costs of the
15 more expensive assets without the benefit of the lower cost assets. The Company
16 does not believe that this was the intent of the statute, nor is it prudent or reasonable
17 to customers.

18
19 **Q. On page 17 of the October 5, 2018 Order, the Commission noted that “the**
20 **company did little to acknowledge that its program’s costs are high in**
21 **comparison to other utilities and how that may impact customer participation.”**
22 **How do you respond?**

23 A. MIGreenPower seems to be quite different than other voluntary programs noted in
24 the case, which are offered by the smaller Michigan utilities. First, MIGreenPower
25 is a bundled product (energy plus RECs), and some of the programs noted are REC-

Line
No.

1 only. Additionally, the assets serving MIGreenPower include both wind and solar
2 assets. The Program's price difference compared to other programs would also be
3 affected by the renewable resource mix used to supply the other programs; for
4 example, programs that include solar today are higher cost than wind-only programs.
5 For this reason, DTE has proposed a wind-only option within MIGreenPower.

6
7 As of the January 28, 2019 MIGreenPower has over 5,200 subscribers, which has
8 exceeded internal targets and may make the Program the largest customer-requested
9 renewable energy program in the state (absent the REC-only programs that are being
10 phased out).

11
12 **Part IV: Addressing Staff Report issued December 20, 2018**

13 **Q. What findings and recommendations did Staff make in its December 20, 2018**
14 **report?**

15 A. With respect to the audit of marketing and admin costs, Staff "was able to support"
16 (p. 8, Staff Report) the incurred marketing and admin costs of the Program in 2016,
17 2017 and January through September of 2018. Additionally, in response to the
18 Commission's "substantial evidence on the record" related to claims that the
19 Company did not calculate its recovery of marketing and administrative fees
20 properly, Staff noted, "upon review and subsequent work with the Company,
21 different than what was in its initial testimony, Staff finds the \$0.072 per kWh fee,
22 including the \$0.002 administrative and marketing expense adder, was calculated
23 correctly by the Company." (p. 7, Staff Report)

24
25 Furthermore, Staff made ten recommendations, and noted DTE could address them

Line
No.

1 in this or subsequent filings. I will address each of the recommendations in the
2 following questions.

3
4 **Q. Commission Staff recommends the Company reduce the administrative and**
5 **marketing costs by, among other means, deciding on the focus of the Program**
6 **including which customer class(es), segments should be marketed to. How do**
7 **you respond?**

8 A. DTE agrees that the future annual marketing and administrative budget can and will
9 be reduced from previous years' annual spend. The original budget was based on a
10 2-year pilot with availability of 150,000 MWh, which was expected to sell out in
11 those 2 years. For the years after the 2-year pilot, the budget included a nominal
12 \$25,000 budget for all remaining years, as outlined in Exhibit A-6 Marketing and
13 Admin Costs per kWh in the section labeled "Original Voluntary Renewable Program
14 Administrative Costs."

15
16 DTE has already spent \$1.8 million on marketing expenses for the Program (not
17 including DTE internal labor) based on only subscribing customers for the first two
18 years of a pilot program. However, those sunk costs cannot be recovered through an
19 ongoing program with an ongoing marketing and admin budget.

20
21 Exhibit A-6, shows the original and revised marketing and administrative calculation.
22 The Company proposes to allocate \$600,000 per year through 2030, after which it
23 reduces to \$100,000. This is a reduction from the marketing costs of the first two
24 years, while maintaining an annual budget to market the Program. This marketing
25 effort will target residential and small commercial customers, as the Company's large

Line
No.

1 customer program will target larger commercial and industrial customers. This
2 marketing budget is re-baselined over the life of the Program assets to fully recover
3 marketing and administrative spend from 2019-2041, and maintains the original
4 marketing and admin fee of \$0.002/kWh.

5

6 **Q. Commission Staff recommends the Company provide cost options for different**
7 **ownership models when new renewable assets are added to the Program. How**
8 **do you respond?**

9 A. DTE is committed to keeping voluntary programs affordable, and will continue to
10 use competitive bidding to do so. Commission Staff reviews all RFPs initiated by
11 the Company, and Staff will continue to review all contracts to ensure they are
12 reasonable and prudent and consistent with the approved Program. Hypothetical cost
13 options are not currently known for different models and with various technologies
14 and timings.

15

16 **Q. Commission Staff suggests providing a comparison of the MISO LMP on-peak**
17 **market prices, showing all components within the calculation. How do you**
18 **respond?**

19 A. MISO LMPs are public record.² The Company has not compared the energy portion
20 of the credit calculation to the MISO LMP on-peak market prices. In its October 5,
21 2018 order in this case, the Commission noted on page 17, “As to the credit to
22 participating customers proposed by DTE Electric, the Commission finds the

² MISO LMPs are available here: [https://www.misoenergy.org/markets-and-operations/market-reports/#nt=%2FMarketReportType%3ADay-Ahead%2FMarketReportName%3ADay-Ahead%20Pricing%20\(xls\)&t=10&p=0&s=MarketReportPublished&sd=desc](https://www.misoenergy.org/markets-and-operations/market-reports/#nt=%2FMarketReportType%3ADay-Ahead%2FMarketReportName%3ADay-Ahead%20Pricing%20(xls)&t=10&p=0&s=MarketReportPublished&sd=desc)

Line
No.

1 company's proposal to be reasonable." The Order on that same page also found that
2 the credit methodology was compliant with Section 61.

3
4 **Q. Commission Staff asks the Company to prepare an analysis that includes data**
5 **on the cost of both residential and commercial customers participating in this**
6 **Program versus purchasing renewable energy outside of a Company program.**
7 **How do you respond?**

8 A. The Company does not have any unique access to information about the cost of
9 purchasing renewable energy outside of a Company program. For this, we would
10 reference a publicly available, third-party resource, such as National Renewable
11 Energy Lab's (NREL) Annual Technology Baseline. This data shows that the capital
12 cost of a residential PV system in 2019 is \$2,587/kW (Chicago – Mid) in 2016
13 dollars. This escalates to \$2,786/kW in 2019 dollars. If a homeowner were to install
14 a 5 kW system on his roof, the NREL report suggests a cost of nearly \$14,000 (less
15 a 30% investment tax credit in 2019). In contrast, MIGreenPower has no upfront
16 costs to the customer. NREL calculated an LCOE for residential PV (using Chicago
17 – Mid) of \$122/MWh in 2019 when adjusted for inflation from the study's 2016 basis.
18 Thus, the generation from a residential PV system costs over 12 cents per kWh
19 compared to MIGreenPower's subscription fee 7.2 cents per kWh or 5.2 cents per
20 kWh for the wind-only option.

21
22 **Q. Commission Staff recommends rebalancing the renewable supply by reducing**
23 **the Pinnebog wind and Lapeer solar percentages and begin adding a portion of**
24 **newer, less costly, renewable energy. How do you respond?**

25 A. DTE is proposing to rebalance assets by including a wind-only enrollment option for

Line
No.

1 customers. At this time, the Company does not foresee needing to add additional
2 resources to rebalance the assets.

3

4 As noted in my testimony above, DTE does not agree that assets previously approved
5 for this Program should be abandoned for the sole purpose of pushing the costs of
6 those assets back to non-subscribing customers so that subscribing customers may
7 have a reduced rate. The Company proposes adding additional assets when customer
8 demand deems it necessary.

9

10 **Q. Commission Staff recommends the Company include revenue and cost data in**
11 **the semi-annual status filings of this and other voluntary green pricing**
12 **programs. How do you respond?**

13 A. The Company agrees and will include this data in semi-annual status filings. Revenue
14 will include all billed subscription fees, less credits. Costs will include capital costs
15 for the renewable assets in the Program, allocated based on the amount of the
16 Program asset that is subscribed. O&M costs will be allocated to the Program on a
17 per MW basis.

18

19 **Q. The Staff report states, “the Company acknowledges the importance of**
20 **transparency, and accepts the Staff’s recommendation to provide a simplified**
21 **version of the subscription cost calculation and will work to include the cost**
22 **calculations into the program’s marketing materials.” How do you respond?**

23 A. The Company has previously agreed to this in rebuttal testimony filed in this case
24 (2T, 41), and has since added a detailed explanation of the subscription fee costs and
25 credits to the Website. This information is available on the Company’s Frequently

Line
No.

1 Asked Questions Web page³ under the label “How is program pricing determined?”
2 and there is a link to the information from the home page.

3

4 **Q. Commission Staff recommends the Company expand MIGreenPower to include**
5 **additional renewable energy resources. How do you respond?**

6 A. DTE is in full support of adding assets to the program when they are needed based
7 on forecasted customer demand. This can include the time to develop and construct
8 program resources (approximately 3 years, as described above).

9

10 Currently, there are no assets in DTE’s portfolio with substantially lower costs than
11 the wind assets already supplying the Program. Furthermore, the assets that have
12 recently been contracted were for compliance, or for the large customer voluntary
13 program. Lower cost compliance assets should not be pulled from the compliance
14 program, simply to lower the costs to voluntary Program subscribers.

15

16 Furthermore, if DTE were to contract additional assets in the MIGreenPower
17 Program now, before the current resources for MIGreenPower are subscribed, it
18 would force excess RECs from the Program assets into the compliance program
19 because the Company would be unnecessarily over building, thus unnecessarily
20 raising the costs of compliance for all customers. This does not seem reasonable or
21 prudent. As referred to above, Section 61 states, “the customer is responsible for
22 additional costs incurred...” Currently, a reasonable amount of excess RECs from
23 the unsubscribed portions of the existing assets are being recovered through the

³ MIGreenPower FAQ: <https://newlook.dteenergy.com/wps/wcm/connect/dte-web/quicklinks/migreenpower/homepage>

Line
No.

1 compliance program. This reasonable amount of excess RECs helps to ensure that
2 the Program does not run short of customer demand. However, deliberately adding
3 resources that go beyond forecasted customer demand does not appear consistent
4 with the language of Section 61.

5

6 **Q. Commission Staff recommends the Company prepare and provide to the MPSC**
7 **a full analysis of the learnings and judgement of merits of the pilot Program.**

8 A. DTE will provide a report on Program learnings. DTE proposes to operate
9 MIGreenPower for a full 2 years, as originally planned, and then provide such a
10 report. Thus, after April 2019, DTE will begin to compile the report, targeting
11 inclusion in the October 2019 semi-annual report.

12

13 **Q. Commission Staff recommends the Company raise or remove entirely the cap,**
14 **currently set at 150,000 MWh, from the Program by adding lower cost sources**
15 **of generation.**

16 A. Exhibit A-5 – Standard Contract Rider No. 17 has been amended to clarify that
17 additional assets will be added into the Program as needed. Thus, there is no cap on
18 the Program.

19

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

21 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 comply)	
with Section 61 of 2016 PA 342)	Case No. U-18352
<hr/>		

EXHIBITS

OF

TERRI L. SCHROEDER

M.P.S.C. No. 1 - Electric
DTE Electric Company
(Update of Rider 17)

Revised Sheet No. D-110.00
Cancels Sheet No. D-110.00

STANDARD CONTRACT RIDER NO. 17

VOLUNTARY RENEWABLE ENERGY ~~PILOT~~

AVAILABILITY OF SERVICE:

This ~~pilot~~ rider (Rider) is available on an optional basis to full service customers who desire to have a greater portion of their electric use attributed to renewable resources. Customers electing this Rider shall choose the percentage of their electric usage, in 5% increments, to be attributed to renewable resources, at a level beyond the renewable energy all customers receive from the Company's generation fleet. Therefore, the minimum subscription amount is the current amount provided through the renewable portfolio standard plus 5%. Participation on this Rider is limited such that up to 100% of a customer's usage can be attributed to renewable resources.

Renewable energy available under this Rider will be sourced from Company's solar and wind renewable resources approved in its Renewable Energy Plan (REP) by the Commission's Order in Case No. U-17793 issued December 11, 2015 ("the Company Renewable Resources"). Customers will be have the option to subscribe to the blended wind and solar assets or a wind-only program, based on availability. Additional renewable energy assets will be added to the program as forecasted capacity nears the total generation of the assets in the program.

Service under this Rider shall begin on April 3, 2017. Eligible customers will be enrolled on a first come first served basis. Therefore, if demand ever exceeds capacity, customers will be placed on a waitlist will have the opportunity to subscribe to the next available assets. Customers may enroll in this Rider until the sooner of (i) December 31, 2019 or (ii) until the annual aggregate program cap of 150,000 MWh is reached. Eligible customers will be enrolled on a first come first served basis. Residential customers shall be allowed to make up no more than 33% of the MWh aggregate program cap, and non-residential customers shall be allowed to make up no more than 67% of the MWh aggregate program cap, until December 31, 2017. After December 31, 2017, if the MWh aggregate program cap has not been reached, the remaining available MWh shall be available to any full service customer. This Rider will expire on December 31, 2041.

Renewable Energy Credits (RECs) resulting from the generation of the energy purchased through this Rider shall be retired by the Company on the participants' behalf. These RECs will not be used by the Company to comply with Public Act 295 of 2008 (as amended by Public Act 342 of 2016), the Michigan Clean, Renewable, and Efficient Energy Act, or similar act or law.

CONTRACT TERM:

A customer may discontinue taking service under this rider at any time, ~~however, if a customer terminates service under this rider within 12 months of beginning service under this rider, the customer shall be subject to an early termination fee of \$50.~~ A participating customer receiving service pursuant to this Rider that later elects to increase the percentage of renewable energy received can increase at their current subscription fee, subject to availability, must reapply subject to the program size and enrollment period limitations described above. If the current phase is sold out, customer can increase their subscription percentage at the modified rate, subject to availability. A customer who elects to discontinue service under this rider and subsequently wishes to reenroll, must reapply as a new customer subject to the program ~~size, availability and enrollment period limitations described above.~~

(Continued on Sheet D-111.00)

Issued _____, 2019
D. M. Stanczak
Vice President
Regulatory Affairs

Detroit, Michigan

Effective for service rendered on
and after _____, 2019

Issued under authority of the
Michigan Public Service Commission
dated _____, 2019
in Case No. U-18352

M.P.S.C. No. 1 - Electric
DTE Electric Company
(Update of Rider 17)

_____ Revised Sheet No. D-111.00
Cancels _____ Sheet No. D-111.00

(Continued from Sheet D-110.00)

STANDARD CONTRACT RIDER NO. 17 (Contd.) VOLUNTARY RENEWABLE ENERGY ~~PILOT~~

RATE PER MONTH:

Customers taking service under this Rider shall be subject to the Power Supply and Delivery charges pursuant to their current Rate Schedule, including all applicable surcharges and credits contained in Sections C8.5 and C9.8, for all electric service provided by the Company, including energy purchased under this Rider.

In addition, customers taking service under this Rider will be subject to the Voluntary Renewable Energy ~~Pilot~~ subscription charge for the energy the customer agrees to purchase pursuant to this Rider. The subscription charge is a per kWh charge which recovers all costs associated with the renewable energy being provided pursuant to this rider and program management costs. ~~The subscription charge is \$0.072 per kWh. The subscription charge will be a flat fee, based on the levelized cost of service of the designated renewable energy facilities approved within the Program, plus a nominal marketing and administrative fee of \$0.002/kWh. The initial subscription charge for the blended wind and solar program is \$0.072 per kWh based on the originally approved assets in the program. The initial subscription charge for the blended wind-only program is \$0.052 per kWh based on the originally approved wind asset in the program.~~

Upon mutual agreement between the Company and an eligible customer whom is a governmental or educational institution (School, College, University) customer, a one-time upfront subscription charge instead of the per kWh subscription charge described above, may be applied. School shall mean buildings, facilities, playing fields, or property directly or indirectly used for school purposes for children in grades kindergarten through twelve, when provided by a public, or nonpublic school. School does not include instruction provided in a private residence or proprietary trade, vocational training, or occupational school. "College" or "University" shall mean buildings owned by the same customer which are located on the same campus and which constitute an integral part of such college or university facilities. Any such upfront subscription charge is not a customer deposit described in the billing practices applicable to non-residential electric customers (R 460.1607).

All customers taking service under this Rider will also receive a Subscription Credit on a per kWh basis for the energy the customer agrees to purchase pursuant to this Rider. The Subscription Credit shall be equal to the Company's Fuel and Purchase Power (FPP) expense per kWh (including PSCR) collectively known as Unit Cost of Power Supply (UCPS), minus the cost of transmission included in the FPP factor, plus a credit for capacity. The credit for capacity shall be equal to the product of the Zonal Resource Credits for the renewable resources used for this program, as determined by the Mid-Continent Independent System Operator (MISO), and 75% of the applicable MISO published Cost of New Entry for the Company's resource zone. The Subscription Credit components shall be updated annually, ~~or any time the Company implements a change to its PSCR factor.~~

(Continued on Sheet D-112.00)

Issued _____, 2019

D. M. Stanczak
Vice President
Regulatory Affairs

Detroit, Michigan

Effective for service rendered on
and after _____, 2019

Issued under authority of the
Michigan Public Service Commission
dated _____, 2019
in Case No. U-18352

M.P.S.C. No. 1 - Electric
DTE Electric Company
(Update of Rider 17)

_____ Revised Sheet No. D-112.00
Cancels _____ Sheet No. D-112.00

(Continued from Sheet D-111.00)

STANDARD CONTRACT RIDER NO. 17 (Contd.) VOLUNTARY RENEWABLE ENERGY ~~PILOT~~

SPECIAL PROVISIONS AND CONDITIONS:

1. Company shall have no obligation to supply electricity under this Rider from the Company Renewable Resources during planned or forced outages of the Company Renewable Resources and may suspend or terminate this Rider and its obligations hereunder, or source the energy for this program from other renewable resources approved in the Company's REP, at the Company's sole discretion, upon an event of force majeure affecting the Company Renewable Resources, which shall include but not be limited to fire, flood, storm, other natural disaster, national emergency or war. If the total energy to be purchased by customers pursuant to this Rider is more than the energy actually produced by Company Renewable Resources for reasons other than those described above, the Company shall source the incremental energy needed for this program from other renewable resources approved in the Company's REP.
2. All revenue collected or payments made by the Company pursuant to this Rider will be reconciled through the company's Renewable Energy Plan Surcharge (REPS) and PSCR surcharge as set forth in the Company's Application in Case No. U-18076. Company may suspend or terminate this Rider and its obligations hereunder in the event of a change of law or regulation that, in Company's sole judgment, materially affects the cost of providing service under this Rider or reduces or limits the revenue collected pursuant to this Rider.
- ~~2.3.~~ Pursuant to MCL 460.1061(a), a customer that receives at least 50% of the customer's average monthly electricity consumption through the program is exempt from paying surcharges for incremental cost of compliance. A customer that will not receive at least 50% of the customer's average monthly electricity consumption through the program will be notified that the customer will be responsible for the full applicable charges for the incremental costs of compliance.

LATE PAYMENT CHARGE:

See Section C4.8.

Issued _____, 2019

D. M. Stanczak
Vice President
Regulatory Affairs

Detroit, Michigan

Effective for service rendered on
and after _____, 2019

Issued under authority of the
Michigan Public Service Commission
dated _____, 2019
in Case No. U-18352

Case No. U-18352
Exhibit: A-6
Witness: T.L. Schroeder
Page: 1 of 1

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)	(aa)		
1	DTE Electric Capital Structure																												
2	Tax Rate %	26.00%																											
3	Cost of Capital																												
4	pre-tax cost of debt	4.65%																											
5	Capitalization (Debt)	51.22%																											
6	After tax cost of equity	11.00%																											
7	WACC	7.13%																											
8	Pre-tax WACC	9.63%																											
9	NPV Discount Rate (WACC)	7.13%																											
10	Original Voluntary Renewable Program Administrative Costs																												
11			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040		
12	Marketing		200,000	750,000	750,000																								
13	Administrative		100,000	600,000	100,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000		
14	Total		300,000	1,350,000	850,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000		
15	Expected Enrollment (MWh)																												
16	Attrition		5%																										
17	Enrollment		22,500	100,000	150,000	142,500	135,375	128,606	122,176	116,067	110,264	104,751	99,513	94,537	89,811	85,320	81,054	77,001	73,151	69,494	66,019	62,718	59,582	56,603	53,773	51,084	48,530		
18	LCOE of assets	0.07																											
19	\$/kWh cost of marketing/admin	0.002																											
20	Total Subscription Cost	0.072																											
21	REVISED Voluntary Renewable Program Administrative Costs																												
22			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040		
23			Actual	Actual	Actual																								
24	Marketing & Admin		47,402	857,428	854,793	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000		
25	Total		47,402	857,428	854,793	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000		
26	Expected Enrollment (MWh)																												
27	Annual Enrollment (MWh)		30,000																										
28	Attrition		5%																										
29	Enrollment		0	8,084	20,948	49,901	77,406	103,535	128,359	151,941	174,344	195,626	215,845	235,053	253,300	270,635	287,103	302,748	317,611	331,730	345,144	357,887	369,992	381,493	392,418	402,797	412,657		
30	LCOE of assets	0.070																											
31	\$/kWh cost of marketing/admin	0.002																											
32	Total Subscription Cost	0.072																											

Michigan Public Service Commission
DTE Electric Company
MPSC Case No. U-18352
Subscription Credits Calculation

Case No.: U-18352
Exhibit: A-7
Witness: T.L. Schroeder
Page: 1 of 1

(a)	(b)		(c)	(d)
	Energy Portion of Credit			
	Wind & Solar	Wind Only	Source Data	
Line No.				
1 Unit Cost of Power Supply (UCPS) (Mills/kWh)	32.95	32.95		U-20221 A-1 Line 6
2 Loss Multiplier	1.068	1.068		U-20221 A-1 Line 9
3 Adjusted UCPS (Mills/kWh)	35.19	35.19		Line 1 * Line 2
4 Bundled Transmission in UCPS (000)	\$362,183	\$362,183		U-20221 A-3 Line 32
5 Transmission Adjustment in UCPS (000)	(\$14,222)	(\$14,222)		U-20221 A-3 Line 40
6 Total (000)	\$347,961	\$347,961		Line 4 + Line 5
7 Net System Requirement (GWH)	43,540	43,540		U-20221 A-1 Line 5
8 Transmission by kWh (Mills/kWh)	7.99	7.99		Line 6 / Line 7
9 Line Loss	1.068	1.068		U-20221 A-1 Line 9
10 Transmission in UCPS (Mills/kWh)	8.54	8.54		Line 8 * Line 9
11 Energy Credit (\$/kWh)	0.027	0.027		(Line 3 - Line 10)/1000
Capacity Portion of Credit				
Line No.				
12 Wind Energy Details				
13 Nameplate Capacity (kW)	22,531	22,531		
14 MISO Capacity Credit	12.74%	12.74%		Planning Year 2018-2019 MISO Wind Capacity Report ¹
15 UCAP (kW)	2870	2870		Line 13 * Line 14
16 Generation (kWh)	75,000,000	75,000,000		
17 Solar Energy Details				
18 Nameplate Capacity (kW)	50,000	N/A		
19 MISO Capacity Credit	48.01%	N/A		Estimate
20 UCAP (kW)	24,005	N/A		Line 18 * Line 19
21 Generation (kWh)	75,000,000	N/A		
22 Voluntary Renewable Product Details				50% Wind, 50% Solar Generation
23 Capacity (kW)	72,531	22,531		Line 13 + Line 18
24 MISO Capacity Credit	37.1%	12.7%		(Line 15 + Line 20)/Line 23
25 UCAP (kW)	26,875	2,870		Line 23 * Line 24
26 Generation (kWh)	150,000,000	75,000,000		Line 16 + Line 21
27 Generation per kW (kWh)	2,068	3,329		Line 26 / Line 23
28 CONE (\$/kW - year)	89.6	89.6		MISO CONE weighted average 2018/2018 & 2019/2020 ²
29 75% of CONE (\$/kW - year)	67.2	67.2		Line 28 * 75%
30 75% of CONE x MISO Capacity Credit (\$/kW - year)	24.9	8.6		Line 24 * Line 29
31 Capacity Credit (\$/kWh)	0.012	0.003		Line 30 / Line 27
32 Total Credit (\$/kWh)	0.039	0.029		Line 11 + Line 31

1. <https://cdn.misoenergy.org/2018%20Wind%20Capacity%20Report89288.pdf>

2. <https://www.misoenergy.org/Library/Repository/Tariff/FERC%20Filings/Final%20MISO%202017%20Annual%20CONE%20filing.pdf>

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 comply)
with Section 61 of 2016 PA 342)
_____)

Case No. U-18352

PROOF OF SERVICE

STATE OF MICHIGAN)
) ss.
COUNTY OF WAYNE)

ESTELLA R. BRANSON, being duly sworn, deposes and says that on the 4th day of February, 2019, she served a copy of DTE Electric Company's Revised Application for Approval of its MIGreenPower Voluntary Renewable Energy Program, Testimony and Exhibits of Terri L. Schroeder, via electronic mail upon the persons referred to in the attached service list.

ESTELLA R. BRANSON

Subscribed and sworn to before
me this 4th day of February, 2019.

Karyn Beth Kazyaka, Notary Public
Macomb County, Michigan
My Commission Expires: 7-21-2023
Acting in Wayne County

SERVICE LIST
MPSC CASE NO. U-18352

**ENVIRONMENTAL LAW & POLICY
CENTER (ELPC)**

Margrethe Kearney
1514 Wealthy Street SE
Suite 256
Grand Rapids, MI 49506
mkearney@elpc.org

Rachel Granneman
Environmental Law & Policy Center
35 E. Wacker Drive, Suite 1600
Chicago, IL 60601
rgranneman@elpc.org

**ENERGY MICHIGAN; MICHIGAN ENERGY
INNOVATION BUSINESS COUNCIL;
INSTITUTE FOR ENERGY INNOVATION;
ADVANCED ENERGY ECONOMY**

Laura A. Chappelle
Timothy J. Lundgren
Toni Newell
Varnum Law
201 N. Washington Square, Ste 910
Lansing, MI 48933
lachappelle@varnumlaw.com
tjlundgren@varnumlaw.com
tlnewell@varnumlaw.com

**MICHIGAN ENVIRONMENTAL
COUNCIL (MEC)**

Christopher M. Bzdok and
Lydia Barbash-Riley
Olson, Bzdok & Howard, P.C.
420 E. Front St.
Traverse City, MI 49686
chris@envlaw.com
lydia@envlaw.com
kimberly@envlaw.com
marcia@envlaw.com
karla@envlaw.com

**MICHIGAN PUBLIC SERVICE
COMMISSION STAFF (MPSC)**

Amit Singh
Assistant Attorney General
Public Service Division
7109 W. Saginaw Hwy., 3rd Floor
Lansing, MI 48917
SinghA9@michigan.gov