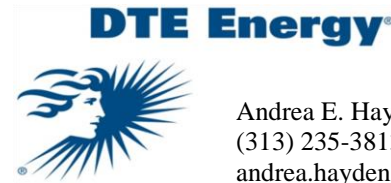


DTE Electric Company  
One Energy Plaza, 1635 WCB  
Detroit, MI 48226-1279



Andrea E. Hayden  
(313) 235-3813  
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April 1, 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:

Pursuant to the February 21, 2019 Order in Case No. U-18352, attached for electronic filing in the above captioned matter is DTE Electric Company's Voluntary Green Pricing Program Report.

Very truly yours,

Andrea E. Hayden

AEH/lah  
Attachments  
cc: Service List

**DTE Electric Company**  
**Voluntary Green Pricing (VGP) Programs Report**

**Case No. U-18352**

**April 1, 2019**

The October 5, 2018 Order in Case No. U-18352 required DTE Electric Company (DTE Electric) to file semi-annual VGP reports on April 1 and October 1 of each year. The Commission instructed the reports should include information on the following:

1. Number of enrollments & size of program
2. Cost of RE
3. Cost of Marketing and Administration with marketing methods
4. Quantity, source and cost of RE or any REC's purchased
5. Customer participation forecast
6. Market studies

All data contained in the report is for the Company's MIGreenPower program as of February 28, 2019.

### **1. Number of enrollments & size of program**

As of February 28, 2019, MIGreenPower has 5,351 customers enrolled with 22,980 MWh subscribed. Details are shown in Table 1 and Table 2 below.

**Table 1: Number of Enrollments**

<b>% of Electric Usage Attributed to Renewable Energy Elected by Customer</b>	<b>Number of Residential Customers</b>	<b>Number of Non-Residential Customers</b>
17.5%	715	2
22.5%	253	2
27.5%	530	4
32.5%	314	1
37.5%	70	
42.5%	87	
47.5%	29	1
52.5%	1,280	5
57.5%	51	
62.5%	41	
67.5%	20	
72.5%	36	
77.5%	100	
82.5%	19	
87.5%	7	
92.5%	7	
97.5%	2	
100%	1,766	9
<b>Total</b>	<b>5,327</b>	<b>24</b>

**Table 2: Subscribed MWh**

<b>Customer Class</b>	<b>Subscribed MWh</b>
Non- Residential	5,480
Residential	17,500
<b>Total Subscribed</b>	<b>22,980</b>

## 2. Cost of RE

The sources and current costs of renewable energy for MIGreenPower are detailed in both the MIGreenPower 2019 Prospective Product Content Label<sup>1</sup> and in the Frequently Asked Questions portion of the MIGreenPower website<sup>2</sup> and included in Exhibit 1 below.

### Exhibit 1: Cost of MIGreenPower

MIGreenPower's subscription fee is an average of the cost of ownership for the wind facilities and the solar facilities plus a small marketing and administrative charge. The cost of ownership includes the initial cost to build the projects and all ongoing operations and maintenance costs associated with the projects over the life of the facility.

The credits are based on the costs to the utility to purchase traditional energy and capacity for all customers, with the understanding that MGP subscribers do not incur these costs for the portion of their energy that is matched through the MIGreenPower program.

Subscription Fee	% of energy	Cost of Asset	Cost to Customer
Solar (Lapeer, MI and Detroit, MI)	50%	\$0.09/kWh <sup>1</sup>	\$0.045/kWh
Wind (Huron County, MI)	50%	\$0.05/kWh <sup>1</sup>	\$0.025/kWh
Marketing and Administrative			\$0.002/kWh
Total Subscription Fee			\$0.072/kWh
Subscription Credit (in 2019) <sup>2</sup>			\$0.039/kWh
Net Cost to Customers			\$0.033/kWh

<sup>1</sup> The costs of these projects are averaged because the MIGreenPower resource mix is 50% wind and 50% solar.

<sup>2</sup> The subscription credit is updated annually.

The historical total and incremental customer cost per kWh of MIGreenPower can be found in Table 3 below.

**Table 3: Cost of RE**

MIGreenPower	2017	2018	2019
Subscription Fee (per kWh)	\$ 0.072	\$ 0.072	\$ 0.072
Credit (per kWh)	\$ 0.041	\$ 0.037	\$ 0.039
Net Cost (per kWh)	\$ 0.031	\$ 0.035	\$ 0.033

MIGreenPower - Wind only	2017	2018	2019
Subscription Fee (per kWh)			\$ 0.052
Credit (per kWh)			\$ 0.029
Net Cost (per kWh)			\$ 0.023

<sup>1</sup> <https://newlook.dteenergy.com/wps/wcm/connect/ec5de8a5-9213-4cae-9a3e-60c87413eace/MiGreenPowerProspectiveTerms.pdf?MOD=AJPERES>

<sup>2</sup> <https://newlook.dteenergy.com/wps/wcm/connect/dte-web/quicklinks/migreenpower/homepage>

### 3. Cost of Marketing and Administration

Since 2017, a number of marketing methods have been employed to promote and enroll customers in the MIGreenPower program, including door knocking, direct phone calling, direct mail, email blasts, written articles, and sponsorships and event tabling. Table 4 shows the cost of marketing and administration for the program.

**Table 4: Cost of Marketing & Administration**

	2016	2017	2018	2019
Salary & Contract Labor <sup>3</sup>	\$ 23,586	\$ 369,477	\$ 425,600	\$ 42,431
Outreach & Marketing	\$ 47,402	\$ 625,514	\$ 814,522	\$ 98,416
Sponsorships		\$ 105,000	\$ 7,000	\$ 500
Advertising			\$ 4,159	\$ 125
Certifications		\$ 34,000		
Printing & Supplies		\$ 92,914	\$ 38,359	\$ 20,316
Travel & Other Expenses			\$ 2,600	
Total Expenses	\$ 70,988	\$ 1,226,905	\$ 1,292,240	\$ 161,788

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<sup>3</sup> Salary and Contract Labor is estimated time spent on this program that is not anticipated to be recovered through the marketing & admin fee.

#### **4. Quantity, source and cost of RE or any RECs purchased**

As noted in the 2019 Prospective Product Content Label, MIGreenPower is sourced from 50% wind and 50% solar. The wind is from Pinnebog Wind Park in Huron County. The solar is from the Lapeer Solar sites of Demille and Turrill and Detroit O'Shea.

The RECs retired on behalf of the MIGreenPower customers can be found in Table 5 below, and the cost of the RECs is included in the subscription fee discussed above. For Green-e certification, Michigan incentive RECs cannot be used in voluntary green pricing programs. Therefore, any incentive REC that was "generated" as a result of a subscribed voluntary green pricing REC must also be retired.

**Table 5: RECs retired for MIGreenPower**

	2017	2018	2019
Wind	2,943	7,182	1,999
RECs	2,676	6,529	1,818
IRECs	267	653	181
Solar	8,675	21,106	5,887
RECs	2,676	6,529	1,818
IRECs	5,999	14,577	4,069
Total	11,618	28,288	7,886
RECs	5,352	13,058	3,636
IRECs	6,266	15,230	4,250

To date, no additional RECs were purchased for the MIGreenPower program.

## **5. Customer participation forecast**

Table 6 below contains the enrollment and MWh forecast for the MIGreenPower program.

**Table 6: MIGreenPower Enrollment & MWh Forecast**

	2019		2020		2021	
	Low	High	Low	High	Low	High
Number of Customers	8,100	13,700	12,200	22,300	16,300	30,500
Subscribed MWh	34,000	50,000	46,000	77,000	57,000	103,000

## **6. Market Studies**

DTE conducted a propensity study in February 2019 to determine the number of potential electric customers with at least some propensity to join a voluntary green program. Based upon that study, there is the potential to enroll between 30,000 and 50,000 additional participants. Please see Attachment 1, Renewable Profile and Propensity.



# **Renewables Green Program- Current Customer Profile & Propensity Model**

**Customer Research & Information  
February 2019**



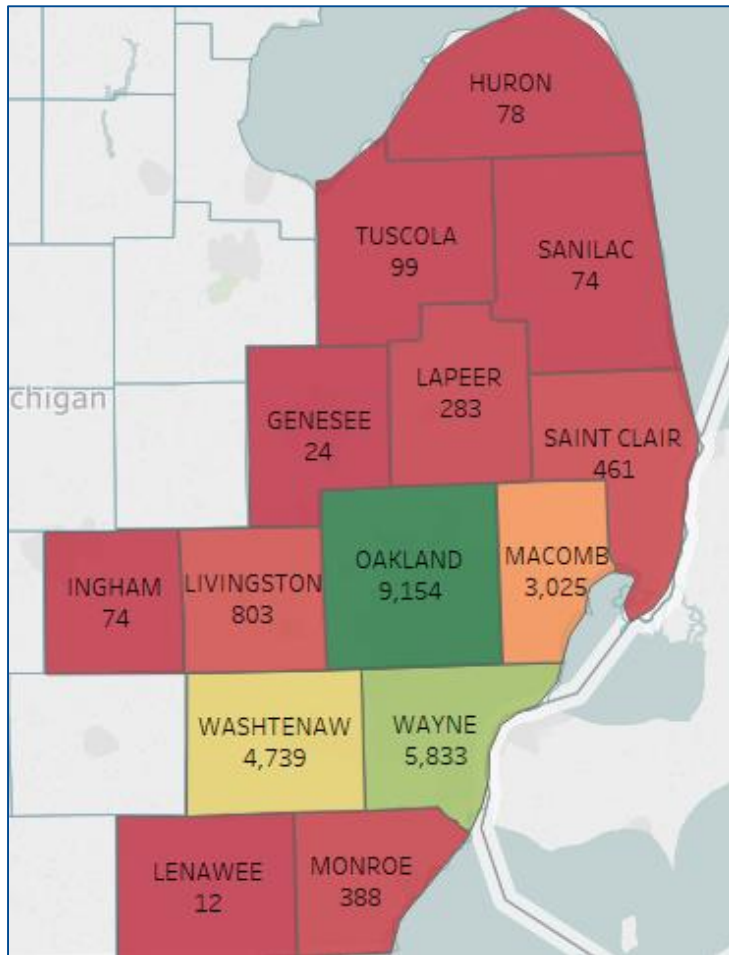


## **Current Green Program customers tend to be highly educated high earning residents in affluent areas of SEMI**

- Approximately 25,000 Residential
  - 20,000 GreenCurrents
  - 5,000 MIGreenPower
- Higher propensity for program enrollments- APP, BWB, EBILL
- High concentration in affluent regions- Washtenaw, Oakland, Wayne Counties
- DTE Segments- CEO, Higher Ed Higher Tech
- Highly educated- 48% Bachelor's degree or higher
- High income- 55% \$75,000 or more
- Significantly higher electric usage
- Live in larger homes
- Boomers- 48% (54-73)
- Average length in residence- 16 years
- Management & Professional occupations- 40%



## Program enrollments are highest in Oakland, Wayne and Washtenaw counties

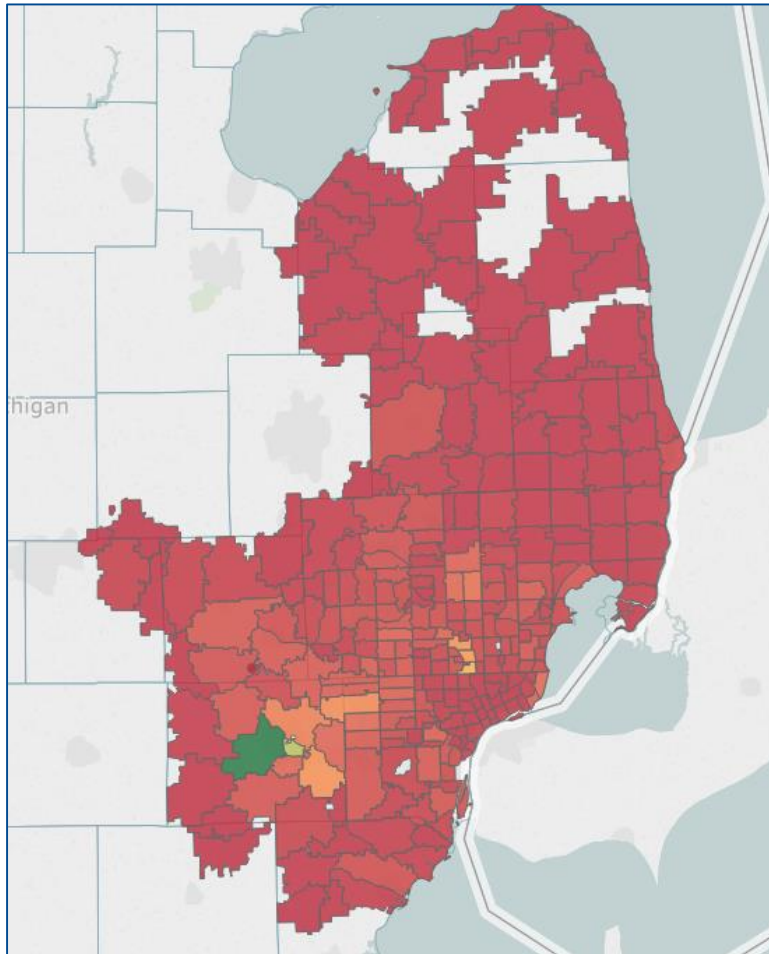


### Top Enrollment Counties:

- Oakland 9,154
- Wayne 5,833
- Washtenaw 4,739
- Macomb 3,025



## Enrolled customers are generally concentrated in more affluent communities



### Top Enrollment Cities:

• Ann Arbor	3,433
• Royal Oak	1,211
• Rochester	880
• Ypsilanti	805
• Ferndale	738
• Farmington	676
• Detroit	635
• Livonia	621
• W. Bloomfield	577
• Grosse Pointe	532
• Plymouth	519
• Canton	482



# Propensity Methodology Part 1- Key Attribute Determination

- Renewables provided a list of customers on GreenCurrents as well as MIGreenPower.
- Data was appended to these lists based upon BPARTNER and CONTRACT\_ACCOUNT
- These lists were combined as the groups have similar characteristics, allowing for a more robust data set to compare to the rest of the electric customer population and matched to PREMISEID
- These “green program” customers were then compared to various demographic, location, and usage variables with the customers not currently signed up for a green program to determine key attribute differences
- Twelve variables were determined to be key attributes of green customers including:
  - Years living in current residence
  - Enrollments in other DTE programs (APP, BWB, Ebill)
  - Location
  - Mosaic Group
  - DTE Segment
  - Green “awareness”
  - Age
  - Education
  - Household Income
  - Occupation
  - Electric Usage
  - Size of Home
- Non green program customers with at least 7 of these 12 characteristics were identified as potential green customers (low, medium, high based upon the number of characteristics)



## Propensity Methodology Part 2- Logistic Regression

- A second methodology was also used to determine potential green program customers
- SPSS Modeler was used to create a propensity model via a logistic regression
- The 12 key attributes were used to determine a propensity score for each residential electric customer's likelihood of signing up for a green program
- Propensity groups were determined based upon the propensity score and classified as:
  - Lower propensity
  - Medium propensity
  - High propensity
  - Highest propensity
- Once these levels were determined, a total "Green Program Target" likelihood was determined integrating both the key attribute and logistic regression methodologies:

Propensity	# of Customers
Lower Propensity	82,966
Medium Propensity	41,020
High Propensity	22,681
Highest Propensity	2,586
<b>Total Propensity Count</b>	<b>149,253</b>



**There are approximately 150,000 customers with at least some propensity to join a Green program with a potential of between 30,000 and 50,000 additional participants to actually enroll**

Propensity	# of Customers	Low Scenario		High Scenario	
		% Joining Likelihood (L)	Likely Enrollments	% Joining Likelihood (H)	Likely Enrollments
Lower Propensity	82,966	10%	8,297	20%	16,593
Medium Propensity	41,020	30%	12,306	40%	16,408
High Propensity	22,681	50%	11,341	60%	13,609
Highest Propensity	2,586	70%	1,810	80%	2,069
<b>Potential New Enrollments</b>	<b>149,253</b>	<b>23%</b>	<b>33,753</b>	<b>33%</b>	<b>48,679</b>
Current MIGreenPower Enrollments*			5,351		5,351
<b>Total Current + Potential New Enrollments</b>			<b>39,104</b>		<b>54,030</b>

\* current MIGreenPower enrollments as of 2/28/19

**DTE Energy®**

**Based upon these methodologies, a total of approximately 40,000 to 55,000 customers could reasonably be expected to be enrolled in a green program at DTE Energy**

