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July 1, 2020

Ms. Lisa Felice  
Executive Secretary  
Michigan Public Service Commission  
7109 West Saginaw Highway  
Post Office Box 30221  
Lansing, MI 48909

**RE: Case No. U-20722 – In the Matter of the Application of Consumers Energy Company to Commence a Renewable Energy Cost Reconciliation Proceeding for the 12-Month Period Ended December 31, 2019.**

Dear Ms. Felice:

Enclosed for electronic filing in the above-captioned case, please find the **Application and Testimony and Exhibits of Consumers Energy Company witnesses Troy S. Smith, Marc R. Bleckman, Yong F. Keyes, Julie M. Oberlin, and Emily J. Warners**. This is a paperless filing and is therefore being filed only in PDF. Also included is a Proof of Service showing service upon the parties in Case No. U-20483.

Sincerely,

Anne M. Uitvlugt

cc: Parties to MPSC Case No. U-20483

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019 )  
\_\_\_\_\_ )

Case No. U-20722

**CONSUMERS ENERGY COMPANY’S APPLICATION FOR  
2019 RENEWABLE ENERGY COST RECONCILIATION**

Consumers Energy Company (“Consumers Energy” or the “Company”) respectfully requests that the Michigan Public Service Commission (“MPSC” or the “Commission”) review its implementation of the Renewable Energy Plan (“RE Plan”) approved by the Commission in compliance with 2008 PA 295; MCL 460.1001 *et seq.* (“Act 295”), as amended by 2016 PA 342 (“Act 342”), and approve the reconciliation of plan costs for the period beginning January 1, 2019 through December 31, 2019. In support of this Application, Consumers Energy states as follows:

1. Consumers Energy is a public utility engaged in, among other things, the generation, purchase, distribution, and sale of electric energy to approximately 1.8 million retail electric customers in the Lower Peninsula of the state of Michigan.

2. Consumers Energy’s retail electric business is subject to the jurisdiction of the Commission pursuant to certain provisions of 1939 PA 3, as amended by various acts, including 1982 PA 304 and 2000 PA 141, MCL 460.1 *et seq.*; 1909 PA 106, as amended, MCL 460.551 *et seq.*; 1909 PA 300, as amended, MCL 462.2 *et seq.*; and Act 295, as amended, MCL 460.1001 *et seq.* Pursuant to these statutory provisions, the Commission has the power and jurisdiction to regulate Consumers Energy’s retail electric rates.

3. On October 6, 2008, Michigan enacted Act 295, which required certain electric providers, including Consumers Energy, to file proposed RE Plans with the Commission for its review and approval. Consistent with the requirements of Act 295, Consumers Energy submitted its 2009 RE Plan on February 17, 2009 in Case No. U-15805, which was originally approved in an Order issued May 26, 2009. The Company's RE Plan has subsequently been amended.

4. In September 2017, Consumers Energy filed its most recent RE Plan amendment, which was recently approved by the Commission. See MPSC Case Nos. U-18231 and U-15805, February 7, 2019 Opinion and Order; see also MPSC Case No. U-20165, June 7, 2019 Order Approving Settlement Agreement.

5. In an Order dated March 5, 2020 in Case No. U-20722, et al., the Commission directed Consumers Energy to file its 2019 Renewable Energy Cost Reconciliation by July 1, 2020.

6. Prior to Act 342 amending Act 295, an electric provider with more than 1,000,000 but less than 2,000,000 retail electric customers in this state on January 1, 2008 was required to achieve a renewable energy capacity portfolio of 200 MW by December 31, 2013 and 500 MW by December 31, 2015. The Company is in compliance with the renewable energy capacity requirement, and Consumers Energy reports that in 2019 it had a renewable energy capacity portfolio of 737.83 MW. This amount is in addition to the generation by renewable resources in existence prior to the enactment of Act 295.

7. MCL 460.1028(1)(b) requires that in 2019, an electric provider shall achieve a Renewable Energy Credit ("REC") Portfolio of 12.5%. For 2019, that REC portfolio requirement is 4,208,207 RECs. The Company met this obligation. In a December 19, 2019 Order Approving a Settlement Agreement, in Case No. U-20365, the Commission authorized the Company to offset a portion of that requirement with 73,316 surplus Energy Waste Reduction ("EWR") Credits from

the Company's 2018 EWR Program. The Company has transferred 4,134,891 RECs from its general account to its 2019 compliance account to satisfy the remainder of its compliance obligation for 2019.

8. The Transfer Price for 2019 is approximately \$80.26 per MWh. To determine the Transfer Price, the Company calculated the total Transfer Cost associated with renewable energy delivered in 2019, added any adjustments related to the Transfer Costs associated with renewable energy delivered in prior years and booked in 2019, and divided the total by the corresponding renewable energy volume booked in 2019. The Transfer Price is only applied to production from Provider-Owned renewable energy systems; purchases of energy, capacity, and RECs through renewable energy contracts; and production from Commission-authorized renewable energy systems. In 2019, the Company had 12 Renewable Energy Purchase Agreements ("REPAs") as well as Experimental Advanced Renewable Program ("EARP") Agreements for service supplying energy, capacity, and RECs. The total Transfer Cost for each contract did not exceed the total cost paid to each counter party in 2019. Additionally, deliveries were made in 2019 by Provider-Owned Renewable Energy Resources. Costs for renewable energy systems for which recovery in electric rates was approved as of October 6, 2008 (the effective date of Act 295) are recovered as part of power supply costs and general rates.

9. In accordance with Case No. U-18231, the Company expected to incur \$173.7 million in expenses in 2019 to comply with Act 295. In 2019, the Company expected to incur \$63.8 million in Construction Work in Progress and Plant in Service costs, \$20.4 million in depreciation costs, \$16.9 million in operating expense, and \$(21.7) million in federal tax credits and monthly amortization of the Cash Grant. The total cost of compliance for REPAs related to energy and capacity was expected to be \$99.6 million, and the Company's return on REC inventory

was estimated to be \$1.3 million. The Company's additional/surcharge revenues associated with EARP, Solar Gardens Pilot Program ("Solar Gardens"), and the Large Customer Renewable Energy Pilot Program ("LC-REP") was expected to be \$(6.6) million.

10. The total cost of compliance that the Company incurred in 2019 was \$158.7 million. In 2019, the Company incurred \$49.5 million in Construction Work in Progress and Plant in Service costs, \$23.5 million in depreciation cost, \$15.9 million of operating expenses, and \$(18.8) million in federal tax credit costs and monthly amortization of the Cash Grant. The total cost of compliance for REPAs related to energy and capacity was \$92.9 million, and the Company's return on REC Inventory was \$1.4 million. The Company's additional/surcharge revenues associated with EARP, Solar Gardens, and LC-REP was \$(5.7) million.

11. In 2019, the Company successfully executed its EWR Plan and achieved results in excess of the statutory requirements. The Company requests authorization to convert 63,715 surplus 2019 EWR Credits into RECs to offset future REC compliance obligations.

12. Consistent with the Commission's Order in Case No. U-17301, the Company eliminated the RE Plan customer surcharges effective with the July 2014 billing month. Accordingly, there were no planned customer renewable energy surcharge revenues for 2019.

13. In Case No. U-20483, the Company projected that its regulatory liability account balance will move into an asset position beginning in 2020. In order to promptly return the regulatory liability account balance to a liability position, beginning with year 2019, the Company requested that the Commission utilize the Company's original Transfer Price methodology for Company-owned facilities, which was in place prior to the Commission's 2016 Order in Case No. U-17792. In that proceeding, the Commission issued its January 23, 2020 Order, that approved a Settlement Agreement, which indicated that "[i]n order to return the regulatory liability account

balance to a liability position beginning with year 2019, the parties agree the Commission should authorize the use of the Company's original Transfer Price methodology for Company-owned facilities, which was in place prior to the Commission's 2016 Order in Case No. U-17792." This change in methodology has contributed to maintaining a higher regulatory liability at the end of 2019 than was previously projected. Maintaining this temporary change in methodology, for a reasonable period of time, will enable the RE Plan balance to remain in a liability position throughout the RE Plan period.

14. Concurrently with the filing of this Application, Consumers Energy is filing testimony and exhibits in support of its requested reconciliation of its RE Plan costs and revenues for the 12-month period ending December 31, 2019. The Company's 2019 Renewable Energy Cost Reconciliation is supported by the testimony and exhibits of Company witnesses Troy S. Smith, Marc R. Bleckman, Yong F. Keyes, Julie M. Oberlin, and Emily J. Warners.

WHEREFORE, Consumers Energy Company respectfully requests the Michigan Public Service Commission to:

A. Determine that Consumers Energy Company's 2019 Renewable Energy Cost Reconciliation is reasonable and prudent and meets all relevant requirements under Act 295, as amended;

B. Reconcile the pertinent revenues recorded and the allowance for the non-volumetric revenue recovery mechanism with the amounts actually expensed and projected according to the Company's plan for compliance, including: (i) making a determination of the Company's compliance with the Renewable Energy standards, and (ii) adopting the proposed change in Transfer Price methodology for Company-owned facilities;

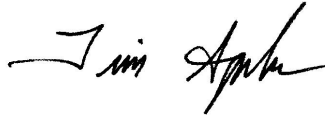
C. Establish a Transfer Price of \$80.26 per MWh for renewable energy and advanced cleaner energy capacity and for renewable energy and advanced cleaner energy to be recovered through the power supply cost recovery clause under MCL 460.6j;

D. Provide approval for the Company to utilize surplus Energy Waste Reduction Credits from 2019 to offset future renewable energy requirements; and

E. Grant such other and further relief as may be lawful and necessary.

Respectfully submitted,

CONSUMERS ENERGY COMPANY



Dated: July 1, 2020

By:

\_\_\_\_\_  
Timothy J. Sparks  
Vice President of Electric Grid Integration  
Consumers Energy Company



\_\_\_\_\_  
Anne M. Uitvlugt (P71641)  
Gary A. Gensch, Jr. (P66912)  
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(517) 788-2112

STATE OF MICHIGAN

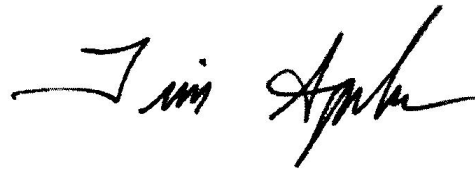
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019 )  
\_\_\_\_\_ )

Case No. U-20722

**VERIFICATION**

Timothy J. Sparks, states that he is Vice President of Electric Grid Integration at Consumers Energy Company; that he has executed the foregoing Application for and on behalf of Consumers Energy Company; that he has read the foregoing Application and is familiar with the contents thereof; that the facts contained therein are true, to the best of his knowledge and belief; and that he is duly authorized to execute such Application on behalf of Consumers Energy Company.



Dated: July 1, 2020

By

\_\_\_\_\_  
Timothy J. Sparks  
Vice President of Electric Grid Integration  
Consumers Energy Company

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
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Case No. U-20722

**DIRECT TESTIMONY**

**OF**

**TROY S. SMITH**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

July 2020

TROY S. SMITH  
DIRECT TESTIMONY

1 **Q. Please state your name and business address.**

2 A. My name is Troy S. Smith, and my business address is 1945 West Parnall Road, Jackson,  
3 Michigan 49201.

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

5 A. I am employed by Consumers Energy Company (“Consumers Energy” or the  
6 “Company”) as Manager of Supply Contracts in the Electric Grid Integration Contracts  
7 and Settlements Department

8 **I. QUALIFICATIONS**

9 **Q. Please describe your educational background and business experience.**

10 A. I received a Bachelor of Science Degree in Manufacturing Engineering from Michigan  
11 State University in 2003 and a Master of Science of Manufacturing and Engineering  
12 Management from Michigan State University in 2004. From June 2004 through  
13 March 2009, I worked for NVR Building Products in Enon Valley, PA. During my time  
14 at NVR Building Products, I served as a production supervisor, materials manager, and  
15 customer service manager in the manufacturing of home building products.

16 In April 2009, I joined Consumers Energy as an engineer in the Fossil Fuel  
17 Supply Department. In this role I was responsible for Fuel Price Forecasting and  
18 supported the Fuel Schedule and Optimization Models. In 2011, I transitioned to Railcar  
19 Fleet Manager within the Fossil Fuel Supply Department. In this role, I was responsible  
20 for the sourcing, leasing, and maintenance for the railcar fleet used to transport coal to  
21 Consumers Energy Generating Plants. In 2014, I became responsible for the supervision  
22 of coal transportation logistics in addition to my railcar fleet responsibilities.

23 In 2016, I accepted a position in Gas Asset Management as the Metering and

TROY S. SMITH  
DIRECT TESTIMONY

1 Regulation Mechanical Engineering Lead. In this position I was responsible for the  
2 engineering of Consumers Energy’s City Gates, Regulator Stations, and Odorizers. In  
3 2019, I accepted a position in Electric Contract Strategies, where my direct  
4 responsibilities included administering Power Purchase Agreements, issuing solicitations  
5 for energy and capacity, and administering the Renewable Energy Plan (“RE Plan”).

6 **Q. What is the purpose of your direct testimony in this case?**

7 A. My direct testimony provides an overview of the Company’s presentation, a comparison  
8 of the actual and expected expenses incurred to implement the Company’s approved RE  
9 Plan in 2019, the billed surcharge revenues, and a discussion on the Company’s  
10 Regulatory Liability Balance projection.

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

12 A. Yes, I am sponsoring:

13 Exhibit A-1 (TSS-1) 2019 Planned vs. Actual Expenses.

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

15 A. Yes.

16 **Q. Please briefly describe the direct testimony being sponsored by other Company  
17 witnesses in this case.**

18 A. Company witness Emily J. Warners is sponsoring direct testimony addressing the  
19 Transfer Price, which is the price, or a portion of the price, at which the cost of  
20 Renewable Energy is recovered through the Company’s Power Supply Cost Recovery  
21 (“PSCR”) mechanism, and the Transfer Cost, which is the total cost that the Company  
22 transferred to power supply costs. Company witness Yong F. Keyes is presenting direct  
23 testimony addressing the Renewable Energy Credits (“RECs”) obtained by Consumers  
24 Energy in 2019 and the Company’s compliance with Public Act 295 of 2008 (“Act 295”)

TROY S. SMITH  
DIRECT TESTIMONY

1 REC portfolio requirements in 2019. Company witness Julie M. Oberlin is sponsoring  
2 direct testimony addressing the RE Plan surcharge revenues collected in 2019, RE Plan  
3 costs incurred in 2019, and the amount of interest credited to the Company's incremental  
4 cost of compliance fund balance in 2019. Company witness Marc R. Bleckman is  
5 sponsoring direct testimony addressing the Regulatory Liability Balance projection.

6 **II. RE PLAN INCURRED EXPENSE**

7 **Q. What costs were expected to be incurred in 2019 under the RE Plan?**

8 A. In accordance with the latest approved RE Plan, in Case No. U-18231, the Company  
9 expected to incur \$173.7 million in expenses in 2019 to comply with Act 295. The total  
10 cost of compliance is made up of: (i) the return on Construction Work in Progress  
11 ("CWIP"), depreciation, Plant in Service, and Operating and Maintenance ("O&M")  
12 expenses offset by federal tax credits for the Company-owned units; (ii) the energy and  
13 capacity costs delivered by Renewable Energy Purchase Agreements ("REPA"); (iii) the  
14 return on REC inventory; and (iv) other operating expenses related to the administration  
15 of the RE Plan, including Michigan Renewable Energy Certification System fees. In  
16 2019, the Company expected to incur \$63.8 million in CWIP and Plant-in-Service costs,  
17 \$20.4 million in depreciation costs, \$16.9 million of O&M, and \$(21.7) million in federal  
18 tax credits and monthly amortization of the Cash Grant. The total cost of compliance for  
19 REPAs related to energy and capacity was expected to be \$99.6 million. The Company's  
20 return on REC inventory was estimated to be \$1.3 million. The Company's  
21 additional/surcharge revenues associated with Experimental Advanced Renewable  
22 Program ("EARP"), Solar Gardens, and the Large Customer Renewable Energy Pilot  
23 ("LC-REP") was expected to be \$(6.6) million. The total cost of compliance is reduced

TROY S. SMITH  
DIRECT TESTIMONY

1 by the expected Transfer Cost of \$144.3 million and expected interest on the regulatory  
2 liability balance of \$1.3 million; resulting in \$28.1 million of costs to be recovered as the  
3 Incremental Cost of Compliance (“ICC”).

4 **Q. What costs were actually incurred in 2019 related to the Company’s RE Plan?**

5 A. The total cost of compliance that the Company incurred in 2019 was \$158.7 million. In  
6 2019, the Company incurred \$49.5 million in CWIP and Plant-in-Service costs,  
7 \$23.5 million in depreciation cost, \$15.9 million of operating expenses, and  
8 \$(18.8) million in federal tax credit costs and monthly amortization of the Cash Grant.  
9 The total cost of compliance for REPAs related to energy and capacity was \$92.9 million.  
10 The Company’s return on REC Inventory was \$1.4 million. The Company’s  
11 additional/surcharge revenues associated with EARP, Solar Gardens, and LC-REP was  
12 \$(5.7) million. The total cost of compliance was reduced by the Transfer Cost of  
13 \$139.0 million and incurred interest on the regulatory liability balance of \$0.9 million,  
14 which results in an ICC of \$18.8 million. Overall, the actual costs incurred in 2019 were  
15 consistent with the expected costs for 2019, as presented in the Company’s filing in Case  
16 No. U-18231, with the exception of the decrease in CWIP and Plant in Service which is  
17 discussed later in my testimony. These costs are also discussed by Company witness  
18 Oberlin.

19 **Q. Please explain the difference between the 2019 expected total cost of \$173.7 million**  
20 **and the 2019 actual total costs of \$158.7 million.**

21 A. As shown in Exhibit A-1 (TSS-1), lines 1 through 8, the difference between 2019  
22 expected costs and 2019 actual costs is primarily due to lower CWIP and Plant in  
23 Service, lower energy and capacity costs related to the REPAs, offset by an increase in

TROY S. SMITH  
DIRECT TESTIMONY

1 depreciation, a lower than expected federal tax credit, and a lower than expected  
2 surcharge revenue (i.e., EARP-Solar charges and Solar Gardens and LC-REP  
3 subscriptions). These differences result in total actual costs being approximately  
4 \$15 million lower than planned. CWIP and Plant in Service were lower than planned due  
5 to the assumption in U-18231 that one of the three approved wind proxy plants would be  
6 fully constructed by the end of 2019. Two wind projects approved under the RE Plan are  
7 not scheduled to be complete until the end of 2020, accounting for the majority of the  
8 difference.

9 **Q. Please explain the difference between the 2019 expected ICC of \$28.1 million and**  
10 **the 2019 actual ICC of \$18.8 million.**

11 A. As shown in Exhibit A-1 (TSS-1), the \$9.3 million difference is due to multiple factors.  
12 The three largest factors are a \$14.3 million difference in CWIP and Plant in Service, a  
13 \$6.7 million difference in REPA payments, and a \$5.3 million difference in Transfer  
14 Price. As discussed above, due to timing of wind project implementation, CWIP was  
15 lower than expected. Total energy production from the Renewable Energy assets and  
16 REPAs was lower than forecasted, which lowers the amount recovered through the  
17 Transfer Price. These combined variances shown in Exhibit A-1 (TSS-1) result in  
18 \$9.7 million less recovered through the ICC than expected.

19 **Q. Has the Company included a portion of the costs incurred in implementing its RE**  
20 **Plan in the Company's 2019 PSCR reconciliation proceeding?**

21 A. Yes. The Company has included costs in its 2019 PSCR reconciliation proceeding, Case  
22 No. U-20220. MCL 460.1047(2)(b)(iv) provides that the Renewable Energy costs  
23 included shall be considered "a booked cost of purchased and net interchanged power

TROY S. SMITH  
DIRECT TESTIMONY

1 transactions under section 6j of 1939 PA 3, MCL 460.6j.” As discussed above, these are  
2 the costs expected to be recovered through the PSCR mechanism as discussed in the  
3 Company’s RE Plan and are commonly referred to as the “Transfer Price” or the  
4 “Transfer Cost.” These costs are discussed in more detail by Company witness Warners.

5 **III. RECONCILIATION OF SURCHARGES BILLED**

6 **Q. What surcharge amount was billed in 2019?**

7 A. As reflected in the direct testimony and exhibits of Company witness Oberlin, the  
8 Company booked Renewable Energy surcharge revenue of approximately \$5.7 million in  
9 2019. This Renewable Energy surcharge revenue includes EARP-Solar system access  
10 charges and subscription payments made by participants in the Solar Gardens and  
11 LC-REP programs.

12 **Q. Do the Company’s 2019 RE Plan expenditures require any modification to the**  
13 **revenue recovery mechanism to ensure the Company’s recovery of the ICC?**

14 A. No.

15 **IV. REGULATORY LIABILITY ACCOUNT BALANCE**  
16 **PROJECTION**

17 **Q. Please summarize the Order and associated Settlement Agreement in Case No.**  
18 **U-20483 as it relates to Transfer Price.**

19 A. The Settlement Agreement in Case No. U-20483, page 6, states as follows:

20 In order to return the regulatory liability account balance to  
21 a liability position, beginning with year 2019, the parties  
22 agree the Commission should authorize the use of the  
23 Company’s original Transfer Price methodology for  
24 Company-owned facilities, which was in place prior to the  
25 Commission’s 2016 Order in Case No. U-17792. Under the  
26 original Transfer Price methodology for Company-owned  
27 facilities, the Company would transfer to the PSCR up to  
28 the Transfer Price amount specified on the applicable  
29 Transfer Price schedule without limiting the Transfer Price

TROY S. SMITH  
DIRECT TESTIMONY

1 to the projects' levelized cost of energy. This reversion to  
2 the previous Transfer Price methodology does not change  
3 the overall costs of renewable energy in any given year but  
4 allows for the costs to be collected in a manner that will  
5 reduce the amount and duration of the projected asset  
6 position and allow for a zero dollar surcharge to continue  
7 for customers.

8 Pursuant to the Commission-approved Settlement Agreement, the Company has  
9 implemented the original Transfer Price methodology. The effects of the change are  
10 further discussed by Company witness Bleckman.

11 **Q. What is the Company's current forecast for the Regulatory Liability Account?**

12 A. In Case No. U-20483, the regulatory liability was projected to move to a regulatory asset  
13 position in 2020. As further discussed by witness Bleckman, changing the Transfer Price  
14 methodology as described above contributed to the regulatory liability balance no longer  
15 being projected to "flip" to an asset position. This temporary change in Transfer Price  
16 methodology, if enabled to remain in place for the recommended period of time, is  
17 forecast to allow the regulatory balance to remain in a liability position throughout the  
18 plan period.

19 **Q. Is the Company proposing to implement a change to the surcharge in this case?**

20 A. No. Based on the liability balance projection in Exhibit A-1 (MRB-1), the Company  
21 does not presently believe it to be reasonable to collect any surcharge from its customers.

22 **Q. Does the Company intend to provide forecasts of the Regulatory Liability Account  
23 Balance in future Renewable Energy Cost Reconciliations?**

24 A. Yes. The Company will continue to monitor the status of the regulatory liability account  
25 balance, as shown in Exhibit A-1 (MRB-1), and will continue to review whether it  
26 becomes necessary to implement a surcharge as a result of future circumstances.

TROY S. SMITH  
DIRECT TESTIMONY

1 V. CONCLUSION

2 Q. Was the Company in compliance with the Renewable Energy standards contained in  
3 Act 295 in 2019?

4 A. Yes.

5 Q. Do you believe that all of the costs incurred during 2019 associated with the  
6 Company's RE Plan were reasonably incurred?

7 A. Yes.

8 Q. Does this complete your direct testimony?

9 A. Yes, it does.

STATE OF MICHIGAN

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Case No. U-20722

**EXHIBIT**

**OF**

**TROY S. SMITH**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

July 2020

**MICHIGAN PUBLIC SERVICE COMMISSION**  
**Consumers Energy Company**  
**2019 Planned vs. Actual Expenses**  
(\$ in millions)

Case No.: U-20722  
Exhibit No.: A-1 (TSS-1)  
Page: 1 of 1  
Witness: TSSmith  
Date: July 2020

Line No.	(a) Description	(b) Plan <sup>1</sup>	(c) Actual
1	CWIP & Plant in Service	\$ 63.8	\$ 49.5
2	Depreciation	\$ 20.4	\$ 23.5
3	Operation & Maintenance	\$ 16.9	\$ 15.9
4	Cash Grant / Federal Tax Credit	\$ (21.7)	\$ (18.8)
5	REPA	\$ 99.6	\$ 92.9
6	Return of REC Inventory	\$ 1.3	\$ 1.4
7	Additional Revenue / surcharge revenue	\$ (6.6)	\$ (5.7)
8	Total Cost of Compliance	\$ 173.7	\$ 158.7
9	Less: Amount recovered through transfer price	\$ (144.3)	\$ (139.0)
10	Less: Interest on the regulatory liability balance	\$ (1.3)	\$ (0.9)
11	Incremental Cost of Compliance	\$ 28.1	\$ 18.8

Source:  
(1) Case No. U-18231

STATE OF MICHIGAN

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Case No. U-20722

**DIRECT TESTIMONY**

**OF**

**MARC R. BLECKMAN**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

July 2020

MARC R. BLECKMAN  
DIRECT TESTIMONY

1 **Q. Please state your name and business address.**

2 A. My name is Marc R. Bleckman. My business address is One Energy Plaza, Jackson,  
3 Michigan, 49201.

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

5 A. I am employed by Consumers Energy Company (“Consumers Energy” or the “Company”)  
6 as the Executive Director of Financial Forecasting and Planning.

7 **Q. What are your current responsibilities?**

8 A. My responsibilities include preparation of the monthly forecasts, annual budgets, and long  
9 term financial plans for Consumers Energy and CMS Energy, the parent company of  
10 Consumers Energy. As a part of my role, I conduct financial analyses and studies required  
11 for making various strategic decisions such as equity issuance, sale of businesses, and new  
12 investments. I assist the Chief Financial Officer in preparing the presentations for Board  
13 of Directors meetings, quarterly earnings calls, investor meetings, and industry  
14 conferences. My responsibilities also include preparation of the Renewable Energy Plan  
15 (“RE Plan”) forecast model, which is a responsibility I have continued to assume from a  
16 previously held position.

17 **Q. Please describe your educational background and describe any positions held prior  
18 to your current position.**

19 A. I received a Masters of Business Administration degree with a Finance concentration from  
20 the Katz Graduate School at the University of Pittsburgh in 2002. Upon receiving this  
21 degree in May 2002, I joined Ford Motor Company as a Financial Analyst. During my  
22 seven years of employment at Ford, I worked in various finance roles throughout the  
23 company, including Assembly Operations, Powertrain Operations, Ford Motor Credit, and  
24 the General Auditor’s Office. My responsibilities within these organizations included, but

MARC R. BLECKMAN  
DIRECT TESTIMONY

1 were not limited to, forecasting of, and variance reporting on, all Income Statement and  
2 Balance Sheet line items, as well as business process auditing. In July 2009, I left Ford to  
3 join Consumers Energy as a Principal Financial Analyst in the Company's Risk, Strategy  
4 and Financial Advisory Services group. My responsibilities in this role included, but were  
5 not limited to, supporting the financial analysis and forecasting of the Company's  
6 renewable energy development plans, as well as conducting the Company's Enterprise  
7 Risk Management program. In September 2012, I took on the role of Manager of Earnings  
8 Analysis in the Company's Financial Forecast and Planning Group. I assumed my current  
9 position as the Executive Director of Financial Forecasting and Planning in February 2016.

10 **Q. Have you previously testified before the Michigan Public Service Commission**  
11 **(“MPSC” or the “Commission”)?**

12 **A.** Yes. I provided testimony in:

- 13 • MPSC Case No. U-16581, the Company's 2011 Application for Biennial  
14 Review of the RE Plan;
- 15 • MPSC Case No. U-16543, the Company's 2011 Application to Amend the RE  
16 Plan;
- 17 • MPSC Case No. U-17301, the Company's 2013 Application for Biennial  
18 Review of the RE Plan;
- 19 • MPSC Case No. U-17752, the Company's 2015 Application to Amend the RE  
20 Plan;
- 21 • MPSC Case No. U-17792, the Company's 2015 Application for Biennial  
22 Review of the RE Plan;
- 23 • MPSC Case No. U-18231, the Company's 2017 Application for Biennial  
24 Review of the RE Plan;
- 25 • MPSC Case No. U-20322, the Company's 2018 Gas Rate Case;
- 26 • MPSC Case No. U-20483, the Company's 2018 Renewable Energy Cost  
27 Reconciliation;
- 28 • Case No. U-20650, the Company's 2019 Gas Rate Case; and

MARC R. BLECKMAN  
DIRECT TESTIMONY

- Case No. U-20697, the Company's 2020 Electric Rate Case.

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

A. The purpose of my direct testimony is to present the RE Plan impacts of the recent changes related to recovery of Power Supply Cost Recovery ("PSCR") transfer rate for Consumers Energy owned facilities.

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

A. Yes. I am sponsoring the following exhibit:

Exhibit A-2 (MRB-1) Regulatory Liability Balance Projection.

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

A. Yes.

**SUMMARY OF RECOMMENDATIONS**

**Q. Could you please summarize your position in the 2018 RE Plan reconciliation case?**

A. In Case No. 20483, I projected that, in absence of action taken, the RE Plan regulatory liability would "flip" to a regulatory asset balance and remain in an asset position for an extended period.

**Q. Could you please summarize the settlement in that case, as related to the regulatory balance?**

A. As part of the Settlement Agreement, a temporary change to the amount transferred to PSCR for Company-owned facilities was approved to no longer limit recovery of costs through PSCR to the Levelized Cost of Energy ("LCOE") of the facility. This was consistent with the Company's proposed course of action to limit and potentially avoid an asset position in the RE Plan regulatory balance. As stated in the Commission's January 23, 2020 Order, "In order to return the regulatory liability account balance to a liability position beginning with year 2019, the parties agree the Commission should

MARC R. BLECKMAN  
DIRECT TESTIMONY

1 authorize the use of the Company's original Transfer Price methodology for  
2 Company-owned facilities, which was in place prior to the Commission's 2016 Order in  
3 Case No. U-17792."

4 **Q. Following the approval of that change in methodology, do you now project the RE**  
5 **Plan balance to remain in a liability position throughout the plan period?**

6 A. Yes. The changes in methodology, which were retroactive to January 1, 2019, has  
7 contributed to maintaining a higher regulatory liability at the end of 2019 than was  
8 previously projected in Case No. U-20483. Exhibit A-2 (MRB-1) provides a comparison  
9 of the current projected regulatory balance by year from 2019 through 2022 to the  
10 projections previously presented in Case No. U-20483. This temporary change in  
11 methodology, if enabled to remain in place for an appropriate period of time, will enable  
12 the RE Plan balance to remain in a liability position throughout the plan period.

13 **Q. Are you able to project when the PSCR transfer rates can again be limited to the**  
14 **LCOE of each Company-owned facility?**

15 A. I project the PSCR transfer rates of Company-owned facilities can again be limited to their  
16 respective LCOEs during calendar year 2022. As shown on the right-hand side of Exhibit  
17 A-2 (MRB-1), the regulatory liability balance is no longer projected to "flip" to a regulatory  
18 asset position. In fact, it is projected to grow to approximately [\$50] million by the end of  
19 2021. This balance should give the Company sufficient headroom to ensure variations in  
20 actuals versus forecast will not move the balance into an asset position for the remainder  
21 of the RE Plan period. In addition to safely avoiding a regulatory asset balance, the  
22 Company also wants to avoid accumulating an excessive liability balance.

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DIRECT TESTIMONY

1 **Q. What are examples of outcomes that could reduce the regulatory liability balance**  
2 **lower than expected:**

3 A. Examples include, but are not limited to the following:

- 4 • Lower than forecast overall MWh production;
- 5 • Unanticipated operations and maintenance expense;
- 6 • Unanticipated capital expenditures; and
- 7 • Lower than forecast overall Production Tax Credit revenue.

8 **Q. What proposed course of action do you recommend for determining a specified month**  
9 **for when PSCR transfer rates can again be limited to the LCOE of each**  
10 **Company-owned facility?**

11 A. The regulatory liability balance will continue to be monitored and the Company may be in  
12 a position to propose a more specific date in the 2020 or 2021 RE Plan reconciliation case.

13 **Q. Does this conclude your testimony?**

14 A. Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019. )  
\_\_\_\_\_ )

Case No. U-20722

**EXHIBIT**

**OF**

**MARC R. BLECKMAN**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

July 2020

**MICHIGAN PUBLIC SERVICE COMMISSION**

Consumers Energy Company

Case No.: U-20722  
 Exhibit No.: A-2 (MRB-1)  
 Page: 1 of 1  
 Witness: MRBleckman  
 Date: July 2020

**Regulatory Liability Balance Projection**  
*(per U-20483)*

**Regulatory Liability Balance Projection**  
*(Updated Projection)*

<u>Line</u>	<u>Parameter</u>	<u>Units</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
1	Incremental Cost of Compliance	\$Mil	29.5	25.2	0.8	-2.8	19.7	11.2	-36.7	-20.8
2	Surcharge	\$Mil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Interest on Regulatory Balance	\$Mil	0.9	0.0	-0.9	-0.9	0.9	0.6	1.2	2.5
4	Increase/(Decrease) in Regulatory Balance	\$Mil	-28.6	-25.2	-1.8	1.9	-18.8	-10.6	37.9	23.2
5	Year-end Regulatory Balance	\$Mil	13.3	-11.9	-13.6	-11.7	23.2	12.6	50.5	73.7

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019. )  
\_\_\_\_\_ )

Case No. U-20722

**DIRECT TESTIMONY**

**OF**

**YONG F. KEYES**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

July 2020

YONG F. KEYES  
DIRECT TESTIMONY

1 **Q. Please state your name and business address.**

2 A. My name is Yong F. Keyes, and my business address is 1945 West Parnall Road, Jackson,  
3 Michigan 49201.

4 **Q. By whom are you employed?**

5 A. I am employed by Consumers Energy Company (“Consumers Energy” or the “Company”).

6 **Q. In what capacity are you employed?**

7 A. I am a Senior Renewable Energy Analyst in the Electric Grid Integration Contracts and  
8 Settlements Department.

9 **I. QUALIFICATIONS**

10 **Q. Please describe your educational background and business experience.**

11 A. I earned the degree of Bachelor of Science in Information Engineering Technology from  
12 the University of Cincinnati in 2002. In April 2002, I joined Consumers Energy as a  
13 Programmer Analyst developing Lotus Notes databases. From September 2004 through  
14 March 2010, I was a Technical Analyst for Business Services, responsible for managing  
15 Real Estate’s document management systems and performing System Administrator  
16 functions. In December 2009, I earned the degree of Master of Business Administration  
17 from Eastern Michigan University with a concentration in Finance. In April 2010, I  
18 accepted a position as a Business Support Consultant in the Wholesale Settlement section  
19 of Energy Supply Operations, responsible for monthly forecasts for the Company’s  
20 Transmission and Midcontinent Independent System Operator, Inc. market expenses. In  
21 December 2015, I joined the Renewable Energy Section and am responsible for renewable  
22 energy credit (“REC”) forecasting, inventory management, and administration.

YONG F. KEYES  
DIRECT TESTIMONY

1 **Q. Have you previously provided testimony before the Michigan Public Service**  
2 **Commission (“MPSC” or the “Commission”)?**

3 A. Yes. I provided testimony in:

- 4 • Case No. U-18231, Consumers Energy’s 2017 Amended Renewable Energy  
5 Plan (“RE Plan”);
- 6 • Case No. U-18241, Consumers Energy’s 2016 Renewable Energy Cost  
7 Reconciliation;
- 8 • Case No. U-20171, Consumers Energy’s 2017 Renewable Energy Cost  
9 Reconciliation; and
- 10 • Case No. U-20483, Consumers Energy’s 2018 Renewable Energy Cost  
11 Reconciliation.

12 **II. PURPOSE OF DIRECT TESTIMONY**

13 **Q. What is the purpose of your direct testimony?**

14 A. My direct testimony will address:

- 15 • The new renewable capacity obtained by the Company through 2019;
- 16 • The number of RECs obtained in 2019; and
- 17 • The number of RECs surrendered by the Company for 2019 in satisfaction of  
18 its Renewable Energy compliance obligation under Public Act 295 of 2008  
19 (“PA 295”), as amended by Public Act 342 of 2016 (“PA 342”).

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

21 A. Yes. I am sponsoring:

- |                        |  |
|------------------------|--|
| 22 Exhibit A-3 (YFK-1) | Electric Provider Owned Renewable Energy     |
| 23                     | Systems Summary;                             |
| 24 Exhibit A-4 (YFK-2) | Contracted Renewable Energy Systems Summary; |
| 25 Exhibit A-5 (YFK-3) | New Renewable Energy Systems Summary;        |
| 26 Exhibit A-6 (YFK-4) | 2019 Renewable Energy Credit Compliance      |
| 27                     | Obligation;                                  |
| 28 Exhibit A-7 (YFK-5) | Renewable Energy Credits Used for 2019       |
| 29                     | Compliance Summary;                          |

YONG F. KEYES  
DIRECT TESTIMONY

1 Exhibit A-8 (YFK-6) Renewable Energy Credits Used for 2019  
2 Compliance – Pre-Enactment Resources;

3 Exhibit A-9 (YFK-7) Renewable Energy Credits Used for 2019  
4 Compliance – Market Purchases;

5 Exhibit A-10 (YFK-8) Renewable Energy Credits Used for 2019  
6 Compliance – New Electric Provider Owned  
7 Resources;

8 Exhibit A-11 (YFK-9) Renewable Energy Credits Used for 2019  
9 Compliance – New Renewable Energy Purchase  
10 Agreement Resources; and

11 Exhibit A-12 (YFK-10) Renewable Energy Credits Used for 2019  
12 Compliance – Energy Waste Reduction Credits.

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

14 A. Yes, they were.

15 **III. RECS OBTAINED DURING 2019**

16 **Q. How much Renewable Energy and how many RECs did the Company acquire or  
17 generate in 2019?**

18 A. The Company acquired or generated a total of 3,337,911 MWh of Renewable Energy in  
19 2019. The Company has developed an estimate of the RECs expected to be received based  
20 on the amount of Renewable Energy generated or acquired. The estimate indicates the  
21 Company will receive approximately 3,256,795 RECs for Renewable Energy generated or  
22 acquired for jurisdictional retail sales in 2019. Exhibit A-3 (YFK-1) provides a list of the  
23 Renewable Energy systems owned by the Company that generated Renewable Energy in  
24 2019, as well as an estimate of the RECs and Jurisdictional RECs expected from the  
25 Renewable Energy generated by those systems. Exhibit A-4 (YFK-2) provides a list of the  
26 Renewable Energy systems from which the Company acquired Renewable Energy in 2019,  
27 as well as an estimate of the RECs and Jurisdictional RECs expected to be received from

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DIRECT TESTIMONY

1 the Renewable Energy generated by those systems. Due to a timing discrepancy, the  
2 number of RECs booked presented by Company witness Julie M. Oberlin does not equal  
3 the estimated calculation described above.

4 In addition to the RECs discussed above, the Company originally requested  
5 approval to convert 85,949 surplus Energy Waste Reduction (“EWR”) Credits from 2018  
6 into RECs at no cost to the Incremental Cost of Compliance. In a December 19, 2019  
7 Order approving a settlement agreement in Case No. U-20365, the Commission approved  
8 the conversion of 73,316 2018 EWR Credits into RECs.

9 Consistent with its 2019 EWR reconciliation, in Case No. U-20702, the Company  
10 is requesting approval to convert 63,715 surplus EWR Credits from 2019 into RECs at no  
11 cost to the Incremental Cost of Compliance. The Company will monitor its use of EWR  
12 Credits to ensure that no more than 10% of its annual REC requirements are satisfied by  
13 the converted EWR Credits. The Company did not generate or acquire energy from  
14 Advanced Cleaner Energy Credits (“ACECs”) in 2019 and expects to receive no ACECs  
15 for 2019.

16 **Q. Did the Company generate or acquire Renewable Energy or RECs from new**  
17 **Renewable Energy systems in 2019?**

18 A. Yes. Exhibit A-5 (YFK-3) provides a list of all Renewable Energy systems that were  
19 installed prior to January 1, 2020, from which the Company either: (i) received RECs in  
20 2019, or (ii) anticipates to receive RECs from in the future that were constructed, or  
21 contracted with, since the implementation of PA 295.

22 The Company exercised the option to purchase 33 Wind Turbine Generators to  
23 construct the 75.90 MW Phase III of Cross Winds Energy Park. Phase III of Cross Winds

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DIRECT TESTIMONY

1 Energy Park was approved in the Commission's June 15, 2017 Order in Case No. U-18345  
2 and began commercial operation on December 4, 2019.

3 Exhibit A-5 (YFK-3), line 7, column (c), indicates the nameplate capacity rating of  
4 the new Cross Winds Energy Park, Phase III system; column (f) indicates the commercial  
5 operation date of the system.

6 **IV. COMPLIANCE OBLIGATION**

7 **Q. What was the Company's renewable energy capacity portfolio in 2019?**

8 A. As shown in Exhibit A-5 (YFK-3), line 26, the Company achieved 737.83 MW in capacity  
9 by the end of 2019, which exceeded the 500 MW originally required by PA 295 to be  
10 achieved by the end of 2015.

11 **Q. What was the Company's REC portfolio requirement in 2019?**

12 A. In the Company's original RE Plan presented in Case No. U-15805, the Company elected  
13 to utilize the average amount of electricity sold to retail customers by the electric provider  
14 annually during the previous three years as the basis for determining the amount of  
15 electricity used in the calculation of the REC obligation. Exhibit A-6 (YFK-4) presents  
16 the calculation of the Company's REC compliance obligation in accordance with MCL  
17 460.1028. As shown in line 7, column (c), the Company's compliance obligation for 2019  
18 is 4,208,207 RECs.

19 **Q. Please describe Exhibit A-7 (YFK-5).**

20 A. Exhibit A-7 (YFK-5) is a summary of the RECs used by the Company to meet its 2019  
21 compliance obligation. Exhibit A-7 (YFK-5), column (b), shows the total compliance  
22 obligation calculation from Exhibit A-6 (YFK-4), line 7, column (c). Exhibit A-7 (YFK-5),  
23 column (c), provides the ACECs that the Company has available to meet its 2019

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DIRECT TESTIMONY

1 compliance obligation. Column (d) provides the surplus EWR Credits that the Company  
2 has available to meet its 2019 compliance obligation. The conversion to RECs of the  
3 73,316 EWR Credits from 2018, shown in column (e), was included in the 2018 Renewable  
4 Cost Reconciliation. The Commission approved the conversion of 73,316 2018 EWR  
5 Credits into RECs in Case No. U-20365. Column (e) presents the amount of ACECs and  
6 EWR Credits from columns (c) and (d) that the Company used to meet its 2019 compliance  
7 obligation. In accordance with previous MCL 460.1028(5), the Company did not use  
8 RECs converted from EWR Credits to meet more than 10% of its compliance obligation  
9 for the year. Column (f) calculates the percentage of RECs converted from ACECs and  
10 EWR Credits that the Company has used to meet its 2019 compliance obligation by  
11 dividing column (e) by column (b).

12           The Company is proposing to meet 1.74% of its 2019 compliance obligation using  
13 RECs converted from EWR Credits. Column (g) shows the total number of RECs sourced  
14 from Renewable Energy systems for which recovery in electric rates was approved as of  
15 the effective date of PA 295, as well as RECs transferred to the Company pursuant to MCL  
16 460.1035(1) that the Company has used to meet its 2019 compliance obligation.  
17 Column (h) represents the total number of RECs that the Company has received through  
18 market purchases to meet its 2019 compliance obligation. All of the RECs acquired  
19 through market purchases are the result of surplus RECs generated under the Company's  
20 Green Generation Program. Column (i) represents the total number of RECs used for the  
21 Company's 2019 compliance obligation from Renewable Energy Purchase Agreements  
22 that are not owned by the Company. Column (j) is the total number of RECs used from  
23 Company-owned projects for which recovery in electric rates was not approved as of

YONG F. KEYES  
DIRECT TESTIMONY

1       October 6, 2008 (the effective date of PA 295). All EWR Credits and RECs shown in  
2       columns (e), and (g) through (j) used for the 2019 compliance obligation are detailed in  
3       Exhibits A-8 (YFK-6) through A-12 (YFK-10). Column (k) is the total RECs from  
4       columns (g) through (j). Column (l) is the sum of column (e) and column (k) and represents  
5       the total RECs and EWR Credits retired for 2019 compliance. As shown in column (l), the  
6       Company will retire an equivalent number of RECs equal to the compliance obligation  
7       shown in column (b).

8       **V. SOLAR GARDENS PROGRAM RECs**

9       **Q. Please describe how the 2019 Solar Gardens Program RECs were administered.**

10      A. In 2019, the Company's Solar Gardens Program produced 15,764 RECs. 14,195 RECs  
11      were subscribed and retired on behalf of the customers. 368 RECs were associated with  
12      subscribed customers that opted to sell RECs. The Company purchased these 368 RECs  
13      for use in meeting jurisdictional retail sales compliance obligations using the same  
14      methodology for REC valuation as it does for surplus Green Generation RECs.  
15      1,201 RECs were unsubscribed and were available for use in meeting jurisdictional retail  
16      sales compliance obligations. The Company will use the 1,569 RECs to meet future  
17      compliance obligations.

18      **VI. LARGE CUSTOMER RENEWABLE ENERGY PILOT**  
19      **PROGRAM RECs**

20      **Q. Please describe how the 2019 Large Customer Renewable Energy Program (“LC-  
21      REP”) RECs were administered.**

22      A. In 2019, Cross Winds Energy Park Phase II produced 138,620 RECs. 126,811 RECs were  
23      subscribed by customers participating in the LC-REP and have been retired on behalf of  
24      the subscribing customers. The Company did not include Cross Winds Energy Park

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DIRECT TESTIMONY

1 Phase II RECs retired on behalf of customers for REC portfolio compliance. Therefore,  
2 the subscribed 126,811 RECs retired on behalf of customers have been subtracted from the  
3 Total RECs produced (138,620 RECs) to determine (11,809 RECs) available RECs for the  
4 Company's REC portfolio compliance.

5 **VII. REC SUPPLIER CHANGES**

6 **Q. Please describe any REC supplier changes.**

7 A. In 2018, Consumers Energy executed a letter agreement to extend the Public Utility  
8 Regulatory Policies Act of 1978 ("PURPA") contract with Commonwealth – LaBarge  
9 through May 2019. As a result, the Company added LaBarge as a REC supplier to Green  
10 Generation starting June 2019.

11 On December 16, 2019, a new Power Purchase Agreement ("PPA") was executed  
12 between Consumers Energy and Elk Rapids Hydroelectric Power, LLC. As a result, the  
13 Company no longer receives any RECs from Elk Rapids Hydroelectric Power, LLC  
14 beginning October 13, 2019.

15 On March 21, 2019, Consumers Energy issued conditional offers to the  
16 Independent Power Producers Coalition to resolve rights and obligations under PURPA.  
17 In accordance with the Conditional Offer, the sellers are entitled to retain all RECs  
18 associated with the energy generated from June 1, 2019 through May 31, 2039. These  
19 sellers are Black River LP (Alverno), City of Beaverton (Beaverton), Energy  
20 Developments Ltd (Byron Center), Energy Developments Ltd (Grand Blanc), Energy  
21 Developments Ltd (Ottawa), Energy Developments Ltd (Pinconning), Energy  
22 Developments Ltd (Seymour), Kent County, Michiana Hydroelectric, and White's Bridge  
23 Hydro Company. Additional PPAs executed in 2019 from which the Company receives

YONG F. KEYES  
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1 RECs include STS – Cascade PPA, STS – Fallasburg PPA, Viking – McBain Amendment,  
2 Viking – Lincoln Amendment, Hillman Amendment, Grenfell PPA, BayWind PPA, and  
3 NANR – Rathbun PPA.

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

5 A. Yes, it does.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019. )  
\_\_\_\_\_ )

Case No. U-20722

**EXHIBITS**

**OF**

**YONG F. KEYES**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

July 2020

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Case No.: U-20722  
 Exhibit No.: A-3 (YFK-1)  
 Page: 1 of 1  
 Witness: YFKeyes  
 Date: July 2020

ELECTRIC PROVIDER OWNED RENEWABLE ENERGY SYSTEMS SUMMARY

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Project Name	Generation Technology	Nameplate Capacity	Will Capacity Count Toward Capacity Portfolio?	Total Annual Electricity Generated	Percent of Total Generated from Renewable Energy Resources	Total Renewable Energy Generated <sup>1</sup>	Total RECs Generated <sup>3</sup>	Jurisdictional RECs Generated
			MW	Y or N	MWh	%	MWh	RECs	RECs
1	Alcona Hydro	Hydroelectric	8.00	N	33,396	100.0	33,396	36,519.00	36,133
2	Calkins Bridge Hydro (Allegan)	Hydroelectric	2.55	N	13,799	100.0	13,799	15,074	14,916
3	Circuit West Solar	Solar	0.53	Y	471	100.0	471	1,533	1,517
4	Cooke Hydro	Hydroelectric	9.00	N	32,843	100.0	32,843	35,880	35,499
5	Cross Winds Energy Park	Wind	110.98	Y	320,235	100.0	320,235	320,236	316,922
6	Cross Winds Energy Park, Phase II	Wind	43.70	Y	128,268	100.0	128,268	11,809	11,677
7	Cross Winds Energy Park, Phase III	Wind	75.90	Y	46,892	100.0	46,892	52,425	51,858
8	Croton Hydro	Hydroelectric	8.85	N	39,759	100.0	39,759	43,444	42,984
9	Five Channels Hydro	Hydroelectric	6.00	N	28,298	100.0	28,298	30,935	30,607
10	Foote Hydro	Hydroelectric	9.00	N	37,030	100.0	37,030	40,491	40,061
11	Grand Valley Solar Garden	Solar	3.00	Y	3,558	100.0	3,558	1,569	1,553
12	Hardy Hydro	Hydroelectric	31.52	N <sup>2</sup>	136,553	100.0	136,553	150,284	148,690
13	Hodenpyl Hydro	Hydroelectric	17.00	N	52,820	100.0	52,820	57,734	57,124
14	Lake Winds Energy Park	Wind	100.80	Y	269,074	100.0	269,074	269,075	266,261
15	Loud Hydro	Hydroelectric	4.00	N	21,202	100.0	21,202	23,174	22,928
16	Mio Hydro	Hydroelectric	4.96	N	18,579	100.0	18,579	20,305	20,090
17	Rogers Hydro	Hydroelectric	6.76	N	16,926	100.0	16,926	18,473	18,283
18	Tippy Hydro	Hydroelectric	20.01	N	66,135	100.0	66,135	72,272	71,510
19	Webber Hydro	Hydroelectric	3.30	N	14,064	100.0	14,064	15,375	15,213
20	Western Michigan Solar Garden	Solar	1.00	Y	1,409	100.0	1,409	0	0
21	Ludington Pumped Storage	Pumped Storage	1,925.00	N	802,651	72.5	-	116,343	115,137
22	<b>TOTAL</b>		<b>2,391.86</b>		<b>2,083,960</b>		<b>1,281,309</b>	<b>1,332,950</b>	<b>1,318,960</b>

<sup>1</sup>Excludes energy generated from Ludington Pumped Storage

<sup>2</sup>In 2009, the Company completed an upgrade to the Hardy Hydro unit 3. That upgrade meets some of the requirements to be considered as a new provider owned renewable energy system in accordance with MCL 460.1033(1)(a). In accordance with the Commission order in MPSC Case No. U 16300, costs associated with the upgrade will continue to be recovered through electric rates and deliveries associated with the upgrade will be treated as if delivered from a new provider owned renewable energy system in accordance with MCL 460.1033(1)(a). The Company used the 1.52 MW of new capacity resulting from the upgrade as a credit against its renewable capacity requirement.

<sup>3</sup>In 2019, the Company's Solar Gardens produced 15,764 RECs. 9,670 Grand Valley Solar Gardens RECs and 4,525 Western Michigan Solar Gardens RECs were subscribed and retired on behalf of the customers. Retired Solar Garden RECs were not included because they will not be available for RECs portfolio compliance. As a result, these retired Solar Gardens RECs were subtracted from the Total RECs Generated. There are 1,569 RECs available for REC portfolio compliance.

<sup>3</sup>In 2019, Cross Winds Energy Park Phase II produced 138,620 RECs. 126,811 RECs are associated with subscriptions to the Large Customer Renewable Energy Program ("LC-REP") and retired on behalf of the customers. The retired LC-REP RECs are not available for REC portfolio compliance. As a result, these retired LC-REP RECs were subtracted from the Total RECs Generated. There are 11,809 RECs available for RECs portfolio compliance.

CONTRACTED RENEWABLE ENERGY SYSTEMS SUMMARY

(a) Project Name	(b) Generation Technology	(c)	(d)	(e)	(f)	(g)	(h)	(i)
		Nameplate Capacity MW	Will Capacity Count Toward Capacity Portfolio? Y of N	Total Annual Electricity Generated MWh	Percent Generated from Renewable Energy Resources %	Total Renewable Energy Generated MWh	Consumers Energy Share of Total RECs Generated RECs	Jurisdictional RECs Generated RECs
1 Adrian Energy Associates, LLC	Landfill Gas	2.50	N	13,579.93	100.0	13,580	11,505	11,385
2 Apple Blossom Wind Farm	Wind	100.05	Y	264,742.40	100.0	264,742	294,394	291,336
3 Bay Windpower	Wind	1.80	N	1,243.37	100.0	1,243	1,241	1,229
4 Beebe Renewable Energy, LLC	Wind	81.60	Y	186,705.00	100.0	186,705	186,705	184,767
5 Black River LP (Alverno) <sup>2</sup>	Hydroelectric	0.84	N	4,346.75	100.0	4,347	1,699	1,681
6 Brook View Dairy (EARP-AD)	Anerobic Digester	0.60	Y	2,468.22	100.0	2,468	2,699	2,732
7 Cadillac Renewable Energy, LLC	Biomass	34.00	N	92,932.61	100.0	92,933	81,680	80,853
8 City of Beaverton (Beaverton) <sup>2</sup>	Hydroelectric	0.50	N	3,602.17	100.0	3,602	1,392	1,378
9 Commonwealth Power Company (Irving)	Hydroelectric	0.24	N	1,473.13	100.0	1,473	1,289	1,275
10 Commonwealth Power Company (LaBarge)	Hydroelectric	0.70	N	2,034.60	100.0	2,035	1,781	1,763
11 Commonwealth Power Company (Middleville)	Hydroelectric	0.20	N	675.32	100.0	675	591	586
12 EARP-Solar	Solar	6.40	Y	6,132.64	100.0	6,133	19,719	19,513
13 Elk Rapids Hydroelectric Power, LLC (REPA) <sup>1</sup>	Hydroelectric	0.70	Y	1,999.41	100.0	1,999	1,790	1,806
14 Gas Recovery Systems, LLC (C&C 1)	Landfill Gas	2.75	N	9,388.94	100.0	9,389	8,236	8,151
15 Generate Fremont Digester	Anaerobic Digester	2.85	Y	5,322.01	100.0	5,322	5,838	5,798
16 Genesee Power Station LP	Biomass	35.00	N	86,661.58	92.5	80,188	70,138	69,419
17 Energy Developments Ltd (Grand Blanc) <sup>2</sup>	Landfill Gas	3.81	N	21,509.68	100.0	21,510	7,930	7,850
18 Energy Developments Ltd (Pinconning-Whitefeather) <sup>2</sup>	Landfill Gas	3.04	N	22,819.68	100.0	22,820	8,131	8,047
19 Energy Developments Ltd (Byron Center-Clyde) <sup>2</sup>	Landfill Gas	3.79	N	21,950.19	100.0	21,950	7,701	7,622
20 Energy Developments Ltd (Ottawa) <sup>2</sup>	Landfill Gas	4.57	N	26,199.31	100.0	26,199	9,135	9,042
21 Energy Developments Ltd (Seymour) <sup>2</sup>	Landfill Gas	0.75	N	11,979.83	100.0	11,980	4,396	4,351
22 Grayling Generating Station LP	Biomass	36.17	N	171,239.36	96.8	165,760	146,009	144,494
23 Green Meadow Farms Inc (EARP-AD)	Anerobic Digester	0.80	Y	3,355.89	100.0	3,356	4,225	4,168
24 Harvest II	Wind	59.40	Y	174,043.00	100.0	174,043	174,043	172,235
25 Heritage Garden 1 MW Solar	Solar	1.00	Y	1,269.46	100.0	1,269	4,124	4,081
26 Heritage Garden Wind Farm I	Wind	20.00	Y	52,755.83	100.0	52,756	52,756	52,210
27 Heritage Stoney Corners Wind Farm I (Phase 2)	Wind	12.25	Y	30,749.79	100.0	30,750	30,750	30,428
28 Heritage Stoney Corners Wind Farm I (Phase 3)	Wind	8.35	Y	21,008.84	100.0	21,009	21,009	20,790
29 Hillman Power Company LLC	Biomass	18.00	N	93,233.07	80.4	74,994	82,842	81,985
30 Kent County <sup>2</sup>	Municipal Solid Waste	15.68	N	96,332.39	100.0	96,332	37,043	36,663
31 Michigan Wind 2	Wind	90.00	Y	260,221.00	100.0	260,221	260,221	257,452
32 NANR, Inc (Lennon)	Landfill Gas	1.60	Y	11,284.92	100.0	11,285	12,313	12,184
33 NANR, Inc (Peoples)	Landfill Gas	3.06	N	22,731.03	100.0	22,731	19,872	19,665
34 Scenic View Dairy (EARP-AD)	Anerobic Digester	0.40	Y	2,583.96	100.0	2,584	2,820	2,725
35 STS Hydropower Ltd (Fallasburg)	Hydroelectric	0.85	N	1,766.78	100.0	1,767	774	766
36 STS Hydropower Ltd (Morrow)	Hydroelectric	1.00	N	3,199.88	100.0	3,200	2,789	2,760
37 TES Filer City Station LP	Biomass	50.00	N	455,265.86	3.4	15,670	15,245	15,087
38 Viking Energy of Lincoln LLC	Biomass	18.00	N	144,067.62	84.0	121,041	132,218	130,843
39 Viking Energy of McBain LLC	Biomass	18.00	N	143,456.78	85.6	122,823	134,488	133,092
40 White's Bridge Hydro Company <sup>2</sup>	Hydroelectric	0.82	N	4,346.59	100.0	4,347	1,665	1,648
41 WMRE, LLC (Northern Oaks)	Landfill Gas	1.60	Y	7,598.19	100.0	7,598	8,317	8,231
42 WMRE, LLC (Pine Tree Acres)	Landfill Gas	12.80	Y	69,280.48	100.0	69,280	75,712	74,941
43 WMRE, LLC (Venice Park)	Landfill Gas	1.50	N	12,492.51	100.0	12,493	10,916	10,803
44 TOTAL		657.97		2,570,050	80.0%	2,056,602	1,958,141	1,937,835

<sup>1</sup>On December 16, 2019, a new power purchase agreement was executed. As a result, Consumers Energy no longer receives any RECs from the project beginning October 13, 2019.

<sup>2</sup>On March 21, 2019, Consumers Energy issued conditional offers to the Independent Power Producers Coalition (IPPC) to resolve rights and obligations under the Public Utility Regulatory Policies Act of 1978 ("PURPA"). In accordance with the Conditional Offer, the seller is entitled to retain all Renewable Energy Credits associated with the energy generated from June 1, 2019 through May 31, 2039.

**NEW RENEWABLE ENERGY SYSTEMS SUMMARY**

	(a) Project Name	(b) Generation Technology Type	(c) Nameplate Capacity  MW	(d) Will Capacity Count Toward Capacity Portfolio?  Y of N	(e) Construction Start Date Or Acquisition Date* (May be forecast)  Date	(f) Commercial Operation Date** (May be forecast)  Date	(g) Is Project Owned by Electric Provider?  Y or N
1	Apple Blossom Wind Farm	Wind	100.05	Y	11/19/2015	11/21/2017	N
2	Beebe Wind (Formerly known as Blissfield)	Wind	81.60	Y	3/1/2012	12/18/2012	N
3	Brook View Dairy (EARP-AD)	Anaerobic Digester	0.60	Y	7/21/2014	1/1/2016	N
4	Circuit West Solar	Solar	0.53	Y	7/17/2017	10/30/2018	Y
5	Cross Winds Energy Park	Wind	110.98	Y	11/1/2013	12/12/2014	Y
6	Cross Winds Energy Park, Phase II	Wind	43.70	Y	12/20/2016	1/2/2018	Y
7	Cross Winds Energy Park, Phase III	Wind	75.90	Y	4/17/2017	12/4/2019	Y
8	EARP Solar Phases 1 & 2	Solar	2.02	Y	9/3/2009	9/2009 - 6/2011	N
9	EARP Solar Phases 3 - 35	Solar	4.38	Y	10/19/2011	2012 - 2016	N
10	Elk Rapids Hydro	Hydroelectric	0.70	Y	10/13/2009	10/13/2009	N
11	Generate Fremont Digester	Anaerobic Digester	2.85	Y	7/1/2011	12/27/2012	N
12	Grand Valley Solar Garden	Solar	3.00	Y	10/2/2015	4/18/2016	Y
13	Green Meadow Farms Inc (EARP-AD)	Anaerobic Digester	0.80	Y	7/21/2014	7/5/2017	N
14	Hardy Hydro - Unit 3 Upgrade	Hydroelectric	1.52	Y	5/5/2008	3/3/2009	Y
15	Harvest II Windfarm	Wind	59.40	Y	3/1/2012	11/1/2012	N
16	Heritage Garden Wind Farm I	Wind/Solar	21.00	Y	7/1/2011	9/14/2012	N
17	Heritage Stoney Corners Wind Farm I (Phase 2)	Wind	12.25	Y	7/1/2011	1/1/2012	N
18	Heritage Stoney Corners Wind Farm I (Phase 3)	Wind	8.35	Y	7/1/2011	1/1/2012	N
19	Lake Winds Energy Park	Wind	100.80	Y	9/1/2011	11/22/2012	Y
20	Michigan Wind 2	Wind	90.00	Y	7/1/2011	1/1/2012	N
21	North American Natural Resources - Lennon	Landfill Gas	1.60	Y	4/1/2010	12/16/2010	N
22	Scenic View Dairy (EARP-AD)	Anaerobic Digester	0.40	Y	7/21/2014	1/1/2016	N
23	WM Renewables - Northern Oaks	Landfill Gas	1.60	Y	7/1/2010	11/11/2010	N
24	WM Renewables - Pine Tree Acres	Landfill Gas	12.80	Y	10/11/2010	2/29/2012	N
25	Western Michigan Solar Garden	Solar	1.00	Y	8/14/2015	8/15/2016	Y
26	TOTAL		737.83				

\* In the case of projects not owned by the electric provider, this is the date the purchase agreement became effective or the "Provisional Award Date" for EARP-AD

\*\* In the case of projects not owned by the electric provider, this is the date that delivery of energy commenced

**MICHIGAN PUBLIC SERVICE COMMISSION**

Consumers Energy Company

Case No.: U-20722  
Exhibit: A-6 (YFK-4)  
Page: 1 of 1  
Witness: YFKeyes  
Date: July 2020

**2019 RENEWABLE ENERGY CREDIT COMPLIANCE OBLIGATION**

(a) (b) (c)\*

Year	Actual Retail Sales MWh	12.5% Compliance %
1 2016	33,659,724	3,318,873
2 2017	33,248,491	3,318,873
3 2018	34,088,752	3,318,873
4 2019	32,707,947	4,208,207

\* The Company achieved RPS compliance in 2015 with 3,318,873 RECs. Section 27 of PA 295 specified that the Company's REC portfolio consist of at least this same number of RECs in each year after 2015. MCL 460.1028(1)(b) established new REC portfolio requirements beginning in 2019.

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Case No.: U-20722  
 Exhibit No.: A-7 (YFK-5)  
 Page: 1 of 1  
 Witness: YFKeyes  
 Date: July 2020

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE SUMMARY

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Year	Compliance Obligation	ACECs Available	EWR Credits Available	Total EWR Credits and ACECs Substituted for RECs	ACEC and EOC percent of Compliance Obligation	Pre-Enactment Resources	Market Purchases	New Renewable Energy Purchase Agreement Resources	New Electric Service Provider Owned Resources	(g) + (h) + (i) + (j) Total RECs Used for Compliance	(e) + (k) Total RECs or REC Equivalents Retired
	REC	ACEC	EOC	REC	%	REC	REC	REC	REC	REC	REC
1 2018			73,316								
2 2019	4,208,207	-	-	73,316	1.74%	1,925,348	107,108	1,255,643	846,792	4,134,891	4,208,207

Consumers Energy Company

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
 Pre-Announced Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	
sa)type	Sub-Account	Sub-Account ID	MIRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	MI Eligible	MI End Date	
1	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Hydroelectric Water	RECS	Jan-17	MIRECS-REC-131-MI-01-2017-38905-159 to 789	631	Yes	1/31/2020
2	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Incentive	IREC	Jan-17	MIRECS-REC-131-MI-01-2017-38906-15 to 70	56	Yes	1/31/2020
3	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-131-MI-02-2017-38907-147 to 728	562	Yes	2/28/2020
4	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Incentive	IREC	Feb-17	MIRECS-REC-131-MI-02-2017-38908-15 to 69	56	Yes	2/28/2020
5	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Hydroelectric Water	RECS	Mar-17	MIRECS-REC-131-MI-03-2017-38909-142 to 103	562	Yes	3/31/2020
6	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Incentive	IREC	Mar-17	MIRECS-REC-131-MI-03-2017-38910-15 to 69	55	Yes	3/31/2020
7	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Hydroelectric Water	RECS	Apr-17	MIRECS-REC-131-MI-04-2017-40100-84 to 412	329	Yes	4/30/2022
8	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Incentive	IREC	Apr-17	MIRECS-REC-131-MI-04-2017-40101-9 to 36	28	Yes	4/30/2022
9	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Hydroelectric Water	RECS	May-17	MIRECS-REC-131-MI-05-2017-40102-132 to 681	520	Yes	5/31/2022
10	COM	2019 Compliance - Consumers Energy Company	1158	GEN131	Ada Dam - Ada Dam	11/19/26	Incentive	IREC	May-17	MIRECS-REC-131-MI-05-2017-40103-14 to 61	48	Yes	5/31/2022
11	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Jan-17	MIRECS-REC-77-MI-01-2017-38893-295 to 1468	1,174	Yes	1/31/2020
12	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Jan-17	MIRECS-REC-77-MI-01-2017-38894-28 to 132	105	Yes	1/31/2020
13	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Feb-17	MIRECS-REC-77-MI-02-2017-38895-25 to 116	98	Yes	2/28/2020
14	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Feb-17	MIRECS-REC-77-MI-02-2017-38896-25 to 116	1,052	Yes	2/28/2020
15	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Mar-17	MIRECS-REC-77-MI-03-2017-38897-267 to 1329	1,063	Yes	3/31/2020
16	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Mar-17	MIRECS-REC-77-MI-03-2017-38898-27 to 129	103	Yes	3/31/2020
17	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Apr-17	MIRECS-REC-77-MI-04-2017-40124-252 to 1251	1,000	Yes	4/30/2022
18	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Apr-17	MIRECS-REC-77-MI-04-2017-40125-25 to 116	92	Yes	4/30/2022
19	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	May-17	MIRECS-REC-77-MI-05-2017-40127-25 to 119	95	Yes	5/31/2022
20	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	May-17	MIRECS-REC-77-MI-05-2017-40128-24 to 1199	959	Yes	5/31/2022
21	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Jun-17	MIRECS-REC-77-MI-06-2017-40129-25 to 116	912	Yes	6/30/2022
22	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Jun-17	MIRECS-REC-77-MI-06-2017-40129-25 to 116	912	Yes	6/30/2022
23	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Jul-17	MIRECS-REC-77-MI-07-2017-40724-25 to 1274	86	Yes	7/31/2022
24	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Jul-17	MIRECS-REC-77-MI-07-2017-40725-23 to 109	87	Yes	7/31/2022
25	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Aug-17	MIRECS-REC-77-MI-08-2017-40726-249 to 1236	98	Yes	8/31/2022
26	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Aug-17	MIRECS-REC-77-MI-08-2017-40727-25 to 120	96	Yes	8/31/2022
27	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Sep-17	MIRECS-REC-77-MI-09-2017-40728-247 to 1228	98	Yes	9/30/2022
28	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Sep-17	MIRECS-REC-77-MI-09-2017-40729-23 to 110	82	Yes	9/30/2022
29	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Oct-17	MIRECS-REC-77-MI-10-2017-42955-263 to 130	2,048	Yes	10/31/2022
30	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Oct-17	MIRECS-REC-77-MI-10-2017-42953-26 to 122	97	Yes	10/31/2022
31	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Nov-17	MIRECS-REC-77-MI-11-2017-42954-254 to 1265	1,012	Yes	11/30/2022
32	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Nov-17	MIRECS-REC-77-MI-11-2017-42955-24 to 115	92	Yes	11/30/2022
33	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Dec-17	MIRECS-REC-77-MI-12-2017-42956-26 to 1297	1,037	Yes	12/31/2022
34	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Dec-17	MIRECS-REC-77-MI-12-2017-42957-23 to 104	87	Yes	12/31/2022
35	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Jan-18	MIRECS-REC-77-MI-01-2018-48436-251 to 1249	99	Yes	1/31/2023
36	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Jan-18	MIRECS-REC-77-MI-01-2018-48437-25 to 118	94	Yes	1/31/2023
37	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Feb-18	MIRECS-REC-77-MI-02-2018-48438-228 to 1131	904	Yes	2/28/2023
38	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Feb-18	MIRECS-REC-77-MI-02-2018-48439-23 to 107	85	Yes	2/28/2023
39	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Landfill Gas	RECS	Mar-18	MIRECS-REC-77-MI-03-2018-48440-247 to 1209	982	Yes	3/31/2023
40	COM	2019 Compliance - Consumers Energy Company	1158	GEN77	Adrian Energy Associates - Adrian	12/1/1994	Incentive	IREC	Mar-18	MIRECS-REC-77-MI-03-2018-48441-25 to 117	93	Yes	3/31/2023
41	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Jan-17	MIRECS-REC-81-MI-01-2017-48655-1 to 2531	2,531	Yes	1/31/2020
42	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Jan-17	MIRECS-REC-81-MI-01-2017-48656-1 to 236	236	Yes	1/31/2020
43	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-81-MI-02-2017-48657-1 to 2602	2,602	Yes	2/28/2020
44	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Feb-17	MIRECS-REC-81-MI-02-2017-48658-1 to 242	242	Yes	2/28/2020
45	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Mar-17	MIRECS-REC-81-MI-03-2017-48659-1 to 3342	3,342	Yes	3/31/2020
46	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Mar-17	MIRECS-REC-81-MI-03-2017-48660-1 to 337	337	Yes	3/31/2020
47	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Apr-17	MIRECS-REC-81-MI-04-2017-48661-331 to 3821	512	Yes	4/30/2022
48	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Apr-17	MIRECS-REC-81-MI-04-2017-48662-316 to 351	36	Yes	4/30/2022
49	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	May-17	MIRECS-REC-81-MI-05-2017-48663-1 to 314	3,141	Yes	5/31/2022
50	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	May-17	MIRECS-REC-81-MI-05-2017-48664-1 to 299	299	Yes	5/31/2022
51	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Jun-17	MIRECS-REC-81-MI-06-2017-48665-1 to 2570	2,570	Yes	6/30/2022
52	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Jun-17	MIRECS-REC-81-MI-06-2017-48666-1 to 257	257	Yes	6/30/2022
53	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Jul-17	MIRECS-REC-81-MI-07-2017-48667-1 to 2515	2,515	Yes	7/31/2022
54	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Jul-17	MIRECS-REC-81-MI-07-2017-48668-1 to 219	219	Yes	7/31/2022
55	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-81-MI-08-2017-48669-1 to 2321	2,321	Yes	8/31/2022
56	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Aug-17	MIRECS-REC-81-MI-08-2017-48670-1 to 220	220	Yes	8/31/2022
57	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Sep-17	MIRECS-REC-81-MI-09-2017-48671-1 to 2015	2,015	Yes	9/30/2022
58	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Sep-17	MIRECS-REC-81-MI-09-2017-48672-1 to 181	181	Yes	9/30/2022
59	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Oct-17	MIRECS-REC-81-MI-10-2017-48673-1 to 2033	2,033	Yes	10/31/2022
60	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Oct-17	MIRECS-REC-81-MI-10-2017-48674-1 to 249	249	Yes	10/31/2022
61	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Nov-17	MIRECS-REC-81-MI-11-2017-48675-1 to 3124	3,124	Yes	11/30/2022
62	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Nov-17	MIRECS-REC-81-MI-11-2017-48676-1 to 287	287	Yes	11/30/2022
63	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Dec-17	MIRECS-REC-81-MI-12-2017-48677-1 to 2648	2,648	Yes	12/31/2022
64	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Dec-17	MIRECS-REC-81-MI-12-2017-48678-1 to 221	221	Yes	12/31/2022
65	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS	Jan-18	MIRECS-REC-81-MI-01-2018-55157-1 to 2536	2,536	Yes	1/31/2023
66	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Incentive	IREC	Jan-18	MIRECS-REC-81-MI-01-2018-55158-1 to 243	243	Yes	1/31/2023
67	COM	2019 Compliance - Consumers Energy Company	1158	GEN81	Alcona Hydro - Alcona Hydro	12/4/1924	Hydroelectric Water	RECS					

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
Pre-Enactment Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
SAIT	Sub-Account	Sub-Account ID	MIRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	Eligible	M Eligible End Date
151	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	May-17	MIRECS-REC-188-MI-05-2017-40132-262 to 1303	1,042	Yes	5/31/2022
152	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	May-17	MIRECS-REC-188-MI-05-2017-40133-27 to 126	100	Yes	5/31/2022
153	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Jun-17	MIRECS-REC-188-MI-06-2017-40134-282 to 142	1,121	Yes	6/30/2022
154	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Jun-17	MIRECS-REC-188-MI-06-2017-40135-30 to 142	1,121	Yes	6/30/2022
155	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Jul-17	MIRECS-REC-188-MI-07-2017-40635-254 to 1261	1,008	Yes	7/31/2022
156	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Jul-17	MIRECS-REC-188-MI-07-2017-40636-24 to 111	88	Yes	7/31/2022
157	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Aug-17	MIRECS-REC-188-MI-08-2017-40637-248 to 1231	984	Yes	8/31/2022
158	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Aug-17	MIRECS-REC-188-MI-08-2017-40638-25 to 120	96	Yes	8/31/2022
159	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Sep-17	MIRECS-REC-188-MI-09-2017-40639-251 to 250	1,000	Yes	9/30/2022
160	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Sep-17	MIRECS-REC-188-MI-09-2017-40640-24 to 114	91	Yes	9/30/2022
161	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Oct-17	MIRECS-REC-188-MI-10-2017-43116-248 to 1231	984	Yes	10/31/2022
162	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Oct-17	MIRECS-REC-188-MI-10-2017-43117-26 to 121	96	Yes	10/31/2022
163	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Nov-17	MIRECS-REC-188-MI-11-2017-43118-248 to 1234	987	Yes	11/30/2022
164	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Nov-17	MIRECS-REC-188-MI-11-2017-43119-25 to 116	82	Yes	11/30/2022
165	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Dec-17	MIRECS-REC-188-MI-12-2017-43120-224 to 114	81	Yes	12/31/2022
166	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Dec-17	MIRECS-REC-188-MI-12-2017-43121-22 to 101	80	Yes	12/31/2022
167	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Jan-18	MIRECS-REC-188-MI-01-2018-47441-184 to 915	732	Yes	1/31/2023
168	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Jan-18	MIRECS-REC-188-MI-01-2018-47442-19 to 100	72	Yes	1/31/2023
169	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Feb-18	MIRECS-REC-188-MI-02-2018-47443-187 to 921	743	Yes	2/28/2023
170	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Feb-18	MIRECS-REC-188-MI-02-2018-47444-19 to 90	72	Yes	2/28/2023
171	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Landfill Gas	RECS	Mar-18	MIRECS-REC-188-MI-03-2018-47445-211 to 1048	838	Yes	3/31/2023
172	2019 Compliance - Consumers Energy Company	1158	GEN188	C&C Electric - 1 C&C-1	2/1/1995	Incentive	IREC	Mar-18	MIRECS-REC-188-MI-03-2018-47446-23 to 103	82	Yes	3/31/2023
173	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Jan-17	MIRECS-REC-47-MI-01-2017-39549-232 to 11679	9,540	Yes	1/31/2020
174	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Feb-17	MIRECS-REC-47-MI-02-2017-39550-228 to 1171	9,540	Yes	1/31/2020
175	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Feb-17	MIRECS-REC-47-MI-02-2017-39551-1901 to 9500	7,600	Yes	2/28/2020
176	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Feb-17	MIRECS-REC-47-MI-02-2017-39554-411 to 913	503	Yes	2/28/2020
177	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Mar-17	MIRECS-REC-47-MI-03-2017-39341-1883 to 9411	7,529	Yes	3/31/2020
178	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Mar-17	MIRECS-REC-47-MI-03-2017-39342-195 to 928	734	Yes	3/31/2020
179	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Apr-17	MIRECS-REC-47-MI-04-2017-39756-215 to 10233	8,579	Yes	4/30/2022
180	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Apr-17	MIRECS-REC-47-MI-04-2017-39757-202 to 1008	807	Yes	4/30/2022
181	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	May-17	MIRECS-REC-47-MI-05-2017-39954-2457 to 12283	9,827	Yes	5/31/2022
182	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	May-17	MIRECS-REC-47-MI-05-2017-39955-273 to 1359	1,057	Yes	5/31/2022
183	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Jun-17	MIRECS-REC-47-MI-06-2017-40152-2363 to 11812	9,480	Yes	6/30/2022
184	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Jun-17	MIRECS-REC-47-MI-06-2017-40153-2363 to 11812	9,480	Yes	6/30/2022
185	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Jul-17	MIRECS-REC-47-MI-07-2017-40434-2836 to 14177	11,342	Yes	7/31/2022
186	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Jul-17	MIRECS-REC-47-MI-07-2017-40435-310 to 1547	1,238	Yes	7/31/2022
187	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Aug-17	MIRECS-REC-47-MI-08-2017-40604-2535 to 12673	10,130	Yes	8/31/2022
188	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Aug-17	MIRECS-REC-47-MI-08-2017-40605-287 to 1429	1,143	Yes	8/31/2022
189	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Aug-17	MIRECS-REC-47-MI-08-2017-40606-2150 to 10767	8,754	Yes	8/30/2022
190	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Sep-17	MIRECS-REC-47-MI-09-2017-40875-219 to 1090	752	Yes	9/30/2022
191	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Oct-17	MIRECS-REC-47-MI-10-2017-42339-2136 to 9669	9,734	Yes	10/31/2022
192	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Oct-17	MIRECS-REC-47-MI-10-2017-42340-205 to 895	791	Yes	10/31/2022
193	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Nov-17	MIRECS-REC-47-MI-11-2017-46709-10 to 922	8,822	Yes	11/30/2022
194	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Nov-17	MIRECS-REC-47-MI-11-2017-46710-1 to 852	852	Yes	11/30/2022
195	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Dec-17	MIRECS-REC-47-MI-12-2017-46711-1 to 924	9,249	Yes	12/31/2022
196	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Dec-17	MIRECS-REC-47-MI-12-2017-46712-1 to 794	794	Yes	12/31/2022
197	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Jan-18	MIRECS-REC-47-MI-01-2018-47315-12892 to 15458	2,578	Yes	1/31/2023
198	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Jan-18	MIRECS-REC-47-MI-01-2018-47315-1 to 10313	10,313	Yes	1/31/2023
199	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Jan-18	MIRECS-REC-47-MI-01-2018-47316-1 to 10313	10,313	Yes	1/31/2023
200	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Jan-18	MIRECS-REC-47-MI-01-2018-47316-1 to 1034	1,034	Yes	1/31/2023
201	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Feb-18	MIRECS-REC-47-MI-02-2018-47347-7793 to 9350	1,558	Yes	2/28/2023
202	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Feb-18	MIRECS-REC-47-MI-02-2018-47347-1975 to 6234	4,260	Yes	2/28/2023
203	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Feb-18	MIRECS-REC-47-MI-02-2018-47348-771 to 924	1,456	Yes	2/28/2023
204	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Feb-18	MIRECS-REC-47-MI-02-2018-47349-1 to 924	1,456	Yes	2/28/2023
205	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Mar-18	MIRECS-REC-47-MI-03-2018-47785-7089 to 8506	1,478	Yes	3/31/2023
206	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Mar-18	MIRECS-REC-47-MI-03-2018-47785-1 to 5670	5,670	Yes	3/31/2023
207	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Biomass	RECS	Mar-18	MIRECS-REC-47-MI-03-2018-47786-688 to 825	1,500	Yes	3/31/2023
208	2019 Compliance - Consumers Energy Company	1158	GEN47	Cadillac Renewable Energy LLC - Unit 2	7/16/1993	Incentive	IREC	Mar-18	MIRECS-REC-47-MI-03-2018-47786-1 to 550	550	Yes	3/31/2023
209	2019 Compliance - Consumers Energy Company	1158	GEN80	Calkins Bridge Hydro - Calkins Bridge Hydro	6/1/1936	Hydroelectric Water	RECS	Jan-17	MIRECS-REC-80-MI-01-2017-48771-1 to 1485	1,485	Yes	1/31/2020
210	2019 Compliance - Consumers Energy Company	1158	GEN80	Calkins Bridge Hydro - Calkins Bridge Hydro	6/1/1936	Incentive	IREC	Jan-17	MIRECS-REC-80-MI-01-2017-48778-1 to 1485	1,485	Yes	1/31/2020
211	2019 Compliance - Consumers Energy Company	1158	GEN80	Calkins Bridge Hydro - Calkins Bridge Hydro	6/1/1936	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-80-MI-02-2017-48779-1 to 1484	1,484	Yes	2/28/2020
212	2019 Compliance - Consumers Energy Company	1158	GEN80	Calkins Bridge Hydro - Calkins Bridge Hydro	6/1/1936	Incentive	IREC	Feb-17	MIRECS-REC-80-MI-02-2017-48780-1 to 141	141	Yes	2/28/2020
213	2019 Compliance - Consumers Energy Company	1158	GEN80	Calkins Bridge Hydro - Calkins Bridge Hydro	6/1/1936	Hydroelectric Water	RECS	Mar-17	MIRECS-REC-80-MI-03-2017-48781-1 to 1510	1,510	Yes	3/31/2020
214	2019 Compliance - Consumers Energy Company	1158	GEN80	Calkins Bridge Hydro - Calkins Bridge Hydro	6/1/1936	Incentive	IREC	Mar-17	MIRECS-REC-80-MI-03-2017-48782-1 to 145	145	Yes	3/31/2020
215	2019 Compliance - Consumers Energy Company	1158	GEN80	Calkins Bridge Hydro - Calkins Bridge Hydro	6/1/1936	Hydroelectric Water	RECS	Apr-17	MIRECS-REC-80-MI-04-2017-48783-1 to 1409	1,409	Yes	4/30/2022
216	2019 Compliance - Consumers Energy Company	1158	GEN80	Calkins Bridge Hydro - Calkins Bridge Hydro	6/1/1936	Incentive	IREC	Apr-17	MIRECS-REC-80-MI-04-2017-48784-1 to 128	128	Yes	4/30/2022
217	2019 Compliance - Consumers Energy Company	1158	GEN80	Calkins Bridge Hydro - Calkins Bridge Hydro	6/1/1936	Hydroelectric Water	RECS	May-17	MIRECS-REC			

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(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
sa1 type	Sub-Account	Sub-Account ID	MRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	MI Eligible	MI Eligibility End Date
301	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-83-MI-02-2017-48681-1 to 3572	3,572	Yes	2/28/2020
302	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Feb-17	MIRECS-REC-83-MI-02-2017-48682-1 to 341	341	Yes	2/28/2020
303	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	IRECS	Mar-17	MIRECS-REC-83-MI-03-2017-48683-1 to 4976	4,976	Yes	3/31/2020
304	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Mar-17	MIRECS-REC-83-MI-03-2017-48684-1 to 1604	1,604	Yes	3/31/2020
305	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	IRECS	Apr-17	MIRECS-REC-83-MI-04-2017-48685-1 to 5296	5,296	Yes	4/30/2022
306	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Apr-17	MIRECS-REC-83-MI-04-2017-48686-1 to 471	471	Yes	4/30/2022
307	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	May-17	MIRECS-REC-83-MI-05-2017-48687-1 to 4346	4,346	Yes	5/31/2022
308	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	May-17	MIRECS-REC-83-MI-05-2017-48688-1 to 4222	4,222	Yes	5/31/2022
309	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Jun-17	MIRECS-REC-83-MI-06-2017-48689-1 to 3603	3,603	Yes	6/30/2022
310	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Jun-17	MIRECS-REC-83-MI-06-2017-48690-1 to 360	360	Yes	6/30/2022
311	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Jul-17	MIRECS-REC-83-MI-07-2017-48691-1 to 960	960	Yes	7/31/2022
312	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Jul-17	MIRECS-REC-83-MI-07-2017-48692-1 to 59	59	Yes	7/31/2022
313	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Sep-17	MIRECS-REC-83-MI-09-2017-48693-1 to 16	16	Yes	9/30/2022
314	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Sep-17	MIRECS-REC-83-MI-09-2017-48694-1 to 1871	1,871	Yes	12/31/2022
315	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Oct-17	MIRECS-REC-83-MI-10-2017-48695-1 to 1333	1,333	Yes	10/31/2022
316	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Oct-17	MIRECS-REC-83-MI-10-2017-48696-1 to 126	126	Yes	10/31/2022
317	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Nov-17	MIRECS-REC-83-MI-11-2017-48697-1 to 3533	3,533	Yes	11/30/2022
318	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Nov-17	MIRECS-REC-83-MI-11-2017-48698-1 to 330	330	Yes	11/30/2022
319	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Dec-17	MIRECS-REC-83-MI-12-2017-48699-1 to 1871	1,871	Yes	12/31/2022
320	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Dec-17	MIRECS-REC-83-MI-12-2017-48700-1 to 155	155	Yes	12/31/2022
321	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Jan-18	MIRECS-REC-83-MI-01-2018-52506-1 to 2207	2,207	Yes	1/31/2023
322	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Jan-18	MIRECS-REC-83-MI-01-2018-52506-1 to 196	196	Yes	1/31/2023
323	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Feb-18	MIRECS-REC-83-MI-02-2018-52507-1 to 3522	3,522	Yes	2/28/2023
324	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Feb-18	MIRECS-REC-83-MI-02-2018-52508-1 to 334	334	Yes	2/28/2023
325	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Hydroelectric Water	RECS	Mar-18	MIRECS-REC-83-MI-03-2018-52509-1 to 4282	4,282	Yes	3/31/2023
326	2019 Compliance - Consumers Energy Company	1158	GEN83	Craton Hydro - Craton Hydro	9/9/2007	Incentive	IRECS	Mar-18	MIRECS-REC-83-MI-03-2018-52510-1 to 408	408	Yes	3/31/2023
327	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Jan-17	MIRECS-REC-133-MI-01-2017-38917-108 to 535	428	Yes	1/31/2020
328	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Jan-17	MIRECS-REC-133-MI-01-2017-38918-1 to 49	39	Yes	1/31/2020
329	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-133-MI-02-2017-38919-90 to 445	356	Yes	2/28/2020
330	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Feb-17	MIRECS-REC-133-MI-02-2017-38920-10 to 42	36	Yes	2/28/2020
331	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Mar-17	MIRECS-REC-133-MI-03-2017-38921-93 to 456	334	Yes	3/31/2020
332	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Mar-17	MIRECS-REC-133-MI-03-2017-38922-10 to 42	36	Yes	3/31/2020
333	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Apr-17	MIRECS-REC-133-MI-04-2017-40110-92 to 453	362	Yes	4/30/2022
334	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Apr-17	MIRECS-REC-133-MI-04-2017-40111-10 to 31	32	Yes	4/30/2022
335	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	May-17	MIRECS-REC-133-MI-05-2017-40112-105 to 517	413	Yes	5/31/2022
336	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	May-17	MIRECS-REC-133-MI-05-2017-40113-1 to 50	40	Yes	5/31/2022
337	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Jun-17	MIRECS-REC-133-MI-06-2017-40114-8 to 423	338	Yes	6/30/2022
338	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Jun-17	MIRECS-REC-133-MI-06-2017-40115-10 to 42	33	Yes	6/30/2022
339	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Dec-17	MIRECS-REC-133-MI-12-2017-40368-72 to 353	281	Yes	7/31/2022
340	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Jul-17	MIRECS-REC-133-MI-07-2017-40477-3 to 30	24	Yes	7/31/2022
341	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-133-MI-08-2017-40484-10 to 191	152	Yes	8/31/2022
342	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Sep-17	MIRECS-REC-133-MI-08-2017-40485-19 to 15	15	Yes	8/31/2022
343	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-133-MI-08-2017-40504-24 to 111	88	Yes	9/30/2022
344	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Sep-17	MIRECS-REC-133-MI-09-2017-40505-1 to 292	244	Yes	9/30/2022
345	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Oct-17	MIRECS-REC-133-MI-10-2017-43000-66 to 322	257	Yes	10/31/2022
346	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Oct-17	MIRECS-REC-133-MI-10-2017-43001-8 to 321	24	Yes	10/31/2022
347	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Nov-17	MIRECS-REC-133-MI-11-2017-43002-90 to 442	353	Yes	11/30/2022
348	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Nov-17	MIRECS-REC-133-MI-11-2017-43003-10 to 41	32	Yes	11/30/2022
349	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Hydroelectric Water	RECS	Dec-17	MIRECS-REC-133-MI-12-2017-43008-75 to 370	298	Yes	12/31/2022
350	2019 Compliance - Consumers Energy Company	1158	GEN133	Fallsburg Dam - Fallsburg Dam	11/1/1903	Incentive	IRECS	Dec-17	MIRECS-REC-133-MI-12-2017-43007-3 to 24	24	Yes	12/31/2022
351	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water	RECS	Jan-17	MIRECS-REC-84-MI-01-2017-48825-1 to 2225	2,225	Yes	1/31/2020
352	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Incentive	IRECS	Jan-17	MIRECS-REC-84-MI-01-2017-48826-1 to 210	210	Yes	1/31/2020
353	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-84-MI-02-2017-48827-1 to 2294	2,294	Yes	2/28/2020
354	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Incentive	IRECS	Feb-17	MIRECS-REC-84-MI-02-2017-48828-1 to 214	214	Yes	2/28/2020
355	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water	RECS	Mar-17	MIRECS-REC-84-MI-03-2017-48829-1 to 3056	3,056	Yes	3/31/2020
356	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Incentive	IRECS	Mar-17	MIRECS-REC-84-MI-03-2017-48830-1 to 309	309	Yes	3/31/2020
357	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water	RECS	Apr-17	MIRECS-REC-84-MI-04-2017-48831-1 to 3591	3,591	Yes	4/30/2022
358	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Incentive	IRECS	Apr-17	MIRECS-REC-84-MI-04-2017-48832-1 to 326	326	Yes	4/30/2022
359	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water	RECS	May-17	MIRECS-REC-84-MI-05-2017-48833-1 to 2762	2,762	Yes	5/31/2022
360	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Incentive	IRECS	May-17	MIRECS-REC-84-MI-05-2017-48834-1 to 265	265	Yes	5/31/2022
361	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water	RECS	Jun-17	MIRECS-REC-84-MI-06-2017-48835-1 to 2148	2,148	Yes	6/30/2022
362	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Incentive	IRECS	Jun-17	MIRECS-REC-84-MI-06-2017-48836-1 to 216	216	Yes	6/30/2022
363	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water	RECS	Jul-17	MIRECS-REC-84-MI-07-2017-48837-1 to 1984	1,984	Yes	7/31/2022
364	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Incentive	IRECS	Jul-17	MIRECS-REC-84-MI-07-2017-48838-1 to 216	216	Yes	7/31/2022
365	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-84-MI-08-2017-48839-1 to 1932	1,932	Yes	8/31/2022
366	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Incentive	IRECS	Aug-17	MIRECS-REC-84-MI-08-2017-48840-1 to 254	254	Yes	8/31/2022
367	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water	RECS	Sep-17	MIRECS-REC-84-MI-09-2017-48841-1 to 1807	1,807	Yes	9/30/2022
368	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Incentive	IRECS	Sep-17	MIRECS-REC-84-MI-09-2017-48842-1 to 184	184	Yes	9/30/2022
369	2019 Compliance - Consumers Energy Company	1158	GEN84	Five Channels Hydro - Five Channels Hydro	11/1/1912	Hydroelectric Water						

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
 Pre-Entitlement

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
satType	Sub-Account	Sub-Account ID	MRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	Eligible	Mi Eligibility End Date
451	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Aug-17	MIRECS-REC-45-MI-08-2017-50817-1 to 1543	1,543	Yes	8/31/2022
452	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Aug-17	MIRECS-REC-45-MI-08-2017-50818-1 to 150	150	Yes	8/31/2022
453	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Aug-17	MIRECS-REC-45-MI-09-2017-50819-1 to 1494	1,494	Yes	9/30/2022
454	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Aug-17	MIRECS-REC-45-MI-09-2017-50820-1 to 131	131	Yes	9/30/2022
455	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Oct-17	MIRECS-REC-45-MI-10-2017-50821-1 to 1522	1,522	Yes	10/31/2022
456	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Oct-17	MIRECS-REC-45-MI-10-2017-50822-1 to 151	151	Yes	10/31/2022
457	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Nov-17	MIRECS-REC-45-MI-11-2017-50823-1 to 1280	1,280	Yes	11/30/2022
458	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Nov-17	MIRECS-REC-45-MI-11-2017-50824-1 to 114	114	Yes	11/30/2022
459	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Nov-17	MIRECS-REC-45-MI-12-2017-50825-1 to 1602	1,602	Yes	12/31/2022
460	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Dec-17	MIRECS-REC-45-MI-12-2017-50826-1 to 138	138	Yes	12/31/2022
461	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Jan-18	MIRECS-REC-45-MI-01-2018-54737-1 to 1691	1,691	Yes	1/31/2023
462	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Jan-18	MIRECS-REC-45-MI-01-2018-54738-1 to 159	159	Yes	1/31/2023
463	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Feb-18	MIRECS-REC-45-MI-02-2018-54739-1 to 1466	1,466	Yes	2/28/2023
464	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Feb-18	MIRECS-REC-45-MI-02-2018-54740-1 to 136	136	Yes	2/28/2023
465	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Mar-18	MIRECS-REC-45-MI-03-2018-54741-1 to 1602	1,602	Yes	3/31/2023
466	2019 Compliance - Consumers Energy Company	1158	GEN45	Grand Blanc - Grand Blanc Facility #1	7/27/1994	Landfill Gas	RECS	Mar-18	MIRECS-REC-45-MI-03-2018-54742-1 to 152	152	Yes	3/31/2023
467	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Jan-17	MIRECS-REC-41-MI-01-2017-39772-2804 to 14012	11,209	Yes	1/31/2022
468	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Jan-17	MIRECS-REC-41-MI-01-2017-39773-488 to 1338	8,953	Yes	1/31/2022
469	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Feb-17	MIRECS-REC-41-MI-02-2017-39774-190 to 943	9,500	Yes	2/28/2022
470	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Feb-17	MIRECS-REC-41-MI-02-2017-39775-229 to 1137	909	Yes	2/28/2022
471	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Mar-17	MIRECS-REC-41-MI-03-2017-39776-2696 to 13475	10,780	Yes	3/31/2023
472	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Mar-17	MIRECS-REC-41-MI-03-2017-39777-275 to 1369	1,093	Yes	3/31/2023
473	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Apr-17	MIRECS-REC-41-MI-04-2017-39778-220 to 10992	754	Yes	4/30/2022
474	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Apr-17	MIRECS-REC-41-MI-04-2017-39779-190 to 943	9,500	Yes	4/30/2022
475	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	May-17	MIRECS-REC-41-MI-05-2017-40908-2730 to 13677	10,941	Yes	5/31/2022
476	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	May-17	MIRECS-REC-41-MI-05-2017-40909-280 to 1392	1,113	Yes	5/31/2022
477	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Jun-17	MIRECS-REC-41-MI-06-2017-40910-2300 to 11894	9,500	Yes	6/30/2022
478	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Jun-17	MIRECS-REC-41-MI-06-2017-40911-253 to 1260	1,016	Yes	6/30/2022
479	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Jul-17	MIRECS-REC-41-MI-07-2017-40912-258 to 1352	10,729	Yes	7/31/2022
480	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Jul-17	MIRECS-REC-41-MI-07-2017-40913-258 to 1284	1,027	Yes	7/31/2022
481	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Aug-17	MIRECS-REC-41-MI-08-2017-40914-2678 to 13385	10,708	Yes	8/31/2022
482	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Aug-17	MIRECS-REC-41-MI-08-2017-40915-279 to 1390	1,112	Yes	8/31/2022
483	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Sep-17	MIRECS-REC-41-MI-09-2017-40916-2794 to 13963	11,170	Yes	9/30/2022
484	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Sep-17	MIRECS-REC-41-MI-09-2017-40917-21 to 1347	1,078	Yes	9/30/2022
485	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Oct-17	MIRECS-REC-41-MI-10-2017-45708-1916 to 9573	7,658	Yes	10/31/2022
486	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Oct-17	MIRECS-REC-41-MI-10-2017-45709-192 to 954	763	Yes	10/31/2022
487	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Nov-17	MIRECS-REC-41-MI-11-2017-45708-2610 to 13089	10,473	Yes	11/30/2022
488	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Nov-17	MIRECS-REC-41-MI-11-2017-45709-252 to 1254	1,001	Yes	11/30/2022
489	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Dec-17	MIRECS-REC-41-MI-12-2017-45710-2722 to 13692	10,981	Yes	12/31/2022
490	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Dec-17	MIRECS-REC-41-MI-12-2017-45711-228 to 1135	901	Yes	12/31/2022
491	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Jan-18	MIRECS-REC-41-MI-01-2018-49178-3093 to 15458	12,366	Yes	1/31/2023
492	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Jan-18	MIRECS-REC-41-MI-01-2018-49179-290 to 1479	1,183	Yes	1/31/2023
493	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Feb-18	MIRECS-REC-41-MI-02-2018-49180-240 to 11993	9,584	Yes	2/28/2023
494	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Feb-18	MIRECS-REC-41-MI-02-2018-49181-231 to 1149	1,119	Yes	2/28/2023
495	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Mar-18	MIRECS-REC-41-MI-03-2018-49182-5513 to 13420	7,908	Yes	3/31/2023
496	2019 Compliance - Consumers Energy Company	1158	GEN41	Graying Generating Station - CONS.GRAYLING	6/1/1992	Biomass	RECS	Mar-18	MIRECS-REC-41-MI-03-2018-49183-489 to 1280	792	Yes	3/31/2023
497	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Jan-17	MIRECS-REC-307-MI-01-2017-48600-1 to 155	155	Yes	1/31/2022
498	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Jan-17	MIRECS-REC-307-MI-01-2017-48601-1 to 14	14	Yes	1/31/2022
499	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-307-MI-02-2017-48602-1 to 14	14	Yes	2/28/2022
500	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-307-MI-02-2017-48603-1 to 14	14	Yes	2/28/2022
501	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Mar-17	MIRECS-REC-307-MI-03-2017-48604-1 to 162	162	Yes	3/31/2022
502	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Mar-17	MIRECS-REC-307-MI-03-2017-48605-1 to 16	16	Yes	3/31/2022
503	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Apr-17	MIRECS-REC-307-MI-04-2017-48606-1 to 156	156	Yes	4/30/2022
504	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Apr-17	MIRECS-REC-307-MI-04-2017-48607-1 to 156	156	Yes	4/30/2022
505	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	May-17	MIRECS-REC-307-MI-05-2017-48608-1 to 161	161	Yes	5/31/2022
506	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	May-17	MIRECS-REC-307-MI-05-2017-48609-1 to 16	16	Yes	5/31/2022
507	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Jun-17	MIRECS-REC-307-MI-06-2017-48610-1 to 125	125	Yes	6/30/2022
508	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Jun-17	MIRECS-REC-307-MI-06-2017-48611-1 to 12	12	Yes	6/30/2022
509	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Jul-17	MIRECS-REC-307-MI-07-2017-48612-1 to 8	8	Yes	7/31/2022
510	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Jul-17	MIRECS-REC-307-MI-07-2017-48613-1 to 79	79	Yes	7/31/2022
511	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-307-MI-08-2017-48614-1 to 79	79	Yes	8/31/2022
512	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-307-MI-08-2017-48615-1 to 8	8	Yes	8/31/2022
513	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Sep-17	MIRECS-REC-307-MI-09-2017-48616-1 to 71	71	Yes	9/30/2022
514	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Sep-17	MIRECS-REC-307-MI-09-2017-48617-1 to 14	14	Yes	9/30/2022
515	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Oct-17	MIRECS-REC-307-MI-10-2017-48618-1 to 112	112	Yes	10/31/2022
516	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Oct-17	MIRECS-REC-307-MI-10-2017-48619-1 to 11	11	Yes	10/31/2022
517	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Nov-17	MIRECS-REC-307-MI-11-2017-48620-1 to 147	147	Yes	11/30/2022
518	2019 Compliance - Consumers Energy Company	1158	GEN307	Griffen - Beliding Hydro	6/1/1987	Hydroelectric Water	RECS	Nov-17	MIRECS-REC-307-MI-11-2017-48			

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(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
SA#	Sub-Account	Sub-Account ID	MIRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	MI Eligible	MI Eligibility End Date
601	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	May-17	MIRECS-IREC-87-MI-05-2017-48738-1 to 461	461	Yes	5/31/2022
602	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Jun-17	MIRECS-REC-87-MI-05-2017-48739-1 to 4388	4,388	Yes	6/30/2022
603	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Jun-17	MIRECS-IREC-87-MI-06-2017-48740-1 to 435	435	Yes	6/30/2022
604	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Jul-17	MIRECS-REC-87-MI-06-2017-48741-1 to 3658	3,658	Yes	7/31/2022
605	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Jul-17	MIRECS-IREC-87-MI-07-2017-48742-1 to 316	316	Yes	7/31/2022
606	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-87-MI-08-2017-48743-1 to 3326	3,326	Yes	8/31/2022
607	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Sep-17	MIRECS-IREC-87-MI-08-2017-48744-1 to 324	324	Yes	8/31/2022
608	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-87-MI-09-2017-48745-1 to 3108	3,108	Yes	9/30/2022
609	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Aug-17	MIRECS-IREC-87-MI-09-2017-48746-1 to 267	267	Yes	9/30/2022
610	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Oct-17	MIRECS-REC-87-MI-10-2017-48747-1 to 4581	4,581	Yes	10/31/2022
611	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Oct-17	MIRECS-IREC-87-MI-10-2017-48748-1 to 465	465	Yes	10/31/2022
612	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Nov-17	MIRECS-REC-87-MI-11-2017-48749-1 to 5159	5,159	Yes	11/30/2022
613	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Nov-17	MIRECS-IREC-87-MI-11-2017-48750-1 to 477	477	Yes	11/30/2022
614	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Dec-17	MIRECS-REC-87-MI-12-2017-48751-1 to 4122	4,122	Yes	12/31/2022
615	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Dec-17	MIRECS-IREC-87-MI-12-2017-48752-1 to 345	345	Yes	12/31/2022
616	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Jan-18	MIRECS-REC-87-MI-01-2018-55346-1 to 4476	4,476	Yes	1/31/2023
617	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Jan-18	MIRECS-IREC-87-MI-01-2018-55347-1 to 423	423	Yes	1/31/2023
618	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Feb-18	MIRECS-REC-87-MI-02-2018-55348-1 to 4023	4,023	Yes	2/28/2023
619	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Feb-18	MIRECS-IREC-87-MI-02-2018-55349-1 to 391	391	Yes	2/28/2023
620	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Hydroelectric Water	RECS	Mar-18	MIRECS-REC-87-MI-03-2018-55350-1 to 4472	4,472	Yes	3/31/2023
621	2019 Compliance - Consumers Energy Company	1158	GEN87	Hodenpyl Hydro - Hodenpyl Hydro	7/5/1925	Incentive	IREC	Mar-18	MIRECS-IREC-87-MI-03-2018-55351-1 to 423	423	Yes	3/31/2023
622	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Jan-17	MIRECS-REC-124-MI-01-2017-48569-1 to 192	192	Yes	1/31/2020
623	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Jan-17	MIRECS-IREC-124-MI-01-2017-48570-1 to 18	18	Yes	1/31/2020
624	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-124-MI-02-2017-48571-1 to 212	212	Yes	2/28/2020
625	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Feb-17	MIRECS-IREC-124-MI-02-2017-48572-1 to 20	20	Yes	2/28/2020
626	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Mar-17	MIRECS-REC-124-MI-03-2017-48573-1 to 218	218	Yes	3/31/2020
627	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Mar-17	MIRECS-IREC-124-MI-03-2017-48574-1 to 21	21	Yes	3/31/2020
628	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Apr-17	MIRECS-REC-124-MI-04-2017-48575-1 to 172	172	Yes	4/30/2022
629	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Apr-17	MIRECS-IREC-124-MI-04-2017-48576-1 to 17	17	Yes	4/30/2022
630	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	May-17	MIRECS-REC-124-MI-05-2017-48577-1 to 220	220	Yes	5/31/2022
631	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	May-17	MIRECS-IREC-124-MI-05-2017-48578-1 to 22	22	Yes	5/31/2022
632	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Jun-17	MIRECS-REC-124-MI-06-2017-48579-1 to 148	148	Yes	6/30/2022
633	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Jun-17	MIRECS-IREC-124-MI-06-2017-48580-1 to 14	14	Yes	6/30/2022
634	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Jul-17	MIRECS-REC-124-MI-07-2017-48581-1 to 113	113	Yes	7/31/2022
635	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Jul-17	MIRECS-IREC-124-MI-07-2017-48582-1 to 12	12	Yes	7/31/2022
636	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-124-MI-08-2017-48583-1 to 72	72	Yes	8/31/2022
637	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Aug-17	MIRECS-IREC-124-MI-08-2017-48584-1 to 8	8	Yes	8/31/2022
638	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Sep-17	MIRECS-REC-124-MI-09-2017-48585-1 to 40	40	Yes	9/30/2022
639	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Sep-17	MIRECS-IREC-124-MI-09-2017-48586-1 to 4	4	Yes	9/30/2022
640	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Oct-17	MIRECS-REC-124-MI-10-2017-48587-1 to 142	142	Yes	10/31/2022
641	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Oct-17	MIRECS-IREC-124-MI-10-2017-48588-1 to 14	14	Yes	10/31/2022
642	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Nov-17	MIRECS-REC-124-MI-11-2017-48589-1 to 209	209	Yes	11/30/2022
643	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Nov-17	MIRECS-IREC-124-MI-11-2017-48590-1 to 20	20	Yes	11/30/2022
644	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Dec-17	MIRECS-REC-124-MI-12-2017-48591-1 to 188	188	Yes	12/31/2022
645	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Dec-17	MIRECS-IREC-124-MI-12-2017-48592-1 to 16	16	Yes	12/31/2022
646	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Jan-18	MIRECS-REC-124-MI-01-2018-51817-1 to 199	199	Yes	1/31/2023
647	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Jan-18	MIRECS-IREC-124-MI-01-2018-51818-1 to 19	19	Yes	1/31/2023
648	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Hydroelectric Water	RECS	Feb-18	MIRECS-REC-124-MI-02-2018-51819-1 to 130	130	Yes	2/28/2023
649	2019 Compliance - Consumers Energy Company	1158	GEN124	Irving Hydro - Irving Hydro	8/25/1995	Incentive	IREC	Feb-18	MIRECS-IREC-124-MI-02-2018-51820-1 to 13	13	Yes	2/28/2023
650	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	Jan-17	MIRECS-REC-112-MI-01-2017-38866-1857 to 8280	7,424	Yes	1/31/2020
651	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Incentive	IREC	Jan-17	MIRECS-IREC-112-MI-01-2017-38865-165 to 820	656	Yes	1/31/2020
652	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	Feb-17	MIRECS-REC-112-MI-02-2017-38868-1731 to 8648	6,918	Yes	2/28/2020
653	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Incentive	IREC	Feb-17	MIRECS-IREC-112-MI-02-2017-38867-166 to 823	658	Yes	2/28/2020
654	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	Mar-17	MIRECS-REC-112-MI-03-2017-39338-1540 to 7686	6,146	Yes	3/31/2020
655	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Incentive	IREC	Mar-17	MIRECS-IREC-112-MI-03-2017-39333-150 to 743	594	Yes	3/31/2020
656	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	Apr-17	MIRECS-REC-112-MI-04-2017-39715-1400 to 6994	5,595	Yes	4/30/2022
657	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Incentive	IREC	Apr-17	MIRECS-IREC-112-MI-04-2017-39714-122 to 640	483	Yes	4/30/2022
658	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	May-17	MIRECS-REC-112-MI-05-2017-39908-1673 to 9356	7,683	Yes	5/31/2022
659	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Incentive	IREC	May-17	MIRECS-IREC-112-MI-05-2017-39907-171 to 810	686	Yes	5/31/2022
660	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	Jun-17	MIRECS-REC-112-MI-06-2017-40239-1760 to 8794	7,035	Yes	6/30/2022
661	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Incentive	IREC	Jun-17	MIRECS-IREC-112-MI-06-2017-40238-170 to 841	672	Yes	6/30/2022
662	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	Jul-17	MIRECS-REC-112-MI-07-2017-40366-1538 to 7680	6,144	Yes	7/31/2022
663	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Incentive	IREC	Jul-17	MIRECS-IREC-112-MI-07-2017-40365-127 to 631	504	Yes	7/31/2022
664	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	Aug-17	MIRECS-REC-112-MI-08-2017-40582-177 to 8983	8,106	Yes	8/31/2022
665	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Incentive	IREC	Aug-17	MIRECS-IREC-112-MI-08-2017-40588-174 to 862	689	Yes	8/31/2022
666	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	Sep-17	MIRECS-REC-112-MI-09-2017-40901-1318 to 8583	5,266	Yes	9/30/2022
667	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Incentive	IREC	Sep-17	MIRECS-IREC-112-MI-09-2017-40900-1181 to 581	464	Yes	9/30/2022
668	2019 Compliance - Consumers Energy Company	1158	GEN112	Kent County Plant - Mass Burn Incinerator Plant	2/1/1990	Municipal Solid Waste	RECS	Oct-17				

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(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
saType	Sub-Account	Account ID	MIRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	MI Eligible	MI Eligibility End Date
751	2019 Compliance - Consumers Energy Company	1158	GEN120	Ludington Pumped Storage - Ludington Pumped Storage	9/18/1973	Incentive	IREC	Dec-17	MIRECS-IREC-120-MI-12-2017-47420-103716 to 112485	8,770	Yes	12/31/2022
752	2019 Compliance - Consumers Energy Company	1158	GEN120	Ludington Pumped Storage - Ludington Pumped Storage	9/18/1973	Incentive	IREC	Jan-18	MIRECS-IREC-120-MI-01-2018-56006-1 to 14557	14,557	Yes	1/31/2023
753	2019 Compliance - Consumers Energy Company	1158	GEN120	Ludington Pumped Storage - Ludington Pumped Storage	9/18/1973	Incentive	IREC	Feb-18	MIRECS-IREC-120-MI-02-2018-56007-14558 to 22807	8,250	Yes	2/28/2023
754	2019 Compliance - Consumers Energy Company	1158	GEN120	Ludington Pumped Storage - Ludington Pumped Storage	12/1/1982	Hydroelectric Water	RECS	Jan-17	MIRECS-IREC-123-MI-01-2017-47320-1 to 18	18	Yes	1/31/2020
755	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Jan-17	MIRECS-IREC-123-MI-01-2017-47320-1 to 18	18	Yes	1/31/2020
756	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Jan-17	MIRECS-IREC-123-MI-01-2017-47321-1 to 1	1	Yes	1/31/2020
757	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Feb-17	MIRECS-IREC-123-MI-02-2017-47322-1 to 21	21	Yes	2/28/2020
758	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Feb-17	MIRECS-IREC-123-MI-02-2017-47323-1 to 21	21	Yes	2/28/2020
759	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Mar-17	MIRECS-IREC-123-MI-03-2017-47324-1 to 21	21	Yes	3/31/2020
760	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Mar-17	MIRECS-IREC-123-MI-03-2017-47325-1 to 2	2	Yes	3/31/2020
761	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Apr-17	MIRECS-IREC-123-MI-04-2017-47326-1 to 18	18	Yes	4/30/2022
762	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Apr-17	MIRECS-IREC-123-MI-04-2017-47327-1 to 2	2	Yes	4/30/2022
763	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	May-17	MIRECS-IREC-123-MI-05-2017-47328-1 to 22	22	Yes	5/31/2022
764	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	May-17	MIRECS-IREC-123-MI-05-2017-47329-1 to 2	2	Yes	5/31/2022
765	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Jun-17	MIRECS-IREC-123-MI-06-2017-47330-1 to 13	13	Yes	6/30/2022
766	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Jun-17	MIRECS-IREC-123-MI-06-2017-47331-1 to 1	1	Yes	6/30/2022
767	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Jul-17	MIRECS-IREC-123-MI-07-2017-47332-1 to 11	11	Yes	7/31/2022
768	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Jul-17	MIRECS-IREC-123-MI-07-2017-47333-1 to 1	1	Yes	7/31/2022
769	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Aug-17	MIRECS-IREC-123-MI-08-2017-47334-1 to 6	6	Yes	8/31/2022
770	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Aug-17	MIRECS-IREC-123-MI-08-2017-47335-1 to 1	1	Yes	8/31/2022
771	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Sep-17	MIRECS-IREC-123-MI-09-2017-47336-1 to 3	3	Yes	9/30/2022
772	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Oct-17	MIRECS-IREC-123-MI-10-2017-47337-1 to 11	11	Yes	10/31/2022
773	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Oct-17	MIRECS-IREC-123-MI-10-2017-47338-1 to 11	11	Yes	10/31/2022
774	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Nov-17	MIRECS-IREC-123-MI-11-2017-47339-1 to 24	24	Yes	11/30/2022
775	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Nov-17	MIRECS-IREC-123-MI-11-2017-47340-1 to 2	2	Yes	11/30/2022
776	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Dec-17	MIRECS-IREC-123-MI-12-2017-47341-1 to 20	20	Yes	12/31/2022
777	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Dec-17	MIRECS-IREC-123-MI-12-2017-47342-1 to 2	2	Yes	12/31/2022
778	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Jan-18	MIRECS-IREC-123-MI-01-2018-51874-1 to 22	22	Yes	1/31/2023
779	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Jan-18	MIRECS-IREC-123-MI-01-2018-51875-1 to 21	21	Yes	1/31/2023
780	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Feb-18	MIRECS-IREC-123-MI-02-2018-51885-1 to 15	15	Yes	2/28/2023
781	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Feb-18	MIRECS-IREC-123-MI-02-2018-51886-1 to 2	2	Yes	2/28/2023
782	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Mar-18	MIRECS-IREC-123-MI-03-2018-51887-1 to 21	21	Yes	3/31/2023
783	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Incentive	IREC	Mar-18	MIRECS-IREC-123-MI-03-2018-51888-1 to 21	21	Yes	3/31/2023
784	2019 Compliance - Consumers Energy Company	1158	GEN123	Michiana Hydro - Michiana Hydro	12/1/1982	Hydroelectric Water	RECS	Apr-18	MIRECS-IREC-123-MI-04-2018-51889-1 to 40	40	Yes	4/30/2023
785	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Jan-17	MIRECS-IREC-125-MI-01-2017-48545-1 to 5	5	Yes	1/31/2020
786	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Feb-17	MIRECS-IREC-125-MI-02-2017-48547-1 to 90	90	Yes	2/28/2020
787	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Feb-17	MIRECS-IREC-125-MI-02-2017-48548-1 to 90	90	Yes	2/28/2020
788	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Mar-17	MIRECS-IREC-125-MI-03-2017-48549-1 to 84	84	Yes	3/31/2020
789	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Mar-17	MIRECS-IREC-125-MI-03-2017-48550-1 to 84	84	Yes	3/31/2020
790	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Apr-17	MIRECS-IREC-125-MI-04-2017-48551-1 to 64	64	Yes	4/30/2022
791	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Apr-17	MIRECS-IREC-125-MI-04-2017-48552-1 to 6	6	Yes	4/30/2022
792	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	May-17	MIRECS-IREC-125-MI-05-2017-48553-1 to 123	123	Yes	5/31/2022
793	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	May-17	MIRECS-IREC-125-MI-05-2017-48554-1 to 123	123	Yes	5/31/2022
794	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Jun-17	MIRECS-IREC-125-MI-06-2017-48555-1 to 100	100	Yes	6/30/2022
795	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Jun-17	MIRECS-IREC-125-MI-06-2017-48556-1 to 11	11	Yes	6/30/2022
796	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Jul-17	MIRECS-IREC-125-MI-07-2017-48557-1 to 88	88	Yes	7/31/2022
797	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Jul-17	MIRECS-IREC-125-MI-07-2017-48558-1 to 88	88	Yes	7/31/2022
798	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Aug-17	MIRECS-IREC-125-MI-08-2017-48559-1 to 72	72	Yes	8/31/2022
799	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Aug-17	MIRECS-IREC-125-MI-08-2017-48560-1 to 72	72	Yes	8/31/2022
800	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Sep-17	MIRECS-IREC-125-MI-09-2017-48561-1 to 46	46	Yes	9/30/2022
801	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Sep-17	MIRECS-IREC-125-MI-09-2017-48562-1 to 46	46	Yes	9/30/2022
802	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Oct-17	MIRECS-IREC-125-MI-10-2017-48563-1 to 51	51	Yes	10/31/2022
803	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Oct-17	MIRECS-IREC-125-MI-10-2017-48564-1 to 51	51	Yes	10/31/2022
804	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Nov-17	MIRECS-IREC-125-MI-11-2017-48565-1 to 6	6	Yes	11/30/2022
805	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Nov-17	MIRECS-IREC-125-MI-11-2017-48566-1 to 6	6	Yes	11/30/2022
806	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Dec-17	MIRECS-IREC-125-MI-12-2017-48567-1 to 72	72	Yes	12/31/2022
807	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Dec-17	MIRECS-IREC-125-MI-12-2017-48568-1 to 72	72	Yes	12/31/2022
808	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Jan-18	MIRECS-IREC-125-MI-01-2018-51848-1 to 64	64	Yes	1/31/2023
809	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Jan-18	MIRECS-IREC-125-MI-01-2018-51849-1 to 64	64	Yes	1/31/2023
810	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Feb-18	MIRECS-IREC-125-MI-02-2018-51847-1 to 75	75	Yes	2/28/2023
811	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Feb-18	MIRECS-IREC-125-MI-02-2018-51848-1 to 75	75	Yes	2/28/2023
812	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Mar-18	MIRECS-IREC-125-MI-03-2018-51849-1 to 75	75	Yes	3/31/2023
813	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Mar-18	MIRECS-IREC-125-MI-03-2018-51850-1 to 75	75	Yes	3/31/2023
814	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Apr-18	MIRECS-IREC-125-MI-04-2017-48561-1 to 1301	1,301	Yes	1/31/2023
815	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	Apr-18	MIRECS-IREC-125-MI-04-2017-48562-1 to 1301	1,301	Yes	1/31/2023
816	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	May-18	MIRECS-IREC-125-MI-05-2017-48563-1 to 129	129	Yes	1/31/2020
817	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC	May-18	MIRECS-IREC-125-MI-05-2017-48564-1 to 129	129	Yes	2/28/2020
818	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Hydroelectric Water	RECS	Jun-18	MIRECS-IREC-125-MI-06-2017-48565-1 to 134	134	Yes	2/28/2020
819	2019 Compliance - Consumers Energy Company	1158	GEN125	Middleville Hydro - Middleville Hydro	11/1/1996	Incentive	IREC					

Consumers Energy Company

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
Pre-Enactment Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
sat	Sub-Account	Sub- Account	MIRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	Eligible	End Date
901	COM	2019 Compliance - Consumers Energy Company	1158	GEN157 Ottawa - #2	2/13/2006	Incentive	IREC	Feb-18	MIRECS-IREC-157-MI-02-2018-55008-1 to 70	70	Yes	2/28/2022
902	COM	2019 Compliance - Consumers Energy Company	1158	GEN157 Ottawa - #2	2/13/2006	Landfill Gas	RECS	Mar-18	MIRECS-IREC-157-MI-03-2018-55009-1 to 798	798	Yes	3/31/2023
903	COM	2019 Compliance - Consumers Energy Company	1158	GEN157 Ottawa - #2	2/13/2006	Incentive	IREC	Mar-18	MIRECS-IREC-157-MI-03-2018-55010-1 to 74	74	Yes	3/31/2023
904	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Jan-17	MIRECS-IREC-35-MI-01-2017-50827-1 to 2064	2,064	Yes	1/31/2020
905	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Jan-17	MIRECS-IREC-35-MI-01-2017-50828-1 to 208	208	Yes	1/31/2020
906	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Feb-17	MIRECS-IREC-35-MI-02-2017-50829-1 to 2064	2,064	Yes	2/28/2020
907	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Feb-17	MIRECS-IREC-35-MI-02-2017-50830-1 to 199	199	Yes	2/28/2020
908	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Mar-17	MIRECS-IREC-35-MI-03-2017-50831-1 to 2287	2,287	Yes	3/31/2020
909	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Mar-17	MIRECS-IREC-35-MI-03-2017-50832-1 to 229	229	Yes	3/31/2020
910	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Apr-17	MIRECS-IREC-35-MI-04-2017-50833-1 to 2162	2,162	Yes	4/30/2022
911	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Apr-17	MIRECS-IREC-35-MI-04-2017-50834-1 to 194	194	Yes	4/30/2022
912	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	May-17	MIRECS-IREC-35-MI-05-2017-50835-1 to 1914	1,914	Yes	5/31/2022
913	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	May-17	MIRECS-IREC-35-MI-05-2017-50836-1 to 182	182	Yes	5/31/2022
914	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Jun-17	MIRECS-IREC-35-MI-06-2017-50837-1 to 1635	1,635	Yes	6/30/2022
915	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Jun-17	MIRECS-IREC-35-MI-06-2017-50838-1 to 160	160	Yes	6/30/2022
916	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Jul-17	MIRECS-IREC-35-MI-07-2017-50839-1 to 1532	1,532	Yes	7/31/2022
917	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Jul-17	MIRECS-IREC-35-MI-07-2017-50840-1 to 127	127	Yes	7/31/2022
918	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Aug-17	MIRECS-IREC-35-MI-08-2017-50841-1 to 1687	1,687	Yes	8/31/2022
919	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Aug-17	MIRECS-IREC-35-MI-08-2017-50842-1 to 170	170	Yes	8/31/2022
920	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Sep-17	MIRECS-IREC-35-MI-09-2017-50843-1 to 1530	1,530	Yes	9/30/2022
921	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Sep-17	MIRECS-IREC-35-MI-09-2017-50844-1 to 132	132	Yes	9/30/2022
922	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Oct-17	MIRECS-IREC-35-MI-10-2017-50845-1 to 1914	1,914	Yes	10/31/2022
923	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Oct-17	MIRECS-IREC-35-MI-10-2017-50846-1 to 180	180	Yes	10/31/2022
924	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Nov-17	MIRECS-IREC-35-MI-11-2017-50847-1 to 2167	2,167	Yes	11/30/2022
925	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Nov-17	MIRECS-IREC-35-MI-11-2017-50848-1 to 201	201	Yes	11/30/2022
926	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Dec-17	MIRECS-IREC-35-MI-12-2017-50849-1 to 1981	1,981	Yes	12/31/2022
927	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Dec-17	MIRECS-IREC-35-MI-12-2017-50850-1 to 171	171	Yes	12/31/2022
928	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Jan-18	MIRECS-IREC-35-MI-01-2018-54775-1 to 2006	2,006	Yes	1/31/2023
929	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Jan-18	MIRECS-IREC-35-MI-01-2018-54776-1 to 197	197	Yes	1/31/2023
930	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Feb-18	MIRECS-IREC-35-MI-02-2018-54777-1 to 1581	1,581	Yes	2/28/2023
931	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Feb-18	MIRECS-IREC-35-MI-02-2018-54778-1 to 156	156	Yes	2/28/2023
932	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Landfill Gas	RECS	Mar-18	MIRECS-IREC-35-MI-03-2018-54779-1 to 1997	1,997	Yes	3/31/2023
933	COM	2019 Compliance - Consumers Energy Company	1158	GEN355 Ottawa - OT #1	6/21/1994	Incentive	IREC	Mar-18	MIRECS-IREC-35-MI-03-2018-54780-1 to 191	191	Yes	3/31/2023
934	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Jan-17	MIRECS-IREC-60-MI-01-2017-38932-1 to 102	102	Yes	1/31/2020
935	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Jan-17	MIRECS-IREC-60-MI-01-2017-38933-1 to 102	102	Yes	1/31/2020
936	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Feb-17	MIRECS-IREC-60-MI-02-2017-38931-1 to 1043	1,043	Yes	2/28/2020
937	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Feb-17	MIRECS-IREC-60-MI-02-2017-38932-1 to 100	100	Yes	2/28/2020
938	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Mar-17	MIRECS-IREC-60-MI-03-2017-38933-1 to 1201	1,201	Yes	3/31/2020
939	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Mar-17	MIRECS-IREC-60-MI-03-2017-38934-1 to 1167	1,167	Yes	3/31/2020
940	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Apr-17	MIRECS-IREC-60-MI-04-2017-40193-1 to 1086	1,086	Yes	4/30/2022
941	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Apr-17	MIRECS-IREC-60-MI-04-2017-40194-1 to 90	90	Yes	4/30/2022
942	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	May-17	MIRECS-IREC-60-MI-05-2017-40195-1 to 1564	1,564	Yes	5/31/2022
943	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	May-17	MIRECS-IREC-60-MI-05-2017-40196-1 to 148	148	Yes	5/31/2022
944	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Jun-17	MIRECS-IREC-60-MI-06-2017-40197-1 to 1271	1,271	Yes	6/30/2022
945	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Jun-17	MIRECS-IREC-60-MI-06-2017-40198-1 to 122	122	Yes	6/30/2022
946	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Jul-17	MIRECS-IREC-60-MI-07-2017-40673-1 to 1289	1,289	Yes	7/31/2022
947	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Jul-17	MIRECS-IREC-60-MI-07-2017-40674-1 to 112	112	Yes	7/31/2022
948	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Aug-17	MIRECS-IREC-60-MI-08-2017-40671-1 to 1163	1,163	Yes	8/31/2022
949	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Aug-17	MIRECS-IREC-60-MI-08-2017-40672-1 to 111	111	Yes	8/31/2022
950	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Sep-17	MIRECS-IREC-60-MI-09-2017-40669-1 to 1036	1,036	Yes	9/30/2022
951	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Sep-17	MIRECS-IREC-60-MI-09-2017-40670-1 to 94	94	Yes	9/30/2022
952	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Oct-17	MIRECS-IREC-60-MI-10-2017-43040-1 to 1200	1,200	Yes	10/31/2022
953	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Oct-17	MIRECS-IREC-60-MI-10-2017-43041-1 to 114	114	Yes	10/31/2022
954	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Nov-17	MIRECS-IREC-60-MI-11-2017-43039-1 to 123	123	Yes	11/30/2022
955	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Nov-17	MIRECS-IREC-60-MI-11-2017-43036-1 to 1333	1,333	Yes	12/31/2022
956	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Dec-17	MIRECS-IREC-60-MI-12-2017-43037-1 to 113	113	Yes	12/31/2022
957	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Jan-18	MIRECS-IREC-60-MI-01-2018-47479-1 to 1316	1,316	Yes	1/31/2023
958	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Feb-18	MIRECS-IREC-60-MI-02-2018-47480-1 to 125	125	Yes	1/31/2023
959	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Feb-18	MIRECS-IREC-60-MI-02-2018-47481-1 to 1020	1,020	Yes	2/28/2023
960	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Landfill Gas	RECS	Mar-18	MIRECS-IREC-60-MI-03-2018-47482-1 to 1055	1,055	Yes	3/31/2023
961	COM	2019 Compliance - Consumers Energy Company	1158	GEN600 Peoples Generating Station - Peoples Generating	9/1/1995	Incentive	IREC	Mar-18	MIRECS-IREC-60-MI-03-2018-47483-1 to 100	100	Yes	3/31/2023
962	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Landfill Gas	RECS	Jan-17	MIRECS-IREC-48-MI-01-2017-50876-1 to 117	117	Yes	1/31/2020
963	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Incentive	IREC	Jan-17	MIRECS-IREC-48-MI-01-2017-50877-1 to 1148	1,148	Yes	2/28/2020
964	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Landfill Gas	RECS	Feb-17	MIRECS-IREC-48-MI-02-2017-50878-1 to 103	103	Yes	2/28/2020
965	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Incentive	IREC	Feb-17	MIRECS-IREC-48-MI-02-2017-50879-1 to 1228	1,228	Yes	3/31/2020
966	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Landfill Gas	RECS	Mar-17	MIRECS-IREC-48-MI-03-2017-50880-1 to 118	118	Yes	3/31/2020
967	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Incentive	IREC	Mar-17	MIRECS-IREC-48-MI-03-2017-50881-1 to 118	118	Yes	3/31/2020
968	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Landfill Gas	RECS	Apr-17	MIRECS-IREC-48-MI-04-2017-50881-1 to 1188	1,188	Yes	4/30/2022
969	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Incentive	IREC	Apr-17	MIRECS-IREC-48-MI-04-2017-50882-1 to 99	99	Yes	4/30/2022
970	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Landfill Gas	RECS	May-17	MIRECS-IREC-48-MI-05-2017-50883-1 to 1247	1,247	Yes	5/31/2022
971	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Incentive	IREC	May-17	MIRECS-IREC-48-MI-05-2017-50884-1 to 109	109	Yes	5/31/2022
972	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Landfill Gas	RECS	Jun-17	MIRECS-IREC-48-MI-06-2017-50885-1 to 114	114	Yes	6/30/2022
973	COM	2019 Compliance - Consumers Energy Company	1158	GEN448 Pincinnong - PI #1	5/11/2009	Incentive	IREC	Jun-17	MIRECS-IREC-48-MI-06-2017-50886-1 to 104	104	Yes	6/30/2022
974	COM	201										

Consumers Energy Company

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE

Pre-Enactment Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
InstType	Sub-Account	Sub-Account	MRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	Mt Eligible	Mt Eligibility End Date
1051	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Feb-17	MIRECS-REC-91-MI-02-2017-48755-1 to 5166	5,166	Yes	2/28/2020
1052	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Feb-17	MIRECS-REC-91-MI-02-2017-48756-1 to 487	487	Yes	2/28/2020
1053	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Mar-17	MIRECS-REC-91-MI-03-2017-48767-1 to 6866	6,866	Yes	3/31/2020
1054	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Mar-17	MIRECS-REC-91-MI-03-2017-48768-1 to 692	692	Yes	3/31/2020
1055	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Apr-17	MIRECS-REC-91-MI-04-2017-48759-1 to 7243	7,243	Yes	4/30/2022
1056	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Apr-17	MIRECS-REC-91-MI-04-2017-48760-1 to 654	654	Yes	4/30/2022
1057	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	May-17	MIRECS-REC-91-MI-05-2017-48761-1 to 5702	5,702	Yes	5/31/2022
1058	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	May-17	MIRECS-REC-91-MI-05-2017-48762-1 to 549	549	Yes	5/31/2022
1059	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Jun-17	MIRECS-REC-91-MI-06-2017-48763-1 to 5261	5,261	Yes	6/30/2022
1060	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Jun-17	MIRECS-REC-91-MI-06-2017-48764-1 to 515	515	Yes	6/30/2022
1061	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Jul-17	MIRECS-REC-91-MI-07-2017-48765-1 to 4713	4,713	Yes	7/31/2022
1062	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Jul-17	MIRECS-REC-91-MI-07-2017-48766-1 to 410	410	Yes	7/31/2022
1063	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Aug-17	MIRECS-REC-91-MI-08-2017-48767-1 to 4514	4,514	Yes	8/31/2022
1064	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Aug-17	MIRECS-REC-91-MI-08-2017-48768-1 to 438	438	Yes	8/31/2022
1065	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Sep-17	MIRECS-REC-91-MI-09-2017-48769-1 to 4225	4,225	Yes	9/30/2022
1066	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Sep-17	MIRECS-REC-91-MI-09-2017-48770-1 to 381	381	Yes	9/30/2022
1067	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Oct-17	MIRECS-REC-91-MI-10-2017-48771-1 to 4044	4,044	Yes	10/31/2022
1068	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Oct-17	MIRECS-REC-91-MI-10-2017-48772-1 to 584	584	Yes	10/31/2022
1069	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Nov-17	MIRECS-REC-91-MI-11-2017-48773-1 to 6036	6,036	Yes	11/30/2022
1070	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Nov-17	MIRECS-REC-91-MI-11-2017-48774-1 to 560	560	Yes	11/30/2022
1071	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Dec-17	MIRECS-REC-91-MI-12-2017-48775-1 to 5019	5,019	Yes	12/31/2022
1072	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Dec-17	MIRECS-REC-91-MI-12-2017-48776-1 to 429	429	Yes	12/31/2022
1073	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Jan-18	MIRECS-REC-91-MI-01-2018-55442-1 to 5461	5,461	Yes	1/31/2023
1074	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Jan-18	MIRECS-REC-91-MI-01-2018-55443-1 to 516	516	Yes	1/31/2023
1075	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Hydroelectric Water	RECS	Feb-18	MIRECS-REC-91-MI-02-2018-55444-1 to 5091	5,091	Yes	2/28/2023
1076	2019 Compliance - Consumers Energy Company	1158	GEN01	Tippy Hydro - Tippy Hydro	2/21/1918	Incentive	RECS	Feb-18	MIRECS-REC-91-MI-02-2018-55445-1 to 500	500	Yes	2/28/2023
1077	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Jan-17	MIRECS-REC-53-MI-01-2017-38871-218 to 1095	868	Yes	1/31/2020
1078	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Jan-17	MIRECS-REC-53-MI-01-2017-38872-218 to 97	77	Yes	1/31/2020
1079	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Jan-17	MIRECS-REC-53-MI-01-2017-38873-201 to 866	866	Yes	1/31/2020
1080	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Feb-17	MIRECS-REC-53-MI-02-2017-38874-20 to 95	76	Yes	2/28/2020
1081	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Mar-17	MIRECS-REC-53-MI-03-2017-38875-219 to 1088	870	Yes	3/31/2020
1082	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Mar-17	MIRECS-REC-53-MI-03-2017-38876-20 to 108	86	Yes	3/31/2020
1083	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Apr-17	MIRECS-REC-53-MI-04-2017-40338-20 to 81	72	Yes	4/30/2022
1084	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Apr-17	MIRECS-REC-53-MI-04-2017-40339-20 to 81	72	Yes	4/30/2022
1085	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	May-17	MIRECS-REC-53-MI-05-2017-40340-216 to 1073	858	Yes	5/31/2022
1086	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	May-17	MIRECS-REC-53-MI-05-2017-40341-21 to 106	83	Yes	5/31/2022
1087	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Jun-17	MIRECS-REC-53-MI-06-2017-40342-211 to 1046	836	Yes	6/30/2022
1088	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Jun-17	MIRECS-REC-53-MI-06-2017-40343-22 to 102	81	Yes	6/30/2022
1089	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Jul-17	MIRECS-REC-53-MI-07-2017-40344-216 to 1073	858	Yes	7/31/2022
1090	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Jul-17	MIRECS-REC-53-MI-07-2017-40345-20 to 92	73	Yes	7/31/2022
1091	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Aug-17	MIRECS-REC-53-MI-08-2017-40643-218 to 1081	864	Yes	8/31/2022
1092	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Aug-17	MIRECS-REC-53-MI-08-2017-40644-20 to 106	84	Yes	8/31/2022
1093	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Sep-17	MIRECS-REC-53-MI-09-2017-40645-211 to 1069	852	Yes	9/30/2022
1094	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Sep-17	MIRECS-REC-53-MI-09-2017-40646-20 to 83	74	Yes	9/30/2022
1095	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Oct-17	MIRECS-REC-53-MI-10-2017-43128-21 to 1096	876	Yes	10/31/2022
1096	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Oct-17	MIRECS-REC-53-MI-10-2017-43129-22 to 1033	849	Yes	10/31/2022
1097	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Nov-17	MIRECS-REC-53-MI-11-2017-43218-21 to 1062	849	Yes	11/30/2022
1098	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Nov-17	MIRECS-REC-53-MI-11-2017-43219-21 to 99	79	Yes	11/30/2022
1099	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Dec-17	MIRECS-REC-53-MI-12-2017-43130-20 to 93	74	Yes	12/31/2022
1100	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Dec-17	MIRECS-REC-53-MI-12-2017-43131-20 to 93	74	Yes	12/31/2022
1101	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Jan-18	MIRECS-REC-53-MI-01-2018-47465-20 to 1092	873	Yes	1/31/2023
1102	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Jan-18	MIRECS-REC-53-MI-01-2018-47466-22 to 103	82	Yes	1/31/2023
1103	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Landfill Gas	RECS	Feb-18	MIRECS-REC-53-MI-02-2018-47467-19 to 869	858	Yes	2/28/2023
1104	2019 Compliance - Consumers Energy Company	1158	GEN03	Venice Resources Gas Recovery - Venice Resources Gas Recovery	1/1/1990	Incentive	RECS	Feb-18	MIRECS-REC-53-MI-02-2018-47468-20 to 83	74	Yes	2/28/2023
1105	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Biomass	RECS	Dec-16	MIRECS-REC-70-MI-12-2016-3875-206 to 10326	8,260	Yes	12/31/2020
1106	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Incentive	RECS	Dec-16	MIRECS-REC-70-MI-12-2016-3875-269 to 10326	8,260	Yes	12/31/2020
1107	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Biomass	RECS	Jan-17	MIRECS-REC-70-MI-01-2017-38723-2123 to 10610	8,488	Yes	1/31/2020
1108	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Incentive	RECS	Jan-17	MIRECS-REC-70-MI-01-2017-38724-201 to 999	799	Yes	1/31/2020
1109	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Biomass	RECS	Feb-17	MIRECS-REC-70-MI-02-2017-38961-1978 to 8127	7,898	Yes	2/28/2020
1110	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Incentive	RECS	Feb-17	MIRECS-REC-70-MI-02-2017-38962-1979 to 887	709	Yes	2/28/2020
1111	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Biomass	RECS	Mar-17	MIRECS-REC-70-MI-03-2017-39353-2182 to 10902	8,721	Yes	3/31/2020
1112	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Incentive	RECS	Mar-17	MIRECS-REC-70-MI-03-2017-39354-218 to 1074	859	Yes	3/31/2020
1113	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Biomass	RECS	Apr-17	MIRECS-REC-70-MI-04-2017-39718-1005 to 8149	8,149	Yes	4/30/2022
1114	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Incentive	RECS	Apr-17	MIRECS-REC-70-MI-04-2017-39719-137 to 1068	544	Yes	4/30/2022
1115	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Biomass	RECS	May-17	MIRECS-REC-70-MI-05-2017-40214-2122 to 10704	8,563	Yes	5/31/2022
1116	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Incentive	RECS	May-17	MIRECS-REC-70-MI-05-2017-40215-2123 to 10318	817	Yes	5/31/2022
1117	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Biomass	RECS	Jun-17	MIRECS-REC-70-MI-06-2017-40231-2043 to 10209	8,167	Yes	6/30/2022
1118	2019 Compliance - Consumers Energy Company	1158	GEN07	Viking Energy of Lincoln - Lincoln Power Station	1/22/1989	Incentive	RECS					



RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
 Market Purchases

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	
satType	Sub-Account	Sub-Account ID	MIRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	MI Eligible	MI Eligibility End Date	
1	COM	2019 Compliance - Consumers Energy Company	1158	GEN137	Michigan Wind 1 - Michigan Wind 1	11/7/2008	Wind	RECS	Jan-17	MIRECS-REC-137-MI-01-2017-38028-1 to 15097	15,097	Yes	1/31/2020
2	COM	2019 Compliance - Consumers Energy Company	1158	GEN137	Michigan Wind 1 - Michigan Wind 1	11/7/2008	Wind	RECS	Feb-17	MIRECS-REC-137-MI-02-2017-38851-1 to 19200	19,200	Yes	2/28/2020
3	COM	2019 Compliance - Consumers Energy Company	1158	GEN137	Michigan Wind 1 - Michigan Wind 1	11/7/2008	Wind	RECS	Mar-17	MIRECS-REC-137-MI-03-2017-39326-1 to 18104	18,104	Yes	3/31/2020
4	COM	2019 Compliance - Consumers Energy Company	1158	GEN137	Michigan Wind 1 - Michigan Wind 1	11/7/2008	Wind	RECS	Apr-17	MIRECS-REC-137-MI-04-2017-39667-1 to 18343	18,343	Yes	4/30/2022
5	COM	2019 Compliance - Consumers Energy Company	1158	GEN137	Michigan Wind 1 - Michigan Wind 1	11/7/2008	Wind	RECS	May-17	MIRECS-REC-137-MI-05-2017-39909-1 to 15216	15,216	Yes	5/31/2022
6	COM	2019 Compliance - Consumers Energy Company	1158	GEN137	Michigan Wind 1 - Michigan Wind 1	11/7/2008	Wind	RECS	Jun-17	MIRECS-REC-137-MI-06-2017-40146-1 to 11206	11,206	Yes	6/30/2022
7	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Landfill Gas	RECS	Jan-17	MIRECS-REC-61-MI-01-2017-38935-191 to 857	667	Yes	1/31/2020
8	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Incentive	IREC	Jan-17	MIRECS-IREC-61-MI-01-2017-38936-18 to 76	59	Yes	1/31/2020
9	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Landfill Gas	RECS	Feb-17	MIRECS-REC-61-MI-02-2017-38937-1 to 765	765	Yes	2/28/2020
10	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Incentive	IREC	Feb-17	MIRECS-IREC-61-MI-02-2017-38938-1 to 73	73	Yes	2/28/2020
11	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Landfill Gas	RECS	Mar-17	MIRECS-REC-61-MI-03-2017-38939-1 to 811	811	Yes	3/31/2020
12	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Incentive	IREC	Mar-17	MIRECS-IREC-61-MI-03-2017-38940-1 to 79	79	Yes	3/31/2020
13	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Landfill Gas	RECS	Apr-17	MIRECS-REC-61-MI-04-2017-40199-1 to 363	363	Yes	4/30/2022
14	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Incentive	IREC	Apr-17	MIRECS-IREC-61-MI-04-2017-40200-1 to 29	29	Yes	4/30/2022
15	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Landfill Gas	RECS	May-17	MIRECS-REC-61-MI-05-2017-40201-1 to 436	436	Yes	5/31/2022
16	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Incentive	IREC	May-17	MIRECS-IREC-61-MI-05-2017-40202-1 to 37	37	Yes	5/31/2022
17	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Landfill Gas	RECS	Jun-17	MIRECS-REC-61-MI-06-2017-40203-1 to 331	331	Yes	6/30/2022
18	COM	2019 Compliance - Consumers Energy Company	1158	GEN61	Rathbun Generating - Rathbun Generating	1/29/2008	Incentive	IREC	Jun-17	MIRECS-IREC-61-MI-06-2017-40204-1 to 35	35	Yes	6/30/2022
19	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Landfill Gas	RECS	Jan-17	MIRECS-REC-62-MI-01-2017-38941-1 to 751	751	Yes	1/31/2020
20	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Incentive	IREC	Jan-17	MIRECS-IREC-62-MI-01-2017-38942-1 to 68	68	Yes	1/31/2020
21	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Landfill Gas	RECS	Feb-17	MIRECS-REC-62-MI-02-2017-38943-1 to 993	993	Yes	2/28/2020
22	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Incentive	IREC	Feb-17	MIRECS-IREC-62-MI-02-2017-38944-1 to 96	96	Yes	2/28/2020
23	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Landfill Gas	RECS	Mar-17	MIRECS-REC-62-MI-03-2017-38945-1 to 1073	1,073	Yes	3/31/2020
24	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Incentive	IREC	Mar-17	MIRECS-IREC-62-MI-03-2017-38946-1 to 108	108	Yes	3/31/2020
25	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Landfill Gas	RECS	Apr-17	MIRECS-REC-62-MI-04-2017-40205-1 to 880	880	Yes	4/30/2022
26	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Incentive	IREC	Apr-17	MIRECS-IREC-62-MI-04-2017-40206-1 to 78	78	Yes	4/30/2022
27	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Landfill Gas	RECS	May-17	MIRECS-REC-62-MI-05-2017-40207-1 to 1035	1,035	Yes	5/31/2022
28	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Incentive	IREC	May-17	MIRECS-IREC-62-MI-05-2017-40208-1 to 99	99	Yes	5/31/2022
29	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Landfill Gas	RECS	Jun-17	MIRECS-REC-62-MI-06-2017-40209-1 to 979	979	Yes	6/30/2022
30	COM	2019 Compliance - Consumers Energy Company	1158	GEN62	Venice Park -NANR Generating - Venice Park-NANR Generating	2/10/2001	Incentive	IREC	Jun-17	MIRECS-IREC-62-MI-06-2017-40210-1 to 97	97	Yes	6/30/2022

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Case No.: U-20722  
 Exhibit No.: A-10 (YFK-8)  
 Page: 1 of 1  
 Witness: YFKeyes  
 Date: July 2020

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
 New Electric Provider Owned Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
saType	Sub-Account	Sub Account ID	MIRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	Eligible	MI Eligibility End Date
1	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Jan-17	MIRECS-REC-332-MI-01-2017-46682-1 to 23269	23,269	Yes	1/31/2020
2	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Jan-17	MIRECS-REC-332-MI-01-2017-46684-1 to 3713	3,713	Yes	1/31/2020
3	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Feb-17	MIRECS-REC-332-MI-02-2017-46684-1 to 38202	38,202	Yes	2/28/2020
4	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Feb-17	MIRECS-REC-332-MI-02-2017-46683-1 to 4844	4,844	Yes	2/28/2020
5	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Mar-17	MIRECS-REC-332-MI-03-2017-46683-1 to 37632	37,632	Yes	3/31/2020
6	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Mar-17	MIRECS-REC-332-MI-03-2017-46685-1 to 4772	4,772	Yes	3/31/2020
7	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Apr-17	MIRECS-REC-332-MI-04-2017-46688-1 to 37427	37,427	Yes	4/30/2022
8	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Apr-17	MIRECS-REC-332-MI-04-2017-46687-1 to 4746	4,746	Yes	4/30/2022
9	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	May-17	MIRECS-REC-332-MI-05-2017-46691-1 to 34289	34,289	Yes	5/31/2022
10	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	May-17	MIRECS-REC-332-MI-05-2017-46689-1 to 4348	4,348	Yes	5/31/2022
11	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Jun-17	MIRECS-REC-332-MI-06-2017-46692-1 to 27567	27,567	Yes	6/30/2022
12	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Jun-17	MIRECS-REC-332-MI-06-2017-46691-1 to 3495	3,495	Yes	6/30/2022
13	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Jul-17	MIRECS-REC-332-MI-07-2017-46694-1 to 13390	13,390	Yes	7/31/2022
14	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Jul-17	MIRECS-REC-332-MI-07-2017-46693-1 to 1698	1,698	Yes	7/31/2022
15	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Aug-17	MIRECS-REC-332-MI-08-2017-46696-1 to 17824	17,824	Yes	8/31/2022
16	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Aug-17	MIRECS-REC-332-MI-08-2017-46695-1 to 2260	2,260	Yes	8/31/2022
17	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Sep-17	MIRECS-REC-332-MI-09-2017-46698-1 to 12583	12,583	Yes	9/30/2022
18	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Sep-17	MIRECS-REC-332-MI-09-2017-46697-1 to 1596	1,596	Yes	9/30/2022
19	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Oct-17	MIRECS-REC-332-MI-10-2017-46703-1 to 15422	15,422	Yes	10/31/2022
20	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Oct-17	MIRECS-REC-332-MI-10-2017-46699-1 to 1955	1,955	Yes	10/31/2022
21	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Nov-17	MIRECS-REC-332-MI-11-2017-46702-1 to 38148	38,148	Yes	11/30/2022
22	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Nov-17	MIRECS-REC-332-MI-11-2017-46701-1 to 4837	4,837	Yes	11/30/2022
23	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Dec-17	MIRECS-REC-332-MI-12-2017-46704-1 to 43183	43,183	Yes	12/31/2022
24	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Dec-17	MIRECS-REC-332-MI-12-2017-46703-1 to 1943	1,943	Yes	12/31/2022
25	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Jan-18	MIRECS-REC-332-MI-01-2018-47493-1 to 44730	44,730	Yes	1/31/2023
26	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Jan-18	MIRECS-REC-332-MI-01-2018-53276-1 to 248	248	Yes	1/31/2023
27	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Feb-18	MIRECS-REC-332-MI-02-2018-52101-1 to 34566	34,566	Yes	2/28/2023
28	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Feb-18	MIRECS-REC-332-MI-02-2018-53277-249 to 266	18	Yes	2/28/2023
29	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Mar-18	MIRECS-REC-332-MI-03-2018-52161-1 to 35153	35,153	Yes	3/31/2023
30	2019 Compliance - Consumers Energy Company	1158	GEN332	CWEP - Cross Winds Energy Park	12/12/2014	Wind	RECS	Mar-18	MIRECS-REC-332-MI-03-2018-53278-267 to 353	67	Yes	3/31/2023
31	2019 Compliance - Consumers Energy Company	1158	GEN355	CWEP II - Cross Winds Energy Park, Phase II	1/2/2018	Wind	RECS	Jan-18	MIRECS-REC-355-MI-01-2018-47488-7260 to 19576	12,317	Yes	1/31/2023
32	2019 Compliance - Consumers Energy Company	1158	GEN355	CWEP II - Cross Winds Energy Park, Phase II	1/2/2018	Wind	RECS	Jan-18	MIRECS-REC-355-MI-01-2018-47487-589 to 1579	991	Yes	1/31/2023
33	2019 Compliance - Consumers Energy Company	1158	GEN355	CWEP II - Cross Winds Energy Park, Phase II	1/2/2018	Wind	RECS	Feb-18	MIRECS-REC-355-MI-02-2018-47490-8139 to 14874	6,736	Yes	2/28/2023
34	2019 Compliance - Consumers Energy Company	1158	GEN355	CWEP II - Cross Winds Energy Park, Phase II	1/2/2018	Wind	RECS	Feb-18	MIRECS-REC-355-MI-02-2018-47489-659 to 1201	543	Yes	2/28/2023
35	2019 Compliance - Consumers Energy Company	1158	GEN355	CWEP II - Cross Winds Energy Park, Phase II	1/2/2018	Wind	RECS	Mar-18	MIRECS-REC-355-MI-03-2018-47492-8686 to 14982	6,297	Yes	3/31/2023
36	2019 Compliance - Consumers Energy Company	1158	GEN355	CWEP II - Cross Winds Energy Park, Phase II	1/2/2018	Wind	RECS	Mar-18	MIRECS-REC-355-MI-03-2018-47491-703 to 1209	507	Yes	3/31/2023
37	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	Mar-17	MIRECS-REC-346-MI-03-2017-39725-278 to 329	52	Yes	3/31/2020
38	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	Apr-17	MIRECS-REC-346-MI-04-2017-40396-1 to 426	426	Yes	4/30/2022
39	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	May-17	MIRECS-REC-346-MI-05-2017-40398-1 to 559	559	Yes	5/31/2022
40	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	Jun-17	MIRECS-REC-346-MI-06-2017-40400-1 to 577	577	Yes	6/30/2022
41	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	Jul-17	MIRECS-REC-346-MI-07-2017-41115-1 to 591	591	Yes	7/31/2022
42	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	Aug-17	MIRECS-REC-346-MI-08-2017-41117-1 to 510	510	Yes	8/31/2022
43	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	Sep-17	MIRECS-REC-346-MI-09-2017-41119-1 to 499	499	Yes	9/30/2022
44	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	Oct-17	MIRECS-REC-346-MI-10-2017-46988-1 to 292	292	Yes	10/31/2022
45	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	Nov-17	MIRECS-REC-346-MI-11-2017-46670-1 to 210	210	Yes	11/30/2022
46	2019 Compliance - Consumers Energy Company	1158	GEN346	GVSG - Grand Valley Solar Garden	4/18/2016	Solar	RECS	Dec-17	MIRECS-REC-346-MI-12-2017-46672-1 to 61	61	Yes	12/31/2022
47	2019 Compliance - Consumers Energy Company	1158	GEN86	Hardy Hydro - Hardy Hydro	4/30/1931	Hydroelectric Water	RECS	Mar-18	MIRECS-REC-86-MI-03-2018-55326-3243 to 10112	6,860	Yes	3/31/2023
48	2019 Compliance - Consumers Energy Company	1158	GEN86	Hardy Hydro - Hardy Hydro	4/30/1931	Hydroelectric Water	RECS	Mar-18	MIRECS-REC-86-MI-03-2018-55327-1 to 10117	1,017	Yes	3/31/2023
49	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Jan-17	MIRECS-REC-292-MI-01-2017-47660-2102 to 11100	9,010	Yes	1/31/2020
50	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Feb-17	MIRECS-REC-292-MI-02-2017-47661-2580 to 23321	20,742	Yes	2/28/2020
51	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Mar-17	MIRECS-REC-292-MI-03-2017-47662-1999 to 25566	23,568	Yes	3/31/2020
52	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Apr-17	MIRECS-REC-292-MI-04-2017-47663-1 to 28721	28,721	Yes	4/30/2022
53	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	May-17	MIRECS-REC-292-MI-05-2017-47664-1 to 23162	23,162	Yes	5/31/2022
54	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Jun-17	MIRECS-REC-292-MI-06-2017-47665-1 to 18483	18,483	Yes	6/30/2022
55	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Jul-17	MIRECS-REC-292-MI-07-2017-47666-1 to 11888	11,888	Yes	7/31/2022
56	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Aug-17	MIRECS-REC-292-MI-08-2017-47667-1 to 14631	14,631	Yes	8/31/2022
57	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Sep-17	MIRECS-REC-292-MI-09-2017-47668-1 to 14062	14,062	Yes	9/30/2022
58	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Oct-17	MIRECS-REC-292-MI-10-2017-47669-1 to 29669	29,669	Yes	10/31/2022
59	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Nov-17	MIRECS-REC-292-MI-11-2017-47670-1 to 30680	30,680	Yes	11/30/2022
60	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Dec-17	MIRECS-REC-292-MI-12-2017-47671-1 to 28886	28,886	Yes	12/31/2022
61	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Jan-18	MIRECS-REC-292-MI-01-2018-56327-1 to 32503	32,503	Yes	1/31/2023
62	2019 Compliance - Consumers Energy Company	1158	GEN292	LWEP - Lake Winds Energy Park	11/22/2012	Wind	RECS	Feb-18	MIRECS-REC-292-MI-02-2018-56328-1 to 24507	24,507	Yes	2/28/2023
63												
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68												
69												
70												
71	TOTAL									846,792		

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Case No.: U-0772  
 Exhibit No.: A-11 (PKF-9)  
 Page: 1 of 9  
 Witness: Y/Reyes  
 Date: July 2023

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
 New Renewable Energy Purchase Agreement Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Seq#	Sub-Account	MIREC ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	M Eligible	M Eligible End Date	
1	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Apr-17	MIRECS-REC-338M-06-2017-47265-1 to 14	14	Yes	4/30/2022	
2	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Apr-17	MIRECS-REC-338M-06-2017-47265-1 to 15	15	Yes	4/30/2022	
3	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	May-17	MIRECS-REC-338M-05-2017-47264-1 to 150	150	Yes	5/31/2022	
4	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	May-17	MIRECS-REC-338M-05-2017-47263-1 to 316	316	Yes	5/31/2022	
5	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Jun-17	MIRECS-REC-338M-06-2017-47266-1 to 152	152	Yes	6/30/2022	
6	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Jun-17	MIRECS-REC-338M-06-2017-47265-1 to 322	322	Yes	6/30/2022	
7	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Jul-17	MIRECS-REC-338M-07-2017-47268-1 to 179	179	Yes	7/31/2022	
8	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Jul-17	MIRECS-REC-338M-07-2017-47267-1 to 378	378	Yes	7/31/2022	
9	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Aug-17	MIRECS-REC-338M-08-2017-47269-1 to 147	147	Yes	8/31/2022	
10	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Aug-17	MIRECS-REC-338M-08-2017-47269-1 to 310	310	Yes	8/31/2022	
11	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Sep-17	MIRECS-REC-338M-09-2017-47261-1 to 135	135	Yes	9/30/2022	
12	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Sep-17	MIRECS-REC-338M-09-2017-47261-1 to 286	286	Yes	9/30/2022	
13	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Oct-17	MIRECS-REC-338M-10-2017-47264-1 to 94	94	Yes	10/31/2022	
14	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Oct-17	MIRECS-REC-338M-10-2017-47263-1 to 197	197	Yes	10/31/2022	
15	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Nov-17	MIRECS-REC-338M-11-2017-47266-1 to 49	49	Yes	11/30/2022	
16	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Nov-17	MIRECS-REC-338M-11-2017-47265-1 to 104	104	Yes	11/30/2022	
17	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Dec-17	MIRECS-REC-338M-12-2017-47268-1 to 47	47	Yes	12/31/2022	
18	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Dec-17	MIRECS-REC-338M-12-2017-47267-1 to 101	101	Yes	12/31/2022	
19	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Jan-18	MIRECS-REC-338M-01-2018-48320-1 to 94	94	Yes	1/31/2023	
20	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Jan-18	MIRECS-REC-338M-01-2018-47266-1 to 113	113	Yes	1/31/2023	
21	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Jan-18	MIRECS-REC-338M-01-2018-47266-1 to 126	126	Yes	1/31/2023	
22	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Feb-18	MIRECS-REC-338M-02-2018-48321-1 to 94	94	Yes	2/28/2023	
23	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Feb-18	MIRECS-REC-338M-02-2018-48320-1 to 214	214	Yes	2/28/2023	
24	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Mar-18	MIRECS-REC-338M-03-2018-48321-1 to 152	152	Yes	3/31/2023	
25	2019 Compliance - Consumers Energy Company	1558	GEN2938 1 MW Garden Solar - Garden Solar	4/27/2017	Solar	RECS	Mar-18	MIRECS-REC-338M-03-2018-48320-1 to 343	343	Yes	3/31/2023	
26	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Jan-17	MIRECS-REC-221M-01-2017-38620-1 to 2376	2,376	Yes	1/31/2022	
27	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Feb-17	MIRECS-REC-221M-02-2017-39020-1 to 2,040	3,047	Yes	2/28/2022	
28	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Mar-17	MIRECS-REC-221M-01-2017-42801-1 to 3,288	3,288	Yes	3/31/2022	
29	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Apr-17	MIRECS-REC-221M-01-2017-42801-1 to 3,448	3,448	Yes	4/30/2022	
30	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	May-17	MIRECS-REC-221M-01-2017-42801-1 to 2,878	2,878	Yes	5/31/2022	
31	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Jun-17	MIRECS-REC-221M-06-2017-42800-1 to 2,474	2,474	Yes	6/30/2022	
32	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Jul-17	MIRECS-REC-221M-07-2017-42800-1 to 1,728	1,728	Yes	7/31/2022	
33	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Aug-17	MIRECS-REC-221M-08-2017-42800-1 to 1,840	1,840	Yes	8/31/2022	
34	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Sep-17	MIRECS-REC-221M-01-2017-42801-1 to 1,114	1,114	Yes	9/30/2022	
35	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Oct-17	MIRECS-REC-221M-10-2017-42799-1 to 3,520	3,520	Yes	10/31/2022	
36	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Nov-17	MIRECS-REC-221M-11-2017-47310-1 to 3,288	3,288	Yes	11/30/2022	
37	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Dec-17	MIRECS-REC-221M-12-2017-47310-1 to 2,944	2,944	Yes	12/31/2022	
38	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Jan-18	MIRECS-REC-221M-01-2018-47310-1 to 3,981	3,981	Yes	1/31/2023	
39	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Feb-18	MIRECS-REC-221M-02-2018-47310-1 to 2,740	2,740	Yes	2/28/2023	
40	2019 Compliance - Consumers Energy Company	1558	GEN221 12.25 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Mar-18	MIRECS-REC-221M-03-2018-42421-1 to 2,871	2,871	Yes	3/31/2023	
41	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Jan-17	MIRECS-REC-247M-01-2017-47300-1 to 4,675	4,675	Yes	1/31/2022	
42	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Feb-17	MIRECS-REC-247M-02-2017-47300-1 to 5,284	5,284	Yes	2/28/2022	
43	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Mar-17	MIRECS-REC-247M-03-2017-42800-1 to 6,149	6,149	Yes	3/31/2022	
44	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Apr-17	MIRECS-REC-247M-04-2017-42800-1 to 5,569	5,569	Yes	4/30/2022	
45	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	May-17	MIRECS-REC-247M-05-2017-47300-1 to 4,241	4,241	Yes	5/31/2022	
46	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Jun-17	MIRECS-REC-247M-06-2017-47300-1 to 2,914	2,914	Yes	6/30/2022	
47	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Jul-17	MIRECS-REC-247M-07-2017-47300-1 to 2,344	2,344	Yes	7/31/2022	
48	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Aug-17	MIRECS-REC-247M-08-2017-42810-1 to 3,145	3,145	Yes	8/31/2022	
49	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Sep-17	MIRECS-REC-247M-09-2017-42809-1 to 2,979	2,979	Yes	9/30/2022	
50	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Oct-17	MIRECS-REC-247M-10-2017-42800-1 to 6,532	6,532	Yes	10/31/2022	
51	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Nov-17	MIRECS-REC-247M-11-2017-47300-1 to 6,262	6,262	Yes	11/30/2022	
52	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Dec-17	MIRECS-REC-247M-12-2017-47300-1 to 5,238	5,238	Yes	12/31/2022	
53	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Jan-18	MIRECS-REC-247M-01-2018-47300-1 to 6,662	6,662	Yes	1/31/2023	
54	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Feb-18	MIRECS-REC-247M-02-2018-44200-1 to 4,280	4,280	Yes	2/28/2023	
55	2019 Compliance - Consumers Energy Company	1558	GEN247 20 MW - Garden Wind Farm	8/14/2012	Wind	RECS	Mar-18	MIRECS-REC-247M-03-2018-44200-1 to 4,573	4,573	Yes	3/31/2023	
56	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Jan-17	MIRECS-REC-220M-01-2017-38620-1 to 1,581	1,581	Yes	1/31/2022	
57	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Feb-17	MIRECS-REC-220M-02-2017-39020-1 to 2,040	2,040	Yes	2/28/2022	
58	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Mar-17	MIRECS-REC-220M-01-2017-42800-1 to 2,263	2,263	Yes	3/31/2022	
59	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Apr-17	MIRECS-REC-220M-01-2017-42800-1 to 2,021	2,021	Yes	4/30/2022	
60	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	May-17	MIRECS-REC-220M-05-2017-42798-1 to 1,931	1,931	Yes	5/31/2022	
61	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Jun-17	MIRECS-REC-220M-06-2017-42797-1 to 1,671	1,671	Yes	6/30/2022	
62	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Jul-17	MIRECS-REC-220M-07-2017-42798-1 to 1,154	1,154	Yes	7/31/2022	
63	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Aug-17	MIRECS-REC-220M-08-2017-42795-1 to 1,205	1,205	Yes	8/31/2022	
64	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Sep-17	MIRECS-REC-220M-09-2017-42798-1 to 1,172	1,172	Yes	9/30/2022	
65	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Oct-17	MIRECS-REC-220M-10-2017-42791-1 to 2,300	2,300	Yes	10/31/2022	
66	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Nov-17	MIRECS-REC-220M-11-2017-47310-1 to 2,227	2,227	Yes	11/30/2022	
67	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Dec-17	MIRECS-REC-220M-12-2017-47310-1 to 2,655	2,655	Yes	12/31/2022	
68	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Jan-18	MIRECS-REC-220M-01-2018-47310-1 to 2,655	2,655	Yes	1/31/2023	
69	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Feb-18	MIRECS-REC-220M-02-2018-44200-1 to 2,051	2,051	Yes	2/28/2023	
70	2019 Compliance - Consumers Energy Company	1558	GEN220 8.35 MW - Storey Corners Wind Farm	10/10/2011	Wind	RECS	Mar-18	MIRECS-REC-220M				

MICHIGAN PUBLIC SERVICE COMMISSION  
Consumers Energy Company

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Witness: Y/Reyes  
Date: July 2023

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
New Renewable Energy Purchase Agreement Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Sub-Account ID	Sub-Account	MIREC S ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	M Eligible	M Eligibility End Date	
151	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Feb-17	MIRECS-REC-148-M-02-2017-49031-1 to 41	41	Yes	2/28/2020
152	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Mar-17	MIRECS-REC-148-M-03-2017-49033-1 to 61	61	Yes	3/31/2020
153	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Apr-17	MIRECS-REC-148-M-04-2017-49035-1 to 75	75	Yes	4/30/2022
154	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	May-17	MIRECS-REC-148-M-05-2017-49037-1 to 86	86	Yes	5/31/2022
155	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jun-17	MIRECS-REC-148-M-06-2017-49039-1 to 145	145	Yes	6/30/2022
156	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jul-17	MIRECS-REC-148-M-07-2017-49041-1 to 139	139	Yes	7/31/2022
157	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Aug-17	MIRECS-REC-148-M-08-2017-49043-1 to 186	186	Yes	8/31/2022
158	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Sep-17	MIRECS-REC-148-M-09-2017-49045-1 to 87	87	Yes	9/30/2022
159	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Oct-17	MIRECS-REC-148-M-10-2017-49047-1 to 84	84	Yes	10/31/2022
160	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Nov-17	MIRECS-REC-148-M-11-2017-49049-1 to 57	57	Yes	11/30/2022
161	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Dec-17	MIRECS-REC-148-M-12-2017-49051-1 to 43	43	Yes	12/31/2022
162	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jan-18	MIRECS-REC-148-M-01-2018-55549-1 to 26	26	Yes	1/31/2023
163	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Feb-18	MIRECS-REC-148-M-02-2018-55551-1 to 33	33	Yes	2/28/2023
164	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Mar-18	MIRECS-REC-148-M-03-2018-55553-1 to 167	167	Yes	3/31/2023
165	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Apr-18	MIRECS-REC-148-M-04-2018-55555-1 to 81	81	Yes	4/30/2023
166	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	May-18	MIRECS-REC-148-M-05-2018-55557-1 to 110	110	Yes	5/31/2023
167	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jun-18	MIRECS-REC-148-M-06-2018-55559-1 to 147	147	Yes	6/30/2023
168	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jul-18	MIRECS-REC-148-M-07-2018-55561-1 to 99	99	Yes	7/31/2023
169	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Aug-18	MIRECS-REC-148-M-08-2018-55563-1 to 54	54	Yes	8/31/2023
170	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Sep-18	MIRECS-REC-148-M-09-2018-55565-1 to 49	49	Yes	9/30/2023
171	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Oct-18	MIRECS-REC-148-M-10-2018-55567-1 to 114	114	Yes	10/31/2023
172	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Nov-18	MIRECS-REC-148-M-11-2018-55569-1 to 48	48	Yes	11/30/2023
173	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Dec-18	MIRECS-REC-148-M-12-2018-55571-1 to 11	11	Yes	12/31/2023
174	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jan-19	MIRECS-REC-148-M-01-2019-55573-1 to 22	22	Yes	1/31/2024
175	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Feb-19	MIRECS-REC-148-M-02-2019-55575-1 to 17	17	Yes	2/28/2024
176	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Mar-19	MIRECS-REC-148-M-03-2019-55577-1 to 87	87	Yes	3/31/2024
177	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Apr-19	MIRECS-REC-148-M-04-2019-55579-1 to 25	25	Yes	4/30/2024
178	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	May-19	MIRECS-REC-148-M-05-2019-55581-1 to 37	37	Yes	5/31/2024
179	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jun-19	MIRECS-REC-148-M-06-2019-55583-1 to 111	111	Yes	6/30/2024
180	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jul-19	MIRECS-REC-148-M-07-2019-55585-1 to 45	45	Yes	7/31/2024
181	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Aug-19	MIRECS-REC-148-M-08-2019-55587-1 to 42	42	Yes	8/31/2024
182	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Sep-19	MIRECS-REC-148-M-09-2019-55589-1 to 87	87	Yes	9/30/2024
183	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Oct-19	MIRECS-REC-148-M-10-2019-55591-1 to 88	88	Yes	10/31/2024
184	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Nov-19	MIRECS-REC-148-M-11-2019-55593-1 to 29	29	Yes	11/30/2024
185	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Dec-19	MIRECS-REC-148-M-12-2019-55595-1 to 48	48	Yes	12/31/2024
186	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jan-20	MIRECS-REC-148-M-01-2020-55597-1 to 17	17	Yes	1/31/2025
187	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Feb-20	MIRECS-REC-148-M-02-2020-55599-1 to 10	10	Yes	2/28/2025
188	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Mar-20	MIRECS-REC-148-M-03-2020-55601-1 to 37	37	Yes	3/31/2025
189	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Apr-20	MIRECS-REC-148-M-04-2020-55603-1 to 27	27	Yes	4/30/2025
190	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	May-20	MIRECS-REC-148-M-05-2020-55605-1 to 49	49	Yes	5/31/2025
191	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jun-20	MIRECS-REC-148-M-06-2020-55607-1 to 116	116	Yes	6/30/2025
192	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jul-20	MIRECS-REC-148-M-07-2020-55609-1 to 50	50	Yes	7/31/2025
193	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Aug-20	MIRECS-REC-148-M-08-2020-55611-1 to 43	43	Yes	8/31/2025
194	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Sep-20	MIRECS-REC-148-M-09-2020-55613-1 to 90	90	Yes	9/30/2025
195	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Oct-20	MIRECS-REC-148-M-10-2020-55615-1 to 94	94	Yes	10/31/2025
196	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Nov-20	MIRECS-REC-148-M-11-2020-55617-1 to 34	34	Yes	11/30/2025
197	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Dec-20	MIRECS-REC-148-M-12-2020-55619-1 to 11	11	Yes	12/31/2025
198	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jan-21	MIRECS-REC-148-M-01-2021-55621-1 to 22	22	Yes	1/31/2026
199	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Feb-21	MIRECS-REC-148-M-02-2021-55623-1 to 17	17	Yes	2/28/2026
200	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Mar-21	MIRECS-REC-148-M-03-2021-55625-1 to 87	87	Yes	3/31/2026
201	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Apr-21	MIRECS-REC-148-M-04-2021-55627-1 to 25	25	Yes	4/30/2026
202	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	May-21	MIRECS-REC-148-M-05-2021-55629-1 to 37	37	Yes	5/31/2026
203	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jun-21	MIRECS-REC-148-M-06-2021-55631-1 to 111	111	Yes	6/30/2026
204	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jul-21	MIRECS-REC-148-M-07-2021-55633-1 to 45	45	Yes	7/31/2026
205	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Aug-21	MIRECS-REC-148-M-08-2021-55635-1 to 42	42	Yes	8/31/2026
206	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Sep-21	MIRECS-REC-148-M-09-2021-55637-1 to 88	88	Yes	9/30/2026
207	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Oct-21	MIRECS-REC-148-M-10-2021-55639-1 to 88	88	Yes	10/31/2026
208	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Nov-21	MIRECS-REC-148-M-11-2021-55641-1 to 29	29	Yes	11/30/2026
209	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Dec-21	MIRECS-REC-148-M-12-2021-55643-1 to 48	48	Yes	12/31/2026
210	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jan-22	MIRECS-REC-148-M-01-2022-55645-1 to 17	17	Yes	1/31/2027
211	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Feb-22	MIRECS-REC-148-M-02-2022-55647-1 to 10	10	Yes	2/28/2027
212	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Mar-22	MIRECS-REC-148-M-03-2022-55649-1 to 37	37	Yes	3/31/2027
213	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Apr-22	MIRECS-REC-148-M-04-2022-55651-1 to 27	27	Yes	4/30/2027
214	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	May-22	MIRECS-REC-148-M-05-2022-55653-1 to 49	49	Yes	5/31/2027
215	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jun-22	MIRECS-REC-148-M-06-2022-55655-1 to 116	116	Yes	6/30/2027
216	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Jul-22	MIRECS-REC-148-M-07-2022-55657-1 to 50	50	Yes	7/31/2027
217	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Aug-22	MIRECS-REC-148-M-08-2022-55659-1 to 43	43	Yes	8/31/2027
218	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Sep-22	MIRECS-REC-148-M-09-2022-55661-1 to 90	90	Yes	9/30/2027
219	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Oct-22	MIRECS-REC-148-M-10-2022-55663-1 to 94	94	Yes	10/31/2027
220	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Nov-22	MIRECS-REC-148-M-11-2022-55665-1 to 34	34	Yes	11/30/2027
221	2019 Compliance - Consumers Energy Company	1558	AGG148	EARP Agg 1	9/3/2009	Solar	RECS	Dec-22	MIRECS-REC-148-M-12-2022-55			

MICHIGAN PUBLIC SERVICE COMMISSION  
Consumers Energy Company

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RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
New Renewable Energy Purchase Agreement Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Sub-Type	Sub-Account	Sub-Account ID	MIREC S ID	Project	Operation Begin Date	Fuel/Project Type	Technology	Credits Vintage	Credit Serial Numbers	Quantity	M Eligible	M Eligibility End Date
301	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Feb-17	MIRECS-REC-275-M-02-2017-49103-1 to 31	31	Yes	2/28/2020
302	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Mar-17	MIRECS-REC-275-M-03-2017-49105-1 to 24	24	Yes	3/31/2020
303	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Apr-17	MIRECS-REC-275-M-04-2017-49107-1 to 25	25	Yes	4/30/2022
304	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	May-17	MIRECS-REC-275-M-05-2017-49108-1 to 79	79	Yes	5/31/2022
305	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jun-17	MIRECS-REC-275-M-06-2017-49111-1 to 41	41	Yes	6/30/2022
306	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jul-17	MIRECS-REC-275-M-07-2017-49113-1 to 37	37	Yes	7/31/2022
307	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Aug-17	MIRECS-REC-275-M-08-2017-49115-1 to 41	41	Yes	8/31/2022
308	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Sep-17	MIRECS-REC-275-M-09-2017-49117-1 to 35	35	Yes	9/30/2022
309	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Oct-17	MIRECS-REC-275-M-10-2017-49118-1 to 65	65	Yes	10/31/2022
310	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Nov-17	MIRECS-REC-275-M-11-2017-49121-1 to 19	19	Yes	11/30/2022
311	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Dec-17	MIRECS-REC-275-M-12-2017-49123-1 to 14	14	Yes	12/31/2022
312	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jan-18	MIRECS-REC-275-M-01-2018-55621-1 to 8	8	Yes	1/31/2023
313	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Feb-18	MIRECS-REC-275-M-02-2018-55623-1 to 11	11	Yes	2/28/2023
314	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Mar-18	MIRECS-REC-275-M-03-2018-55624-1 to 47	47	Yes	3/31/2023
315	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Apr-18	MIRECS-REC-275-M-04-2018-55626-1 to 17	17	Yes	4/30/2023
316	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	May-18	MIRECS-REC-275-M-05-2018-55628-1 to 11	11	Yes	5/31/2023
317	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jun-18	MIRECS-REC-275-M-06-2018-55630-1 to 17	17	Yes	6/30/2023
318	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jul-18	MIRECS-REC-275-M-07-2018-55632-1 to 15	15	Yes	7/31/2023
319	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Aug-18	MIRECS-REC-275-M-08-2018-55634-1 to 11	11	Yes	8/31/2023
320	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Sep-18	MIRECS-REC-275-M-09-2018-55636-1 to 17	17	Yes	9/30/2023
321	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Oct-18	MIRECS-REC-275-M-10-2018-55638-1 to 11	11	Yes	10/31/2023
322	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Nov-18	MIRECS-REC-275-M-11-2018-55640-1 to 17	17	Yes	11/30/2023
323	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Dec-18	MIRECS-REC-275-M-12-2018-55642-1 to 14	14	Yes	12/31/2023
324	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jan-19	MIRECS-REC-275-M-01-2019-55644-1 to 8	8	Yes	1/31/2024
325	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Feb-19	MIRECS-REC-275-M-02-2019-55646-1 to 11	11	Yes	2/28/2024
326	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Mar-19	MIRECS-REC-275-M-03-2019-55648-1 to 47	47	Yes	3/31/2024
327	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Apr-19	MIRECS-REC-275-M-04-2019-55650-1 to 17	17	Yes	4/30/2024
328	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	May-19	MIRECS-REC-275-M-05-2019-55652-1 to 11	11	Yes	5/31/2024
329	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jun-19	MIRECS-REC-275-M-06-2019-55654-1 to 17	17	Yes	6/30/2024
330	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jul-19	MIRECS-REC-275-M-07-2019-55656-1 to 15	15	Yes	7/31/2024
331	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Aug-19	MIRECS-REC-275-M-08-2019-55658-1 to 11	11	Yes	8/31/2024
332	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Sep-19	MIRECS-REC-275-M-09-2019-55660-1 to 17	17	Yes	9/30/2024
333	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Oct-19	MIRECS-REC-275-M-10-2019-55662-1 to 11	11	Yes	10/31/2024
334	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Nov-19	MIRECS-REC-275-M-11-2019-55664-1 to 17	17	Yes	11/30/2024
335	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Dec-19	MIRECS-REC-275-M-12-2019-55666-1 to 14	14	Yes	12/31/2024
336	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jan-20	MIRECS-REC-275-M-01-2020-55668-1 to 8	8	Yes	1/31/2025
337	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Feb-20	MIRECS-REC-275-M-02-2020-55670-1 to 11	11	Yes	2/28/2025
338	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Mar-20	MIRECS-REC-275-M-03-2020-55672-1 to 47	47	Yes	3/31/2025
339	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Apr-20	MIRECS-REC-275-M-04-2020-55674-1 to 17	17	Yes	4/30/2025
340	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	May-20	MIRECS-REC-275-M-05-2020-55676-1 to 11	11	Yes	5/31/2025
341	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jun-20	MIRECS-REC-275-M-06-2020-55678-1 to 17	17	Yes	6/30/2025
342	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jul-20	MIRECS-REC-275-M-07-2020-55680-1 to 15	15	Yes	7/31/2025
343	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Aug-20	MIRECS-REC-275-M-08-2020-55682-1 to 11	11	Yes	8/31/2025
344	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Sep-20	MIRECS-REC-275-M-09-2020-55684-1 to 17	17	Yes	9/30/2025
345	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Oct-20	MIRECS-REC-275-M-10-2020-55686-1 to 11	11	Yes	10/31/2025
346	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Nov-20	MIRECS-REC-275-M-11-2020-55688-1 to 17	17	Yes	11/30/2025
347	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Dec-20	MIRECS-REC-275-M-12-2020-55690-1 to 14	14	Yes	12/31/2025
348	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jan-21	MIRECS-REC-275-M-01-2021-55692-1 to 8	8	Yes	1/31/2026
349	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Feb-21	MIRECS-REC-275-M-02-2021-55694-1 to 11	11	Yes	2/28/2026
350	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Mar-21	MIRECS-REC-275-M-03-2021-55696-1 to 47	47	Yes	3/31/2026
351	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Apr-21	MIRECS-REC-275-M-04-2021-55698-1 to 17	17	Yes	4/30/2026
352	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	May-21	MIRECS-REC-275-M-05-2021-55700-1 to 11	11	Yes	5/31/2026
353	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jun-21	MIRECS-REC-275-M-06-2021-55702-1 to 17	17	Yes	6/30/2026
354	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Jul-21	MIRECS-REC-275-M-07-2021-55704-1 to 15	15	Yes	7/31/2026
355	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Aug-21	MIRECS-REC-275-M-08-2021-55706-1 to 11	11	Yes	8/31/2026
356	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Sep-21	MIRECS-REC-275-M-09-2021-55708-1 to 17	17	Yes	9/30/2026
357	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Oct-21	MIRECS-REC-275-M-10-2021-55710-1 to 11	11	Yes	10/31/2026
358	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Nov-21	MIRECS-REC-275-M-11-2021-55712-1 to 17	17	Yes	11/30/2026
359	2019 Compliance - Consumers Energy Company	1558	AGG275	EARR Agg 4	8/11/2008	Solar	RECS	Dec-21	MIRECS-REC-275-M-12-2021-55714-1 to 14	14	Yes	12/31/2026
360	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Jan-17	MIRECS-REC-308-M-01-2017-49188-1 to 55	55	Yes	1/31/2020
361	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Feb-17	MIRECS-REC-308-M-02-2017-49191-1 to 35	35	Yes	2/28/2020
362	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Mar-17	MIRECS-REC-308-M-03-2017-49193-1 to 69	69	Yes	3/31/2020
363	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Apr-17	MIRECS-REC-308-M-04-2017-49195-1 to 87	87	Yes	4/30/2022
364	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	May-17	MIRECS-REC-308-M-05-2017-49198-1 to 255	255	Yes	5/31/2022
365	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Jun-17	MIRECS-REC-308-M-06-2017-49198-1 to 285	285	Yes	6/30/2022
366	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Jul-17	MIRECS-REC-308-M-07-2017-49201-1 to 127	127	Yes	7/31/2022
367	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Aug-17	MIRECS-REC-308-M-08-2017-49203-1 to 127	127	Yes	8/31/2022
368	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Sep-17	MIRECS-REC-308-M-09-2017-49205-1 to 111	111	Yes	9/30/2022
369	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Oct-17	MIRECS-REC-308-M-10-2017-49206-1 to 232	232	Yes	10/31/2022
370	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Nov-17	MIRECS-REC-308-M-11-2017-49208-1 to 150	150	Yes	11/30/2022
371	2019 Compliance - Consumers Energy Company	1558	AGG308	EARR Agg 6	8/14/2011	Solar	RECS	Dec-17	MIRECS-REC-308-M-12-2017-49211-1 to 47			

RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
New Renewable Energy Purchase Agreement Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	
Site	Sub-Account	Sub-Account ID	MIREC S ID	Project	Operation Begin Date	Fuel/Project Type	Unit Type	Credits Vintage	Credit Serial Numbers	Quantity	Eligible	MP Eligibility End Date	
451	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Feb-17	MIRECS-REC-323-MI-02-2017-49276-1 to 38	38	Yes	2/28/2020
452	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Feb-17	MIRECS-REC-323-MI-02-2017-49277-1 to 86	86	Yes	2/28/2020
453	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Mar-17	MIRECS-REC-323-MI-03-2017-49281-1 to 76	76	Yes	3/31/2020
454	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Mar-17	MIRECS-REC-323-MI-03-2017-49279-1 to 133	133	Yes	3/31/2020
455	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Apr-17	MIRECS-REC-323-MI-04-2017-49282-1 to 91	91	Yes	4/30/2020
456	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Apr-17	MIRECS-REC-323-MI-04-2017-49281-1 to 206	206	Yes	4/30/2020
457	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	May-17	MIRECS-REC-323-MI-05-2017-49284-1 to 117	117	Yes	5/31/2020
458	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	May-17	MIRECS-REC-323-MI-05-2017-49283-1 to 267	267	Yes	5/31/2020
459	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Jun-17	MIRECS-REC-323-MI-06-2017-49286-1 to 136	136	Yes	6/30/2020
460	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Jun-17	MIRECS-REC-323-MI-06-2017-49285-1 to 307	307	Yes	6/30/2020
461	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Jul-17	MIRECS-REC-323-MI-07-2017-49287-1 to 304	304	Yes	7/31/2020
462	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Jul-17	MIRECS-REC-323-MI-07-2017-49286-1 to 135	135	Yes	7/31/2020
463	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Aug-17	MIRECS-REC-323-MI-08-2017-49289-1 to 306	306	Yes	8/31/2020
464	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Aug-17	MIRECS-REC-323-MI-08-2017-49288-1 to 306	306	Yes	8/31/2020
465	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Sep-17	MIRECS-REC-323-MI-09-2017-49292-1 to 106	106	Yes	9/30/2020
466	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Sep-17	MIRECS-REC-323-MI-09-2017-49291-1 to 264	264	Yes	9/30/2020
467	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Oct-17	MIRECS-REC-323-MI-10-2017-49294-1 to 100	100	Yes	10/31/2020
468	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Oct-17	MIRECS-REC-323-MI-10-2017-49293-1 to 220	220	Yes	10/31/2020
469	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Nov-17	MIRECS-REC-323-MI-11-2017-49297-1 to 113	113	Yes	11/30/2020
470	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Nov-17	MIRECS-REC-323-MI-11-2017-49296-1 to 162	162	Yes	11/30/2020
471	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Dec-17	MIRECS-REC-323-MI-12-2017-49307-1 to 113	113	Yes	12/31/2020
472	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Dec-17	MIRECS-REC-323-MI-12-2017-49306-1 to 113	113	Yes	12/31/2020
473	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Jan-18	MIRECS-REC-323-MI-01-2018-55745-1 to 30	30	Yes	1/31/2020
474	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Jan-18	MIRECS-REC-323-MI-01-2018-55744-1 to 37	37	Yes	1/31/2020
475	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Feb-18	MIRECS-REC-323-MI-02-2018-55747-1 to 100	100	Yes	2/28/2020
476	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Feb-18	MIRECS-REC-323-MI-02-2018-55746-1 to 125	125	Yes	2/28/2020
477	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Solar	REC	Mar-18	MIRECS-REC-323-MI-03-2018-55748-1 to 55	55	Yes	3/31/2020
478	COM	2018 Compliance - Consumers Energy Company	1158	AGG323	EARP Agg 9	11/19/2012	Incentive	REC	Mar-18	MIRECS-REC-323-MI-03-2018-55747-1 to 125	125	Yes	3/31/2020
479	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Jan-17	MIRECS-REC-122-MI-01-2017-49361-1 to 258	258	Yes	1/31/2020
480	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Jan-17	MIRECS-REC-122-MI-01-2017-49362-1 to 26	26	Yes	1/31/2020
481	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Feb-17	MIRECS-REC-122-MI-02-2017-49364-1 to 242	242	Yes	2/28/2020
482	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Feb-17	MIRECS-REC-122-MI-02-2017-49363-1 to 26	26	Yes	2/28/2020
483	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Mar-17	MIRECS-REC-122-MI-03-2017-49366-1 to 250	250	Yes	3/31/2020
484	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Mar-17	MIRECS-REC-122-MI-03-2017-49365-1 to 26	26	Yes	3/31/2020
485	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Apr-17	MIRECS-REC-122-MI-04-2017-49370-1 to 256	256	Yes	4/30/2020
486	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Apr-17	MIRECS-REC-122-MI-04-2017-49369-1 to 24	24	Yes	4/30/2020
487	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	May-17	MIRECS-REC-122-MI-05-2017-49373-1 to 238	238	Yes	5/31/2020
488	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	May-17	MIRECS-REC-122-MI-05-2017-49372-1 to 25	25	Yes	5/31/2020
489	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Jun-17	MIRECS-REC-122-MI-06-2017-49371-1 to 206	206	Yes	6/30/2020
490	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Jun-17	MIRECS-REC-122-MI-06-2017-49370-1 to 22	22	Yes	6/30/2020
491	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Jul-17	MIRECS-REC-122-MI-07-2017-49375-1 to 178	178	Yes	7/31/2020
492	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Jul-17	MIRECS-REC-122-MI-07-2017-49374-1 to 15	15	Yes	7/31/2020
493	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Aug-17	MIRECS-REC-122-MI-08-2017-49376-1 to 203	203	Yes	8/31/2020
494	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Aug-17	MIRECS-REC-122-MI-08-2017-49375-1 to 178	178	Yes	8/31/2020
495	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Sep-17	MIRECS-REC-122-MI-09-2017-49377-1 to 143	143	Yes	9/30/2020
496	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Sep-17	MIRECS-REC-122-MI-09-2017-49376-1 to 16	16	Yes	9/30/2020
497	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Oct-17	MIRECS-REC-122-MI-10-2017-49379-1 to 213	213	Yes	10/31/2020
498	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Oct-17	MIRECS-REC-122-MI-10-2017-49378-1 to 21	21	Yes	10/31/2020
499	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Nov-17	MIRECS-REC-122-MI-11-2017-49381-1 to 218	218	Yes	11/30/2020
500	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Nov-17	MIRECS-REC-122-MI-11-2017-49380-1 to 7	7	Yes	11/30/2020
501	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Jan-18	MIRECS-REC-122-MI-01-2018-54571-1 to 221	221	Yes	1/31/2020
502	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Jan-18	MIRECS-REC-122-MI-01-2018-54570-1 to 22	22	Yes	1/31/2020
503	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Feb-18	MIRECS-REC-122-MI-02-2018-54573-1 to 221	221	Yes	2/28/2020
504	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Feb-18	MIRECS-REC-122-MI-02-2018-54572-1 to 21	21	Yes	2/28/2020
505	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Hydroelectric Water	REC	Mar-18	MIRECS-REC-122-MI-03-2018-54575-1 to 227	227	Yes	3/31/2020
506	COM	2018 Compliance - Consumers Energy Company	1158	GEN122	EK Rapids Hydro - EK Rapids Hydro	11/19/80	Incentive	REC	Mar-18	MIRECS-REC-122-MI-03-2018-54574-1 to 23	23	Yes	3/31/2020
507	COM	2018 Compliance - Consumers Energy Company	1158	GEN258	Fremont Community Digester - Fremont Community Digester	12/21/2012	Biomass	REC	Jan-18	MIRECS-REC-258-MI-01-2018-56750-1 to 163	163	Yes	1/31/2020
508	COM	2018 Compliance - Consumers Energy Company	1158	GEN258	Fremont Community Digester - Fremont Community Digester	12/21/2012	Incentive	REC	Jan-18	MIRECS-REC-258-MI-01-2018-56749-1 to 19	19	Yes	1/31/2020
509	COM	2018 Compliance - Consumers Energy Company	1158	GEN258	Fremont Community Digester - Fremont Community Digester	12/21/2012	Hydroelectric Water	REC	Feb-18	MIRECS-REC-258-MI-02-2018-56761-1 to 179	179	Yes	2/28/2020
510	COM	2018 Compliance - Consumers Energy Company	1158	GEN258	Fremont Community Digester - Fremont Community Digester	12/21/2012	Incentive	REC	Feb-18	MIRECS-REC-258-MI-02-2018-56760-1 to 19	19	Yes	2/28/2020
511	COM	2018 Compliance - Consumers Energy Company	1158	GEN251	Harvest II Wind farm - Harvest II	8/26/2012	Wind	REC	Feb-17	MIRECS-REC-251-MI-02-2017-38883-1 to 22025	22,025	Yes	2/28/2020
512	COM	2018 Compliance - Consumers Energy Company	1158	GEN251	Harvest II Wind farm - Harvest II	8/26/2012	Wind	REC	Mar-17	MIRECS-REC-251-MI-03-2017-38884-1 to 2041	2,041	Yes	3/31/2020
513	COM	2018 Compliance - Consumers Energy Company	1158	GEN251	Harvest II Wind farm - Harvest II	8/26/2012	Wind	REC	Apr-17	MIRECS-REC-251-MI-04-2017-38885-1 to 21960	21,960	Yes	4/30/2020
514	COM	2018 Compliance - Consumers Energy Company	1158	GEN251	Harvest II Wind farm - Harvest II	8/26/2012	Wind	REC	May-17	MIRECS-REC-251-MI-05-2017-38886-1 to 18710	18,710	Yes	5/31/2020
515	COM	2018 Compliance - Consumers Energy Company	1158	GEN251	Harvest II Wind farm - Harvest II	8/26/2012	Wind	REC	Jun-17	MIRECS-REC-251-MI-06-2017-38887-1 to 19129	19,129	Yes	6/30/2020
516	COM	2018 Compliance - Consumers Energy Company	1158	GEN251	Harvest II Wind farm - Harvest II	8/26/2012	Wind	REC	Jul-17	MIRECS-REC-251-MI-07-2017-38888-1 to 18219	18,219	Yes	7/31/2020
517	COM	2018 Compliance - Consumers Energy Company	1158	GEN251	Harvest II Wind farm - Harvest II	8/26/2012	Wind	REC	Aug				



RENEWABLE ENERGY CREDITS USED FOR 2019 COMPLIANCE  
 Energy Waste Reduction Credits

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	
satType	Sub-Account	Sub-Account ID	MIRECS ID	Project	Operation Begin Date	Fuel/Project Type	Credit Type	Credits Vintage	Credit Serial Numbers	Quantity	MI Eligible	MI Eligibility End Date	
1	COM	2019 Compliance - Consumers Energy Company	1158	EWR367	Consumers Energy Company-Electric-EWR	N/A	Electric Savings	EWR	Dec-18	MIRECS-EWR-367-MI-12-2018-56487-333891 to 407206	73,316	Yes	2/29/2020

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019. )  
\_\_\_\_\_ )

Case No. U-20722

**DIRECT TESTIMONY**

**OF**

**JULIE M. OBERLIN**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

July 2020

JULIE M. OBERLIN  
DIRECT TESTIMONY

1 **Q. Please state your name and business address.**

2 A. My name is Julie M. Oberlin, and my business address is One Energy Plaza, Jackson,  
3 Michigan 49201.

4 **Q. By whom are you employed?**

5 A. I am employed by Consumers Energy Company (“Consumers Energy” or the  
6 “Company”).

7 **Q. What is your position at Consumers Energy?**

8 A. I am a General Accounting Analyst II in the Electric Revenue and Fuel Reconciliation  
9 section of the General Accounting Department.

10 **Q. Please state your educational background and work experience.**

11 A. I graduated from Baker College in June 2017 with a Bachelor of Business  
12 Administration-Accounting. I began working for the Company in October 1994 and held  
13 various positions before beginning my accounting career in the Electric Revenue and  
14 Fuel Reconciliation section of the General Accounting Department in February 2007.

15 **Q. What are your responsibilities in your present position?**

16 A. My primary responsibilities include the accounting for purchased power expenses, the  
17 Company’s Renewable Energy programs, as well as accounting for fuel expenses for the  
18 Company’s coal plants.

19 **Q. Have you previously provided testimony before the Michigan Public Service  
20 Commission (“MPSC” or the “Commission”)?**

21 A. Yes. I provided testimony in:

- 22 • Case No. U-20171, the Company’s 2017 Renewable Energy Cost  
23 Reconciliation Case; and



JULIE M. OBERLIN  
DIRECT TESTIMONY

1 the July 2014 bill month, the surcharge factor was lowered to \$0. Rebilling activity and  
2 adjustments to bill months prior to July 2014 will result in small additional RE Plan  
3 surcharge activity. Additionally, the Company collects certain charges related to  
4 customer Renewable Energy programs, such as Solar Gardens subscription payments,  
5 Experimental Advanced Renewable Program (“EARP”) Solar system access charges, and  
6 Large Customer Renewable Energy Program subscription payments related to Cross  
7 Winds Energy Park (“CWEP”) II-Subscribed, that are treated as surcharge revenue and  
8 reported within Exhibit A-13 (JMO-1). In 2019, the Company billed \$5,659,326 in total  
9 surcharges and other charges as shown in Exhibit A-13 (JMO-1), line 4, column (n).

10 **Q. What costs were incurred in 2019?**

11 A. For 2019, the Company incurred \$26,087,967 of expenses as shown in Exhibit A-13  
12 (JMO-1), lines 5 through 11, column (n). These expenses were offset by the amount of  
13 costs transferred to Power Supply Cost Recovery (“PSCR”) related to Lake Winds  
14 Energy Park (“LWEP”), CWEP I, CWEP II-Unsubscribed, CWEP III, Circuit West  
15 Solar, and Solar Gardens-Unsubscribed totaling (\$51,652,112) for 2019, as shown in  
16 Exhibit A-13 (JMO-1), line 12, column (n). The total expenses incurred by the Company  
17 for 2019 was (\$25,564,145) as shown in Exhibit A-13 (JMO-1), line 13, column (n). The  
18 amount on line 13 was derived by adding lines 5 through 12.

19 **Q. Can you describe the amounts shown on Exhibit A-13 (JMO-1), lines 5 through 12?**

20 A. Yes, the following describes the amounts shown on lines 5 through 12:

- 21 • Line 5 represents the costs associated with the Company’s Renewable Energy  
22 Purchase Agreements (“REPAs”), EARP, and Solar Gardens-Subscribed less  
23 the portions allocated to PSCR and RECs;

JULIE M. OBERLIN  
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- 1 • Line 6 represents the cost of RECs used for compliance during 2019 as  
2 calculated in Exhibit A-16 (JMO-4), which is discussed later in my direct  
3 testimony;
- 4 • Line 7 represents the insurance expense associated with property protection  
5 for LWEP, CWEP, and Solar Gardens;
- 6 • Line 8 represents the property tax expense associated with the LWEP, CWEP,  
7 and Solar Gardens assets. Property taxes are based on the taxable value of  
8 these assets and the appropriate millage rates;
- 9 • Line 9 represents the depreciation expense associated with LWEP and CWEP  
10 using the depreciation rates approved by the Commission in Case No.  
11 U-16536. Additionally, included is the depreciation expense associated with  
12 Solar Gardens and Circuit West Solar;
- 13 • Line 10 represents various administrative expenses associated with the  
14 Renewable Energy Program and operating costs associated with LWEP,  
15 CWEP, Solar Gardens, and Circuit West Solar;
- 16 • Line 11 represents the monthly amortization of the LWEP Cash Grant and the  
17 related tax effects as approved in Case No. U-16581. The Cash Grant was  
18 received as a payment from the federal government to Consumers Energy, in  
19 lieu of a tax credit, for 30% of the eligible LWEP project costs in the amount  
20 of approximately \$69.2 million which was received in January 2013.  
21 Customers will be credited with a monthly amortization of the Cash Grant  
22 over the useful life of the facility. Additionally, included in this line as a  
23 reduction of the incremental cost of compliance is the amount of production  
24 tax credit earned from the production of CWEP and the investment tax credit  
25 earned from the production of Solar Gardens and Circuit West; and
- 26 • Line 12 represents the “Transfer Cost” associated with LWEP, CWEP I,  
27 CWEP II-Unsubscribed, CWEP III, Circuit West Solar, and Solar  
28 Gardens-Unsubscribed as calculated by Company witness Emily J. Warners.

29 **Q. How much of the 2019 expenditures were booked as Incremental Cost of**  
30 **Compliance in accordance with Public Act 295 of 2008 (“PA 295”), as amended?**

31 A. MCL 460.1047(2) provides the cost elements defined as the Incremental Cost of  
32 Compliance. Of the \$158.7 million of total costs, the Incremental Cost of Compliance  
33 consists of \$49,534,125 return on Construction Work in Progress (“CWIP”) and Plant in  
34 Service; \$23,450,746 of depreciation of Plant in Service; \$1,365,608 of inventory

JULIE M. OBERLIN  
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1 carrying charges on RECs held in inventory; \$12,340,887 of RECs surrendered for  
2 compliance; and (\$61,355,778) in administration costs, operating and maintenance costs,  
3 and costs representing the difference between total cost incurred under the REPAs and the  
4 sum of the booked value of RECs and the booked value of energy and capacity delivered  
5 under the REPAs less the Transfer Cost associated with the energy and capacity of the  
6 provider-owned resources less \$875,987 of interest on regulatory liabilities, and less the  
7 Company's surcharge revenue of \$5,659,326; resulting in \$18,800,275 of costs to be  
8 recovered as the Incremental Cost of Compliance.

9 **Q. Have any RE Plan expenditures been capitalized as of December 31, 2019?**

10 A. Yes. The Company has capitalized costs incurred after the effective date of PA 295  
11 associated with the development and construction of wind farms and solar projects.  
12 These costs are captured using work orders and are recognized as CWIP. When  
13 renewable energy assets are placed into service, the asset is moved out of CWIP and into  
14 Plant in Service. Exhibit A-14 (JMO-2) breaks out the capitalized costs between CWIP  
15 and Plant in Service.

16 **Q. What was the return on capitalized costs for 2019?**

17 A. For 2019, the Company's return on CWIP was \$8,449,939 (Exhibit A-14 (JMO-2), line 9,  
18 column (p)) and the return on Plant in Service was \$41,084,186 (Exhibit A-14 (JMO-2),  
19 line 18, column (p)).

20 **Q. Were any RECs booked in 2019?**

21 A. Yes. 1,156,966 RECs were acquired from REPAs and EARP customers (Exhibit A-16  
22 (JMO-4), line 9, column (n)). 2,667,602 RECs were booked from existing (pre-PA 295)  
23 renewable energy resources, LWEP, CWEP, and Solar Gardens (Exhibit A-16 (JMO-4),

JULIE M. OBERLIN  
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1 line 10, column (n)). (96,624) RECs were transferred for purposes of use in the  
2 Company's Green Generation Program to the Company's RE Plan portfolio (Exhibit A-  
3 16 (JMO-4), line 11, column (n)). These RECs are based on estimates and adjustments  
4 and are recorded in the following year as final values become available. The total cost of  
5 RECs recorded during the year was \$8,546,606 as shown in Exhibit A-16 (JMO-4),  
6 line 1, column (n).

7 **Q. What is the purpose of Exhibit A-16 (JMO-4)?**

8 A. The purpose of Exhibit A-16 (JMO-4) is to calculate the cost of RECs used to comply  
9 with PA 295. Because the Company can only use jurisdictional RECs to comply with  
10 PA 295, this exhibit subtracts the non-jurisdictional RECs and their related cost from the  
11 total number of RECs and the total REC inventory cost to derive the jurisdictional REC  
12 inventory amounts. The cost of RECs used for compliance is then derived by multiplying  
13 the monthly weighted average cost per jurisdictional REC shown on Exhibit A-16  
14 (JMO-4), line 21, by the number of jurisdictional RECs used for compliance during the  
15 month as shown on Exhibit A-16 (JMO-4), line 18. According to Company witness  
16 Yong F. Keyes' Exhibit A-17 (YFK-5), for 2019, the number of RECs used for  
17 compliance was 4,208,207. As shown in Exhibit A-16 (JMO-4), line 7, column (n), the  
18 cost of RECs used for compliance was \$12,340,887.

19 **Q. What was the return on RECs for 2019?**

20 A. In 2019, the Company's return on RECs was \$1,365,608 (Exhibit A-15 (JMO-3), line 10,  
21 column (m)).

JULIE M. OBERLIN  
DIRECT TESTIMONY

1 **Q. How are over (under) recovery amounts calculated?**

2 A. The over (under) recovery amount is the difference between surcharges and costs less a  
3 return on capitalized costs and RECs. If, since inception, surcharges are higher than costs  
4 and return, the Company has over recovered. In this case, excess revenues are deferred  
5 and a regulatory liability is recorded. Conversely, if surcharges, since inception, are  
6 lower than costs and return, the Company has (under) recovered. In this case, excess  
7 costs are deferred and a regulatory asset is recorded.

8 **Q. What is the balance in the regulatory liability account associated with the RE Plan  
9 as of December 31, 2019?**

10 A. As of December 31, 2019, the total over recovery balance inclusive of the prior year  
11 ending balance and interest was \$23,204,743 (Exhibit A-17 (JMO-5), line 14,  
12 column (m)). In 2019, surcharge revenue exceeded costs in the amount of \$31,223,470  
13 (Exhibit A-17 (JMO-5), line 3, column (n)). In addition, the Company earned a return on  
14 Plant in Service, CWIP, and RECs in the amount of \$50,899,733 (Exhibit A-17 (JMO-5),  
15 line 7, column (n)).

16 **Q. Have carrying costs on the over (under) recovery balance been calculated?**

17 A. Yes. The Company calculates carrying costs on over and (under) recovery balances per  
18 the Commission's May 26, 2009 Order in Case No. U-15805. The carrying cost rate used  
19 for both over and (under) recovery balances is the Company's short-term borrowing rate  
20 (Exhibit A-17 (JMO-5), line 15, columns (b) through (m)). For 2019, the Company  
21 calculated \$875,987 in carrying costs as shown in Exhibit A-17 (JMO-5), line 13,  
22 column (m).

JULIE M. OBERLIN  
DIRECT TESTIMONY

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

2 | A. Yes.

STATE OF MICHIGAN  
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019. )  
\_\_\_\_\_ )

Case No. U-20722

**EXHIBITS**  
**OF**  
**JULIE M. OBERLIN**  
**ON BEHALF OF**  
**CONSUMERS ENERGY COMPANY**

July 2020

**MICHIGAN PUBLIC SERVICE COMMISSION**  
**Consumers Energy Company**  
**2019 Surcharge Revenue and Costs (By Month & Total)**

Case No.: U-20722  
 Exhibit No.: A-13 (JMO-1)  
 Page: 1 of 1  
 Witness: JMOberlin  
 Date: June 2020

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
<u>Line</u>	<u>Description</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Total</u>	<u>Source</u>
<b><u>Monthly and Total</u></b>															
Surcharge Revenue:															
1	LCREP Subscription	\$ 270,029	\$ 325,712	\$ 301,801	\$ 311,098	\$ 265,886	\$ 266,829	\$ 289,867	\$ 332,618	\$ 381,354	\$ 229,747	\$ 1,642,756	\$ 489,849	\$ 5,107,547	Per Books
2	Solar Subscription	42,340	38,728	41,775	41,185	42,625	37,797	41,566	44,288	42,746	43,614	43,556	44,908	505,127	Per Books
3	Other Activity	3,990	3,769	4,014	3,887	3,768	4,067	3,975	3,802	3,719	3,843	3,845	3,971	46,652	Per Books
4	Total Surcharge Revenue	\$ 316,359	\$ 368,209	\$ 347,590	\$ 356,171	\$ 312,279	\$ 308,692	\$ 335,408	\$ 380,709	\$ 427,819	\$ 277,204	\$ 1,690,157	\$ 538,729	\$ 5,659,326	Lines 1 + 2 +3
Expenses:															
5	Excess Costs From PPA's	\$ 75,787	\$ (395,325)	\$ (28,444)	\$ (85,542)	\$ (231,490)	\$ (1,098,177)	\$ (4,189,077)	\$ (4,847,364)	\$ (567,264)	\$ (286,571)	\$ 1,498,808	\$ 3,400,287	\$ (6,754,371)	Per Books
6	Compliance Obligation Costs	1,043,660	1,050,423	1,041,869	1,040,357	1,036,757	1,034,408	1,029,209	1,025,141	1,027,394	1,030,692	1,021,529	959,448	12,340,887	Exhibit A-xx (JMO-4) Line 6
7	Insurance	56,689	56,689	56,689	56,689	56,689	56,689	56,689	56,689	56,689	56,689	56,689	75,711	699,297	Per Books
8	Property Taxes	481,393	406,969	440,426	408,775	418,968	456,519	508,555	657,095	418,444	430,203	486,531	(583,698)	4,530,179	Per Books
9	Depreciation	2,069,927	1,843,461	1,941,259	1,821,423	1,851,497	2,017,337	2,247,854	2,152,378	(54,360)	1,698,522	3,919,087	1,942,361	23,450,746	Per Books
10	O&M Costs	795,126	432,109	936,429	617,712	602,746	1,229,128	784,504	1,389,418	1,090,550	923,215	518,304	1,348,037	10,667,277	Per Books
11	Other Costs	(2,087,043)	(1,676,381)	(1,926,951)	(2,097,644)	(1,277,673)	(1,599,191)	(1,114,732)	(1,048,469)	(997,027)	(502,078)	(1,687,300)	(2,831,558)	(18,846,048)	Per Books
12	Company Owned Energy Parks Costs Transferred to PSCR	(5,364,818)	(4,736,081)	(5,250,357)	(5,621,696)	(3,614,805)	(3,222,894)	(4,115,283)	(3,396,483)	(3,302,513)	(2,355,840)	(2,968,360)	(7,702,982)	(51,652,112)	Per Books
13	Total Expenses	\$ (2,929,280)	\$ (3,018,135)	\$ (2,789,081)	\$ (3,859,926)	\$ (1,157,310)	\$ (1,126,181)	\$ (4,792,281)	\$ (4,011,596)	\$ (2,328,087)	\$ 994,832	\$ 2,845,294	\$ (3,392,394)	\$ (25,564,145)	Sum of Lines 5 - 12

**MICHIGAN PUBLIC SERVICE COMMISSION**  
**Consumers Energy Company**  
**2019 Capital Expenditure and Plant In Service Return (By Month & Total)**

Case No.: U-20722  
 Exhibit No.: A-14 (JMO-2)  
 Page: 1 of 1  
 Witness: JMOberlin  
 Date: June 2020

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
<b>Construction Work In Process</b>																	
Line	Description	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total	Source
<b>Monthly and Total</b>																	
1	Total Capitalized Expenditures	\$ 1,123,121	\$ 471,982	\$ 20,348,160	\$ 15,040,663	\$ 978,829	\$ 9,745,945	\$ 39,571,774	\$ 11,553,171	\$ 15,925,354	\$ 5,248,675	\$ 46,206,061	\$ 28,488,167	\$ 7,959,915	\$ 18,449,929	\$ 219,516,643	Property Accounting
2	Total Plant Placed in Service	\$ (994,330)	\$ (4,076,655)	\$ (17,784)	\$ (48,570)	\$ (15,370)	\$ (12,360)	\$ (8,331)	\$ (46,540)	\$ 26,108	\$ (2,454)	\$ (130)	\$ (671,347)	\$ (75)	\$ (138,182,373)	\$ (138,979,227)	Property Accounting
3	1/2 of Current Month Expenditures	\$ 561,561	\$ 235,991	\$ 10,174,080	\$ 7,520,332	\$ 489,415	\$ 4,872,972	\$ 19,785,897	\$ 5,776,596	\$ 7,962,677	\$ 2,624,338	\$ 23,103,031	\$ 14,244,083	\$ 3,979,957	\$ 9,224,965		Line 1 / 2
4	1/2 Amount of CWIP Placed in Service	(497,165)	(2,038,328)	(8,892)	(24,285)	(7,685)	(6,180)	(4,166)	(23,270)	13,054	(1,227)	(65)	(335,673)	(38)	(69,054,918)		Line 2 / 2
5	Beginning Balance (Prior Ending)	18,888,516	19,017,307	15,412,634	35,743,009	50,735,102	51,698,562	61,432,147	100,995,589	112,502,221	128,453,683	133,699,903	179,905,834	207,722,654	215,682,494	95,950,050	Sum Prior Month Lines 1, 2 & 5
6	Amount Subject to Carrying Cost	\$ 18,952,912	\$ 17,214,971	\$ 25,577,822	\$ 43,239,056	\$ 51,216,832	\$ 56,565,354	\$ 81,213,868	\$ 106,748,905	\$ 120,477,952	\$ 131,076,793	\$ 156,802,869	\$ 193,814,244	\$ 211,702,574	\$ 155,852,541		Lines 3 + 4 + 5
7	Rate of Return	7.51%	7.51%	7.57%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%		Rate of Return per Rate Dept
8	Monthly Rate of Return	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%		Line 7 / 12
9	Carrying Cost	\$ 118,614	\$ 107,737	\$ 161,436	\$ 273,847	\$ 324,373	\$ 358,247	\$ 514,354	\$ 676,076	\$ 763,027	\$ 830,153	\$ 993,085	\$ 1,227,490	\$ 1,340,783	\$ 987,066	\$ 8,449,939	Line 6 x Line 8

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
<b>Plant In Service</b>																	
Line	Description	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total	Source
<b>Monthly and Total</b>																	
10	Total Plant Placed in Service	\$ 994,330	\$ 4,076,655	\$ 17,784	\$ 48,570	\$ 15,370	\$ 12,360	\$ 8,331	\$ 46,540	\$ (26,108)	\$ 2,454	\$ 130	\$ 671,347	\$ 75	\$ 138,109,836	\$ 138,906,690	Property Accounting
11	Total Monthly Depreciation Expense	\$ (1,536,646)	\$ (1,690,067)	\$ (2,069,927)	\$ (1,843,461)	\$ (1,941,259)	\$ (1,821,423)	\$ (1,851,497)	\$ (2,017,337)	\$ (2,247,854)	\$ (2,152,378)	\$ 54,360	\$ (1,698,522)	\$ (3,919,087)	\$ (1,942,361)	\$ (23,450,746)	Exhibit A-11 (JMO-1) Line 11
12	1/2 of Current Month Capitalized	\$ 497,165	\$ 2,038,328	\$ 8,892	\$ 24,285	\$ 7,685	\$ 6,180	\$ 4,166	\$ 23,270	\$ (13,054)	\$ 1,227	\$ 65	\$ 335,673	\$ 38	\$ 69,054,918		Line 10 / 2
13	1/2 of Current Month Depreciation	(768,323)	(845,034)	(1,034,964)	(821,731)	(970,629)	(910,712)	(825,749)	(1,008,669)	(1,123,927)	(1,076,189)	27,180	(849,261)	(1,869,543)	(971,191)		Line 11 / 2
14	Beginning Balance (Prior Ending)	544,318,636	543,776,520	546,163,108	544,110,965	542,316,075	540,390,185	538,581,122	536,737,956	534,767,159	532,483,197	530,343,274	530,397,784	529,370,588	525,451,577	661,619,051	Sum Prior Month Lines 10, 11 & 14
15	Amount Subject to Carrying Cost	\$ 544,047,678	\$ 544,969,814	\$ 545,137,037	\$ 543,213,520	\$ 541,353,130	\$ 539,465,654	\$ 537,659,539	\$ 535,752,558	\$ 533,630,176	\$ 531,418,235	\$ 530,370,519	\$ 529,884,176	\$ 527,411,082	\$ 593,535,314		Lines 12 + 13 + 14
16	Rate of Return	7.51%	7.51%	7.57%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%		Rate of Return per Rate Dept
17	Monthly Rate of Return	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%		Line 16 / 12
18	Carrying Cost	\$ 3,404,832	\$ 3,410,603	\$ 3,440,665	\$ 3,440,352	\$ 3,428,570	\$ 3,416,742	\$ 3,405,177	\$ 3,393,100	\$ 3,379,658	\$ 3,365,649	\$ 3,359,013	\$ 3,355,933	\$ 3,340,270	\$ 3,759,057	\$ 41,084,186	Line 15 x Line 17

**MICHIGAN PUBLIC SERVICE COMMISSION**  
**Consumers Energy Company**  
**2019 Renewable Energy Credit (REC) Inventory Return (By Month & Total)**

Case No.: U-20722  
 Exhibit No.: A-15 (JMO-3)  
 Page: 1 of 1  
 Witness: JMOberlin  
 Date: June 2020

Line	(a) Description	(b) Jan	(c) Feb	(d) Mar	(e) Apr	(f) May	(g) Jun	(h) Jul	(i) Aug	(j) Sep	(k) Oct	(l) Nov	(m) Dec	(n) Total	(o) Source
<b>Monthly and Total</b>															
1	Total REC Expenditures	\$ 833,882	\$ 977,068	\$ 852,152	\$ 1,026,896	\$ 759,008	\$ 652,469	\$ 517,164	\$ 488,132	\$ 745,722	\$ 828,944	\$ 494,007	\$ 284,633	\$ 8,460,076	Exhibit A-14 (JMO-4) Lines 1 + 2
2	Total Cost of Jurisdictional REC's used for Compliance	\$ (1,043,660)	\$ (1,050,423)	\$ (1,041,869)	\$ (1,040,357)	\$ (1,036,757)	\$ (1,034,408)	\$ (1,029,209)	\$ (1,025,141)	\$ (1,027,394)	\$ (1,030,692)	\$ (1,021,529)	\$ (959,448)	\$ (12,340,887)	Exhibit A-14 (JMO-4) Line 6
3	1/2 of Current Month Expenditures	\$ 416,941	\$ 488,534	\$ 426,076	\$ 513,448	\$ 379,504	\$ 326,234	\$ 258,582	\$ 244,066	\$ 372,861	\$ 414,472	\$ 247,003	\$ 142,317		Line 1 / 2
4	1/2 of Current Month Compliance Expense	(521,830)	(525,211)	(520,934)	(520,179)	(518,379)	(517,204)	(514,604)	(512,570)	(513,697)	(515,346)	(510,764)	(479,724)		Line 2 / 2
5	Beginning Balance (Prior Ending)	19,433,800	19,224,022	19,150,667	18,960,951	18,947,490	18,669,741	18,287,801	17,775,756	17,238,748	16,957,075	16,755,326	16,227,804	\$ 15,552,989	Sum Prior Month Lines 1, 2 5 & 6
6	Amount Subject to Carrying Cost	\$ 19,328,911	\$ 19,187,345	\$ 19,055,809	\$ 18,954,220	\$ 18,808,615	\$ 18,478,771	\$ 18,031,779	\$ 17,507,252	\$ 17,097,911	\$ 16,856,201	\$ 16,491,565	\$ 15,890,397		Lines 3 + 4 + 5 + 6
7	Rate of Return	7.57%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%		Rate of Return per Rate Dept
8	Monthly Rate of Return	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%		Line 8 /12
9	Carrying Cost	\$ 121,996	\$ 121,520	\$ 120,687	\$ 120,043	\$ 119,121	\$ 117,032	\$ 114,201	\$ 110,879	\$ 108,287	\$ 106,756	\$ 104,447	\$ 100,639		Line 7 x Line 9
10	Cumulative	\$ 121,996	\$ 243,515	\$ 364,202	\$ 484,246	\$ 603,367	\$ 720,399	\$ 834,600	\$ 945,480	\$ 1,053,766	\$ 1,160,522	\$ 1,264,969	\$ 1,365,608		Lines 10 + prior month 11

**MICHIGAN PUBLIC SERVICE COMMISSION**  
**Consumers Energy Company**  
**2019 Renewable Energy Credit (REC) (By Month & Total)**

Case No.: U-20722  
 Exhibit No.: A-16 (JMO-4)  
 Page: 1 of 1  
 Witness: JMOberlin  
 Date: June 2020

Line	(a) Description	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Source
<b>Monthly and Total</b>															
1	Total Cost Of Jurisdictional and Non-Jurisdictional REC's	\$ 840,909	\$ 986,881	\$ 859,269	\$ 1,035,130	\$ 766,685	\$ 660,279	\$ 523,992	\$ 495,127	\$ 754,746	\$ 838,254	\$ 499,673	\$ 285,662	\$ 8,546,606	Per Books
2	Less: Cost of Non-Jurisdictional REC's	(7,027)	(9,812)	(7,117)	(8,234)	(7,676)	(7,811)	(6,828)	(6,995)	(9,025)	(9,310)	(5,666)	(1,029)	(86,530)	(Line 14 / (Lines 9 + 10)) * Line 1
3	Total Prior Year Ending Jurisdictional and Non-Jurisdictional	19,342,350	-	-	-	-	-	-	-	-	-	-	-	19,342,350	Prior year ending
4	Less: Prior Year Ending Non-Jurisdictional	(946,646)	-	-	-	-	-	-	-	-	-	-	-	(946,646)	Prior year ending
5	Total Cost of Jurisdictional REC's Available for Use	\$ 19,229,586	\$ 20,206,654	\$ 21,058,806	\$ 22,085,702	\$ 22,844,711	\$ 23,497,179	\$ 24,014,343	\$ 24,502,475	\$ 25,248,197	\$ 26,077,140	\$ 26,571,147	\$ 26,855,780	\$ 26,855,780	Lines 1 +2 + 3 + prior month 4
6	Cost of Jurisdictional REC's used for Compliance	\$ (1,043,660)	\$ (1,050,423)	\$ (1,041,869)	\$ (1,040,357)	\$ (1,036,757)	\$ (1,034,408)	\$ (1,029,209)	\$ (1,025,141)	\$ (1,027,394)	\$ (1,030,692)	\$ (1,021,529)	\$ (959,448)	\$ (12,340,887)	Line 18 * Line 21
7	Total Cost of Jurisdictional REC's used	(1,043,660)	(2,094,083)	(3,135,951)	(4,176,308)	(5,213,066)	(6,247,474)	(7,276,683)	(8,301,823)	(9,329,218)	(10,359,910)	(11,381,438)	(12,340,887)	(12,340,887)	Lines 6 + prior month 7
8	Jurisdictional Monthly Ending Inventory Balance	\$ 18,185,926	\$ 18,112,571	\$ 17,922,855	\$ 17,909,394	\$ 17,631,645	\$ 17,249,705	\$ 16,737,660	\$ 16,200,652	\$ 15,918,979	\$ 15,717,230	\$ 15,189,708	\$ 14,514,893	\$ 14,514,893	Line 5 + Line 7
9	Number of REC's	143,017	109,310	130,533	139,031	97,372	78,561	64,821	66,031	88,251	121,126	68,612	50,301	1,156,966	Per Books
10	Number of Zero Cost REC's	198,976	178,141	214,541	220,272	188,069	163,046	154,495	136,278	150,761	136,199	183,423	743,401	2,667,602	Per Books
11	Number of REC's Transferred from Green Generation	-	-	-	-	-	-	-	-	-	-	-	(96,624)	(96,624)	Per Books
12	Prior Year Ending	6,408,957	-	-	-	-	-	-	-	-	-	-	-	6,408,957	Prior year ending
13	Total Number of Jurisdictional and Non-Jurisdictional REC's	6,750,950	7,038,401	7,383,475	7,742,778	8,028,219	8,269,826	8,489,142	8,691,451	8,930,463	9,187,788	9,439,823	10,136,901	10,136,901	Sum of Lines 9 - 11 + prior month 12
14	Less: Number of Non-Jurisdictional REC's	(2,858)	(2,858)	(2,858)	(2,858)	(2,858)	(2,858)	(2,858)	(2,858)	(2,858)	(2,858)	(2,858)	(2,858)	(34,296)	Per Books
15	Less: Number of Prior Year Ending Non-Jurisdictional REC's	(286,688)	-	-	-	-	-	-	-	-	-	-	-	(286,688)	Per Books
16	Total Number of Non-Jurisdictional REC's	(289,546)	(292,404)	(295,262)	(298,120)	(300,978)	(303,836)	(306,694)	(309,552)	(312,410)	(315,268)	(318,126)	(320,984)	(320,984)	Lines 14 + 15
17	Total Number of Jurisdictional REC's Available for Use	6,461,404	6,745,997	7,088,213	7,444,658	7,727,241	7,965,990	8,182,448	8,381,899	8,618,053	8,872,520	9,121,697	9,815,917	9,815,917	Lines 13 + 16
18	Number of Jurisdictional REC's used for Compliance	(350,684)	(350,684)	(350,684)	(350,684)	(350,684)	(350,684)	(350,684)	(350,684)	(350,684)	(350,684)	(350,684)	(350,683)	(4,208,207)	Per Books
19	Total Number of Jurisdictional REC's used	(350,684)	(701,368)	(1,052,052)	(1,402,736)	(1,753,420)	(2,104,104)	(2,454,788)	(2,805,472)	(3,156,156)	(3,506,840)	(3,857,524)	(4,208,207)	(4,208,207)	Lines 20 + prior month 21
20	Monthly Ending Total Number of Jurisdictional REC's	6,110,720	6,044,629	6,036,161	6,041,922	5,973,821	5,861,886	5,727,660	5,576,427	5,461,897	5,365,680	5,264,173	5,607,710	5,607,710	Lines 19 + 21
21	Weighted Ave. Carrying Cost	\$ 2.98	\$ 3.00	\$ 2.97	\$ 2.97	\$ 2.96	\$ 2.95	\$ 2.93	\$ 2.92	\$ 2.93	\$ 2.94	\$ 2.91	\$ 2.74		Line 6 / 19

**MICHIGAN PUBLIC SERVICE COMMISSION**  
**Consumers Energy Company**  
**2019 Cumulative Over (Under) Recovery (By Month & Total)**

Case No.: U-20722  
 Exhibit No.: A-17 (JMO-5)  
 Page: 1 of 1  
 Witness: JMOberlin  
 Date: June 2020

Line	(a) Description	(b) Jan	(c) Feb	(d) Mar	(e) Apr	(f) May	(g) Jun	(h) Jul	(i) Aug	(j) Sep	(k) Oct	(l) Nov	(m) Dec	(n) Total	(o) Source
<b>Monthly and Total</b>															
<u>Pre Return Change in Over (Under) Recovery</u>															
1	Surcharge Revenue	\$ 316,359	\$ 368,209	\$ 347,590	\$ 356,171	\$ 312,279	\$ 308,692	\$ 335,408	\$ 380,709	\$ 427,819	\$ 277,204	\$ 1,690,157	\$ 538,729	\$ 5,659,326	A-11 (JMO-1), Line 5
2	Expenses	<u>(2,929,280)</u>	<u>(3,018,135)</u>	<u>(2,789,081)</u>	<u>(3,859,926)</u>	<u>(1,157,310)</u>	<u>(1,126,181)</u>	<u>(4,792,281)</u>	<u>(4,011,596)</u>	<u>(2,328,087)</u>	<u>994,832</u>	<u>2,845,294</u>	<u>(3,392,394)</u>	<u>(25,564,145)</u>	A-11 (JMO-1), Line 14
3	Change in Over (Under) Recovery	\$ 3,245,639	\$ 3,386,344	\$ 3,136,671	\$ 4,216,097	\$ 1,469,588	\$ 1,434,874	\$ 5,127,690	\$ 4,392,305	\$ 2,755,906	\$ (717,627)	\$ (1,155,137)	\$ 3,931,122	\$ 31,223,470	Line 1 - 2
<u>Return on CAPEX and REC's</u>															
4	Current year Return on CAPEX CWIP	161,436	273,847	324,373	358,247	514,354	676,076	763,027	830,153	993,085	1,227,490	1,340,783	987,066	8,449,939	A-12 (JMO-2), Line 9
5	Current year Return on CAPEX Plant In Service	3,440,665	3,440,352	3,428,570	3,416,742	3,405,177	3,393,100	3,379,658	3,365,649	3,359,013	3,355,933	3,340,270	3,759,057	41,084,186	A-12 (JMO-2), Line 18
6	Current year Return on REC's	<u>121,996</u>	<u>121,520</u>	<u>120,687</u>	<u>120,043</u>	<u>119,121</u>	<u>117,032</u>	<u>114,201</u>	<u>110,879</u>	<u>108,287</u>	<u>106,756</u>	<u>104,447</u>	<u>100,639</u>	<u>1,365,608</u>	A-13 (JMO-3), Line 10
7	Total Return on CAPEX and REC's	\$ 3,724,096	\$ 3,835,719	\$ 3,873,630	\$ 3,895,033	\$ 4,038,653	\$ 4,186,208	\$ 4,256,886	\$ 4,306,681	\$ 4,460,385	\$ 4,690,179	\$ 4,785,500	\$ 4,846,762	\$ 50,899,733	Line 4 + 5 + 6
<u>Interest</u>															
8	Over (Under) Recovery Beginning Balance	\$ 42,005,019	\$ 41,526,561	\$ 41,077,186	\$ 40,340,227	\$ 40,661,290	\$ 38,092,226	\$ 35,340,891	\$ 36,211,695	\$ 36,297,319	\$ 34,592,840	\$ 29,185,033	\$ 23,244,396		Prior Month Line 10
9	Change in Balance	<u>(478,458)</u>	<u>(449,375)</u>	<u>(736,959)</u>	<u>321,064</u>	<u>(2,569,065)</u>	<u>(2,751,334)</u>	<u>870,804</u>	<u>85,624</u>	<u>(1,704,479)</u>	<u>(5,407,807)</u>	<u>(5,940,637)</u>	<u>(915,640)</u>		Line 3 - 7
10	Over (Under) Recovery Ending Balance	\$ 41,526,561	\$ 41,077,186	\$ 40,340,227	\$ 40,661,290	\$ 38,092,226	\$ 35,340,891	\$ 36,211,695	\$ 36,297,319	\$ 34,592,840	\$ 29,185,033	\$ 23,244,396	\$ 22,328,756		Line 8 + 9
11	Over (Under) Recovery Ave. Bal.	\$ 41,765,790	\$ 41,301,873	\$ 40,708,706	\$ 40,500,759	\$ 39,376,758	\$ 36,716,559	\$ 35,776,293	\$ 36,254,507	\$ 35,445,079	\$ 31,888,937	\$ 26,214,715	\$ 22,786,576		Line 8 + (Line 9 / 2)
<u>Carrying Charges</u>															
12	Carrying Charges, Monthly	\$ 96,413	\$ 90,124	\$ 88,877	\$ 87,407	\$ 84,765	\$ 78,093	\$ 74,674	\$ 71,533	\$ 67,281	\$ 57,047	\$ 42,796	\$ 36,977	\$ 875,987	Line 11 x Line 16
13	Carrying Charges, Cumulative	\$ 96,413	\$ 186,537	\$ 275,414	\$ 362,822	\$ 447,587	\$ 525,680	\$ 600,354	\$ 671,887	\$ 739,168	\$ 796,214	\$ 839,010	\$ 875,987		Line 12 + Prior Month Line 13
14	Accumulated Over (Under) Recovery	\$ 41,622,974	\$ 41,263,723	\$ 40,615,641	\$ 41,024,112	\$ 38,539,813	\$ 35,866,571	\$ 36,812,049	\$ 36,969,206	\$ 35,332,008	\$ 29,981,248	\$ 24,083,406	\$ 23,204,743		Line 10 + Line 13
15	Annual Interest Rate	2.77%	2.62%	2.62%	2.59%	2.58%	2.55%	2.50%	2.37%	2.28%	2.15%	1.96%	1.95%	2.41%	Treasury
16	Monthly Interest Rate	0.23%	0.22%	0.22%	0.22%	0.22%	0.21%	0.21%	0.20%	0.19%	0.18%	0.16%	0.16%		Line 15 / 12

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019. )  
\_\_\_\_\_ )

Case No. U-20722

**DIRECT TESTIMONY**

**OF**

**EMILY J. WARNERS**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

July 2020

EMILY J. WARNERS  
DIRECT TESTIMONY

1 **Q. Please state your name and business address.**

2 A. My name is Emily J. Warners, and my business address is 1945 West Parnall Road,  
3 Jackson, Michigan 49201.

4 **Q. By whom are you employed?**

5 A. I am employed by Consumers Energy Company (“Consumers Energy” or the “Company”).

6 **Q. In what capacity are you employed?**

7 A. I am a Senior Engineer in the Electric Contract Strategies section of the Electric Grid  
8 Integration Contracts and Settlements Department.

9 **I. QUALIFICATIONS**

10 **Q. Please describe your educational background and business experience.**

11 A. I received the degree of Bachelor of Science in Engineering with a specialty in Civil  
12 Engineering from Michigan State University in 2011. In 2018, I became a licensed  
13 Professional Engineer in the state of Michigan.

14 In June 2011, I joined NTH Consultants, Ltd as a Staff Engineer where I performed  
15 field services and issued reports for heavy underground projects and environmental due  
16 diligence projects. In January 2013, I joined Consumers Energy as a Project Engineer in  
17 the Enterprise Project Management department where I managed multi-million dollar  
18 engineering and fabrication contractors. During my tenure in the Enterprise Project  
19 Management department I fulfilled multiple roles. I was the lead engineer for the 111 MW  
20 installation of Consumers Energy’s Cross Winds Energy Park. I was the project manager  
21 for the construction of the 3 MW solar facility at Grand Valley State University and the  
22 1 MW solar facility at Western Michigan University, as well as the Quality Manager for  
23 the 44 MW Phase II expansion of Cross Winds Energy Park. In March 2018, I accepted a

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1 position as Senior Engineer in the Electric Contract Strategies section of the Electric Grid  
2 Integration Contracts and Wholesale Settlements Department. In this role, I am responsible  
3 for administration and coordination of the Company's Experimental Advanced Renewable  
4 Program ("EARP") – Solar ("EARP-Solar") and EARP-Anaerobic Digestion ("EARP-  
5 AD"). I am also responsible for the calculation of the Transfer Price associated with  
6 Renewable Energy and the tracking of Renewable Energy Credits ("RECs").

7 **Q. What is the purpose of your direct testimony?**

8 A. My direct testimony will address the calculation of the Transfer Price associated with  
9 Renewable Energy generated in accordance with the Company's Renewable Energy Plan  
10 in 2019.

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

12 A. Yes. I am sponsoring:

13 Exhibit A-18 (EJW-1) 2019 Transfer Cost Calculation Summary;

14 Exhibit A-19 (EJW-2) 2018 Adjusted Transfer Cost Calculation Summary;  
15 and

16 Exhibit A-20 (EJW-3) Transfer Price Calculation.

17 **Q. Have these exhibits been prepared by you or under your supervision?**

18 A. Yes.

19 **II. TRANSFER PRICE**

20 **Q. What is the Transfer Price?**

21 A. The Transfer Price is the price at which the cost or portion of the cost of Renewable Energy  
22 is recovered through the Company's Power Supply Cost Recovery ("PSCR") clause. The  
23 Transfer Price was defined in the Michigan Public Service Commission's ("MPSC" or the

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1 “Commission”) December 4, 2008 Order in Case No. U-15800. On pages 25 and 26 of  
2 that Order, the Commission stated:

3 4. Calculation of the incremental cost of compliance via the  
4 transfer price to be recovered through the PSCR clause.

5 A provider whose rates are regulated by the Commission  
6 shall include in its renewable energy plan an estimate over  
7 the 20-year plan-period of the revenues derived from the sale  
8 of energy and capacity generated by renewable energy  
9 systems owned by the provider. Energy and capacity  
10 produced by these systems may be sold into the wholesale  
11 market, or may be sold directly to the provider’s customers.

12 Section 47 requires the Commission to annually set the price  
13 per megawatt hour to be transferred to retail customers  
14 through the regulated provider’s power supply cost recovery  
15 (PSCR) clause. Section 49 requires the transfer price to be  
16 established in the context of an annual renewable cost  
17 reconciliation proceeding. Because the 2009 renewable  
18 energy plan proceeding will precede the first annual  
19 renewable energy reconciliation, the plan filings will need to  
20 estimate the transfer prices over the 20-year plan period. All  
21 renewable engineering, procurement, and construction  
22 contracts, or contracts for renewable energy systems that  
23 have been developed by third parties for transfer of  
24 ownership to an electric provider, that have been reviewed  
25 and approved by the Commission in a particular year will  
26 have the transfer price established as a floor for the lifecycle  
27 of the project. Provider-owned projects will have transfer  
28 prices set in vintages. Doing so ensures that the economic  
29 viability of projects that have been committed to will not be  
30 jeopardized by transfer prices that change in future years.

31 In a renewable energy plan, PSCR transfer revenues are  
32 subtracted from the total cost of compliance, as determined  
33 by Section 47(2)(a). The transfer price is a primary  
34 determinant of the incremental cost of compliance. The  
35 PSCR transfer price:

- 36 (a) is unique to each provider;
- 37 (b) reflects the value of long-term capacity and  
38 energy;

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1 (c) is not the current MISO market price of  
2 energy, but may use historical MISO prices as a  
3 starting point for a 20-year projection of the value of  
4 renewable energy and capacity;

5 (d) need not be tied to the avoided price of a new  
6 conventional coal-fired facility; and

7 (e) other factors determined relevant by the  
8 Commission.

9 The transfer price may be separately calculated for differing  
10 renewable technologies to reflect availability and the value  
11 of capacity; e.g., the capacity value of a landfill gas facility  
12 may differ from the capacity value of a wind farm.

13 The PSCR transfer price may be adjusted by an hourly  
14 distribution curve to yield an hourly price per megawatt hour  
15 for the 8,760 hours per year.

16 **Q. What is the Transfer Price for 2019?**

17 A. The Transfer Price for 2019 is approximately \$80.26 per MWh.

18 **Q. How did the Company calculate the Transfer Price?**

19 A. To determine the Transfer Price, the Company calculated the total Transfer Cost associated  
20 with Renewable Energy delivered in 2019, added any adjustments related to the Transfer  
21 Costs associated with Renewable Energy delivered in prior years and booked in 2019, and  
22 divided the total by the corresponding Renewable Energy volume booked in 2019.

23 **III. TRANSFER COST**

24 **Q. What is the Transfer Cost?**

25 A. The Transfer Cost is the total cost that the Company will transfer to power supply costs in  
26 accordance with MCL 460.1047(2)(b)(iv) associated with renewable generation.

27 **Q. How many Renewable Energy systems produced renewable generation in 2019?**

28 A. There are several categories of Renewable Energy systems that potentially could have  
29 produced renewable generation in 2019. They include:

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- 1 • Provider-Owned Renewable Energy Systems;
- 2 • Purchases of energy, capacity, and RECs through Renewable Energy
- 3 contracts;
- 4 • Renewable Energy Systems for which recovery in rates was approved
- 5 as of October 6, 2008; and
- 6 • Renewable Energy Systems for which Commission authorization has
- 7 been obtained.

8 The Transfer Price is only applied to production from Provider-Owned Renewable  
9 Energy systems; purchases of energy, capacity, and RECs through Renewable Energy  
10 contracts; and production from Commission-authorized Renewable Energy systems. In  
11 2019, the Company had 12 Renewable Energy Purchase Agreements (“REPAs”) expected  
12 to supply energy, capacity, and RECs. The Company also had costs for  
13 Commission-authorized Renewable Energy systems that participate in the EARP-Solar  
14 and EARP-AD. In 2019, there was delivery of energy, capacity, and RECs from  
15 provider-owned Renewable Energy resources (Lake Winds Energy Park, Cross Winds  
16 Energy Park (Phases I, II, and III), Solar Gardens, and Circuit West Solar). Costs for  
17 Renewable Energy systems for which recovery in electric rates was approved as of  
18 October 6, 2008 (the effective date of Public Act 295 of 2008) are recovered as part of  
19 power supply costs and general rates and are not considered in calculating Transfer Costs.

20 **Q. How much renewable generation, for which the Transfer Price applies, was produced**  
21 **in 2019?**

22 A. A total of 1,731,626 MWh of Transfer Price applicable renewable generation was booked  
23 in 2019, as shown in Exhibit A-20 (EJW-3), line 5, column (b). The details of the booked

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1 production from each facility can be found in Exhibit A-18 (EJW-1) and Exhibit A-19  
2 (EJW-2).

3 **Q. Please describe Exhibit A-18 (EJW-1).**

4 A. Exhibit A-18 (EJW-1) is the calculation of the total amount of Renewable Energy costs to  
5 be recovered through the PSCR mechanism from renewable generation delivered in 2019.  
6 As discussed in my direct testimony in Case No. U-20220, the Company's 2019 PSCR  
7 Reconciliation, the Renewable Energy costs to be recovered through the PSCR mechanism  
8 are included in that proceeding. Exhibit A-18 (EJW-1), column (a), lists all counterparties  
9 from which the Company received Renewable Energy or Renewable Energy capacity in  
10 2019 for which costs were booked in 2019. Column (b) details the amount of average  
11 monthly Resource Adequacy Capacity recorded in 2019. This capacity value is based on  
12 the Zonal Resource Credits that Midcontinent Independent System Operator, Inc.  
13 ("MISO") allocates for each Renewable Energy system. Columns (c), (d), and (e) detail  
14 the amount, in megawatt hours, of on-peak, off-peak, and total energy booked in 2019,  
15 respectively. Column (f) shows the capacity value, in dollars per ZRC-year that is used in  
16 determining the total Transfer Cost. Columns (g) and (h) show the weighted average  
17 annual Transfer Price for the on-peak energy and off-peak energy booked in 2019,  
18 respectively. Column (i) is the total Transfer Cost associated with the generator's capacity  
19 value and is calculated by multiplying columns (b) and (f). For projects approved on or  
20 after the MPSC's June 28, 2013 Order in Case No. U-16655, capacity transfer cost is based  
21 on the proportion of energy and capacity outlined in approved transfer price schedules, and,  
22 therefore column (i) is calculated by multiplying columns (e) and (f). Columns (j) and (k)  
23 are the total Transfer Cost in dollars associated with the generator's on-peak and off-peak

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1 energy production, respectively. Column (j) is calculated by multiplying columns (c) and  
2 (g). Similarly, column (k) is calculated by multiplying columns (d) and (h). Column (l) is  
3 the total Transfer Cost in dollars associated with each unit calculated by the summation of  
4 columns (i), (j), and (k) including applicable adjustments.

5 On a monthly basis, the Company compares the projected annual Transfer Cost  
6 limit from the Renewable Energy Plan to the actual Transfer Cost booked for the year. If  
7 the Company calculates that the annual Transfer Cost is likely to exceed the limit, an  
8 adjustment is made to the booked Transfer Cost in column (l). Column (m) represents the  
9 maximum amount of Transfer Cost that can be booked for each generator. For REPAs and  
10 EARP-Solar, the Transfer Cost is limited to the total amount paid to each counterparty for  
11 the energy, capacity, and RECs booked in 2019.

12 Per the Commission's Order, and the parties' Settlement Agreement, in Case No.  
13 U-20483, the transfer price for Provider-Owned facilities is based on the transfer price  
14 schedule at the time of asset approval. The transfer price for the unsubscribed portion of  
15 Solar Gardens is treated like a Provider-Owned facility. The transfer price for the  
16 subscribed portion of Solar Gardens is treated like a REPA. The transfer price for the  
17 subscribed portion is limited to the credits owed to the subscribers since the cost for that  
18 portion of the facilities is recovered from the subscribers over the expected life of the  
19 facility. The transfer price for the unsubscribed portion of the Large Customer Renewable  
20 Energy Pilot ("LC-REP"), which is the portion of Cross Winds Energy Park II not used by  
21 the LC-REP, is treated like a Company-owned facility. The subscribed portion of the  
22 LC-REP does not impact the value of transfer cost because credits to the subscribed  
23 customers are offset by the revenue received from selling the renewable energy and

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1 capacity of the subscribed portion into the MISO market. Column (n) is the difference  
2 between columns (m) and (l), and is used to ensure the amount included in the total  
3 Transfer Cost does not exceed either: (i) the actual amount paid to each counterparty, or  
4 (ii) the Transfer Cost limit of Company-owned facilities.

5 **Q. Please explain why several counterparties have the same Energy Transfer Price for**  
6 **on-peak and off-peak generation when the other generators do not.**

7 A. There are several reasons why a counterparty could have the same Energy Transfer Price  
8 for on-peak and off-peak generation. For EARP-Solar Aggregate 1-5, an analysis was  
9 previously performed by the Company that showed the total value of energy produced from  
10 solar photovoltaic (“PV”) systems participating in the EARP-Solar is most accurately  
11 calculated using only the average on-peak energy value. This conclusion is due to the times  
12 at which solar PV systems are typically producing energy. During peak hours, EARP-Solar  
13 systems tend to generate more energy during periods in which the energy value is greater  
14 than the average on-peak energy value. Similarly, because the off-peak production occurs  
15 only during the day on weekends and holidays, solar PV systems tend to generate more  
16 energy during periods in which the energy value is greater than the average off-peak energy  
17 value. For ease of calculation, the Company has chosen to use the average on-peak energy  
18 value for all production from these units instead of developing separate average on-peak  
19 and off-peak energy values for solar PV systems. The use of only the average on-peak  
20 energy value results in a reasonable approximation of the true value of energy produced by  
21 solar PV systems. This methodology is consistent with the Transfer Cost calculation in  
22 prior Renewable Energy Cost Reconciliations.

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1 Cross Winds Energy Park I, Cross Winds Energy Park II (unsubscribed), the  
2 counterparties in EARP-AD (Brook View Dairy, Green Meadow Farms, and Scenic View  
3 Dairy), EARP-Solar Aggregates 6 through 11, Solar Gardens, and Circuit West Solar have  
4 approved Transfer Price schedules that use a different methodology than the rest of the  
5 counterparties. For these generators, the Transfer Price schedule utilizes only energy  
6 production as the basis for calculating the total Transfer Cost. There is no differentiation  
7 between on-peak, off-peak, and capacity values separately for the purpose of calculating  
8 Transfer Cost; however, these products have been shown separately for uniformity in  
9 Exhibits A-18 (EJW-1) and A-19 (EJW-2).

10 **Q. Please explain how the transfer prices in columns (f) through (h) were developed.**

11 A. The Transfer Price in column (f) is the sum of the applicable monthly capacity transfer  
12 prices used to determine the monthly Transfer Cost and upon which the Commission's  
13 approval of those generators was based. The transfer prices in columns (g) and (h) are the  
14 product of: (i) the monthly quantities delivered and booked in 2019, and (ii) the schedule  
15 of energy values for each month, and upon which the Commission's approval of those  
16 contracts was based, divided by the total quantities delivered and booked in 2019.

17 **Q. Did the total Transfer Cost exceed the Transfer Cost limits for any facility?**

18 A. No. As is demonstrated by column (n), the difference of (i) the Transfer Cost limit from  
19 column (m), and (ii) the total Transfer Cost from column (l) is not negative for any  
20 counterparties indicating that the total Transfer Cost did not exceed the Transfer Cost limit  
21 for any generator in 2019. For 2019, the entire payment to 11 separate counterparties was  
22 recoverable through the PSCR as represented by columns (l) and (m) being equal, resulting

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1 in none of the payments associated with those counterparties being recovered through the  
2 Incremental Cost of Compliance.

3 **Q. Are there any adjustments to the Transfer Costs from prior periods?**

4 A. Yes. Exhibit A-19 (EJW-2) shows the adjusted Transfer Cost calculations for 2019. The  
5 adjustments include:

- 6 • Adjustments due to booking final December 2018 costs and generation;  
7 and
- 8 • Adjustments to 2018 EARP-Solar - Agg 1-4, Agg 5 and Agg 7.

9 The calculations and sources of information are similar to Exhibit A-18 (EJW-1).

10 **Q. Please describe Exhibit A-19 (EJW-2).**

11 A. Exhibit A-19 (EJW-2), page 1, shows the Transfer Cost summary included in Case No. U-  
12 20483, the Company's 2018 Renewable Cost Reconciliation Case. Exhibit A-19 (EJW-2),  
13 page 2, shows the revised Transfer Cost summary reflecting the adjustments and  
14 corrections booked in 2019 as discussed above. Exhibit A-19 (EJW-2), page 3, shows the  
15 difference between the original 2018 Transfer Cost summary (page 1) and the revised 2018  
16 Transfer Cost summary (page 2). Examination of page 3 indicates an increase of 5,875.899  
17 MWh of total energy delivered in 2018 and an increase of \$294,188.49 of transfer cost  
18 expense associated with Renewable Energy and capacity delivered in 2018 and booked in  
19 2019 that should be recovered through the PSCR.

20 **IV. TRANSFER PRICE CALCULATION**

21 **Q. Please describe Exhibit A-20 (EJW-3).**

22 A. Exhibit A-20 (EJW-3) calculates the price per MWh to be recovered through the PSCR  
23 based on the calculation of the Transfer Cost detailed in Exhibits A-18 (EJW-1) through  
24 A-19 (EJW-2). Exhibit A-20 (EJW-3), column (a), provides a description of the values

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1 found in the corresponding row. Lines 1 through 3 provide a summary of the 2018  
2 adjustments that are calculated from page 3 of Exhibit A-19 (EJW-2). Line 2 is an  
3 adjustment which was not applicable in 2019 but has been necessary in years past due to  
4 timing differences between Renewable Energy Cost Reconciliation and PSCR  
5 Reconciliation cases. Line 3 provides a total adjustment by summing lines 1 through 2  
6 resulting in the total 2019 expenses and generation that should be included in the 2019  
7 Transfer Price calculation. Line 4 shows the total amount of generation and Transfer Cost  
8 from Exhibit A-18 (EJW-1). Line 5 lists the total Transfer Cost applicable generation and  
9 total Transfer Costs that were booked for 2019 by summing lines 3 and 4. Dividing column  
10 (c) by column (b) on line 5 results in the Transfer Price for the Company's 2019 Renewable  
11 Energy Reconciliation.

12 **Q. Based on these calculations, what is the Transfer Price?**

13 A. As discussed above, the Transfer Price for 2019 is approximately \$80.26 per MWh and is  
14 shown in Exhibit A-20 (EJW-3), line 5, column (d). This results in a total Transfer Cost  
15 of \$138,978,646.38, as shown in Exhibit A-20 (EJW-3), line 5, column (c).

16 **Q. How are the total Transfer Costs associated with Lake Winds Energy Park, Cross**  
17 **Winds Energy Park I, Cross Winds Energy Park II (unsubscribed), Cross Winds**  
18 **Energy Park III, Solar Gardens (Unsubscribed), and Circuit West Solar as shown in**  
19 **Exhibits A-18 (EJW-1) through A-19 (EJW-2) reflected?**

20 A. The total Transfer Cost of the Lake Winds Energy Park, Cross Winds Energy Park I, Cross  
21 Winds Energy Park II (unsubscribed), Cross Winds Energy Park III, Solar Gardens  
22 (Unsubscribed), and Circuit West Solar are shown on Exhibit A-13 (JMO-1), line 12. The  
23 Transfer Cost of these Company-owned units are calculated to determine the portion of

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1 total costs booked in 2019 that will be recovered through the PSCR mechanism instead of  
2 the Incremental Cost of Compliance.

3 **Q. How are the total Transfer Costs associated with REPAs, EARP-Solar, EARP-AD,**  
4 **and Solar Gardens - Subscribed, as shown in Exhibits A-18 (EJW-1) through A-20**  
5 **(EJW-3), reflected?**

6 A. The total payments associated with these generators, less the portions allocated to PSCR  
7 through the Transfer Cost mechanism and the purchase of the RECs, is recovered through  
8 the Incremental Cost of Compliance and is represented in Exhibit A-13 (JMO-1), line 5.

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

10 A. Yes, it does.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019. )  
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Case No. U-20722

**EXHIBITS**

**OF**

**EMILY J. WARNERS**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

July 2020

2019 TRANSFER COST CALCULATION SUMMARY

(a) Counterparty	(b) Capacity ZRC-Year	(c) Energy Delivered		(e) Total MWh	(f) Capacity Transfer Price \$/ZRC-Year	(g) Energy Transfer Price		(i) Total Capacity Transfer Cost \$	(j) Total Energy Transfer Cost		(l) Total Transfer Cost \$	(m) Payment / LCOE Limit \$	(n) Difference (Payment - Transfer Cost) \$
		On-Peak MWh	Off-Peak MWh			On-Peak \$/MWh	Off-Peak \$/MWh		On-Peak \$	Off-Peak \$			
1 Apple Blossom	18,233	128,998.719	135,743.556	264,742.275	20.18	22.82	22.82	5,341,887.75	2,944,048.66	3,097,981.41	11,383,917.83	11,383,918.52	0.70
2 Beebe Wind (AKA Blissfield) <sup>1</sup>	11,217	88,849.235	97,855.765	186,705.000	182,151.65	94.11	74.21	2,043,134.31	8,361,735.87	7,262,137.44	17,667,007.62	18,260,148.14	593,140.52
3 Brook View Dairy	0.600	1,151.172	1,297.648	2,448.820	32.35	36.59	36.59	79,219.33	42,121.38	47,480.94	164,463.06	164,463.06	0.00
4 Cross Winds Energy Park	25,825	149,418.666	170,816.711	320,235.377	30.29	43.17	43.17	9,699,929.57	6,450,403.81	7,374,157.41	23,524,490.79	23,524,490.79	0.00
5 Cross Winds Energy Park II (unSubscribed)	0.000	2,781.095	3,121.244	5,902.339	35.27	42.17	42.17	208,175.50	117,278.78	131,622.86	457,077.13	457,077.13	0.00
6 Cross Winds Energy Park III	0.000	11,906.742	12,214.712	24,121.454	36.15	44.49	44.49	871,990.56	529,730.95	543,432.54	1,945,154.05	1,945,154.05	0.00
7 Elk Rapids Hydroelectric <sup>1</sup>	0.292	798.818	866.687	1,665.505	228,556.66	95.75	74.36	66,662.36	76,488.49	64,445.18	146,605.43	146,605.43	0.00
8 EARP-Solar - Agg 1-4 <sup>1</sup>	0.910	1,420.704	568.282	1,988.986	166,495.71	98.24	98.24	151,511.10	139,572.49	55,829.00	346,912.58	907,712.11	560,799.53
9 EARP-Solar - Agg 5 <sup>1</sup>	0.226	335.897	134.359	470.256	144,763.25	63.53	63.53	32,644.11	21,339.01	8,535.60	62,518.72	116,800.72	54,282.00
10 EARP-Solar - Agg 6	0.434	551.049	220.420	771.469	30.29	43.17	43.17	23,367.80	23,788.80	9,515.52	56,672.11	171,660.82	114,988.81
11 EARP-Solar - Agg 7	0.212	326.351	130.541	456.892	32.35	36.59	36.59	14,780.46	11,941.20	4,776.48	31,498.13	110,656.64	79,158.51
12 EARP-Solar - Agg 8	0.416	574.556	229.822	804.378	32.35	36.59	36.59	26,021.63	21,022.99	8,409.20	55,453.82	160,220.35	104,766.53
13 EARP-Solar - Agg 9	0.477	706.225	282.490	988.715	33.03	41.05	41.05	32,657.26	28,990.54	11,596.21	73,244.01	231,956.75	158,712.74
14 EARP-Solar - Agg 10	0.258	271.956	108.783	380.739	33.03	41.05	41.05	12,575.81	11,163.81	4,465.52	28,205.15	75,904.64	47,699.49
15 EARP-Solar - Agg 11	0.137	193.715	77.486	271.201	33.03	41.05	41.05	8,957.77	7,952.00	3,180.80	20,090.57	53,969.05	33,878.48
16 Fremont Community Digester <sup>1</sup>	2.392	2,554.322	2,704.957	5,259.279	187,290.04	96.69	74.82	447,935.34	246,974.24	202,376.69	535,370.83	535,370.83	0.00
17 Green Meadow Farms (EARP-AD) <sup>1</sup>	0.467	1,584.024	1,760.363	3,344.387	231,837.68	38.33	38.62	108,190.92	60,712.52	67,987.39	236,890.83	267,151.59	30,260.76
18 Harvest II <sup>1</sup>	10.183	82,593.718	91,449.282	174,043.000	187,715.77	94.09	73.90	1,911,572.29	7,771,567.20	6,757,681.38	16,311,449.47	16,311,449.47	0.00
19 Heritage Garden - Wind <sup>1</sup>	3.350	24,321.371	28,427.247	52,748.618	185,462.99	94.66	73.83	621,301.03	2,302,250.70	2,098,741.04	4,615,477.70	4,615,477.70	0.00
20 Heritage Garden - Solar <sup>1</sup>	0.000	877.208	406.297	1,283.505	0.00	97.56	75.13	0.00	85,576.61	30,524.89	116,101.51	195,726.14	79,624.63
21 Heritage Stoney Corners <sup>1</sup>	1.975	13,495.326	17,254.474	30,749.800	183,803.62	94.45	74.02	363,012.15	1,274,615.00	1,277,117.45	2,481,811.07	2,481,811.07	0.00
22 Heritage Stoney Corners - Phase 3 <sup>1</sup>	1.317	9,384.612	11,623.759	21,008.371	183,803.62	94.56	74.04	242,008.10	887,409.27	860,582.80	1,833,428.62	1,833,428.62	0.00
23 Lake Winds Energy Park <sup>1</sup>	16.092	122,230.060	146,360.871	268,590.931	190,079.33	94.28	73.80	3,058,693.19	11,523,319.43	10,800,953.59	25,382,966.21	29,545,002.41	4,162,036.20
24 Michigan Wind 2 <sup>1</sup>	15.492	120,183.018	140,037.982	260,221.000	185,956.61	94.83	74.35	2,880,777.81	11,397,243.28	10,412,358.79	22,863,497.05	22,863,497.05	0.00
25 North American Natural Resources - Lennon <sup>1</sup>	1.342	5,105.134	6,128.376	11,233.510	169,992.70	96.01	74.55	228,073.54	490,133.20	456,850.86	843,218.60	843,218.60	0.00
26 Scenic View Dairy - Fennville	0.400	1,201.304	1,413.345	2,614.649	32.35	36.59	36.59	84,583.90	43,955.71	51,714.29	158,996.94	158,996.94	0.00
27 Solar Gardens (Subscribed)	2.442	3,092.575	1,375.688	4,468.263	33.03	41.05	41.05	147,586.72	128,950.20	56,471.98	331,008.90	335,119.71	4,110.81
28 Solar Gardens (Unsubscribed)	0.000	336.533	147.093	483.626	33.03	41.05	41.05	15,974.17	13,814.68	6,038.17	35,827.02	79,798.31	43,971.29
29 WM Renewable Energy - Northern Oaks <sup>1</sup>	1.442	3,639.385	4,115.459	7,754.844	170,308.04	96.21	74.89	245,527.42	350,145.83	308,194.70	546,553.67	546,553.67	0.00
30 WM Renewable Energy - Pine Tree Acres <sup>1</sup>	12.017	32,171.094	37,127.311	69,298.405	175,553.95	94.41	73.99	2,109,573.24	3,037,227.11	2,746,996.20	6,377,197.16	6,377,197.16	0.00
31 Circuit West Solar	2.100	409.428	284.790	694.218	32.73	41.24	41.24	22,721.76	16,884.81	11,744.74	51,351.31	337,389.95	286,038.64
32 2019 Total	130,244	811,464.013	914,285.799	1,725,749.812	NA	NA	NA	31,101,046.88	58,416,358.57	54,773,901.10	138,684,457.90	145,037,927.52	6,353,469.62

<sup>1</sup> Units pre-date Case No. U-16655

2018 ADJUSTED TRANSFER COST CALCULATION SUMMARY  
2018 Transfer Cost Calculation Summary - U-20483

(a) Counterparty	(b) Capacity ZRC-Year	(c) Energy Delivered		(e) Total MWh	(f) Capacity Transfer Price \$/ZRC-Year	(g) Energy Transfer Price		(i) Total Capacity Transfer Cost \$	(j) Total Energy Transfer Cost		(l) Total Transfer Cost \$	(m) Payment / LCOE Limit \$	(n) Difference (Payment - Transfer Cost) \$
		On-Peak MWh	Off-Peak MWh			On-Peak \$/MWh	Off-Peak \$/MWh		On-Peak \$	Off-Peak \$			
1 Apple Blossom	8.867	86,096.467	82,602.205	168,698.672	20.38	22.62	22.62	3,437,482.06	1,947,806.70	1,868,754.13	7,254,042.88	7,254,042.88	0.00
2 Beebe Wind (AKA Blissfield) <sup>1</sup>	11.108	93,827.233	92,877.757	186,704.990	158,850.45	90.01	71.43	1,764,563.78	8,445,498.26	6,634,640.63	16,844,702.67	18,201,846.69	1,357,144.02
3 Brook View Dairy (EARP-AD)	0.558	1,629.875	1,930.265	3,560.140	32.01	35.54	35.54	113,960.08	57,925.76	68,601.62	240,487.46	306,172.48	65,685.02
4 Cross Winds Energy Park	20.342	173,371.233	178,363.168	351,734.401	24.79	34.21	34.21	8,718,051.10	5,931,741.98	6,102,536.58	20,752,329.66	20,752,329.66	0.00
5 Cross Winds Energy Park II (unsubscribed)	0.000	22,559.995	21,692.129	44,252.124	20.69	24.31	24.31	915,695.34	548,372.86	527,277.37	1,991,345.58	1,991,345.58	0.00
6 Elk Rapids Hydroelectric <sup>1</sup>	0.300	1,116.094	1,162.605	2,278.699	167,825.77	89.92	70.79	50,347.73	100,360.75	82,305.36	214,357.89	214,357.89	0.00
7 EARP-Solar - Agg 1-4 <sup>1</sup>	0.572	1,496.657	598.663	2,095.320	268,364.38	92.48	92.48	153,414.97	138,413.01	55,365.20	347,193.18	962,387.12	615,193.94
8 EARP-Solar - Agg 5 <sup>1</sup>	0.142	374.644	149.858	524.502	239,341.78	61.35	61.35	33,926.70	22,983.60	9,193.44	66,103.74	130,278.80	64,175.06
9 EARP-Solar - Agg 6	0.272	647.596	259.038	906.634	30.29	41.81	41.81	27,457.41	27,072.74	10,829.10	65,359.25	200,267.20	134,907.95
10 EARP-Solar - Agg 7	0.133	336.959	134.783	471.742	32.01	35.54	35.54	15,100.46	11,975.51	4,790.20	31,866.17	114,393.52	82,527.35
11 EARP-Solar - Agg 8	0.260	588.786	235.514	824.300	32.01	35.54	35.54	26,385.84	20,925.44	8,370.18	55,681.47	164,189.06	108,507.60
12 EARP-Solar - Agg 9	0.300	752.089	300.836	1,052.925	32.73	41.16	41.16	34,462.24	30,956.00	12,382.40	77,800.63	246,050.59	168,249.96
13 EARP-Solar - Agg 10	0.162	304.784	121.914	426.698	32.73	41.16	41.16	13,965.83	12,544.92	5,017.97	31,528.72	85,057.18	53,528.46
14 EARP-Solar - Agg 11	0.085	240.833	96.333	337.166	32.73	41.16	41.16	11,035.44	9,912.68	3,965.07	24,913.20	67,096.06	42,182.86
15 Fremont Community Digester <sup>1</sup>	2.100	1,439.375	1,423.502	2,862.877	167,825.77	92.23	71.43	352,434.11	132,756.06	101,686.83	193,618.79	193,618.79	0.00
16 Green Meadow Farms (EARP-AD) <sup>1</sup>	0.525	230.487	201.165	431.652	32.01	35.54	35.54	13,817.18	8,191.51	7,149.40	29,158.09	33,879.52	4,721.43
17 Harvest II <sup>1</sup>	9.692	87,399.421	86,643.486	174,042.907	156,328.23	90.03	71.30	1,515,081.10	7,868,317.88	6,177,526.96	15,560,925.94	16,280,558.45	719,632.51
18 Heritage Garden - Wind <sup>1</sup>	3.333	26,171.839	27,715.380	53,887.219	153,750.36	90.33	71.34	512,501.21	2,364,022.59	1,977,132.40	4,608,753.70	4,608,753.70	0.00
19 Heritage Garden - Solar <sup>1</sup>	0.000	1,006.281	434.583	1,440.864	0.00	92.21	71.74	0.00	92,789.96	31,178.15	123,968.11	214,749.50	90,781.39
20 Heritage Stoney Corners <sup>1</sup>	1.925	14,174.956	15,815.720	29,990.676	158,685.89	90.65	71.58	305,470.35	1,284,933.12	1,132,037.37	2,375,770.08	2,375,770.08	0.00
21 Heritage Stoney Corners - Phase 3 <sup>1</sup>	1.283	9,640.271	10,601.763	20,242.034	158,685.89	90.66	71.59	203,646.90	873,970.87	758,939.41	1,733,404.82	1,733,404.82	0.00
22 Lake Winds Energy Park <sup>1</sup>	14.867	117,703.043	125,406.184	243,109.227	156,780.05	90.41	71.37	2,330,796.68	10,641,109.78	8,949,653.99	21,921,560.46	26,742,014.97	4,820,454.51
23 Michigan Wind 2 <sup>1</sup>	14.800	123,554.485	136,666.490	260,220.975	153,877.22	90.58	71.62	2,277,382.86	11,192,034.47	9,788,448.76	23,049,241.79	23,049,241.79	0.00
24 North American Natural Resources - Lennon <sup>1</sup>	1.400	5,345.005	6,159.380	11,504.385	167,825.77	91.47	71.51	234,956.07	488,886.75	440,462.82	940,315.48	940,315.48	0.00
25 Scenic View Dairy (EARP-AD)	0.400	1,072.825	1,316.902	2,389.727	32.01	35.54	35.54	76,495.16	38,128.20	46,802.70	161,426.06	205,516.58	44,090.52
26 Solar Gardens (Subscribed)	1.458	3,397.892	1,435.332	4,833.225	32.73	41.16	41.16	158,191.44	139,857.25	59,078.27	357,126.96	379,028.32	21,901.36
27 Solar Gardens (Unsubscribed)	0.000	620.927	263.842	884.768	32.73	41.16	41.16	28,958.47	25,557.34	10,859.73	65,375.53	145,986.78	80,611.25
28 WM Renewable Energy - Northern Oaks <sup>1</sup>	1.500	4,260.253	4,723.375	8,983.628	167,825.77	93.34	72.22	251,738.65	397,664.36	341,114.72	709,986.50	709,986.50	0.00
29 WM Renewable Energy - Pine Tree Acres <sup>1</sup>	10.817	42,278.682	49,854.977	92,133.659	181,922.86	91.37	71.47	1,967,798.94	3,862,807.05	3,563,105.75	7,997,152.84	7,997,152.84	0.00
30 Circuit West Solar	0.000	18.332	7.505	25.837	32.15	42.03	42.03	442.06	770.44	315.41	1,527.92	12,556.78	11,028.86
31 2018 Total	107.200	821,657.319	849,194.654	1,670,851.973	NA	NA	NA	25,545,560.16	56,718,287.86	48,779,521.92	127,827,025.56	136,312,349.61	8,485,324.06

<sup>1</sup> Units pre-date U-16655

2018 ADJUSTED TRANSFER COST CALCULATION SUMMARY  
Revised 2018 Transfer Cost Calculation Summary - U-20722

	(a) Counterparty	(b) Energy Delivered			(e) Total MWh	(f) Capacity Transfer Price \$/ZRC-Year	(g) Energy Transfer Price		(i) Total Capacity Transfer Cost \$	(j) Total Energy Transfer Cost		(l) Total Transfer Cost \$	(m) Payment \$	(n) Difference (Payment - Transfer Cost) \$
		(c) Capacity ZRC-Year	(d) On-Peak MWh	Off-Peak MWh			(h) On-Peak \$/MWh	Off-Peak \$/MWh		On-Peak \$	Off-Peak \$			
1	Apple Blossom	8.867	86,096.994	82,602.748	168,699.742	387,688.41	22.62	22.62	3,437,503.86	1,947,818.63	1,868,766.42	7,254,088.91	7,254,088.91	0.00
2	Beebe Wind (AKA Blissfield)	11.108	93,827.233	92,877.757	186,704.990	158,850.45	90.01	71.43	1,764,563.78	8,445,498.26	6,634,640.63	16,844,702.67	18,201,846.69	1,357,144.02
3	Brook View Dairy	0.558	1,600.634	1,932.430	3,533.064	202,555.31	35.54	35.54	113,093.38	56,886.53	68,678.56	238,658.47	303,843.89	65,185.42
4	Cross Winds Energy Park	20.342	173,371.233	178,363.168	351,734.401	428,580.96	34.21	34.21	8,718,051.10	5,931,741.98	6,102,536.58	20,752,329.66	20,752,329.66	0.00
5	Cross Winds Energy Park II (unSubscribed)	0.000	25,376.632	24,538.978	49,915.610	0.00	24.31	24.31	1,032,888.09	618,837.74	596,476.62	2,246,202.45	2,246,202.45	0.00
6	Elk Rapids Hydroelectric	0.300	1,111.824	1,166.260	2,278.084	167,825.77	89.91	70.80	50,347.73	99,961.34	82,566.11	213,276.37	213,276.37	0.00
7	EARP-Solar - Agg 1-4	0.572	1,497.572	599.029	2,096.601	268,364.38	92.48	92.48	153,414.97	138,492.51	55,397.00	347,304.48	962,392.97	615,088.49
8	EARP-Solar - Agg 5	0.142	375.536	150.215	525.751	239,341.78	61.35	61.35	33,926.70	23,038.02	9,215.21	66,179.93	130,278.80	64,098.87
9	EARP-Solar - Agg 6	0.272	647.596	259.038	906.634	101,008.27	41.81	41.81	27,457.41	27,072.74	10,829.10	65,359.25	200,267.20	134,907.95
10	EARP-Solar - Agg 7	0.133	336.971	134.788	471.759	113,541.40	35.54	35.54	15,101.01	11,975.94	4,790.38	31,867.32	114,393.52	82,526.20
11	EARP-Solar - Agg 8	0.260	588.786	235.514	824.300	101,419.00	35.54	35.54	26,385.84	20,925.44	8,370.18	55,681.47	164,189.06	108,507.60
12	EARP-Solar - Agg 9	0.300	752.089	300.836	1,052.925	114,937.97	41.16	41.16	34,462.24	30,956.00	12,382.40	77,800.63	246,050.59	168,249.96
13	EARP-Solar - Agg 10	0.162	304.784	121.914	426.698	86,431.10	41.16	41.16	13,965.83	12,544.92	5,017.97	31,528.72	85,057.18	53,528.46
14	EARP-Solar - Agg 11	0.085	240.833	96.333	337.166	129,574.68	41.16	41.16	11,035.44	9,912.68	3,965.07	24,913.20	67,096.06	42,182.86
15	Fremont Community Digester	2.100	1,463.310	1,498.096	2,961.406	167,825.77	92.25	71.43	352,434.11	134,994.94	107,008.36	198,208.72	198,208.72	0.00
16	Green Meadow Farms	0.525	262.454	259.920	522.374	31,849.89	35.54	35.54	16,721.19	9,327.62	9,237.56	35,286.36	41,000.24	5,713.88
17	Harvest II	9.692	87,399.421	86,643.486	174,042.907	156,328.23	90.03	71.30	1,515,081.10	7,868,317.86	6,177,526.96	15,560,925.94	16,280,558.45	719,632.51
18	Heritage Garden - Wind	3.333	26,148.187	27,723.219	53,871.406	153,750.36	90.32	71.34	512,501.21	2,361,810.18	1,977,691.63	4,607,017.21	4,607,017.21	0.00
19	Heritage Garden - Solar	0.000	997.942	436.201	1,434.143	0.00	92.20	71.74	0.00	92,009.93	31,293.58	123,303.51	213,657.57	90,354.06
20	Heritage Stoney Corners	1.925	14,157.801	15,831.628	29,989.429	158,685.89	90.64	71.58	305,470.35	1,283,328.44	1,133,172.25	2,375,286.69	2,375,286.69	0.00
21	Heritage Stoney Corners - Phase 3	1.283	9,633.635	10,608.489	20,242.124	158,685.89	90.66	71.59	203,646.90	873,350.14	759,419.24	1,733,262.09	1,733,262.09	0.00
22	Lake Winds Energy Park	14.867	117,703.043	125,406.184	243,109.227	156,780.05	90.41	71.37	2,330,796.68	10,641,109.79	8,949,653.99	21,921,560.46	26,742,014.97	4,820,454.51
23	Michigan Wind 2	14.800	123,554.485	136,666.490	260,220.975	153,877.22	90.58	71.62	2,277,382.86	11,192,034.47	9,788,448.76	23,049,241.79	23,049,241.79	0.00
24	North American Natural Resources - Lennon	1.400	5,354.117	6,231.112	11,585.229	167,825.77	91.47	71.51	234,956.07	489,739.08	445,580.18	945,644.29	945,644.29	0.00
25	Scenic View Dairy - Fennville	0.400	1,064.587	1,330.931	2,395.518	191,701.33	35.54	35.54	76,680.53	37,835.42	47,301.29	161,817.24	206,014.57	44,197.33
26	Solar Gardens (Subscribed)	1.458	3,397.892	1,435.332	4,833.225	108,474.13	41.16	41.16	158,191.44	139,857.25	59,078.27	357,126.96	379,028.32	21,901.36
27	Solar Gardens (Unsubscribed)	0.000	620.927	263.842	884.768	0.00	41.16	41.16	28,958.47	25,557.34	10,859.73	65,375.53	145,986.78	80,611.25
28	WM Renewable Energy - Northern Oaks	1.500	4,251.527	4,717.109	8,968.636	167,825.77	93.34	72.22	251,738.65	396,848.13	340,667.70	708,061.59	708,061.59	0.00
29	WM Renewable Energy - Pine Tree Acres	10.817	42,278.838	49,854.105	92,132.943	181,922.86	91.37	71.47	1,967,798.94	3,862,821.64	3,563,043.54	8,027,285.56	8,027,285.56	0.00
30	Circuit West Solar	0.000	18.332	7.505	25.837	0.00	42.03	42.03	830.716	770.444	315.415	1,916.576	12,556.78	10,640.206
31	Annual Total	107.200	824,435.215	852,292.657	1,676,727.872	NA	NA	NA	25,665,386.579	56,783,375.435	48,863,930.679	128,121,214.043	136,606,138.972	8,484,924.999

**2018 ADJUSTED TRANSFER COST CALCULATION SUMMARY**  
Difference Between Revised 2018 Transfer Cost U-20722 and Transfer Cost U-20483

(a) Counterparty	(b) Capacity ZRC-Year	(c) Energy Delivered		(e) Total MWh	(f) Capacity Transfer Price \$/ZRC-Year	(g) Energy Transfer Price		(i) Total Capacity Transfer Cost \$	(j) Total Energy Transfer Cost		(l) Total Transfer Cost \$	(m) Payment / LCOE Limit \$	(n) Difference (Payment - Transfer Cost) \$
		On-Peak MWh	Off-Peak MWh			On-Peak \$/MWh	Off-Peak \$/MWh		On-Peak \$	Off-Peak \$			
1 Apple Blossom	-	0.53	0.54	1.07	-	-	-	21.80	11.92	12.28	46.03	46.03	0.00
2 Beebe Wind (AKA Blissfield)	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
3 Brook View Dairy	-	-29.24	2.16	-27.08	-	-	-	-866.70	-1,039.23	76.94	-1,828.98	-2,328.59	-499.61
4 Cross Winds Energy Park	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
5 Cross Winds Energy Park II (unSubscribed)	-	2,816.64	2,846.85	5,663.49	-	-	-	117,192.74	68,464.88	69,199.25	254,856.87	254,856.87	0.00
6 Elk Rapids Hydroelectric	-	-4.27	3.65	-0.61	-	-	-	0.00	-399.42	260.75	-1,081.52	-1,081.52	0.00
7 EARP-Solar - Agg 1-4	-	0.92	0.37	1.28	-	-	-	0.00	79.50	31.80	111.30	5.85	-105.45
8 EARP-Solar - Agg 5	-	0.89	0.36	1.25	-	-	-	0.00	54.42	21.77	76.19	0.00	-76.19
9 EARP-Solar - Agg 6	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
10 EARP-Solar - Agg 7	-	0.01	0.00	0.02	-	-	-	0.54	0.43	0.17	1.15	0.00	-1.15
11 EARP-Solar - Agg 8	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
12 EARP-Solar - Agg 9	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
13 EARP-Solar - Agg 10	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
14 EARP-Solar - Agg 11	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
15 Fremont Community Digester	-	23.93	74.59	98.53	-	-	-	0.00	2,238.88	5,321.54	4,589.94	4,589.93	-0.01
16 Green Meadow Farms	-	31.97	58.76	90.72	-	-	-	2,904.01	1,136.11	2,088.15	6,128.27	7,120.72	992.45
17 Harvest II	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
18 Heritage Garden - Wind	-	-23.65	7.84	-15.81	-	-	-	0.00	-2,212.41	559.23	-1,736.49	-1,736.49	0.00
19 Heritage Garden - Solar	-	-8.34	1.62	-6.72	-	-	-	0.00	-780.03	115.43	-664.60	-1,091.93	-427.33
20 Heritage Stoney Corners	-	-17.16	15.91	-1.25	-	-	-	0.00	-1,604.68	1,134.88	-483.39	-483.39	0.00
21 Heritage Stoney Corners - Phase 3	-	-6.64	6.73	0.09	-	-	-	0.00	-620.73	479.83	-142.73	-142.73	0.00
22 Lake Winds Energy Park	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
23 Michigan Wind 2	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
24 North American Natural Resources - Lennon	-	9.11	71.73	80.84	-	-	-	0.00	852.34	5,117.36	5,328.81	5,328.81	0.00
25 Scenic View Dairy - Fennville	-	-8.24	14.03	5.79	-	-	-	185.37	-292.78	498.59	391.18	497.99	106.81
26 Solar Gardens (Subscribed)	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
27 Solar Gardens (Unsubscribed)	-	0.00	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
28 WM Renewable Energy - Northern Oaks	-	-8.73	-6.27	-14.99	-	-	-	0.00	-816.23	-447.02	-1,924.91	-1,924.91	0.00
29 WM Renewable Energy - Pine Tree Acres	-	0.16	-0.87	-0.72	-	-	-	0.00	14.59	-62.21	30,132.72	30,132.72	0.00
30 Circuit West Solar	-	0.00	0.00	0.00	-	-	-	388.66	0.00	0.00	388.66	0.00	-388.66
31 2018 Total	NA	2,777.896	3,098.003	5,875.899	NA	NA	NA	119,826.423	65,087.570	84,408.754	294,188.487	293,789.360	-399.127

**TRANSFER PRICE CALCULATION**

	(a) Description	(b) Delivered Energy  MWh	(c) Total Transfer Cost  \$	(d) Transfer Price  \$/MWh
1	2018 Adjustment from Exhibit EJW-2 (pg 3)	5,875.899	294,188.49	
2	Cost previously reflected in U-20483	-	-	
3	<b>Total Adjustment Booked in 2019</b>	<b>5,875.899</b>	<b>294,188.49</b>	
4	<b>2019 Total from Exhibit EJW-1</b>	<b>1,725,749.812</b>	<b>138,684,457.90</b>	
5	<b>2019 Booked</b>	<b>1,731,625.711</b>	<b>138,978,646.38</b>	<b>80.26</b>

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
**CONSUMERS ENERGY COMPANY** )  
to commence a renewable energy cost )  
reconciliation proceeding for the 12-month period )  
ended December 31, 2019. )  
\_\_\_\_\_ )

Case No. U-20722

**PROOF OF SERVICE**

STATE OF MICHIGAN )  
 ) SS  
COUNTY OF JACKSON )

Melissa K. Harris, being first duly sworn, deposes and says that she is employed in the Legal Department of Consumers Energy Company; that on July 1, 2020, she served an electronic copy of the **Application and Testimony and Exhibits of Consumers Energy Company witnesses Troy S. Smith, Marc R. Bleckman, Yong F. Keyes, Julie M. Oberlin, and Emily J. Warners** upon the persons listed in Attachment 1 hereto, at the e-mail addresses listed therein.



\_\_\_\_\_  
Melissa K. Harris

Subscribed and sworn to before me this 1st day of July 2020.



\_\_\_\_\_  
Jennifer Joy Yocum, Notary Public  
State of Michigan, County of Jackson  
My Commission Expires: 12/17/24  
Acting in the County of Jackson

**ATTACHMENT 1 TO CASE NO. U-20722**  
**(Parties to Case No. U-20483)**

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Commission Staff**

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