

April 18, 2025

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

RE: Case No. U-21816 – In the matter of Consumers Energy Company’s application for the regulatory reviews, revisions, determinations, and/or approvals necessary to fully comply with Public Act 295 of 2008, as amended by Public Act 235 of 2023.

Dear Ms. Felice:

Enclosed for electronic filing in the above-captioned case, please find the **Revised Testimony and Exhibits of Consumers Energy Company witnesses Thomas P. Clark, Kenneth D. Johnston, and Chibuzo C. Obikwelu**. These are corrections that were discovered and provided during discovery.

This is a paperless filing and is therefore being filed only in PDF. Also included is a Proof of Service.

Sincerely,

 Digitally signed by
Anne M. Uitvlugt
Date: 2025.04.18
14:21:40 -04'00'

Anne M. Uitvlugt
Phone: 517-788-2112
Email: anne.uitvlugt@cmsenergy.com

cc: Parties to Attachment 1 to Proof of Service

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of **CONSUMERS ENERGY**)
COMPANY's application for the regulatory)
reviews, revisions, determinations, and/or)
approvals necessary to fully comply with)
Public Act 295 of 2008, as amended by)
Public Act 235 of 2023.)
_____)

Case No. U-21816

REVISED DIRECT TESTIMONY

OF

THOMAS P. CLARK

ON BEHALF OF

CONSUMERS ENERGY COMPANY

November 2024

THOMAS P. CLARK
U-21816 **REVISED** DIRECT TESTIMONY

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

2 A. My name is Thomas P. Clark, 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 the Executive Director of the Clean Energy Development Department.

8 **Q. Please describe your educational background.**

9 A. I received the degree of Bachelor of Science in Engineering from Western Michigan
10 University in 2004. Since 2010, I have been a Registered Professional Engineer in the state
11 of Michigan. In December 2016, I received the degree of Master of Business
12 Administration from the Ross School of Business at the University of Michigan Ann Arbor.

13 **Q. Please describe your business experience.**

14 A. In August 2004, I joined Consumers Energy as an Electric System Owner. In 2005,
15 I accepted a position as an Engineer in Transactions and Resource Planning responsible for
16 administration of the Resource Conservation Plan and the Qualified Facility Reduced
17 Dispatch Agreements. In this role, I assisted with proposal evaluation and the
18 administration of power purchase contracts. In early 2009, I took on responsibilities
19 associated with the Company’s Renewable Energy Plan (“RE Plan”), including the
20 calculation of the Transfer Price associated with renewable energy and capacity and
21 Renewable Energy Credit tracking and forecasting. In June 2013, I was assigned to the
22 Smart Energy Department where I was responsible for the development and
23 implementation of demand response programs associated with the Company’s deployment

1 of Advanced Metering Infrastructure. In March 2015, I accepted the role of Manager of
2 the Company's Resource Planning Department where I was responsible for all the
3 Company's short-, mid-, and long-term electric generation resource planning, including the
4 development of the Company's Integrated Resource Plans ("IRP"). In July 2017, I added
5 Real-Time and Day-Ahead Midcontinent Independent System Operator, Inc. ("MISO")
6 Market Operations to my Resource Planning responsibilities. In March 2021, I was
7 promoted to Executive Director of Electric Supply where I had responsibility for
8 purchasing and transport functions for fuel for electric generation, interaction in the MISO
9 markets, Power Supply Cost Recovery ("PSCR") activities, wholesale settlement and
10 transaction functions, and contract strategy functions including distribution agreements,
11 solicitations for energy and capacity, renewable energy compliance, and distributed
12 generation programs. In December 2021, I was assigned my current role of Executive
13 Director of Clean Energy Development where I am responsible for the engineering,
14 development and acquisition of all Company-owned renewable energy resources,
15 including solar, wind, and storage projects.

16 **Q. Have you previously presented testimony before the Michigan Public Service**
17 **Commission ("MPSC" or the "Commission")?**

18 **A.** Yes. I provided testimony in the following cases:

- 19 • Case No. U-15675-R, the Company's 2009 PSCR Reconciliation;
- 20 • Case No. U-16300, the Company's 2009 Renewable Cost Reconciliation;
- 21 • Case No. U-16543, the Company's RE Plan Amendment;
- 22 • Case No. U-16045-R, the Company's 2010 PSCR Reconciliation;
- 23 • Case No. U-16301, the Company's 2010 Renewable Cost Reconciliation;
- 24 • Case No. U-16581, the Company's Biennial RE Plan Review;

THOMAS P. CLARK
U-21816 **REVISED** DIRECT TESTIMONY

- Case No. U-16432-R, the Company’s 2011 PSCR Reconciliation;
- Case No. U-16655, the Company’s 2011 Renewable Cost Reconciliation;
- Case No. U-17301, the Company’s 2013 Biennial RE Plan Review;
- Case No. U-17321, the Company’s 2012 Renewable Cost Reconciliation;
- Case No. U-18250, the Company’s application for a financing order approving the securitization of qualified costs and related approval;
- Case No. U-18322, the Company’s 2017 Electric Rate Case;
- Case No. U-20165, the Company’s 2018 IRP;
- Case No. U-20963, the Company’s 2021 Electric Rate Case;
- Case No. U-21090, the Company’s 2021 IRP;
- Case No. U-21224, the Company’s 2022 Electric Rate Case;
- Case No. U-21389, the Company’s 2023 Electric Rate Case; and
- Case No. U-21585, the Company’s 2024 Electric Rate Case.

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

A. The purpose of my direct testimony is to support the inclusion of energy storage systems in the Company’s RE Plan and support the cost recovery of Muskegon, Spring Creek, Mustang Mile, and Washtenaw Solar in the RE Plan.

- Mustang Mile Solar - a 150 megawatt (“MW”) solar generation facility located in Macon Township, Lenawee County, being developed and constructed by Mustang Mile Solar Energy LLC (a wholly owned subsidiary of Invenergy Renewables Global LLC) that will be acquired through a Build Transfer Agreement (“BTA”);
- Washtenaw Solar - a 150 MW solar generation facility located in Saline Township, Washtenaw County, being developed and constructed by Washtenaw Solar Energy, LLC (a wholly owned subsidiary of Invenergy Renewables Global LLC) that will be acquired through a BTA;

THOMAS P. CLARK
U-21816 **REVISED** DIRECT TESTIMONY

- Muskegon Solar Energy Center - a 250 MW solar generation facility located in Mooreland Township, Muskegon County, being developed and constructed by Consumers Energy ("Self-Perform"); and
- Spring Creek Solar - a 140 MW solar generation facility located in both Bedford Charter Township, Calhoun County, and Johnstown Township, Barry County, being developed and constructed by Consumers Energy (Self-Perform).

Q. Are you sponsoring any exhibits?

A. Yes. I am sponsoring the following exhibits:

- | | |
|--|--|
| Confidential Exhibit A-7 (TPC-1) | Muskegon Solar: Module Sale Agreement by and between First Solar (U.S.), Inc. and Consumers Energy Company, dated as June 10th, 2022; |
| Confidential Exhibit A-8 (TPC-2) | Muskegon Solar: Purchase Order by and between First Solar (U.S.), Inc. and Consumers Energy Company, dated as June 13, 2022; |
| Confidential Exhibit A-9 (TPC-3) | Muskegon Solar: First Solar signed contract change order, dated June 10, 2022, which identifies cost and delivery schedule changes; |
| Confidential Exhibit A-10 (TPC-4) | Muskegon Solar: First Solar signed changed order, dated June 10, 2022, which identifies changes to Appendix 1- Section 4 – Other Terms and Conditions; |
| Confidential Exhibit A-11 (TPC-5) | Muskegon Solar: Main Power Step Up Transformer Major Equipment Purchase Contract by and between Virginia Transformer Corporation and Consumers Energy Company, dated as September 4, 2022; |
| Confidential Exhibit A-12 (TPC-6) | Muskegon Solar: Purchase Order by and between Virginia Transformer Corporation and Consumers Energy Company, dated as September 29, 2022; |
| Confidential Exhibit A-13 (TPC-7) | Muskegon Solar: Engineering, Procurement and Construction Contract Agreement by and between Burns & McDonnell Michigan Inc., |

THOMAS P. CLARK
U-21816 **REVISED** DIRECT TESTIMONY

1		and Consumers Energy Company, dated as
2		October 4, 2023;
3	Confidential Exhibit A-14 (TPC-8)	Muskegon Solar: Burns & McDonnell signed
4		contract change order, dated June 17, 2024,
5		which identifies cost and delivery schedule
6		changes;
7	Exhibit A-15 (TPC-9)	Muskegon Solar - project schedule;
8	Exhibit A-16 (TPC-10)	Muskegon Solar: Board Resolution
9		Approving a capital expenditure for the
10		Muskegon Solar Project, dated January 25,
11		2023;
12	Confidential Exhibit A-17 (TPC-11)	Spring Creek: Master Supply Agreement by
13		and between Trina Solar (U.S.) Inc. and
14		Consumers Energy Company, dated
15		February 3, 2023;
16	Confidential Exhibit A-18(TPC-12)	Spring Creek: Purchase Order by and
17		between Trina Solar (U.S.) Inc. and
18		Consumers Energy Company, dated
19		November 21, 2023;
20	Confidential Exhibit A-19 (TPC-13)	Spring Creek: Main Power Step Up
21		Transformer Agreement by and between
22		HICO America and Consumers Energy
23		Company, dated December 15, 2023;
24	Confidential Exhibit A-20 (TPC-14)	Spring Creek: Purchase Order by and
25		between HICO America and Consumers
26		Energy Company, dated December 20, 2023;
27	Confidential Exhibit A-21 (TPC-15)	Spring Creek: Engineering, Procurement and
28		Construction Agreement by and between
29		Burns & McDonnell and Consumers Energy
30		Company, dated March 15, 2024;
31	Exhibit A-22 (TPC-16)	Spring Creek Solar: project schedule; and
32	Exhibit A-23 (TPC-17)	Spring Creek Solar: Board Resolution
33		approving capital expenditures for Spring
34		Creek Solar, dated August 2, 2023.

1 **Q. Were these exhibits created by you or under your supervision?**

2 A. Yes. The Major Procurement Contracts for the Muskegon Solar Energy Center and Spring
3 Creek Solar projects were negotiated by my organization and executed in the normal course
4 of business.

5 **ENERGY STORAGE SYSTEM PROJECTS**

6 **Q. What is energy storage?**

7 A. Energy storage is a resource capable of receiving energy and storing it for later injection
8 into the transmission or distribution system. Energy storage encompasses a wide range of
9 technologies, including but not limited to, batteries, flywheels, compressed air, and
10 pumped storage. Typically, an energy storage project is characterized by its rated power
11 capacity [MW], energy capacity [MWh], storage duration [hours], and rated life [years].
12 For any given project, the technology and storage duration chosen will be heavily
13 dependent upon the intended application. Currently, the rated power capacities for energy
14 storage projects range anywhere from 0.1 MW to 750 MW, while storage durations can
15 range from minutes to 100 hours or more. Energy storage is often classified by storage
16 duration as: short duration (up to 4 hours); long duration (10+ hours); and seasonal energy
17 storage (100+ hours), although these classifications are not standard across the industry.

18 **Q. What value does energy storage offer to customers?**

19 A. Energy storage provides value in many different ways, some more quantifiable than others.
20 The most obvious and easily quantified are those recognized in the various wholesale
21 energy markets. These values include capacity value, energy value (realized through
22 energy arbitrage), and ancillary services. Less defined are the various transmission and
23 distribution services that energy storage provides. These include transmission congestion

1 relief, Volt-VAR control, backup power, and upgrade deferral. Finally, under Michigan's
2 renewable portfolio standard, energy storage can provide renewable energy credits that can
3 be used to meet compliance obligations under the law. It is important to note that energy
4 storage is capable of "stacking" or providing multiple services, sometimes simultaneously.
5 The combination of these values position energy storage as an enabler of renewable energy.

6 **Q. What do you mean by "an enabler of renewable energy"?**

7 A. Energy storage, through its various value streams, facilitates the penetration of large
8 quantities of renewable energy into the grid by operating in coordination with renewable
9 generation assets, like wind and solar, to smooth the inherent fluctuations caused by
10 intermittency in renewable generation. For example, excess generation from a solar
11 photovoltaic ("PV") facility during mid-day can be stored and shifted for use in the evening
12 when solar PV generation is tapering off. Simultaneously, energy storage can ramp rapidly
13 to address sudden, unpredicted reductions or increases in renewable output caused by cloud
14 cover or wind gusts. Energy storage's ability to firm intermittent generation reduces strain
15 on the electric grid which reduces curtailment of renewable generation. Less curtailment
16 improves the capacity factor of wind and solar projects due to the increased renewable
17 generation overall.

18 **Q. How will energy storage support the Company's RE Plan directly?**

19 A. As mentioned earlier, energy storage can produce renewable energy credits. Specifically,
20 Public Act 295 of 2008, as amended ("Act 295") specifies that energy storage is eligible
21 for incentive renewable energy credits ("IRECs") which are granted under specific
22 circumstances. For energy storage, the Michigan Renewable Energy Certification System
23 issues 1 REC and 1/5 IREC for each MWh of electricity generated from a renewable energy

1 system during off-peak hours, stored using advanced electric storage technology or a
2 hydroelectric pumped storage facility, and used during peak hours. For compliance
3 purposes, 1 IREC is equivalent to 1 REC. The utilization of storage IRECs to meet the
4 Company's compliance obligations is a direct contribution to the Company's RE Plan.

5 **Q. What are the different types of energy storage projects?**

6 A. The Company defines the different types of energy storage projects based on the process
7 used to interconnect the storage project to the grid. Specifically, based on the options
8 provided for by MISO. This yields five different energy storage project types as detailed
9 below:

- 10 • **Standalone** – A new energy storage project without ties to other existing
11 renewables or conventional generation assets and requires a full MISO
12 Generation Interconnection Application.
- 13 • **Replacement** – An energy storage project that is installed at a retiring
14 generating facility's interconnection via the MISO Generation Replacement
15 Process. MISO defines a replacement project as one that is "planning to replace
16 one or more generating units and/or storage devices at an Existing Generating
17 Facility with one or more new generating units or storage devices at the same
18 electrical Point of Interconnection."
- 19 • **Co-located** – A Co-located energy storage project is an energy storage project
20 that shares a point of interconnection ("POI") with another generating facility,
21 but each facility participates in the market as separate resources by resource
22 type (i.e. an energy storage facility paired with a solar facility that operates as
23 two independent facilities at a shared interconnection). Co-located energy
24 storage projects can be built alongside existing generation facilities or as
25 entirely new projects.
- 26 • **Surplus** – A surplus energy storage project leverages the surplus
27 interconnection process as defined by MISO. The surplus interconnection
28 process results in a "restricted Interconnection Service that allows an
29 Interconnection Customer to increase the gross generating capability at the
30 same Point of Interconnection of an Existing Generating Facility without
31 increasing the total amount of Interconnection Service at the Point of
32 Interconnection." Therefore, a surplus energy storage project is a Co-located
33 energy storage project that utilizes MISO's surplus interconnection process and
34 where the energy storage project is contemplated after the hosting project has
35 already advanced through MISO's full Generator Interconnection Process.

- **Hybrid** – A new renewable energy project with multiple resource types utilizing a shared interconnection and participating in the market as a single resource (e.g. an energy storage project paired with a solar and/or wind project). A hybrid energy storage project is a Co-located energy storage project where all generation resources utilize the same full MISO interconnection application during development.

Q. Why would the Company choose to pursue Standalone energy storage projects?

A. Standalone energy storage projects can be considered the baseline to which the other alternative applications are compared. Unlike surplus projects, standalone projects avoid interfering with the MISO accreditation of existing generation assets and are not restricted to the limits of existing interconnection agreements like surplus and replacement projects. Standalone projects are ideal when targeting a specific size or location or if replacement or surplus opportunities do not exist. Locations can be selected where capacity availability is the highest and provides the highest grid stability/reliability.

Q. Why would the Company choose to pursue Replacement energy storage projects?

A. Replacement energy storage projects allow the Company to leverage existing POIs, real estate, and infrastructure. Due to both the shorter interconnection application process and the utilization of existing interconnection infrastructure in comparison to the conventional MISO Generator Interconnection Agreement (“GIA”) process, replacement projects shorten timelines and reduce cost. Unlike other energy storage types, Replacement energy storage replaces existing, retiring generation.

Q. Why would the Company choose to pursue Co-located energy storage projects?

A. All assets within Co-located projects share an interconnection but participate as separate resources within the market, allowing the value of each individual asset to be maximized. Like Replacement projects, Co-located energy storage projects benefit by having its

individual resources share a POI and other infrastructure which can reduce costs and shorten project timelines.

Q. Why would the Company choose to pursue Surplus energy storage projects?

A. Surplus energy storage projects are advantageous because they allow for a shorter interconnection timeline compared to the conventional interconnection process. Per the MISO tariff, the conventional interconnection process spans approximately 373 days while the Surplus interconnection process spans 240 days. Therefore, the Surplus interconnection process is a faster path to an executed GIA for energy storage projects.

Like Replacement energy storage projects, Surplus energy storage projects can leverage existing infrastructure potentially reducing project costs and shortening the development timeline. Likewise, Surplus energy storage projects will be built without increasing the existing interconnection service, meaning potential network upgrade requirements and associated costs that may otherwise be incurred through the conventional interconnection process can be avoided.

Q. Why would the Company choose to pursue Hybrid energy storage projects?

A. Hybrid resources allow for the combined nameplate capacity of the generating facility, which often utilize intermittent resource types, to exceed the total interconnection service. As a result, a lower interconnection service means hybrid projects can potentially avoid the need for network upgrades. Hybrid energy storage projects offer many of the same benefits as Surplus and Co-located energy storage projects, but allow for the size of storage and renewable resources to be co-optimized from the outset versus Surplus energy storage projects which are optimized based on the existing generating facility's nameplate capacity and the available interconnection service.

1 **Q. Why should energy storage be included in the Company's RE Plan?**

2 A. As described above, there are three reasons to include energy storage in the Company's RE
3 Plan. First, energy storage provides many different value streams to customers in the form
4 of energy, capacity, ancillary services, transmission, and distribution benefits. Second,
5 energy storage is a renewable energy "enabler." It will help reduce curtailment of
6 renewable generation assets and increase utilization of renewable energy infrastructure.
7 Using energy storage to firm renewable resources will help improve the total energy output
8 from those assets resulting in increased RECs. Finally, and most importantly, off-peak
9 renewable energy that is stored and used during on-peak hours yields IRECs which will be
10 used to demonstrate REC Portfolio Standard compliance which is the key objective of the
11 Company's RE Plan.

12 **Q. Should all types of energy storage be considered in the RE Plan?**

13 A. The benefits described above are true for all energy storage projects, meaning all energy
14 storage projects contribute to the Company's RE Plan. But for this case, the Company
15 recommends a focus on surplus, hybrid, and co-located energy storage within the RE Plan
16 due to use of shared interconnection infrastructure, ease of charging from renewable
17 sources, and the ability to directly improve functionality and capacity of renewable
18 generation assets.

19 **Q. How much energy storage does the Company expect to include in the RE Plan?**

20 A. The Company intends to pursue energy storage projects as part of the RE Plan only if they
21 share a point of interconnection with a renewable energy system. The capacity of existing
22 solar and wind assets that have a GIA with MISO is nearly 1,100 MW.

1 **Q. What are the Company's cost assumptions for the energy storage resource additions?**

2 A. The Company anticipates a Levelized Cost of Energy ("LCOE") of \$143.54/MWh for
3 energy storage resources with a Commercial Operation Date ("COD") of January 1, 2028.
4 This cost is based on the costs from the recently executed Power Purchase Agreement with
5 Century Oaks Energy Storage LLC that has been reviewed and approved by the MPSC in
6 Case No. ~~U-21585~~ U-21090. The Company proposes relying on the costs presented in that
7 case as a target for energy storage projects under the RE Plan.

8 **Q. How does the Company propose recovering costs for energy storage projects included**
9 **in the RE Plan?**

10 A. The Company proposes to recover all costs of RE Plan energy storage projects through the
11 RE Plan cost of compliance.

12 **Q. What is the Company's request for project approval for energy storage resources?**

13 A. The Company intends to file for project approval with the MPSC for up to 1,100 MW of
14 energy storage projects that share an interconnection with a renewable energy system. The
15 Company is requesting that the Commission allow the Company to seek ex parte approval
16 for future energy storage projects that have an LCOE which is up to 140% above the LCOE
17 target discussed above. For energy storage projects with a COD of January 1, 2028, this
18 means the Company would be able to seek ex parte approval for projects with LCOEs of
19 up to \$200.96/MWh.

20 **Q. What is the basis for the Company's request for a threshold multiplier of 140%?**

21 A. The basis for the 140% is discussed in detail in the testimony of Company witness
22 Kenneth D. Johnston.

SOLAR PROJECTS

Q. Why is the Company presenting these four IRP solar assets in the RE Plan?

A. As discussed in the testimony of Company witness Johnston, the Company supports the position taken by MPSC Staff (“Staff”) witness Jesse J. Harlow in Case No. U-21585 regarding the recovery of these projects in the RE Plan. The information that follows supports the cost recovery for these projects.

SPRING CREEK SOLAR

Q. Is the Spring Creek Project a result of a Competitive Solicitation?

A. Yes. The Company issued its fourth annual IRP competitive solicitation on December 8, 2022 (the “2022 IRP Solicitation”), seeking 500 MW of new solar resource capacity on or before June 1, 2025; 204 MW of new solar resource capacity on or before June 1, 2026; and 500 MW of new solar resource capacity on or before June 1, 2027. The Company used an independent administrator to independently and without bias administer a fair and transparent solicitation, including collecting and scoring proposals and producing scored shortlists. A total of 38 proposals covering 30 unique projects representing nearly 1,665 MW of nameplate capacity were submitted on a confidential basis in the 2022 competitive solicitation. Of those, 11 proposals were for Utility-owned projects and 27 were for long-term Power Purchase Agreements (“PPAs”). Thirteen projects that participated were Public Utility Regulatory Policies Act (“PURPA”) Qualifying Facilities (“QFs”) at or below the Company’s must purchase obligation MW threshold located in Consumers Energy’s service territory. As a result of this solicitation, a Self-Perform project, Spring Creek, was selected. This required the Company to enter into several Major Procurement Agreements which are presented for approval: (1) Module Sale Agreement;

(2) Engineering, Procurement, and Construction (“EPC”) Agreement (includes Racking, Inverters and Piles); and (3) Substation Transformer Agreement.

Q. Please provide an overview of the Spring Creek Solar Project.

A. The Spring Creek Solar Project is a 140 MW solar facility located in both Bedford Charter Township, Calhoun County, and Johnstown Township, Barry County, Michigan. All required land rights for the project have been secured. The project intends to connect to the Michigan Electric Transmission Company (“METC”) 138 kV transmission system. An Engineering Design and Procurement Agreement between METC and the Company, executed on November 2, 2023, initiated design and procurement activities to that end, as a MISO GIA continues to be developed.

Q. Which Major Procurement Agreements has the Company executed to date?

A. **Confidential** Exhibit A-17 (TPC-11) and **Confidential** Exhibit A-18 (TPC-12) include the Master Supply Agreement and associated Purchase Order with Trina Solar Inc, dated February 3, 2023 and November 21, 2023, respectively, and **Confidential** Exhibit A-19 (TPC-13) and **Confidential** Exhibit A-20 (TPC-14) include the Substation Transformer Agreement and associated Purchase Order with HICO America, dated December 15, 2023 and December 20, 2023, respectively. **Confidential** Exhibit A-21 (TPC-15) is the EPC Agreement with Burns & McDonnell dated March 15, 2024. Consumers Energy requests approval of these contracts associated with the Spring Creek Solar project.

Q. What is the project schedule for the Spring Creek Solar project?

A. The project will achieve Commercial Operation on or before June 1, 2026, as seen in Exhibit A-22 (TPC-16). All major agreements have been fully executed and work toward delivery of the project is actively underway.

Q. What is the projected cost of the Spring Creek Solar Project?

A. Based on the contracts executed and other forecasted costs, the Spring Creek Solar project is estimated to be \$253 million, with an LCOE of \$56.55/MWh. This pricing is consistent with the proposal selected in the Company's 2022 IRP Competitive Solicitation.

Q. Has the Spring Creek Solar project been approved by the Company's Board of Directors?

A. Yes. Exhibit A-23 (TPC-17) indicates that on August 2, 2023, the CMS Energy Board of Directors ("Board") approved the capital expenditure for the Spring Creek Solar Project of up to \$250 million. Additionally, \$9 million for land acquisition was previously approved in 2021, bringing the total capital expenditures approved by the Board for the project to \$259 million.

MUSKEGON SOLAR

Q. Is the Muskegon Project a result of a Competitive Solicitation?

A. Yes. The Company issued its third annual IRP competitive solicitation on September 24, 2021 (the "2021 IRP Solicitation"), seeking 500 MW of new solar resource capacity in 2024, of which up to 250 MW would be Company-owned. The Company used an independent administrator to independently and without bias administer a fair and transparent solicitation, including collecting and scoring proposals and producing scored shortlists. A total of 28 proposals covering 22 unique projects representing nearly 1,500 MW of nameplate capacity were submitted on a confidential basis in the 2021 competitive solicitation. Of those, 9 proposals were for Company-owned projects and 19 were for long-term PPAs. Three projects that participated were PURPA QFs at or below the Company's must purchase obligation MW threshold located in Consumers Energy's

1 service territory. As a result of this solicitation, a Self-Perform project, Muskegon Solar,
2 was selected. This required the Company to enter into several Major Procurement
3 Agreements: (1) Module Sale Agreement; (2) EPC Agreement (includes Racking, Inverters
4 and Piles); and (3) Substation Transformer Agreement.

5 **Q. Please provide an overview of the Muskegon Solar Energy Center Project.**

6 A. The Muskegon Solar Project is a 250 MW solar facility located in Moorland Township,
7 Muskegon County, Michigan. All required land rights for the project have been secured
8 and a Special Land Use Permit has been granted. The project will be connected to the
9 METC 138 kV transmission system in accordance with the terms and conditions outlined
10 in the MISO GIA, executed on March 27, 2023.

11 **Q. Which Major Procurement Agreements has the Company executed to date?**

12 A. **Confidential** Exhibit A-7 (TPC-1) and **Confidential** Exhibit A-8 (TPC-2) include the
13 Module Sale Agreement and associate Purchase Order with First Solar Inc, dated June 10,
14 2022 and June 13, 2022, respectively. **Confidential** Exhibit A-11 (TPC-5) and **Confidential**
15 Exhibit A-12 (TPC-6) include the Substation Transformer Agreement and associated
16 Purchase Order with Virginia Transformer, dated September 4, 2022, and September 29,
17 2022, respectively. Finally, **Confidential** Exhibit A-13 (TPC-7) is the EPC Agreement with
18 Burns & McDonnell, dated October 4, 2023. Consumers Energy requests approval of these
19 contracts associated with the Muskegon Solar Project.

20 **Q. What is the project schedule for the Muskegon Solar project?**

21 A. The project will achieve COD on or before December 31, 2025, as seen in Exhibit A-15
22 (TPC-9). All major agreements have been fully executed and work toward delivery of the
23 project is actively underway.

1 **Q. What is the expected cost of the Muskegon Solar project.**

2 A. Based on the contracts executed and other forecasted costs, the Muskegon Solar project is
3 estimated to be \$354 million, with an LCOE of \$51.51/MWh. This price is consistent with
4 the proposal selected in the Company's 2021 IRP Competitive Solicitation.

5 **Q. Has the Muskegon Solar project been approved by the Company's Board of**
6 **Directors?**

7 A. Yes. Exhibit A-16 (TPC-10) indicates that on January 25, 2023, the Board approved capital
8 expenditures to deliver the Muskegon Solar project for an amount of up to \$354 million.

9 **WASHTENAW SOLAR**

10 **Q. Please provide an overview of the Washtenaw Solar Project and explain how it relates**
11 **to the Company's 2020 IRP Competitive Solicitation.**

12 A. The Company issued its second IRP Competitive Solicitation on July 29, 2020, seeking
13 300 MW of new solar resource capacity by 2023, of which up to 150 MW would be
14 Company owned. As a result of this solicitation, a BTA was executed between Consumers
15 Energy and Washtenaw Solar Energy, LLC (a wholly owned subsidiary of Invenergy
16 Renewables Global LLC), dated as of October 4, 2021, for the acquisition of a new
17 150 MW solar resource which will ultimately be owned by the Company ("Washtenaw
18 Solar" or "Washtenaw Solar Project").

19 The Washtenaw Solar Project is a 150 MW solar facility located in Saline
20 Township, Washtenaw County, Michigan. The project will be interconnected with the
21 International Transmission Company's 345 kV transmission system in accordance with the
22 terms and conditions outlined in its MISO GIA, executed April 23, 2021. The project has
23 secured land rights for more than 1,100 acres, but due to changes to Saline Township

1 zoning ordinances enacted after the execution of the BTA, the project will require
2 additional land rights in order to be sited locally or will need to rely on the recently passed
3 state certification process.

4 **Q. What is the project schedule and projected cost for the Washtenaw Solar project?**

5 A. Given the passage and implementation of state siting regulations, the Company is working
6 with Invenenergy on a revised schedule and cost for the project. Neither of these have been
7 determined at this time; therefore, the Company does not have any further details. We are
8 confident that we will be able to reach an agreement with Invenenergy and will then present
9 it to the Commission for approval.

10 **MUSTANG MILE**

11 **Q. Please provide an overview of the Mustang Mile Solar Project and explain how it**
12 **relates to the Company's 2019 IRP Competitive Solicitation.**

13 A. Consumers Energy issued its first annual IRP competitive solicitation on September 30,
14 2019, seeking 300 MW of new solar resource capacity in 2022, of which up to 150 MW
15 would be Company-owned. As a result of this solicitation, a BTA was executed between
16 Consumers Energy and Mustang Mile Solar Energy LLC (a wholly owned subsidiary of
17 Invenenergy Renewables Global LLC), dated as of January 21, 2021, for the acquisition of a
18 new 150 MW solar resource which will ultimately be owned by the Company ("Mustang
19 Mile" or "Mustang Mile Solar Project").

20 The Mustang Mile Solar Project is a 150 MW solar facility located in Macon
21 Township, Lenawee County, Michigan. The project will be connected to the METC
22 138 kV transmission system in accordance with the terms and conditions outlined in the
23 MISO GIA, executed on August 6, 2020. All required land rights for the project have been

1 secured and a special land use permit has been granted; however, legal challenges to the
2 permit are currently being litigated which is preventing the completion of the project.
3 While the Company expects that the opposition groups will ultimately fail in their legal
4 challenge, the project has been delayed because of these challenges therefore a revision to
5 the original project schedule is required. The unpredictable duration of the legal issues
6 makes it difficult to assume an accurate revised COD at this time.

7 **Q. What is the project schedule and projected cost for the Mustang Mile Solar project?**

8 A. The Company is working with Invenergy on a revised schedule and cost for the project.
9 Neither of these have been determined at this time; therefore, we do not have any further
10 details. The Company is confident that it will be able to reach an agreement with Invenergy
11 and will then present it to the Commission for approval.

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

13 A. Yes.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of **CONSUMERS ENERGY**)
COMPANY's application for the regulatory)
reviews, revisions, determinations, and/or)
approvals necessary to fully comply with)
Public Act 295 of 2008, as amended by)
Public Act 235 of 2023.)
_____)

Case No. U-21816

REVISED EXHIBIT

OF

KENNETH D. JOHNSTON

ON BEHALF OF

CONSUMERS ENERGY COMPANY

April 2025

RENEWABLE ENERGY PLAN SUMMARY

Row No.		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1	Sales and Requirement Calculation (1)												
2	Method: Weather Normalized or 3 Year Average												
3	If Selected Weather Normalized:												
4	Current Year Sales to Retail Customers												
5	Less Number of Megawatt Hours Sold from Nuclear Energy												
6	Current Year Weather Normalization Factor												
7	Less VGP Sales												
8	Less Outflow from DG Customers												
9	Current Year Weather Normalized Sales (Row 4 * 6)												
10	If Selected 3 Year Average:												
11	Current year Retail Sales to Retail Customers	32,608,729	33,619,270	34,845,036	36,365,868	36,873,154	38,711,293	41,128,801	42,731,748	43,835,465	44,545,304	45,537,465	46,233,500
12	Less Number of Megawatt Hours Sold from Nuclear Energy												
13	Less VGP Sales	360,920	392,838	392,838	933,918	1,087,730	1,719,697	1,957,794	2,182,475	2,397,223	2,601,286	2,795,198	2,979,468
14	Less Outflow from DG Customers	41,772	51,595	61,418	71,241	81,064	90,887	100,710	110,533	120,356	130,179	140,002	149,825
15	3 year Average of Retail Sales	32,649,851	32,768,960	32,892,336	33,691,012	34,943,391	36,028,019	37,316,772	38,904,416	40,857,281	42,565,338	43,704,172	44,639,411
16	RECs Reported to Provider Subject to Section 29(4)												
17	RPS Required Renewable Energy Credits (For 2024 through 2029 15%, 2030 through 2034 50%, 2035 and beyond 60%)	4,837,074	4,848,679	4,865,712	4,902,878	5,066,190	5,132,615	17,629,134	18,305,704	19,169,851	19,916,936	20,384,486	24,906,071
18	Energy Credits (2) *												
19	Energy Credit Beginning Balance	2,270,723	1,863,843	1,683,994	2,992,194	5,669,726	9,874,958	15,857,663	11,667,386	7,860,304	8,101,607	8,611,837	9,776,514
20	Plus: Energy Credits Obtained through Generation/BOT	2,690,100	2,583,287	3,437,066	4,379,605	5,444,304	6,720,142	7,861,446	8,330,034	12,685,712	13,150,677	13,698,909	16,286,460
21	Plus: Energy Credits Obtained Through PPA	1,740,689	2,087,284	2,496,086	2,958,594	3,577,294	4,142,545	4,700,305	5,257,833	5,772,948	6,286,858	6,837,455	7,388,661
22	Plus: Energy Credits Obtained through REC Purchases		0	243,286	245,144	253,310	256,631	881,457	915,285	958,493	995,847	1,019,224	1,245,304
23	Less: Energy Credit Sold	0	0	0	0	0	0	0	0	0	0	0	0
24	Available Energy Credits Obtained (Row 20+21+22)	4,430,194	4,668,831	6,173,912	7,580,409	9,271,422	11,115,321	13,438,856	14,498,622	19,411,154	20,427,166	21,549,163	24,913,130
25	Less: Compliance Requirement	4,837,074	4,848,679	4,865,712	4,902,878	5,066,190	5,132,615	17,629,134	18,305,704	19,169,851	19,916,936	20,384,486	24,906,071
26	Less: Energy Credit Expired	0	0	0	0	0	0	0	0	0	0	0	0
27	Energy Credit Ending Balance (Row 19 + 24 - 25 - 26)	1,863,843	1,683,994	2,992,194	5,669,726	9,874,958	15,857,663	11,667,386	7,860,304	8,101,607	8,611,836	9,776,514	9,783,573
28	Revenue Requirement (3)												
29	Cost of Renewable Energy Generation/BOT	\$ 138,579,148	\$ 210,552,780	\$ 310,888,624	\$ 408,573,983	\$ 478,295,168	\$ 578,709,211	\$ 669,289,359	\$ 803,084,030	\$ 832,648,494	\$ 884,301,937	\$ 964,254,204	\$ 937,157,252
30	Cost of Renewable Energy PPA	\$ 105,531,081	\$ 116,381,792	\$ 118,425,687	\$ 120,931,077	\$ 146,762,909	\$ 195,174,276	\$ 252,403,180	\$ 297,804,657	\$ 333,006,862	\$ 371,687,062	\$ 416,406,541	\$ 464,532,676
31	Cost of Renewable Energy Credit Purchases	\$ -	\$ -	\$ 486,571	\$ 490,288	\$ 506,619	\$ 513,262	\$ 1,762,913	\$ 1,830,570	\$ 1,916,985	\$ 1,991,694	\$ 2,038,449	\$ 2,490,607
32	Cost of Administration of Renewable Energy Plan	\$ 107,883	\$ 113,502	\$ 123,674	\$ 127,644	\$ 134,141	\$ 140,558	\$ 150,386	\$ 157,846	\$ 166,783	\$ 171,572	\$ 176,204	\$ 183,736
33	Less: Revenue obtained from Renewable Energy Sales (Non-retail)	\$ (17,436,719)	\$ (17,436,319)	\$ (41,900,428)	\$ (60,255,241)	\$ (102,189,020)	\$ (119,437,670)	\$ (136,451,802)	\$ (152,647,149)	\$ (168,450,519)	\$ (182,781,819)	\$ (196,824,050)	\$ (206,216,336)
34	Renewable Energy Plan Total Revenue Requirement for (Rows 29 + 30 + 31 + 32 - 33)	\$ 226,781,394	\$ 318,611,756	\$ 388,024,128	\$ 469,867,751	\$ 523,509,817	\$ 655,099,636	\$ 787,154,036	\$ 950,229,955	\$ 999,288,606	\$ 1,075,370,445	\$ 1,186,051,348	\$ 1,198,147,936
35	Cost Recovery (4)												
36	Forecasted Transfer Price per MWH *	\$ 84.40	\$ 84.00	\$ 82.25	\$ 82.04	\$ 81.43	\$ 80.16	\$ 79.83	\$ 80.32	\$ 79.22	\$ 80.13	\$ 68.00	\$ 68.27
37	MWH of Renewable Energy *	2,914,918	3,033,422	3,758,195	4,507,268	5,727,920	7,477,159	8,983,269	9,954,960	14,751,393	15,665,996	16,635,943	19,644,899
38	Amount Recovered through the PSCR (Rows 36 * 37)	\$ 246,024,213	\$ 254,797,448	\$ 309,106,923	\$ 369,761,711	\$ 466,445,899	\$ 599,394,544	\$ 717,176,375	\$ 799,545,280	\$ 1,168,642,658	\$ 1,255,345,401	\$ 1,131,193,050	\$ 1,341,090,388
39	Incremental Cost of Compliance (Rows 34 - 38)	\$ (19,242,820)	\$ 63,814,308	\$ 78,917,205	\$ 100,106,040	\$ 57,063,917	\$ 55,705,092	\$ 69,977,662	\$ 150,684,676	\$ (169,354,052)	\$ (179,974,956)	\$ 54,858,298	\$ (142,942,452)
40	Non-Volumetric Meter/Customer Charge Forecast (5)												
41	Residential	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42	Secondary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43	Primary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44	Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45	Meter/Customer Count												
46	Residential	1,659,930	1,667,942	1,677,703	1,686,933	1,695,832	1,703,345	1,707,603	1,711,872	1,716,152	1,720,442	1,724,744	1,729,055
47	Secondary	226,635	226,926	227,182	227,402	227,586	227,690	227,794	227,898	228,002	228,106	228,210	228,210
48	Primary	3,767	3,774	3,777	3,780	3,784	3,785	3,785	3,785	3,787	3,787	3,788	3,788
49	Other	5,560	5,561	5,561	5,562	5,562	5,562	5,562	5,563	5,563	5,563	5,563	5,563
50	Planned Non-Volumetric Revenue												
51	Residential (Rows 41*46)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
52	Secondary (Rows 42*47)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
53	Primary (Rows 43*48)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54	Other (Rows 44*49)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
55	Total (Rows 51+52+53+54)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56	Volumetric (kWh) Charge Forecast (6)												
57	Residential	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
58	Secondary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
59	Primary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60	Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61	kWh												
62	Residential	12,413,092	12,603,436	12,624,190	12,800,055	12,891,333	13,165,682	13,655,282	14,166,097	14,527,118	14,973,837	15,354,723	15,605,629
63	Secondary	7,069,041	7,065,416	7,045,959	7,038,650	6,988,476	7,036,755	6,959,491	6,932,109	7,180,293	7,280,199	7,493,086	7,648,110
64	Primary	12,928,709	13,745,766	14,971,487	16,325,031	16,793,126	18,308,019	20,315,396	21,435,692	21,923,120	22,083,483	22,475,795	22,761,475
65	Other	197,887	204,651	203,399	202,132	200,219	200,837	198,632	197,850	204,934	207,785	213,861	218,286
66	Planned Volumetric Revenue												
67	Residential (Rows 57*62)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
68	Secondary (Rows 58*63)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
69	Primary (Rows 59*64)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
70	Other (Rows 60*65)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
71	Total (Rows 67+68+69+70)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
72	Year End Regulatory Liability Balance (7)												
73	Forecasted ending Balance	\$ (19,242,820)	\$ 63,814,308	\$ 78,917,205	\$ 100,106,040	\$ 55,345,638	\$ 51,081,961	\$ 62,404,387	\$ 140,116,089	\$ (183,040,451)	\$ (196,741,043)	\$ 34,943,477	\$ (166,073,260)
74	Carrying Charges	\$ (1,975,804)	\$ (766,210)	\$ 3,814,624	\$ 10,583,768	\$ 16,989,045	\$ 22,081,002	\$ 27,798,281	\$ 37,159,160	\$ 38,297,694	\$ 27,302,339	\$ 23,414,879	\$ 20,357,652
75	Total Cumulative Reg Liability (Rows 73+74)	\$ (21,218,624)	\$ 63,048,097	\$ 82,731,830	\$ 110,689,808	\$ 72,334,683	\$ 73,162,962	\$ 90,202,668	\$ 177,275,249	\$ (144,742,757)	\$ (169,438,705)	\$ 58,358,356	\$ (145,715,608)

RENEWABLE ENERGY PLAN SUMMARY											
Row No.		2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	Sales and Requirement Calculation (1)										
2	Method: Weather Normalized or 3 Year Average										
3	If Selected Weather Normalized:										
4	Current Year Sales to Retail Customers										
5	Less Number of Megawatt Hours Sold from Nuclear Energy										
6	Current Year Weather Normalization Factor										
7	Less VGP Sales										
8	Less Outflow from DG Customers										
9	Current Year Weather Normalized Sales (Row 4 * 6)										
10	If Selected 3 Year Average:										
11	Current year Retail Sales to Retail Customers	46,873,032	47,288,148	47,601,628	47,759,103	47,845,375	47,661,386	47,438,330	47,204,870	46,989,597	46,722,213
12	Less Number of Megawatt Hours Sold from Nuclear Energy										
13	Less VGP Sales	3,107,453	3,107,453	3,107,453	3,107,453	3,107,453	3,107,453	3,107,453	3,107,453	3,107,453	3,107,453
14	Less Outflow from DG Customers	159,648	169,471	179,294	189,117	198,940	208,763	218,586	228,409	238,232	248,055
15	3 year Average of Retail Sales	45,438,756	46,214,666	46,798,227	47,254,269	47,549,626	47,735,369	47,755,288	47,648,364	47,434,862	47,210,932
16	RECs Reported to Provider Subject to Section 29(4)										
17	RPS Required Renewable Energy Credits (For 2024 through 2029 15%, 2030 through 2034 50%, 2035 and beyond 60%)	25,302,993	25,762,645	26,106,888	26,374,620	26,545,940	26,651,492	26,657,549	26,587,501	26,453,506	26,313,255
18	Energy Credits (2) *										
19	Energy Credit Beginning Balance	9,783,573	9,284,207	9,393,272	9,910,095	10,607,857	11,318,138	11,770,063	12,070,777	12,392,061	12,465,257
20	Plus: Energy Credits Obtained through Generation/BOT	16,869,611	17,387,334	17,756,891	17,972,733	18,070,950	17,970,313	17,890,241	17,869,870	17,838,999	17,747,368
21	Plus: Energy Credits Obtained Through PPA	7,941,557	8,492,171	8,874,789	9,107,727	9,193,388	9,141,207	9,076,120	9,047,038	8,695,748	8,514,380
22	Plus: Energy Credits Obtained through REC Purchases	0	0	0	0	0	0	0	0	0	0
23	Less: Energy Credit Sold	0	0	0	0	0	0	0	0	0	0
24	Available Energy Credits Obtained (Row 20+21+22)	24,803,628	25,871,710	26,623,711	27,072,382	27,256,220	27,103,417	26,958,263	26,908,785	26,526,703	26,253,741
25	Less: Compliance Requirement	25,302,993	25,762,645	26,106,888	26,374,620	26,545,940	26,651,492	26,657,549	26,587,501	26,453,506	26,313,255
26	Less: Energy Credit Expired	0	0	0	0	0	0	0	0	0	0
27	Energy Credit Ending Balance (Row 24 - 25 - 26)	9,284,207	9,393,272	9,910,095	10,607,858	11,318,138	11,770,063	12,070,777	12,392,061	12,465,257	12,405,744
28	Revenue Requirement (3)										
29	Cost of Renewable Energy Generation/BOT	\$ 991,046,479	\$ 1,034,490,493	\$ 1,092,833,262	\$ 1,093,684,211	\$ 1,117,304,799	\$ 1,113,289,354	\$ 1,300,228,906	\$ 1,299,447,383	\$ 1,308,085,207	\$ 1,416,265,179
30	Cost of Renewable Energy PPA	\$ 505,850,391	\$ 549,234,181	\$ 581,903,799	\$ 604,553,622	\$ 616,762,382	\$ 618,144,732	\$ 617,618,720	\$ 619,413,869	\$ 616,790,445	\$ 609,752,895
31	Cost of Renewable Energy Credit Purchases	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
32	Cost of Administration of Renewable Energy Plan	\$ 185,337	\$ 188,308	\$ 190,763	\$ 192,984	\$ 194,846	\$ 194,294	\$ 193,871	\$ 193,358	\$ 192,821	\$ 192,326
33	Less: Revenue obtained from Renewable Energy Sales (Non-retail)	\$ (205,638,998)	\$ (204,623,745)	\$ (203,614,135)	\$ (202,724,300)	\$ (202,178,926)	\$ (201,342,847)	\$ (200,364,595)	\$ (199,840,010)	\$ (199,246,065)	\$ (197,861,998)
34	Renewable Energy Plan Total Revenue Requirement for (Rows 29 + 30 + 31 + 32 - 33)	\$ 1,291,443,209	\$ 1,379,289,237	\$ 1,471,313,688	\$ 1,495,706,516	\$ 1,532,083,101	\$ 1,530,285,534	\$ 1,717,676,902	\$ 1,719,214,601	\$ 1,725,822,408	\$ 1,828,348,403
35	Cost Recovery (4)										
36	Forecasted Transfer Price per MWH *	\$ 68.94	\$ 69.67	\$ 70.25	\$ 70.70	\$ 70.99	\$ 71.12	\$ 71.23	\$ 71.32	\$ 71.11	\$ 71.30
37	MWH of Renewable Energy *	20,649,437	21,587,635	22,273,661	22,717,087	22,952,605	22,885,419	22,801,880	22,788,971	22,683,570	22,448,710
38	Amount Recovered through the PSCR (Rows 36 * 37)	\$ 1,423,647,788	\$ 1,504,004,383	\$ 1,564,821,953	\$ 1,606,172,790	\$ 1,629,290,672	\$ 1,627,617,127	\$ 1,624,236,647	\$ 1,625,218,426	\$ 1,613,016,088	\$ 1,600,681,195
39	Incremental Cost of Compliance (Rows 34 - 38)	\$ (132,204,578)	\$ (124,715,146)	\$ (93,508,264)	\$ (110,466,274)	\$ (97,207,571)	\$ (97,331,593)	\$ 93,440,256	\$ 93,996,175	\$ 112,806,319	\$ 227,867,208
40	Non-Volumetric Meter/Customer) Charge Forecast (5)										
41	Residential	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42	Secondary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43	Primary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44	Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45	Meter/Customer Count										
46	Residential	1,733,378	1,736,845	1,739,450	1,740,320	1,740,494	1,740,668	1,740,842	1,741,016	1,741,070	1,741,074
47	Secondary	228,315	228,398	228,461	228,481	228,486	228,490	228,494	228,498	228,499	228,499
48	Primary	3,788	3,789	3,789	3,789	3,789	3,789	3,789	3,789	3,789	3,789
49	Other	5,563	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564
50	Planned Non-Volumetric Revenue										
51	Residential (Rows 41*46)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
52	Secondary (Rows 42*47)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
53	Primary (Rows 43*48)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54	Other (Rows 44*49)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
55	Total (Rows 51+52+53+54)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56	Volumetric (kWh) Charge Forecast (6)										
57	Residential	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
58	Secondary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
59	Primary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60	Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61	kWh										
62	Residential	15,823,567	15,991,006	16,087,164	16,165,274	16,189,072	16,083,736	15,943,443	15,796,224	15,646,784	15,497,734
63	Secondary	7,786,667	7,881,195	7,956,881	7,984,522	7,998,009	7,978,887	7,950,063	7,920,028	7,888,831	7,855,889
64	Primary	23,040,558	23,191,009	23,330,484	23,381,420	23,430,022	23,371,037	23,317,920	23,262,571	23,228,826	23,144,374
65	Other	222,240	224,938	227,098	227,887	228,272	227,726	226,904	226,046	225,156	224,216
66	Planned Volumetric Revenue										
67	Residential (Rows 57*62)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
68	Secondary (Rows 58*63)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
69	Primary (Rows 59*64)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
70	Other (Rows 60*65)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
71	Total (Rows 67+68+69+70)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
72	Year End Regulatory Liability Balance (7)										
73	Forecasted ending Balance	\$ (158,627,724)	\$ (154,496,339)	\$ (125,757,616)	\$ (144,358,206)	\$ (131,890,135)	\$ (131,928,350)	\$ 59,051,165	\$ 59,662,830	\$ 78,624,911	\$ 193,756,398
74	Carrying Charges	\$ 10,058,620	\$ (225,755)	\$ (4,274,932)	\$ (8,294,684)	\$ (12,518,868)	\$ (16,685,619)	\$ (18,218,252)	\$ (17,031,400)	\$ (15,527,955)	\$ (12,046,836)
75	Total Cumulative Reg Liability (Rows 73+74)	\$ (148,569,104)	\$ (154,722,095)	\$ (130,032,548)	\$ (152,652,890)	\$ (144,409,003)	\$ (148,613,969)	\$ 40,832,912	\$ 42,631,431	\$ 63,096,956	\$ 181,709,561

RENEWABLE ENERGY PLAN SUMMARY

(1)	Provided Title Row	(26)	No REC expiration forecasted	(51)	Based upon \$0 Renewable Energy Surcharge
(2)	Provided Title Row	(27)	Provided Calculation	(52)	Based upon \$0 Renewable Energy Surcharge
(3)	N/A	(28)	Provided Title Row	(53)	Based upon \$0 Renewable Energy Surcharge
(4)	N/A	(29)	Financial Forecasting work papers	(54)	Based upon \$0 Renewable Energy Surcharge
(5)	N/A	(30)	Financial Forecasting work papers	(55)	Provided Calculation
(6)	N/A	(31)	Financial Forecasting work papers	(56)	Provided Title Row
(7)	N/A	(32)	Financial Forecasting work papers	(57)	Based upon \$0 Renewable Energy Surcharge
(8)	N/A	(33)	Financial Forecasting work papers	(58)	Based upon \$0 Renewable Energy Surcharge
(9)	N/A	(34)	Provided Calculation	(59)	Based upon \$0 Renewable Energy Surcharge
(10)	Provided Title Row	(35)	Provided Title Row	(60)	Based upon \$0 Renewable Energy Surcharge
(11)	See Exhibit A-33 (CCO-1), column (b)	(36)	Exhibit A-27 (ZSC-4)	(61)	Provided Title Row
(12)	N/A	(37)	Exhibit A-26 (ZSC-3)	(62)	Electric Deliveries work papers
(13)	See Exhibit A-32 (ZSC-9), column (e)	(38)	Provided Calculation	(63)	Electric Deliveries work papers
(14)	See Exhibit A-3 (KDJ-3), line 4	(39)	Provided Calculation	(64)	Electric Deliveries work papers
(15)	See Exhibit A-33 (CCO-1), column (c)	(40)	Provided Title Row	(65)	Electric Deliveries work papers
(16)	N/A	(41)	Electric Deliveries work papers	(66)	Provided Title Row
(17)	See Exhibit A-33 (CCO-1), column (f)	(42)	Electric Deliveries work papers	(67)	Based upon \$0 Renewable Energy Surcharge
(18)	Provided Title Row	(43)	Electric Deliveries work papers	(68)	Based upon \$0 Renewable Energy Surcharge
(19)	Energy Credit Beginning Balance Exhibit A-38 (CCO-6) Col (g)	(44)	Electric Deliveries work papers	(69)	Based upon \$0 Renewable Energy Surcharge
(20)	Energy Credits through Generation/BOT Exhibit A-36 (CCO-4), col (e) plus column (k)	(45)	Provided Title Row	(70)	Based upon \$0 Renewable Energy Surcharge
(21)	Energy Credits through PPA Exhibit A-35 (CCO-3), pg 1, col (z), lines 2-23	(46)	Electric Deliveries work papers	(71)	Provided Calculation
(22)	Energy Credits through PPA REC Purchases Exhibit A-36 (CCO-4), pg 1, col (s), lines 4-13	(47)	Electric Deliveries work papers	(72)	Provided Title Row
(23)	Energy Credits Sold Exhibit A-38 (CCO-6), col (d) less Exhibit A-36 (CCO-4), pg 1, col (s)	(48)	Electric Deliveries work papers	(73)	See Exhibit A-5 (MRB-2), "Regulatory Liability Balance"
(24)	Total Energy Credits less non-jurisdictional sales Exhibit A-36 (CCO-4), pg 2, col (f)	(49)	Electric Deliveries work papers	(74)	See Exhibit A-5 (MRB-2), "Regulatory Liability Balance"
(25)	Compliance Target Exhibit A-33 (CCO-1) col (f)	(50)	Provided Title Row	(75)	Provided Calculation

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of **CONSUMERS ENERGY**)
COMPANY's application for the regulatory)
reviews, revisions, determinations, and/or)
approvals necessary to fully comply with)
Public Act 295 of 2008, as amended by)
Public Act 235 of 2023.)
_____)

Case No. U-21816

REVISED EXHIBITS

OF

CHIBUZO C. OBIKWELU

ON BEHALF OF

CONSUMERS ENERGY COMPANY

April 2025

Renewable Energy Credit Forecast

	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034	
	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent
Technology Mix																						
Wind	2,803,031	63%	2,801,557	60%	2,749,574	46%	2,749,574	46%	3,033,200	34%	3,594,148	33%	4,157,564	33%	4,130,291	30%	7,909,584	43%	7,831,867	40%	7,831,936	38%
Solar	675,723	15%	1,022,318	22%	2,345,365	40%	3,752,461	63%	5,206,280	58%	6,568,549	60%	7,716,202	61%	8,799,061	65%	9,948,336	54%	11,033,323	57%	12,132,934	59%
**Biomass Prior to 2/27/2024	234,489	5%	129,150	3%	129,150	2%	129,150	2%	75,337	1%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Biomass After to 2/27/2024	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Geothermal	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Landfill Gas	134,859	3%	134,859	3%	126,376	2%	124,679	2%	124,679	1%	117,890	1%	105,883	1%	75,814	1%	19,639	0%	2,044	0%	2,044	0%
Hydro (exclude new dams after 10/6/2008)	445,544	10%	445,544	10%	445,544	8%	445,202	8%	444,957	5%	444,957	4%	444,957	4%	444,957	3%	444,957	2%	444,957	2%	444,957	2%
Methane Digester	12,643	0%	12,643	0%	12,643	0%	12,643	0%	12,643	0%	12,643	0%	12,643	0%	12,643	0%	843	0%	-	0%	-	0%
Other (Storage)	124,501	3%	124,501	3%	124,501	2%	124,501	2%	124,501	1%	124,501	1%	124,501	1%	124,501	1%	124,501	1%	124,501	1%	124,501	1%
Totals	4,430,788	100%	4,670,571	100%	5,933,152	100%	7,338,199	100%	9,621,598	100%	10,862,687	100%	12,561,750	100%	13,587,867	100%	18,458,660	100%	19,437,358	100%	20,535,363	100%
Program Type																						
PURPA	283,095	96%	177,756	93%	169,273	93%	167,234	94%	113,177	100%	31,051	100%	19,720	100%	6,095	100%	6,095	100%	6,095	100%	6,095	100%
New Metering/DG	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Feed-in Tariffs	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Community Solar	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Other (EARP)	12,854	4%	12,854	7%	12,854	7%	11,560	6%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Total	295,949	100%	190,610	100%	182,127	100%	178,794	100%	113,177	100%	31,051	100%	19,720	100%	6,095	100%	6,095	100%	6,095	100%	6,095	100%

	2035		2036		2037		2038		2039		2040		2041		2042		2043		2044		2045	
	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent
Technology Mix																						
Wind	9,870,339	42%	9,868,202	40%	9,869,953	38%	9,865,569	37%	9,864,784	36%	9,864,709	36%	9,868,702	36%	9,868,418	37%	9,882,604	37%	9,886,341	37%	9,861,370	38%
Solar	13,233,280	56%	14,341,463	58%	15,438,050	60%	16,194,610	61%	16,646,337	61%	16,801,835	62%	16,675,025	62%	16,530,149	61%	16,466,509	61%	16,080,612	61%	15,832,584	60%
Biomass Prior to 2/27/2024	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Biomass After to 2/27/2024	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Geothermal	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Landfill Gas	2,044	0%	2,044	0%	2,044	0%	2,044	0%	852	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Hydro (exclude new dams after 10/6/2008)	444,957	2%	444,957	2%	444,957	2%	444,957	2%	443,293	2%	443,293	2%	443,293	2%	443,293	2%	443,293	2%	443,293	2%	443,293	2%
Methane Digester	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Other (Storage)	124,501	1%	124,501	1%	124,501	0%	124,501	0%	124,501	0%	124,501	0%	124,501	0%	124,501	0%	124,501	0%	124,501	0%	124,501	0%
Totals	23,675,121	100%	24,811,168	100%	25,879,505	100%	26,631,681	100%	27,089,489	100%	27,284,338	100%	27,111,520	100%	26,966,361	100%	26,916,907	100%	26,534,747	100%	26,281,748	100%
Program Type																						
PURPA	6,095	100%	6,095	100%	6,095	100%	6,095	100%	3,932	100%	2,386	100%	2,386	100%	2,386	100%	2,386	100%	2,386	100%	2,386	100%
New Metering/DG	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Feed-in Tariffs	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Community Solar	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Other (EARP)	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Total	6,095	100%	6,095	100%	6,095	100%	6,095	100%	3,932	100%	2,386	100%	2,386	100%	2,386	100%	2,386	100%	2,386	100%	2,386	100%

*RECs generated and obtained during the year less RECs sold or expired

** In accordance to the 2023 Energy Law, PA 235 Section 11 (j)(v), a facility that co-fires biomass with fires or fire-derived fuels is no longer a renewable energy system starting from Feb. 27, 2024.

Consequently, Genesee, Grayling, Filers City, Vikings McBain and Vikings Lincoln ceases from generating RECs starting from Feb 27, 2024. It is only Cadillac Renewable Energy that will be continued as a biomass (wood) resource mix.

New Renewable Energy Historical and Projected Renewable Energy Credit Production

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(z)			
Generator	Hardy Unit 3 Upgrade	Lake Wind Energy Park	Lake Wind Energy Park Repowered	Cross Winds Energy Park	Cross Winds Energy Park (Phase II)	Cross Winds Energy Park (Phase III)	Karn-2025_85 MW	Sunfish 2_2025_309 MW	VGP_REP_2025_1.92 MW	VGP_REP_2027_2.20 MW	Spring Creek_2025_140 MW	Crecent Wind	Heartland Wind	Solar Gardens	Solar Gardens 2025 Expansion	Solar Gardens 2030 Expansion	Circuit West Solar	Mustang Mile Solar 2027	Wheatnaw_2027_15 0MW	Muskogean 2025_250MW	Build Solar Proxy Projects	Build Wind Proxy Projects	Build Solar VGP Proxy Projects	TOTAL	
Year	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	
2023	4,228	238,874	0	134,557	0	0	0	0	0	0	409,119	304,273	16,747	0	0	0	522	0	0	0	0	0	0	1,364,961	
2024	4,444	249,791	-	324,892	0	0	0	0	0	0	354,888	372,438	639,201	0	0	0	607	0	0	0	0	0	0	1,040,911	
2025	4,444	249,791	0	324,892	0	0	0	0	0	0	354,888	372,438	537,808	0	0	0	607	0	0	0	0	0	0	1,844,586	
2026	4,444	249,791	0	324,892	0	0	0	0	0	0	207,002	354,588	372,438	486,825	0	5,799	0	607	0	701,444	0	0	0	2,708,825	
2027	4,444	249,791	0	324,892	0	0	0	0	0	0	351,298	372,438	486,825	0	4,162	0	607	399,989	405,467	0	0	0	0	4,651,439	
2028	4,444	249,791	0	324,892	0	0	0	0	0	0	350,491	354,588	372,438	487,156	0	2,493	0	607	399,079	404,535	699,332	841,024	282,295	0	4,773,163
2029	4,444	249,791	0	324,892	0	0	0	0	0	0	315,501	354,588	372,438	486,825	0	752	0	607	395,989	384,159	628,816	1,787,754	844,574	0	6,128,128
2030	4,444	249,791	0	324,892	0	0	0	0	0	0	313,899	354,588	372,438	486,825	0	5,965	0	607	357,433	362,825	582,319	2,453,634	1,750,754	0	7,692,676
2031	4,444	249,791	0	324,892	0	0	0	0	0	0	312,298	354,588	372,438	486,825	0	4,639	0	607	355,619	360,480	600,452	2,936,186	1,390,717	0	8,762,676
2032	4,444	249,791	0	324,892	0	0	0	0	0	0	311,547	354,588	372,438	487,156	0	3,323	0	607	354,774	359,624	618,962	3,518,830	1,517,679	0	12,118,654
2033	4,444	249,791	0	324,892	0	0	0	0	0	0	309,095	354,588	372,438	486,825	0	2,044	0	607	351,990	354,823	618,962	3,092,253	1,209,619	0	13,861,619
2034	4,444	249,791	0	324,892	0	0	0	0	0	0	307,493	354,588	372,438	486,825	0	601	0	607	350,176	354,963	619,007	4,632,773	5,082,352	0	13,131,850
2035	4,444	249,791	0	324,892	0	0	0	0	0	0	305,892	354,588	372,438	486,825	0	0	0	607	348,361	353,123	607,725	5,190,950	1,720,765	0	15,719,401
2036	4,444	249,791	0	324,892	0	0	0	0	0	0	303,121	354,588	372,438	487,156	0	0	0	607	347,496	352,290	607,247	5,750,881	1,620,583	0	16,930,583
2037	4,444	249,791	0	324,892	0	0	0	0	0	0	302,688	354,588	372,438	486,825	0	0	0	607	346,733	349,445	601,362	6,309,691	1,720,379	0	16,900,276
2038	4,444	249,791	0	324,892	0	0	0	0	0	0	301,087	354,588	372,438	489,625	0	0	0	607	345,018	347,606	599,180	6,092,070	1,715,995	0	17,589,633
2039	4,444	249,791	0	324,892	0	0	0	0	0	0	299,485	354,588	372,438	489,625	0	0	0	607	343,105	345,698	597,045	5,879,207	1,715,212	0	18,407,938
2040	4,444	249,791	0	324,892	0	0	0	0	0	0	298,700	354,588	372,438	487,156	0	0	0	607	340,219	344,870	593,804	6,093,261	1,714,804	0	19,507,601
2041	4,444	249,791	0	324,892	0	0	0	0	0	0	296,282	354,588	372,438	486,825	0	0	0	607	337,475	342,068	589,634	6,031,378	1,715,128	0	17,406,963
2042	4,444	249,791	0	324,892	0	0	0	0	0	0	294,681	354,588	372,438	486,825	0	0	0	607	334,661	339,261	585,453	5,860,629	1,714,844	0	17,525,961
2043	4,444	224,104	41,746	324,892	0	0	0	0	0	0	293,079	354,588	372,438	486,825	0	0	0	607	333,848	338,410	582,271	6,833,906	1,716,882	0	17,900,520
2044	4,444	0	250,475	0	324,892	0	0	0	0	0	292,276	354,588	372,438	487,156	0	0	0	607	332,942	337,493	580,679	6,803,518	1,734,751	0	17,275,648
2045	4,444	249,791	0	324,892	0	0	0	0	0	0	289,670	354,588	372,438	486,825	0	0	0	607	330,212	334,732	571,796	7,146,183	1,730,635	0	17,661,018
TOTAL	101,997	5,209,033	542,012	7,462,172	0	0	0	0	0	0	6,057,796	8,210,760	8,573,910	10,816,985	0	13,184	16,333	7,810	12,325,400	6,754,367	12,325,414	92,242,957	87,802,751	0	262,637,311

Col (w), (x) & (y) Workpaper: OBIKWELU_WP_2024 REP_Proxy Assets
Col (z): Actual 2023 RECs and Incentive RECs
Col (z): Forecast 2024 thru 2045 base RECs and Incentive RECs

New Renewable Energy Historical and Projected Renewable Energy Credit Production
Summary of RECs From REPA Resources

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)	(aa)	(ab)		
Generator	Apple Blossom	Beebe Renewable Energy	Calhoun Solar Energy	Fremont Community Digester	Harvest II Windfarm	DTE Garden Windfarm I (Wind)	DTE Garden Windfarm I (Solar)	DTE Stony Corners Windfarm I (HSC Phase 2)	DTE Stony Corners Windfarm I (HSC Phase 3)	Michigan Wind 2	North American Natural Resources (Lennon)	River Fork Solar	REPA Solar Proxy Projects	REPA Wind Proxy Projects	REPA Solar VOP Proxy Projects	WMRenewable Energy (Northern Oaks)	WMRenewable Energy (Pine Tree Acres)	EARP - Solar (1-4)	EARP - Expansion Solar (5)	EARP - Solar Expansion (6)	Carroll City Solar	Jackson City Solar	Heartwood Solar	Freshwater Solar	TOTAL				
Year	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC	REC				
1	2023	229,374	182,885	260,834	11,622	174,043	47,443	3,527	23,054	14,950	260,221	9,837	0	0	0	6,603	82,799	0	1,462	6,080	4,731	2,429	0	0					
2	2024	250,366	185,678	330,849	12,643	174,043	47,031	8,374	27,001	17,695	260,221	10,957	72,877	0	0	6,163	73,770	0	1,922	6,341	4,991	2,429	0	0					
3	2025	250,366	185,678	329,196	12,643	174,043	47,031	8,374	27,001	17,695	260,221	10,957	72,877	0	0	6,163	73,770	0	1,922	6,341	4,991	2,429	0	0					
4	2026	250,366	185,678	327,524	12,643	174,049	47,031	8,374	27,001	17,695	260,221	10,957	72,877	0	0	6,163	73,770	0	1,522	6,341	4,991	2,334,946	305,004	325,868					
5	2027	250,366	185,678	325,861	12,643	174,049	47,031	8,374	27,001	17,695	260,221	10,957	72,877	0	0	6,163	73,770	0	1,382	5,686	4,480	2,258,754	305,004	325,868					
6	2028	250,366	185,678	324,199	12,643	174,049	47,031	8,374	27,001	17,695	260,221	10,957	72,877	0	0	6,163	73,770	0	0	0	2,317,570	305,004	325,868						
7	2029	250,366	185,678	322,536	12,643	174,049	47,031	8,374	27,001	17,695	260,221	10,957	201,802	982,417	0	6,163	73,770	0	0	0	230,383	272,533	349,438						
8	2030	250,366	185,678	320,873	12,643	174,049	47,031	8,374	27,001	17,695	260,221	10,957	200,772	989,028	0	5,487	73,770	0	0	0	228,008	269,140	347,664						
9	2031	250,366	185,678	319,211	12,643	174,049	47,031	8,374	27,001	17,695	260,221	10,957	199,742	975,483	0	0	73,770	0	0	0	228,008	269,140	347,664						
10	2032	250,366	185,678	317,548	12,643	174,049	47,031	7,081	27,001	17,695	260,221	10,957	199,257	972,939	0	0	73,770	0	0	0	226,820	268,362	344,116						
11	2033	250,366	185,678	315,886	843	174,049	47,031	0	27,001	17,695	260,221	10,957	198,654	968,221	0	0	73,770	0	0	0	226,820	268,362	344,116						
12	2034	250,366	185,678	314,223	0	174,049	47,031	0	27,001	17,695	260,221	10,957	196,654	968,221	0	0	73,770	0	0	0	224,445	268,362	340,569						
13	2035	250,366	185,678	312,561	0	174,049	47,031	0	27,001	17,695	260,221	10,957	195,624	968,221	0	0	73,770	0	0	0	223,258	264,190	338,795						
14	2036	250,366	185,678	310,898	0	174,049	47,031	0	27,001	17,695	260,221	10,957	194,593	968,221	0	0	73,770	0	0	0	222,070	264,190	337,607						
15	2037	250,366	185,678	309,235	0	174,049	47,031	0	27,001	17,695	260,221	10,957	193,565	968,221	0	0	73,770	0	0	0	220,883	264,190	335,247						
16	2038	250,366	185,678	307,573	0	174,049	47,031	0	27,001	17,695	260,221	10,957	192,535	968,221	0	0	73,770	0	0	0	219,696	260,019	333,473						
17	2039	250,366	185,678	305,910	0	174,049	47,031	0	27,001	17,695	260,221	10,957	191,506	968,221	0	0	73,770	0	0	0	218,509	259,828	331,698						
18	2040	250,366	185,678	304,248	0	174,049	47,031	0	27,001	17,695	260,221	10,957	190,476	968,221	0	0	73,770	0	0	0	217,320	257,238	329,926						
19	2041	250,366	185,678	302,585	0	174,049	47,031	0	27,001	17,695	260,221	10,957	189,446	968,221	0	0	73,770	0	0	0	216,132	255,847	328,152						
20	2042	250,366	185,678	300,923	0	174,049	47,031	0	27,001	17,695	260,221	10,957	188,416	968,221	0	0	73,770	0	0	0	214,945	254,457	326,378						
21	2043	250,366	185,678	299,260	0	174,049	47,031	0	27,001	17,695	260,221	10,957	187,387	968,221	0	0	73,770	0	0	0	213,757	253,066	324,604						
22	2044	250,366	185,678	297,598	0	174,049	47,031	0	27,001	17,695	260,221	10,957	186,357	968,221	0	0	73,770	0	0	0	212,570	251,675	322,831						
23	2045	250,366	185,678	295,935	0	174,049	47,031	0	27,001	17,695	260,221	10,957	185,327	968,221	0	0	73,770	0	0	0	211,382	250,284	321,057						
TOTAL		5,737,410	4,297,794	7,155,457	126,251	4,003,128	1,082,117	77,612	617,083	404,245	5,985,081	86,533	3,360,197	79,467,275	0	0	51,067	690,556	0	7,411	30,791	453	24,193	495,477	562	5,028,752	6,801,287	12,095,550	142,654,567

EARP AD (Scenic View Diary, Brook View Diary and Green Meadow) RECs are no longer available
Col (i): DTE Garden Windfarm 1 (Solar) represents the 2.35 MW caoacity
Col (o)(p)(q) Workpaper: OBIKWELU WP 2024 REP Proxy Assets
Col (ab): Actual 2023 RECs and Incentive RECs
Col (ab): Forecast 2024 thru 2045 base RECs and Incentive RECs

Renewable Energy Credit Portfolio for Sales to Jurisdictional and Non-Jurisdictional Customers
RECs Obtained from Current Year: January 2023 - December 2024

(a) (b) (c) (d) (e)					(f) (g) (h) (i) (j) (k)						(l) (m) (n) (o) (p) (q)						(r)	(s)	(t)
Existing Renewables					Build Renewables						REPA Renewables						*Surplus EOCs/EWR	Market Purchases	Total RECs from Current Year
Year	RECs Generated	On-Peak Incentive RECs	Pumping Incentive RECs	Total RECs	RECs Generated	On-Peak Incentive RECs	Michigan Labor Incentive RECs	Michigan Equipment Incentive RECs	Solar Production Incentive RECs	Total RECs	RECs Generated	On-Peak Incentive RECs	Michigan Labor Incentive RECs	Michigan Equipment Incentive RECs	Solar Production Incentive RECs	Total RECs	RECs	RECs	RECs
	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs	RECs
1 2023	742,336	69,148	134,308	945,792	1,270,479	422	57,171	36,888	0	1,364,960	1,270,756	42,422	525	129	10,060	1,323,892	168,429	0	3,803,073
2 2024	611,921	107,636	124,501	844,058	1,793,280	636	39,460	12,666	0	1,846,041	1,615,235	94,060	17,890	0	13,504	1,740,689	1,621	0	4,432,409
3 2025	531,177	83,041	124,501	738,719	1,791,949	636	39,352	12,631	0	1,844,568	1,894,639	134,294	42,091	2,755	13,504	2,087,284	362	0	4,670,933
4 2026	523,988	81,747	124,501	730,236	2,516,965	105,038	72,502	12,325	0	2,706,830	2,229,483	182,512	62,083	8,505	13,504	2,496,086	0	243,286	6,176,438
5 2027	522,260	81,436	124,501	728,197	3,266,035	212,904	147,409	25,059	0	3,651,408	2,619,523	238,677	78,376	9,337	12,681	2,958,594	0	245,144	7,583,343
6 2028	476,449	73,190	124,501	674,141	4,184,123	308,196	234,239	43,606	0	4,770,163	3,158,926	316,351	91,470	5,219	5,327	3,577,294	0	253,310	9,274,907
7 2029	406,851	60,663	124,501	592,014	5,428,200	414,393	234,861	50,674	0	6,128,128	3,654,569	387,724	94,925	0	5,327	4,142,545	0	256,631	11,119,318
8 2030	397,248	58,934	124,501	580,683	6,432,417	485,710	295,013	67,623	0	7,280,762	4,147,065	458,644	89,269	0	5,327	4,700,305	0	881,457	13,443,207
9 2031	385,701	56,856	124,501	567,058	6,919,380	555,840	234,016	53,739	0	7,762,976	4,622,554	527,114	102,838	0	5,327	5,257,833	0	915,285	14,503,152
10 2032	385,701	56,856	124,501	567,058	11,256,000	628,424	193,563	40,666	0	12,118,654	5,073,107	591,994	103,336	0	4,511	5,772,948	0	958,493	19,417,153
11 2033	385,701	56,856	124,501	567,058	11,708,013	696,699	151,616	27,291	0	12,583,619	5,526,480	657,279	103,099	0	0	6,286,858	0	995,647	20,433,382
12 2034	385,701	56,856	124,501	567,058	12,187,362	765,717	151,501	27,270	0	13,131,850	6,007,839	726,595	103,021	0	0	6,837,455	0	1,019,224	21,555,587
13 2035	385,701	56,856	124,501	567,058	14,705,785	834,838	151,507	27,271	0	15,719,401	6,489,659	795,977	103,025	0	0	7,388,661	0	1,245,304	24,920,424
14 2036	385,701	56,856	124,501	567,058	15,218,909	904,716	151,634	27,294	0	16,302,553	6,972,884	865,561	103,111	0	0	7,941,557	0	0	24,811,168
15 2037	385,701	56,856	124,501	567,058	15,667,755	973,417	151,782	27,321	0	16,820,276	7,454,102	934,857	103,212	0	0	8,492,171	0	0	25,879,505
16 2038	385,701	56,856	124,501	567,058	16,003,516	1,022,398	138,915	25,005	0	17,189,833	7,796,207	984,120	94,462	0	0	8,874,789	0	0	26,631,681
17 2039	384,444	55,950	124,501	564,895	16,220,107	1,053,700	113,585	20,445	0	17,407,838	8,014,880	1,015,609	77,238	0	0	9,107,727	0	0	27,080,460
18 2040	383,545	55,303	124,501	563,350	16,350,081	1,068,107	75,772	13,639	0	17,507,600	8,112,235	1,029,628	51,525	0	0	9,193,388	0	0	27,264,338
19 2041	383,545	55,303	124,501	563,350	16,297,877	1,064,335	37,925	6,826	0	17,406,963	8,089,119	1,026,299	25,789	0	0	9,141,207	0	0	27,111,520
20 2042	383,545	55,303	124,501	563,350	16,253,959	1,058,052	12,610	2,270	0	17,326,891	8,047,272	1,020,273	8,575	0	0	9,076,120	0	0	26,966,361
21 2043	383,545	55,303	124,501	563,350	16,250,945	1,055,575	0	0	0	17,306,520	8,029,346	1,017,692	0	0	0	9,047,038	0	0	26,916,907
22 2044	383,545	55,303	124,501	563,350	16,224,430	1,051,219	0	0	0	17,275,649	7,722,274	973,474	0	0	0	8,695,748	0	0	26,534,747
23 2045	383,545	55,303	124,501	563,350	16,141,190	1,042,828	0	0	0	17,184,018	7,563,736	950,644	0	0	0	8,514,380	0	0	26,261,748
24 Total	9,983,557	1,458,412	2,873,332	14,315,301	#####	15,303,801	2,684,434	560,510	0	262,637,501	126,111,889	14,971,801	1,455,860	25,945	89,072	142,654,567	170,412	7,013,979	426,791,760

EOCs - Energy Optimization Credits

EWR - Energy Waste Reduction

*2023 EWR Excess Credit represents the value from MPSC Case No U-21557

Col (e): Sum of columns (b) through (d)

Col (k): Sum of columns (f) through (j)

Col (q): Sum of columns (l) through (p)

Col (r): Workpaper: Obikwelu WP 2024 Elec EWR Savings Forecast 2023-2045 on 'Summary' tab

Col (s): 5% RPS market purchase RECs in accordance to PA 235 Section 28 (5)(c) to comply with the renewable energy standard

Col (t): Sum of columns (e) + (k) + (q) + (r) + (s)

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Case No.: U-21816
Exhibit No.: A-36 (CCO-4) REVISED
Page: 2 of 2
Witness: CCObikwelu
Date: November 2024

Renewable Energy Credit Portfolio for Sales to Jurisdictional and Non-Jurisdictional Customers
RECs Obtained from Current Year: January 2023 - December 2045

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Year	Jurisdictional Sales Factor	Non-Jurisdictional Sales Factor	Total RECs from Renewable Energy Plan	Surplus EOCs/EWR + Market Purchase	Total RECs from Current Year less EO Surplus	Total RECs for Jurisdictional Sales	Total RECs for Non-Jurisdictional Sales
		%	%	RECs	RECs	RECs	RECs	RECs
1	2023	99.95%	0.05%	3,803,073	168,429	3,634,644	3,801,101	1,972
2	2024	99.95%	0.05%	4,432,409	1,621	4,430,788	4,430,194	2,215
3	2025	99.95%	0.05%	4,670,933	362	4,670,571	4,668,831	2,102
4	2026	99.96%	0.04%	6,176,438	243,286	5,933,152	6,173,912	2,526
5	2027	99.96%	0.04%	7,583,343	245,144	7,338,199	7,580,409	2,933
6	2028	99.96%	0.04%	9,274,907	253,310	9,021,598	9,271,422	3,485
7	2029	99.96%	0.04%	11,119,318	256,631	10,862,687	11,115,321	3,997
8	2030	99.97%	0.03%	13,443,207	881,457	12,561,750	13,438,856	4,351
9	2031	99.97%	0.03%	14,503,152	915,285	13,587,867	14,498,622	4,530
10	2032	99.97%	0.03%	19,417,153	958,493	18,458,660	19,411,154	5,998
11	2033	99.97%	0.03%	20,433,382	995,847	19,437,535	20,427,166	6,216
12	2034	99.97%	0.03%	21,555,587	1,019,224	20,536,363	21,549,163	6,424
13	2035	99.97%	0.03%	24,920,424	1,245,304	23,675,121	24,913,130	7,295
14	2036	99.97%	0.03%	24,811,168	-	24,811,168	24,803,628	7,540
15	2037	99.97%	0.03%	25,879,505	-	25,879,505	25,871,710	7,796
16	2038	99.97%	0.03%	26,631,681	-	26,631,681	26,623,711	7,970
17	2039	99.97%	0.03%	27,080,460	-	27,080,460	27,072,382	8,077
18	2040	99.97%	0.03%	27,264,338	-	27,264,338	27,256,220	8,117
19	2041	99.97%	0.03%	27,111,520	-	27,111,520	27,103,417	8,103
20	2042	99.97%	0.03%	26,966,361	-	26,966,361	26,958,263	8,098
21	2043	99.97%	0.03%	26,916,907	-	26,916,907	26,908,785	8,123
22	2044	99.97%	0.03%	26,534,747	-	26,534,747	26,526,703	8,044
23	2045	99.97%	0.03%	26,261,748	-	26,261,748	26,253,741	8,007
	Total	-	-	426,791,760	7,184,391	419,607,369	426,657,840	133,919

EOCs - Energy Optimization Credits

EWR - Energy Waste Reduction

Col (d): From Exhibit A-36 (CCO-4), pg 1, Col (t)

Col (e): Exhibit A-36 (CCO-4), pg 1, Col (r) + Exhibit A-36 (CCO-4), pg 1, Col (s)

Col (f): Col (d) minus Col (e)

Col (g): Col (f) * Col (b) + Col (e)

Col (h): Col (d) minus Col (g)

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Case No.: U-21816
Exhibit No.: A-37 (CCO-5) REVISED
Page: 1 of 1
Witness: CCObikwelu
Date: November 2024

Renewable Energy Credit Portfolio for Jurisdictional Compliance
January 2023 - December 2045

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Year	REC Portfolio Standard	Total REC Compliance Obligation	Total RECs from Current Year	RECs Used from Current Year	RECs Used from Bank	Total RECs Used for Compliance	Total RECs (Sold) / Purchased	Cumulative RECs Banked and Carried Over to Next Year
1	2023	15.0%	4,847,339	3,801,101	1,530,378	3,316,961	4,847,339	-	2,270,723
2	2024	15.0%	4,837,074	4,430,194	2,566,351	2,270,723	4,837,074	-	1,863,843
3	2025	15.0%	4,848,679	4,668,831	2,984,836	1,863,843	4,848,679	-	1,683,994
4	2026	15.0%	4,865,712	6,173,912	3,181,718	1,683,994	4,865,712	243,286	2,992,194
5	2027	15.0%	4,902,878	7,580,409	1,910,684	2,992,194	4,902,878	245,144	5,669,726
6	2028	15.0%	5,066,190	9,271,422	-	5,066,190	5,066,190	253,310	9,874,958
7	2029	15.0%	5,132,615	11,115,321	-	5,132,615	5,132,615	256,631	15,857,663
8	2030	50.0%	17,629,134	13,438,856	1,771,471	15,857,663	17,629,134	881,457	11,667,386
9	2031	50.0%	18,305,704	14,498,622	6,638,318	11,667,386	18,305,704	915,285	7,860,304
10	2032	50.0%	19,169,851	19,411,154	11,309,547	7,860,304	19,169,851	958,493	8,101,607
11	2033	50.0%	19,916,936	20,427,166	11,815,329	8,101,607	19,916,936	995,847	8,611,837
12	2034	50.0%	20,384,486	21,549,163	11,772,649	8,611,837	20,384,486	1,019,224	9,776,514
13	2035	60.0%	24,906,071	24,913,130	15,129,557	9,776,514	24,906,071	1,245,304	9,783,573
14	2036	60.0%	25,302,993	24,803,628	15,519,420	9,783,573	25,302,993	-	9,284,207
15	2037	60.0%	25,762,645	25,871,710	16,478,438	9,284,207	25,762,645	-	9,393,272
16	2038	60.0%	26,106,888	26,623,711	16,713,616	9,393,272	26,106,888	-	9,910,095
17	2039	60.0%	26,374,620	27,072,382	16,464,525	9,910,095	26,374,620	-	10,607,857
18	2040	60.0%	26,545,940	27,256,220	15,938,083	10,607,857	26,545,940	-	11,318,138
	2041	60.0%	26,651,492	27,103,417	15,333,354	11,318,138	26,651,492	-	11,770,063
	2042	60.0%	26,657,549	26,958,263	14,887,486	11,770,063	26,657,549	-	12,070,777
19	2043	60.0%	26,587,501	26,908,785	14,516,724	12,070,777	26,587,501	-	12,392,061
20	2044	60.0%	26,453,506	26,526,703	14,061,445	12,392,061	26,453,506	-	12,465,257
21	2045	60.0%	26,313,255	26,253,741	13,847,998	12,465,257	26,313,255	-	12,405,743
22	Total		417,569,058	426,657,840	224,371,927	193,197,131	417,569,058	7,013,979	207,631,791

2,270,723

Col (c): From Exhibit A-33 (CCO-1), col (d)
Col (d): From Exhibit A-36 (CCO-4), page 2, col (g)
Col (g): Col (e) + Col (f)

Renewable Energy Plan Renewable Energy Credit Inventory Costs

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	Year	RECs from Current Year	REC Cost	Total RECs (Sold) / Purchased	REC Cost (From) / To Inventory	Average REC Cost	Cumulative RECs Banked and Carried Over to Next Year	Cost of RECs Banked and Carried Over to Next Year	Average REC Inventory Value	Total RECs used for Compliance	Cost of RECs Used for Compliance	REC Cost From (To) Inventory
		REC	\$	REC	\$	\$/REC	REC	\$	\$	REC	\$	\$
1	2023	3,801,101	7,640,302	0	0	2.01	2,270,723	4,564,206	2,282,103	4,847,339	9,743,265	2,102,963
2	2024	4,430,194	7,864,942	0	0	1.85	1,863,843	3,457,136	4,010,671	4,837,074	8,972,013	1,107,070
3	2025	4,668,831	8,180,778	0	0	1.78	1,683,994	3,000,025	3,228,580	4,848,679	8,637,889	457,111
4	2026	6,173,912	8,047,667	243,286	486,571	1.47	2,992,194	4,392,106	3,696,065	4,865,712	7,142,157	(905,510)
5	2027	7,580,409	7,965,797	245,144	490,288	1.22	5,669,726	6,890,045	5,641,076	4,902,878	5,958,146	(2,007,652)
6	2028	9,271,422	8,064,631	253,310	506,619	1.03	9,874,958	10,218,736	8,554,390	5,066,190	5,242,560	(2,822,071)
7	2029	11,115,321	8,029,091	256,631	513,262	0.89	15,857,663	14,173,563	12,196,149	5,132,615	4,587,526	(3,441,566)
8	2030	13,438,856	7,806,941	881,457	1,762,913	0.81	11,667,386	9,455,854	11,814,708	17,629,134	14,287,563	6,480,622
9	2031	14,498,622	7,136,708	915,285	1,830,570	0.70	7,860,304	5,534,334	7,495,094	18,305,704	12,888,798	5,752,090
10	2032	19,411,154	6,716,827	958,493	1,916,985	0.52	8,101,607	4,208,970	4,871,652	19,169,851	9,959,176	3,242,349
11	2033	20,427,166	6,173,560	995,847	1,991,694	0.43	8,611,837	3,735,344	3,972,157	19,916,936	8,638,879	2,465,319
12	2034	21,549,163	6,179,171	1,019,224	2,038,449	0.40	9,776,514	3,874,484	3,804,914	20,384,486	8,078,480	1,899,309
13	2035	24,913,130	6,190,569	1,245,304	2,490,607	0.36	9,783,573	3,541,092	3,707,788	24,906,071	9,014,569	2,824,000
14	2036	24,803,628	6,199,184	0	0	0.28	9,284,207	2,614,572	3,077,832	25,302,993	7,125,703	926,520
15	2037	25,871,710	6,207,125	0	0	0.25	9,393,272	2,357,060	2,485,816	25,762,645	6,464,637	257,512
16	2038	26,623,711	6,216,196	0	0	0.24	9,910,095	2,358,937	2,357,998	26,106,888	6,214,319	(1,877)
17	2039	27,072,382	6,223,228	0	0	0.23	10,607,857	2,461,662	2,410,300	26,374,620	6,120,502	(102,726)
18	2040	27,256,220	6,233,408	0	0	0.23	11,318,138	2,599,086	2,530,374	26,545,940	6,095,984	(137,424)
19	2041	27,103,417	6,238,878	0	0	0.23	11,770,063	2,707,423	2,653,255	26,651,492	6,130,541	(108,336)
20	2042	26,958,263	6,247,475	0	0	0.23	12,070,777	2,791,047	2,749,235	26,657,549	6,163,851	(83,624)
21	2043	26,908,785	6,244,705	0	0	0.23	12,392,061	2,872,572	2,831,809	26,587,501	6,163,181	(81,525)
22	2044	26,526,703	6,075,751	0	0	0.23	12,465,257	2,866,051	2,869,311	26,453,506	6,082,272	6,521
23	2045	26,253,741	5,740,634	0	0	0.22	12,405,743	2,757,621	2,811,836	26,313,255	5,849,064	108,430

Column (b) From Exhibit A-37 (CCO-5), Col (d)
Column (c) Workpaper: Obikwelu_WP_2024 REC Cost Calculation - 2023-2045 Col (y)
Column (d) From Exhibit A-37 (CCO-5), Col (h)
Column (e) Column (d) * \$2 (assumed \$/REC for RECs market purchases as supported by PA 235 Section 28)
Column (f) Sum of current year Col (c) + (e) + prior year Col (h) divided by / sum of current year col (b) + prior year col (g)
Column (g) From Exhibit A-37 (CCO-5), Col (i)
Column (h) Col (f) multiplied by (g)
Column (i) Average of current year plus previous year Col (h)
Column (j) From Exhibit A-37 (CCO-5), Col (g)
Column (k) Col (f) multiplied by Col (j)
Column (l) Col (k) minus Col (c)

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of **CONSUMERS ENERGY**)
COMPANY's application for the regulatory)
reviews, revisions, determinations, and/or)
approvals necessary to fully comply with)
Public Act 295 of 2008, as amended by)
Public Act 235 of 2023.)
_____)

Case No. U-21816

PROOF OF SERVICE

STATE OF MICHIGAN)
) SS
COUNTY OF JACKSON)

Crystal L. Chacon, being first duly sworn, deposes and says that she is employed in the Legal Department of Consumers Energy Company; that on April 18, 2025 she served an electronic copy of the **Revised Testimony and Exhibits of Consumers Energy Company** witnesses **Thomas P. Clark, Kenneth D. Johnston, and Chibuzo C. Obikwelu** upon the persons listed in Attachment 1 hereto, at the e-mail addresses listed therein.

Crystal L. Chacon

Crystal L. Chacon

Subscribed and sworn to before me this 18th day of April, 2025.

Melissa K. Harris

Melissa K. Harris, Notary Public
State of Michigan, County of Jackson
My Commission Expires: 06/11/2027
Acting in the County of Hillsdale

ATTACHMENT 1 TO CASE NO. U-21816

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* Receives Confidential Materials

ATTACHMENT 1 TO CASE NO. U-21816

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