



August 1, 2023

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

RE: MPSC Case No. U-21321 – In the matter, on the Commission own motion, regarding the regulatory reviews, revisions, determinations, and/or approvals necessary for Consumers Energy Company to fully comply with Public Act 295 of 2008, as amended by Public Act 342 of 2016.

Dear Ms. Felice:

Enclosed for electronic filing in the above-captioned case, please find **Consumers Energy Company's Application and Testimony and Exhibits of Company Witnesses Emily A. McGraw, Lisa M. Biering, Jessica R. Byrom, Eugene M. Breuring, Nathaniel S. Carver, Laura M. Connolly, Kirkland D. Harrington, Svitlana Lykhytska, R. Kenneth Skinner, and Gregory E. Stevenson.**

This is a paperless filing and is therefore being filed only in PDF. I have included a Proof of Service showing electronic service upon the parties, including parties to Case No. U-20875.

Sincerely,

Theresa A.G. Staley
Phone: 517-788-0677
Email: theresa.staley@cmsenergy.com

cc: Parties Per Attachment 1 to Proof of Service

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission’s own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for) Case No. U-21321
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016)
_____)

**APPLICATION FOR APPROVAL OF CONSUMERS ENERGY COMPANY’S
2024-2025 ENERGY WASTE REDUCTION PLAN**

In this Application, Consumers Energy Company (“Consumers Energy” or the “Company”) seeks approval of an Energy Waste Reduction (“EWR”) Plan for the period 2024 through 2025. Consumers Energy’s 2022-2025 EWR Plan was approved by the Michigan Public Service Commission (“MPSC” or the “Commission”) in Case No. U-20875, March 17, 2022, Order, pursuant to 2008 PA 295, MCL 460.1001 *et seq.*, (“Act 295”) as amended by 2016 PA 342 (“Act 342”) (collectively “Act 295, as amended”). That EWR Plan is currently in effect.

Consumers Energy is filing this Application for approval of an EWR Plan for the years 2024 through 2025 to reflect investments in EWR programs and to comply with Act 295, as amended. The Company respectfully requests that the Commission review and approve its 2024-2025 EWR Plan, authorize Consumers Energy to recover the costs of the Plan, and grant it additional relief as set forth herein. In support of this Application, Consumers Energy states as follows:

I. INTRODUCTION AND JURISDICTION

1. Consumers Energy is, among other things, engaged as a public utility in the business of generating, purchasing, distributing, and selling electric energy to approximately

1.9 million retail electric customers in the state of Michigan. The retail electric system of Consumers Energy is operated as a single utility system. Consumers Energy is also engaged as a public utility in the distribution and sale of natural gas to approximately 1.7 million retail customers in the state of Michigan. Consumers Energy's natural gas system is fully integrated and interconnected.

2. Consumers Energy's retail electric and natural gas businesses are subject to the jurisdiction of the Commission pursuant to various provisions of law including 1909 PA 106, as amended, MCL 460.551 *et seq.*; 1919 PA 419, as amended, MCL 460.51 *et seq.*; 1939 PA 3, as amended, MCL 460.1, *et seq.*; 2008 PA 295, MCL 460.1001 *et seq.*; and 2016 PA 342, MCL 460.1001 *et seq.* Pursuant to its statutory authority, the Commission has power and jurisdiction to regulate Consumers Energy's retail electric and natural gas rates.

3. Act 295, as amended, authorizes utilities to file, and the Commission to review, EWR plans and amendments thereto. An EWR Plan under Act 295, as amended, is required to (i) propose a set of EWR programs that will meet energy savings targets established by Act 295; (ii) include offerings for each customer class, including low-income residential customers; (iii) specify necessary funding levels; (iv) propose cost recovery mechanisms that will allow recovery of EWR Plan costs; (v) demonstrate that the EWR programs, excluding program offerings to low-income residential customers, will be cost effective; and (vi) provide for the practical and effective administration of the proposed programs.

4. Consumers Energy's proposed 2024-2025 EWR Plan conforms to the provisions of Act 295, as amended.

II. CONSUMERS ENERGY'S 2024-2025 EWR PLAN

5. Consumers Energy's proposed 2024-2025 EWR Plan includes the programs that the Company intends to implement to meet the EWR standards established by Act 295, as

amended, as well as the estimated costs of those programs. The total cost of the electric EWR Plan proposed by the Company is approximately \$190.93 million in 2024 and \$180.03 million in 2025. The total cost of the natural gas EWR Plan proposed by the Company is approximately \$95.49 million in 2024, and \$95.07 million in 2025.

6. The Company's proposed 2024-2025 EWR Plan's gas energy savings targets remove the energy sales to electric generation customers. This downward adjustment treatment was approved by the Commission in Case Nos. U-20372 and U-20875.

7. The Company is committed to helping its low-income customers reduce energy waste by continuing its investment in the Income Qualified Program. Indeed, the Company proposes to invest approximately 12% and 25% of its total electric and gas EWR funding to assist low-income customers, respectively.

8. The Company is required to provide a cost-effective EWR portfolio, as measured by the Utility System Resource Cost Test, and to have an independent third party validate the cost savings annually. Consumers Energy's proposed 2024-2025 EWR Plan complies with these requirements.

9. If the Company's proposed 2024-2025 EWR Plan spending levels are approved as part of this Application, the Company expects to exceed the electric and gas statutory savings targets of 1.00% and 0.75% by at least .9% and 0.33%, respectively. The Company believes the spending levels presented in its 2024-2025 EWR Plan are reasonable and prudent.

10. The Company's 2024-2025 EWR Plan is part of a comprehensive plan to meet the future energy needs of customers through a reasonable combination of cost-effective supply-side and demand-side options, as presented and approved in the Company's Integrated Resource Plan in Case No. U-21090.

11. The Company requests continued authority to reallocate up to 30% of the overall EWR budget, by class, to ensure program flexibility and stability for the more popular programs. This reallocation was approved in Case Nos. U-16412, U-16670, U-17351, U-17771, U-18251, U-20372, and U-20875 and is authorized by Section 71(4)(h) of Act 295, as amended. The Company also requests the continued authority to increase annual investment above amounts approved in the final case order by up to 6% of electric and 10% of gas investment if needed and cost effective. This authority to increase annual investment above approved amounts was approved in Case Nos. U-20372 and U-20875.

12. The Company requests continued authority to roll-forward any unspent EWR Plan funds from one year to the next, as applicable.

III. ACCOUNTING AUTHORITY

13. Consumers Energy seeks Commission approval to continue the accounting practices previously authorized by the Commission in its approval of the Company's original Energy Optimization (now EWR) Plan.

IV. TESTIMONY AND EXHIBITS

14. In support of this Application, the Company is filing written testimony and exhibits, describing the relief the Company is seeking in this case. Reference to this material will provide additional details on the relief being sought. The relief described in the testimony and exhibits should be considered as if specifically requested in this Application. Consumers Energy expressly reserves the right to revise, amend, or otherwise change the relief it is requesting in any way

appropriate depending upon the duration and progress of hearings in this proceeding, the issuance of orders that have an impact upon this case, or the occurrence of other material events.

V. CONSOLIDATION OF ELECTRIC AND GAS EWR PLANS

15. As encouraged by the Commission's Order issued October 21, 2008, in Case Nos. U-15805 and U-15889, the Company has prepared its filing, including its testimony and exhibits, in a fashion that presents its electric EWR Plan and natural gas EWR Plan on a consolidated basis. Since Consumers Energy has both natural gas and electric utility divisions, conducting a review of its 2024-2025 EWR Plan, on a consolidated basis, will allow for a more efficient and comprehensive review.

VI. APPROVAL OF SURCHARGES

16. Consumers Energy seeks approval of EWR surcharges to recover the electric and natural gas 2024-2025 EWR Plan costs from customers as set forth more specifically in the testimony and exhibits of Company witnesses Laura M. Connolly and Emily A. McGraw.

The EWR surcharges referenced above are the levelized 2024-2025 surcharges for each customer group and represent only the electric and natural gas EWR Plans' components of the respective surcharges. Consumers Energy anticipates requesting approval of an incentive portion of EWR surcharges in its annual reconciliations of the 2024-2025 EWR Plan, consistent with Act 295, as amended. Consumers Energy's EWR incentive proposal is specifically explained in the testimony and exhibits of Company witness McGraw.

VII. REQUESTED TIME FOR APPROVAL OF THE 2024-2025 EWR PLAN

17. In order to ensure that funds for EWR programs are available for all of 2024, and to reduce risk to program implementation and achievement of the proposed EWR savings goals,

Consumers Energy requests expeditious approval of the proposed Plan to allow for implementation of the requested surcharges in early 2024 customer bills.

18. Issuing an Order approving the Company's 2022-2025 EWR Plan in early 2024 will benefit customers, as there will be more time in which to levelize the EWR Plan surcharges. Moreover, without the timely approval and recovery of the investments being sought in this case, the Company will not have confidence that the appropriate investment and savings are established to ensure successful program implementation. Delayed approval of the EWR Plan could create disruptions to existing EWR programs, and ultimately put at risk the Company's ability to achieve Plan savings targets.

VIII. REQUEST FOR RELIEF

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

- A. Determine that the Company's proposed 2024-2025 EWR Plan is reasonable and prudent, and that it meets all applicable requirements of Act 295, as amended;
- B. Approve the requested 2024-2025 EWR Plan natural gas and electric surcharges;
- C. Approve the requested accounting authority described in the Company's testimony;
- D. Approve authority to roll forward any unspent funds into future approved EWR plans and to increase annual investment above amounts approved in the final case order by up to 6% of electric and 10% of gas investment, if needed and cost effective;
- E. Approve the issuance of the tariff sheets as more fully described in the attached testimony and exhibits of Company witness Kirkland D. Harrington;
- F. Approve the EWR incentive proposal set forth in the Company's testimony and exhibits;

G. Approve the relief requested in this proceeding on an expeditious basis to limit risk and reduce customer impact; and

H. Grant Consumers Energy such other and further relief as is just and reasonable.

Respectfully submitted,

CONSUMERS ENERGY COMPANY



By:

Lauren E. Youngdahl Snyder
Vice President, Customer Experience

Dated: August 1, 2023



Theresa A. G. Staley (P56998)
Gary Gensch, Jr. (P66912)
Anne M. Uitvlugt (P71641)
One Energy Plaza
Jackson, Michigan 49201
Attorneys for Consumers Energy Company
(517) 788-2910

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully comply))
with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016)
_____)

Case No. U-21321

VERIFICATION

Lauren E. Youngdahl Snyder, states that she is Vice President of Customer Experience; that she has executed the foregoing Application for and on behalf of Consumers Energy Company; that she has read the foregoing Application and is familiar with the contents thereof; that the facts contained therein are true, to the best of her knowledge and belief; and that she is duly authorized to execute such Application on behalf of Consumers Energy Company.

Dated: August 1, 2023

By:



Lauren E. Youngdahl Snyder
Vice President, Customer Experience

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

DIRECT TESTIMONY

OF

EMILY A. MCGRAW

ON BEHALF OF

CONSUMERS ENERGY COMPANY

August 2023

EMILY A. MCGRAW
DIRECT TESTIMONY

Q. Please state your name and business address.

A. My name is Emily A. McGraw, and my business address is One Energy Plaza, Jackson, Michigan 49201.

Q. By whom are you employed and what is your present position?

A. I am employed by Consumers Energy Company (“Consumers Energy” or the “Company”) as the Executive Director of Product Management.

Q. Please review your educational background.

A. I graduated from Michigan State University with a Bachelor of Science in Mechanical Engineering.

Q. Please describe your business and professional experience.

A. I started my career at Consumers Energy in 2005 as a gas engineer in a rotational program designed for recent college graduates. During this time, I rotated through four natural gas business units working on short-term projects.

In 2006, I took a position as a gas transmission pipeline engineer where I was responsible for designing high pressure gas pipeline facility installations.

In 2010, I took a position as a Project Manager for Gas Storage, Compression, Pipeline, and Metering & Regulation capital construction projects. I was responsible for managing the cost, scope, and schedule by developing project plans, managing project budgets, contractor oversight, and managing project schedules to meet equipment outage windows.

In 2014, I took a position as a Program Manager for residential energy efficiency programs and was responsible for design, management, and coordination of energy efficiency programs to deliver energy savings goals. In 2018, I was promoted to Director

EMILY A. MCGRAW
DIRECT TESTIMONY

of Residential Demand Response (“DR”), and in 2021 I was promoted to Executive Director of Product Management.

Q. What are your responsibilities as Executive Director of Product Management?

A. In this position, I am responsible for the Company’s DR and Energy Waste Reduction (“EWR”) programs.

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

A. Yes. I have previously testified before the MPSC in Consumers Energy’s 2018 DR Reconciliation Case No. U-20563, Consumers Energy’s 2019 DR Reconciliation Case No. U-20766, Consumers Energy’s 2020 DR Reconciliation Case No. U-21080, Consumers Energy’s Integrated Resource Plan (“IRP”) Case No. U-21090, Consumers Energy’s 2021 DR Reconciliation Case No. U-21233; and Consumers Energy’s 2022 DR Reconciliation Case No. U-21410.

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

A. I am sponsoring the Company’s 2024-2025 EWR Plan (the “Plan”). My direct testimony is organized as follows:

I. EWR PLAN OVERVIEW

II. CUSTOMER BENEFITS AND RATE IMPACTS

III. FINANCIAL INCENTIVE MECHANISM

Q. Are you sponsoring any exhibits in this case?

A. Yes, I am sponsoring the following exhibits:

Exhibit A-1 (EAM-1) Calculation of Annual Energy Savings Targets;

Exhibit A-2 (EAM-2) 2024-2025 Energy Waste Reduction Plan Report;
and

EMILY A. MCGRAW
DIRECT TESTIMONY

Exhibit A-3 (EAM-3) Recommended Financial Incentive Structure.

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

A. Yes.

I. EWR PLAN OVERVIEW

Q. Please provide a brief overview of the Company's EWR Plan.

A. The Company is committed to continue its 14-year success of delivering a cost effective and comprehensive portfolio of residential and business EWR programs that enable its customers to save more energy and spend less on their utility bills. In particular, the Company intends to leverage its existing EWR network of trade allies and refined program infrastructure to continue to deliver energy savings services and programs while also testing and integrating new technologies and programs to support achievement of aggressive EWR goals. To accomplish this, the Company is proposing the Commission approve its filed Plan expeditiously, in accordance with 2008 PA 295, as amended ("Act 295"). Approving this Plan will ensure the Company's customers will continue to access programs and services that help them save energy and spend less on their utility bills beyond 2023, and that the Company is well positioned to achieve the energy saving commitments approved in its Case No. U-21090 IRP filing. The details of the residential, small and medium business ("SMB"), and large business programs are presented by Company witnesses Jessica R. Byrom, Gregory E. Stevenson, and Nathaniel S. Carver, respectively. The details of the pilot program are presented by Company witness Lisa M. Biering. The cost effectiveness of each program and the overall plan are presented by Company witness R. Kenneth Skinner. The energy forecasts necessary to calculate the electric and gas saving targets are presented by Company witness Eugène M. Bruering.

EMILY A. MCGRAW
DIRECT TESTIMONY

1 Company witness Laura M. Connolly presents the surcharges necessary to implement and
2 administer the Plan. The funding reserve balance is sponsored by Company witness
3 Svitlana Lykhytska, and Company witness Kirkland D. Harrington provides testimony in
4 support of the draft tariff sheets supporting EWR surcharges.

5 **Q. Why is expeditious approval of the Company's 2024-2025 Plan important?**

6 A. While the Company's current approved Plan covers the 2022-2025 Plan period, EWR
7 programs are facing numerous challenges including (i) increasing options for customers to
8 participate in demand-side programs which require more complex, organized, and targeted
9 marketing and education efforts; (ii) changing federal and building code standards;
10 (iii) higher costs to achieve the same level of savings in the upcoming years, let alone
11 increase savings or reach targets of near 2% of electric sales as the Company has
12 established per its approved Clean Energy Plan; and (iv) the need to ensure that the
13 Company provides affordable, accessible, and beneficial service to all customers. The
14 Company's proposed 2024-2025 EWR Plan was developed through a comprehensive
15 modeling process that factored in all of these dynamics. Until the Commission has
16 approved the Company's 2024-2025 EWR Plan, the Company will not have confidence
17 that the appropriate investment and savings are established to ensure successful program
18 implementation. Delayed approval of the EWR Plan could create disruptions to existing
19 EWR programs, and ultimately put at risk the Company's ability to achieve Plan savings
20 targets.

EMILY A. MCGRAW
DIRECT TESTIMONY

1 **Q. Is the Company proposing any changes in the methodology for calculating the annual**
2 **savings targets?**

3 A. No. The annual energy savings targets are shown in Exhibit A-1 (EAM-1) for both electric
4 and natural gas service. The savings targets for each service are based on the corresponding
5 annual retail sales provided by Company witness Breuring. The Company proposes to
6 continue calculating energy savings targets based on the prior year weather normalized
7 sales and the statutory savings percentages in accordance with Sections 77(1) and 77(3) of
8 Act 295.

9 **Q. Is the Company proposing to adjust its annual saving targets?**

10 A. Yes, in Exhibit A-1 (EAM-1), page 2, line 2, when determining total gas sales (basis to
11 calculate statutory target), the Company is proposing to continue removing gas sales to
12 Electric Generation customers as approved in Case. Nos. U-20372 and U-20875.

13 **Q. Why is the Company proposing to continue this adjustment?**

14 A. The Company's 12 Electric Generation customers currently represent nearly 6% of total
15 gas sales and their inclusion would increase the statutory annual energy savings target by
16 over 100,000 Mcf. Electric Generation customers have not historically participated in
17 EWR gas programs.

18 **Q. What are some of the changing market and program issues which impacted the**
19 **2024-2025 EWR Plan?**

20 A. Consumers Energy, like many utilities in the region and country, is facing numerous market
21 disruptions and other challenges that impact its savings forecast and the overall 2024-2025
22 EWR Plan. These include changing building codes and efficiency baselines, reduced or
23 eliminated energy savings for LEDs that have historically delivered a large share of the

EMILY A. MCGRAW
DIRECT TESTIMONY

1 Company's energy savings, increasing saturation of efficient technologies, and current
2 limits on energy savings associated with behavioral programs. These items and others are
3 more fully discussed in Exhibit A-2 (EAM-2).

4 **Q. If the Company's investment level is approved in this filing, will it exceed the**
5 **minimum statutory energy savings targets?**

6 A. Yes, the Company expects to exceed the electric and gas statutory savings targets of 1.00%
7 and 0.75% by 0.9% and 0.25%, respectively. Although the Company expects to exceed
8 the statutory savings targets, as already noted, we do anticipate challenges associated with
9 changes in federal standards and increased customer acquisition costs.

10 **Q. Please explain why the Company believes the level of spending requested is**
11 **reasonable.**

12 A. The Company considered both the level of energy savings and cost-effectiveness of these
13 savings when developing its plan. Specifically, the Company engaged Integral Analytics
14 as an independent consultant to assist in evaluating the cost-effectiveness of the Company's
15 individual programs and the overall Plan. Although the Company used the Utility System
16 Resource Cost Test ("UCT") as its primary measure of cost-effectiveness, it also
17 considered the results of the Total Resource Cost Test, Participant Test, and Rate Impact
18 Test when evaluating its programs. The results of these tests are presented in Exhibit A-2
19 (EAM-2).

20 **Q. Please describe the results of the UCT associated with the Plan.**

21 A. The UCT provides a measure of the avoided system costs relative to the program costs
22 associated with implementing and administering a plan. Intuitively, the avoided costs can
23 be thought of as the system benefit from a customer participating in a program. If the

EMILY A. MCGRAW
DIRECT TESTIMONY

energy savings can be delivered at a UCT greater than unity, then the benefit exceeds the cost of providing the program. Thus, the plan is considered a worthy investment. As supported in the testimony of Company witness Skinner, the Company's Plan achieves UCT scores of 1.94 and 1.99 for electric and gas services, respectively.

Q. How were the programs in the Company's Plan selected?

A. The Company selected the programs in its Plan based on (i) electric and gas market potential studies, (ii) the programs' proven ability to deliver cost-effective energy savings in other jurisdictions, and (iii) the Company's own experience with implementing and administering the programs in Michigan. Moreover, the Company is continuously testing alternative services under its residential and business pilot programs.

Q. Does the Company's proposed 2024-2025 EWR Plan include changes to its currently approved portfolio of programs?

A. Yes, the Company has implemented several changes to its business and residential portfolio to streamline operations, reduce customer confusion and provide easier participation processes for customers, increase visibility into business programs, and provide targeted programs to engage the hard-to-reach SMB customers. The result of these changes is an overall Plan that (i) combines several residential legacy programs into new, more comprehensive product offerings that leverage similar incentive structures and create a more streamlined customer journey, (ii) discontinues the Energy Star upstream lighting program in response to federal LED standards changes and LED market transformation, and (iii) increases visibility into the business portfolio through presentation of five distinct business programs. The new portfolio design also shifts the residential agriculture program to the large customer business programs and creates one program for the market-rate

EMILY A. MCGRAW
DIRECT TESTIMONY

1 multifamily program in the residential portfolio to align with program administration of
2 these efforts. The investment in these programs will continue to be recovered from the
3 appropriate customer class. In total the 2024-2025 EWR Plan comprises nine residential
4 programs, two large business programs, and three SMB programs. An illustration of these
5 changes between the proposed 2024-2025 EWR Plan and the Company's Case No.
6 U-20875 approved EWR portfolio is included in Exhibit A-2 (EAM-2), Figure ES-2, with
7 additional program detail provided in the testimony of Company witnesses Byrom,
8 Stevenson, and Carver.

9 **Q. Does the Company propose to continue investing in informational report programs**
10 **to encourage customers to reduce energy waste?**

11 A. Yes. The benefits associated with informational report programs that help customers
12 reduce energy waste are well documented. Indeed, the Cadmus Group has performed more
13 than a dozen studies and evaluations, using rigorous and thoroughly vetted methods, to
14 determine and isolate the impacts of the Company's informational report programs. Some
15 of the techniques used by Cadmus have included: difference-in-difference billing analysis,
16 regression analysis, uplift analysis, treatment and control group surveys, customer
17 satisfaction surveys, stakeholder interviews, materials and database reviews, market plan
18 assessments, and focus groups. As described in the testimony of Company witness Byrom
19 and detailed in Exhibit A-2 (EAM-2), the Company combined its Home Energy Report
20 ("HER") Program with its Home Energy Assessment to create an Assessments and
21 Behavioral program focused on increasing awareness and understanding of the customer's
22 specific usage, opportunities to better manage that usage and save energy, and coordination
23 with energy assessments to identify and help implement both easy direct install and more

EMILY A. MCGRAW
DIRECT TESTIMONY

1 comprehensive EWR intervention to achieve greater energy and bill savings. Further, the
2 Company continues to evaluate and improve its HER to maximize customer benefit and
3 energy savings.

4 **Q. Does the Company support a cap for HER program savings?**

5 A. No. While not required to do so for the 2024-2025 Plan filing, the Company is projecting
6 electric and gas savings from HER to be no more than 20% of the entire residential portfolio
7 in 2024 and 2025. However, a cap on HER savings is unnecessary as the Company must
8 present a cost-effective portfolio of EWR offerings for all customer segments and as such
9 balances savings from all programs; HER savings are now certified through a custom
10 savings evaluation; and potential studies, including the MPSC Statewide EWR Potential
11 Study, indicate behavioral program savings potential. If the Commission determines that
12 behavioral savings should be capped, the Company proposes that any cap on behavioral
13 savings be based on the total EWR portfolio (residential and business combined).

14 **Q. Is the proposed Income Qualified program investment consistent with the increased**
15 **investment included in the Case No. U-20875 Settlement Agreement for 2024 and**
16 **2025?**

17 A. Yes. The Company included in its 2024-2025 EWR Plan the Case No. U-20875 increased
18 income-qualified (single family and multifamily) investment levels of \$53.9 million and
19 \$55.7 million for 2024 and 2025, respectively. The Company is committed to providing
20 its low-income customers a set of comprehensive energy saving offerings and increasing
21 low-income participation in EWR.

EMILY A. MCGRAW
DIRECT TESTIMONY

1 **Q. Is the Company proposing to continue investing in Education and Awareness as part**
2 **of its 2024-2025 Plan?**

3 A. Yes, the Company proposes to invest 3% of its recommended annual funding in Education
4 and Awareness, for both its electric and natural gas programs.

5 **Q. Is the Company proposing to continue investing in its pilot program as part of its**
6 **2024-2025 Plan?**

7 A. Yes. In Case Nos. U-20372 and U-20875, the Commission approved pilot investment of
8 6% of total EWR spending with 1% of pilot investment directed to the Company's Income
9 Qualified Health and Safety Pilot. For its 2024-2025 EWR Plan, the Company requests
10 approval to increase overall pilot investment to 7% to support doubling investment in the
11 Income Qualified Health and Safety Pilot to 2%. In addition, the Company proposes to
12 continue applying the deemed savings from these investments as part of meeting its
13 statutory and performance objectives.

14 **Q. Why should the Commission approve increased investment in the Income Qualified**
15 **Health and Safety Pilot?**

16 A. The Income Qualified Health and Safety pilot was developed to (i) provide a mechanism
17 for participation in EWR by income-qualified customers ineligible for traditional EWR
18 program intervention due to needed repairs in the home, and (ii) begin to evaluate the health
19 and environmental impacts of home improvements combined with installation of energy
20 savings measures. To continue to support these goals, engage more customers in these
21 efforts, and provide sufficient time for critical evaluation and measurement activities, the
22 Company requests the Commission authorize 2% investment in the Income Qualified
23 Health and Safety Pilot. The Company will also continue its work with Plan stakeholders

EMILY A. MCGRAW
DIRECT TESTIMONY

1 and community partners to assess and develop recommendations for long-term Health and
2 Safety initiative solutions. Additional detail about the Company's Income Qualified
3 Health and Safety Pilot is found in the testimony of Company witness Byrom and Exhibit
4 A-2 (EAM-2).

5 **Q. Please describe Utility Shared Savings.**

6 A. Utility shared savings are savings from EWR work that generates both electric and gas
7 savings in a territory in which a utility only provides single fuel service. Savings that are
8 created but unclaimed by the utility completing the EWR work (the "originating" utility),
9 are shared with the utility providing the other fuel service (the "receiving" utility). To be
10 included in shared savings, the project must occur in the originating utility's single-fuel
11 service territory and generate savings of the opposite fuel type, for example, gas savings
12 generated in the originating utility's electric only service territory.

13 **Q. Did the Company estimate and include utility shared savings in its proposed**
14 **2024-2025 EWR Plan?**

15 A. No. In line with its treatment of self-directed savings authorized in MCL 460.1093, the
16 Company did not incorporate projected shared savings into the plan modeling and resulting
17 EWR Plan proposed in this filing. The Company intends to quantify and claim shared
18 savings in annual EWR reconciliation filings as it did in its 2022 EWR Reconciliation,
19 Case No. U-21312.

20 **Q. How will the Company's programs be administered?**

21 A. The Company plans to continue using independent contractors selected through a
22 competitive bidding process to coordinate daily program activities in the field. Further,
23 the Company will continue to employ program managers, quality control and budget

EMILY A. MCGRAW
DIRECT TESTIMONY

1 analysts, support services staff, and other internal resources necessary to achieve the
2 Company's aggressive energy savings targets.

3 **Q. Please describe Diversity, Equity & Inclusion ("DE&I") initiatives included in the**
4 **Company's 2024-2025 EWR Plan.**

5 A. The EWR program is engaged in Company supplier diversity and tracking efforts in
6 support of the Company's broader goal to increase diverse supplier spend. The EWR
7 program is also working to expand EWR workforce training opportunities in diverse
8 communities and help those interested in careers in EWR remove barriers to participation
9 in training and career development activities. Further, in 2022, the Company completed a
10 Low Income Needs Assessment ("LINA") study to inform Income Qualified Program
11 efforts and identify areas where there may be gaps or opportunities to increase EWR
12 participation and ensure EWR program access. The LINA study was used to inform the
13 Company's 2023-2024 geotargeting effort, the Flint Initiative, and will also be used to
14 identify a second geotargeting initiative to be developed in 2025 utilizing learnings from
15 the Flint project (see the direct testimony of Company witness Byrom and Exhibit A-2
16 (EAM-2)). Finally, the Company is actively participating in broader MPSC-supported
17 EWR collaboratives and work groups including the MPSC Energy Affordability and
18 Accessibility Collaborative, the EWR Collaborative, and the EWR Low Income

EMILY A. MCGRAW
DIRECT TESTIMONY

1 Workgroup to identify gaps, priorities, and recommendations for increased focus on DE&I
2 initiatives.

3 **Q. In regard to supplier diversity, does Consumers Energy provide an opportunity for**
4 **non-profit organizations, Michigan-based business enterprises, and minority, women,**
5 **veteran, service-disabled veteran, and LGBT-owned diverse business enterprises to**
6 **compete on an equal basis for materials and services?**

7 A. Yes. It is the policy of Consumers Energy to provide an equal opportunity for
8 minority-owned, women-owned, veteran-owned, service-disabled veteran, Disabled, and
9 LGBTQ businesses, otherwise known as Diverse Suppliers, to compete on an equal basis
10 for materials and services utilized by Consumers Energy. Diverse Suppliers are defined as
11 those suppliers who have completed a certification process from an established certification
12 agency. These agencies certify that the company is majority owned and that there is active
13 involvement by the owner in daily operations and decision making for the company.
14 Further, it is the policy of Consumers Energy to require at least one Diverse Supplier be
15 included on every bid event valued at \$100,000 or more.

16 **Q. Is the Company seeking continued authority to allocate funds between programs?**

17 A. Yes, the Company is requesting continued authority to reallocate 30% of its portfolio
18 investments to maintain program consistency each year. This flexibility was requested and
19 approved in Case Nos. U-16712, U-16670, U-17351, U-17771, U-18261, U-20372, and
20 U-20875.

EMILY A. MCGRAW
DIRECT TESTIMONY

1 **Q. Is the Company seeking continued authority to carry forward unspent funds to the**
2 **next program year?**

3 A. Yes, the Company is requesting continued authority to carry forward unspent funds to
4 maintain continuity and ensure flexibility over the plan period.

5 **Q. Is the Company seeking continued authority to increase annual investment above**
6 **amounts approved in the final case order by up to 6% of electric and 10% of gas**
7 **investment?**

8 A. Yes. As approved in Case Nos. U-20372 and U-20875, to ensure continuity of the EWR
9 program portfolio in the market and delivery of increased savings targets, if cost effective,
10 the Company is requesting approval to increase annual investment above approved
11 amounts by up to 6% of electric and 10% of gas investment.

12 **Q. Is the Company requesting approval to continue the 2025 investment and savings**
13 **ultimately approved by the Commission in this case into 2026 to ensure program**
14 **continuity?**

15 A. Yes. Given the quickly changing EWR dynamics noted above and the requirement to file
16 an EWR Plan every two years, the Company sees limited benefit in continuing to design
17 and include in its Plan filings the out years of a four-year Plan when there exists a likelihood
18 of change to current day projections, program dynamics, and customer needs and
19 expectations for those out years. Instead, the Company is filing this two-year Plan
20 consistent with the requirement in MCL 400.1073(3). To ensure program continuity and
21 avoid program risk, the Company requests the ability to continue the 2025 approved
22 investment and savings levels until the Commission provides new investment and savings
23 authorization for the Company's 2026-2027 Plan to be filed in 2025.

EMILY A. MCGRAW
DIRECT TESTIMONY

1 **Q. Is the Company recommending to maintain flexibility as to how incentives can be paid**
2 **to customers?**

3 A. Yes. As approved in Case No. U-20875, the Company is proposing continuing to allow
4 customers who participate in EWR programs or pilot programs the option to receive
5 incentive payments through bill credits as an alternative to receiving incentive payments
6 through a paper check. The Company is also proposing continued ability to allow
7 customers who participate in EWR programs or pilot programs the option to receive
8 incentive payments through a gift of energy. This will allow for an easier and faster way
9 for customers to receive their incentive if they choose. The Company's billing system
10 currently has the necessary functionality to support on bill incentive credits requiring
11 minimal additional costs to provide this option to customers.

12 **Q. What process does the Company propose for evaluating actual energy savings**
13 **associated with the Plan?**

14 A. Program Evaluation, Measurement, and Verification ("EM&V") activities are central to
15 the success of Consumers Energy's portfolio. EM&V activities are implemented through
16 residential and business portfolio third-party evaluators selected through a competitive bid
17 process. The third-party evaluators' role is to verify program savings, monitor program
18 performance, and evaluate the effectiveness of EWR efforts. These activities serve as a
19 way to determine the actual program level savings being delivered and to maximize energy
20 optimization investments. In addition, the Company proposes to continue using primary
21 research methods, such as surveys and interviews with customers, trade allies, and other
22 stakeholders to better understand their perceptions of each program and to help improve
23 program operations and the overall customer experience.

EMILY A. MCGRAW
DIRECT TESTIMONY

1 **Q. How will the Company demonstrate that its plan is achieving the intended results?**

2 A. The Company will continue to file an annual reconciliation report with the Commission
3 after the end of each plan year that details the level of spending and energy saved from
4 each program.

5 **Q. For this EWR Plan, are there any additional adjustments to these base energy savings**
6 **used to calculate final energy savings?**

7 A. Yes. There are “Net-to-Gross” (“NTG”) adjustments and “installation adjustments.”

8 **Q. What is a NTG ratio?**

9 A. The NTG ratio is used to estimate the energy savings achieved by the Company’s
10 programs, net of that which would have occurred in the absence of the programs, i.e.,
11 freeridership, and that which results from program intervention but is not accounted for in
12 documented savings, i.e. spillover.

13 **Q. What assumption has the Company made with regard to NTG ratios in the EWR**
14 **Plan presented in this case?**

15 A. The Company has assumed and requests a continued NTG ratio of 0.92 for all market-rate
16 program measures and a NTG of 1.00 for measures implemented through the Income
17 Qualified Assistance Programs, consistent with the NTG authorized in Case No. U-20875
18 and the NTG ratios used by other Michigan utilities. In response to the change in the
19 federal equipment standard for general service lamps, Consumers Energy will no longer
20 offer an upstream lighting program; therefore, application of an adjusted NTG value for
21 upstream lighting is not necessary. Further detail regarding NTG ratios can be found in
22 the Company’s Plan Report, Exhibit A-2 (EAM-2).

EMILY A. MCGRAW
DIRECT TESTIMONY

1 **Q. What is an “installation adjustment”?**

2 A. Post hoc evaluations conducted by the Company’s evaluation contractors for each program
3 verify the actual installation at customer premises of the EWR measures for which the
4 Company is claiming energy savings. This analysis is especially relevant for measures
5 distributed directly to customers for installation rather than those installed by a program
6 technician or trade partner. These evaluations sometimes reveal that a small percentage of
7 the installations did not occur, occurred outside the Company’s service territory, occurred
8 improperly such that the desired energy savings are not being achieved, or were
9 subsequently removed by the customer. To the extent these conditions are found, the
10 Company takes an appropriate adjustment to claimed energy savings. This adjustment is
11 referred to as an “in-service rate adjustment.”

12 **Q. What assumption has the Company made with regard to installation adjustments in**
13 **the EWR Plan presented in this case?**

14 A. The Company’s independent residential evaluation contractors, Cadmus Group and TRC,
15 provided these adjustments based on evaluation research conducted and they are included
16 as an adjustment to energy savings, where applicable. This detailed information can be
17 found in the Company’s 2024-2025 EWR Plan Report, Exhibit A-2 (EAM-2).

18 **Q. Did the Company engage any interested parties to provide feedback on development**
19 **of the Plan?**

20 A. Yes, the Company met with stakeholders to gather feedback to help inform development
21 of the 2024-2025 EWR Plan in June 2023 and incorporated stakeholder agreements from
22 its U-20875 Settlement Agreement, including low-income program spending levels, into
23 the proposed 2024-2025 Plan.

EMILY A. MCGRAW
DIRECT TESTIMONY

1 **Q. Is the Company open to continued collaboration with other parties regarding the**
2 **design and implementation of its Plan?**

3 A. Certainly. As has been practice in recent EWR Plan filings, the Company intends to meet
4 with interested parties post-filing to provide further opportunity for input and inclusion of
5 stakeholder feedback into the EWR Plan. The Company is also open to continued
6 collaboration with other parties regarding the design and implementation of its Plan. The
7 Company has been, and will continue to be, an active participant in the energy efficiency
8 market and various working groups including the EWR Collaborative and Low-Income
9 Workgroup.

10 **Q. Is the Company engaged in efforts, including external collaborations related to the**
11 **2022 Inflation Reduction Act (“IRA”) and the 2021 Infrastructure Investment and**
12 **Jobs Act (“IIJA”) EWR program and funding opportunities?**

13 A. Yes. The IRA and IIJA bring opportunity for the Company to support state and community
14 energy efficiency program engagement and expansion efforts. To date the Company has
15 supported two school district energy efficiency upgrade applications and is working with
16 the Michigan Department of Environment, Great Lakes and Energy and the Michigan
17 Department of Health and Human Services Weatherization Assistance Program to support
18 potential workforce and weatherization funding proposals. The EWR program is
19 committed to continued work with communities, schools, external collaborations, and state
20 and federal energy offices and program administrators to promote full utilization of
21 available IRA/IIJA EWR funding, coordinated with utility EWR programs, to increase
22 EWR program and energy savings opportunities throughout Michigan.

1 **II. CUSTOMER BENEFITS AND RATE IMPACTS**

2 **Q. Please describe the expected customer benefits associated with the Company's**
3 **2024-2025 Plan.**

4 A. The Company's 2024-2025 Plan will reduce energy waste by a projected 1.24 million
5 MWh in first year electric savings (12.73 MWh million lifetime), 158.5 MW in demand
6 reduction, and 5.88 million Mcf of first year natural gas savings (59.02 million Mcf
7 lifetime).

8 **Q. Did the Company incorporate end-use load shape research as part of this Plan filing?**

9 A. Yes, the Company utilized its two third-party evaluators to review and, in some cases,
10 develop new end-use load shape research based on the best available data that is applicable
11 to the Company's territory to inform potential studies and cost benefit analysis. Accurate
12 end-use load shapes enable Consumers Energy to confidently characterize the time-varying
13 costs and benefits of its EWR and DR investments and enhance the planning and analytical
14 accuracy of a range of calculations associated with the Company's EWR programs and
15 operational functions, including cost-effectiveness calculations, load forecasting,
16 distribution planning, transmission planning, resource adequacy planning, renewable
17 energy integration, rate making, and financial planning. During the 2024-2025 EWR Plan
18 period, Consumers Energy will continue to develop and refine its end-use load shapes to
19 continuously improve EWR benefit and cost estimates.

20 **Q. How will the proposed 2024-2025 EWR investment be recovered from customers?**

21 A. The Company proposes to recover the respective electric and gas investments of
22 \$371.0 million and \$190.6 million from customers over two years beginning with its
23 January 2024 bill month. The revised surcharges would replace the current energy

EMILY A. MCGRAW
DIRECT TESTIMONY

1 efficiency surcharges. The proposed monthly incremental and total surcharges are
2 presented in the testimony and exhibits of Company witness Connolly.

3 **Q. Is the Company presenting an adjustment to the 2022 surcharge regulatory balance**
4 **presented in Case No. U-21312 in this filing?**

5 A. Yes. The Company identified a needed correction to the historical EWR regulatory balance
6 presented in Exhibits A-13 (SL-1) and A-14 (SL-2) compared to the regulatory balance
7 included in Case No. U-21312. This adjustment is necessary to assure that the investment
8 in income-qualified programs is recovered from all customer classes. For the 2019-2022
9 period, the Company's EWR surcharge was calculated appropriately to recover income-
10 qualified program costs from all customers. However, over the same period, these costs
11 were not allocated correctly between the residential and business portfolios in the annual
12 reconciliation filings. Instead, all low-income costs were allocated to the residential
13 portfolio. This resulted in what appeared to be a large over recovery from business
14 customers and corresponding under recovery from residential customers. With this
15 correction, the surcharge regulatory balance correctly reflects the allocation of low-income
16 program costs to all customer classes. Exhibits A-13 (SL-1) and A-14 (SL-2) have been
17 updated in this filing to reflect this correction. Additional information is provided in the
18 testimony of Company witness Lykhytska.

19 **Q. How will the Company ensure, to the extent feasible, that charges collected from a**
20 **particular customer rate class align with the corresponding benefits?**

21 A. The Company will continue to track spending for each program separately to seek to not
22 exceed the Commission-approved program spending levels. In addition, the Company will

EMILY A. MCGRAW
DIRECT TESTIMONY

1 evaluate the system benefits from each class during its annual plan reconciliations and
2 biennial plan reviews and adjust the surcharges in these proceedings as needed.

3 **Q. What is the rate impact to customers associated with the Company's proposed**
4 **2024-2025 Plan?**

5 A. The Company considers both the impact and expense necessary to deliver energy savings
6 when developing its plans. The objective is to offer customers both affordable and
7 meaningful programs. Information about customer rate impacts is provided in the
8 testimony and exhibits of Company witness Connolly. The average rate impacts for the
9 Company's residential electric and gas customers are projected to be a 0.7 % decrease and
10 0.6% decrease respectively. The average incremental rate impacts for the Company's
11 business electric and gas customers are projected to be an increase of 1.0% and 1.3%,
12 respectively. The Company's investments are consistent with those in the IRP and provide
13 additional savings opportunities for its customers.

14 **Q. Is the Company proposing any tariff changes as part of this filing?**

15 A. Yes. Company witness Harrington is sponsoring updated tariffs showing the proposed
16 EWR surcharge by Rate Schedule and large customer self-directed, Opt-In, and Opt-out
17 rates for the billing months beginning in January 2024 (see Exhibits A-11 (KDH-1) and A-
18 12 (KDH-2)). Exhibit A-11 (KDH-1) also updates Tariff Sheet No. C-65.00 to reflect the
19 ten tier EWR structure approved in Case No. U-20875.

20 **III. FINANCIAL INCENTIVE MECHANISM**

21 **Q. Is the Company proposing a financial incentive mechanism for 2024 through 2025?**

22 A. Yes. Pursuant to Section 75 of Act 295, the Company requests approval of the financial
23 incentive set forth in this section for helping customers reduce energy waste based on the

EMILY A. MCGRAW
DIRECT TESTIMONY

1 percent of first-year energy savings. The Company proposes that the basis of the financial
2 incentive be tied to achieving first year savings, lifetime savings, and investment in low-
3 income programs. I have provided an illustration of the proposed electric and gas financial
4 incentive mechanisms in Exhibit A-3 (EAM-3).

5 **Q. Is the Company requesting any modifications to the currently approved financial**
6 **incentive calculation?**

7 A. Yes. In Case Nos. U-18261 and U-20372, the Commission approved a linear sliding scale
8 incentive mechanism based on the savings tiers set forth in Section 75 of Act 295.
9 However, in the Case No. U-20875 Settlement Agreement, the linear sliding scale for first
10 year savings was replaced with a nonlinear scale and the lifetime savings metric was
11 adjusted to a sliding scale based on achievement of 2% electric savings. The Company
12 proposes to return to the linear sliding scale for first-year savings consistent with prior
13 EWR Plan proceedings. The sliding scale financial incentive encourages utilities to invest
14 beyond the minimum levels necessary to jump from one incentive tier to the next. The
15 Company is also proposing aligning the lifetime savings metric with the legislative
16 first-year savings metrics to encourage and reward utility efforts to cost-effectively achieve
17 energy savings above statutory minimums.

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

19 A. Yes.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

EXHIBITS
OF
EMILY A. MCGRAW
ON BEHALF OF
CONSUMERS ENERGY COMPANY

August 2023

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company

Case No.: U-21321
Exhibit No.: A-1 (EAM-1)
Page: 1 of 2
Witness: EAMcGraw
Date: August 2023

Calculation of Annual Energy Savings Targets
Electric Service (Megawatt-hours)

		(a)	(b)	(c)	(d)
<u>Line No.</u>	<u>Description</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
1	Retail Electric Sales ^(1)	32,737,213	32,882,498	32,666,713	32,791,051
2	Prior Year Weather Normal Sales		32,737,213	32,882,498	32,666,713
3	Electric Statutory Savings Percentage		1.0%	1.0%	1.0%
4	Electric Statutory Savings Target		327,372	328,825	326,667

Notes:

(1) Exhibit A-4 (EMB-1), column g

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company

Case No.: U-20875
Exhibit No.: A-1 (EAM-1)
Page: 2 of 2
Witness: EAMcGraw
Date: August 2023

Calculation of Annual Energy Savings Targets
Gas Service (Thousand Cubic Feet)

<u>Line No.</u>	<u>Description</u>	(a)	(b)	(c)	(d)
		<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
1	Retail Gas Sales Sales ^(1)	308,722,273	311,350,000	310,374,000	309,394,000
2	Electric Generation Gas Sales ⁽²⁾	19,253,256	23,807,351	23,962,036	23,942,230
3	Total Adjusted Gas Sales	289,469,017	287,542,649	286,411,964	285,451,770
2	Prior Year Weather Normal Sales		289,469,017	287,542,649	286,411,964
4	Gas Statutory Savings Percentage		0.75%	0.75%	0.75%
5	Gas Statutory Savings Target		2,171,018	2,156,570	2,148,090

Notes:

(1) Exhibit A-5 (EMB-2), column (g).

(2) Exhibit A-5 (EMB-2), column (h)



CONSUMERS ENERGY 2024-2025 ENERGY WASTE REDUCTION PLAN

Submitted To:
Michigan Public Service Commission
Case No: U-21321
August 1, 2023

TABLE OF CONTENTS

Table of Contents

Executive Summary.....	1
EWR Portfolio Summary and Savings Goals	2
Schedule and Plan Changes.....	4
Plan Organization	7
1. Plan Overview	8
1.1. Plan Development Process.....	9
1.2. Goals and Objectives	10
1.3. Plan Composition	11
2. Portfolio Management.....	14
2.1. Education and Awareness	14
2.2. Program Administration	16
2.3. Tracking and Reporting	18
2.4. Evaluation, Measurement, and Verification	18
2.5. Coordination with External Partners.....	24
3. Summary of EWR Benefits and Costs	26
3.1. Savings and Investment Forecasts	26
3.2. Benefit-Cost Analysis.....	30
4. Residential Portfolio	35
4.1. Appliance Recycling.....	37
4.2. Assessments and Behavioral	40
4.3. Home Solutions	44
4.4. Income-Qualified.....	48
4.5. Income-Qualified Multifamily	54
4.6. Market-Rate Multifamily	58
4.7. New Home Construction	61
4.8. Retail Rebates.....	64
4.9. Think! Energy.....	68
5. Business Portfolio	71
5.1. Prescriptive.....	72
5.2. Custom Solutions.....	76

TABLE OF CONTENTS

5.3.	Energy Assessments	80
5.4.	Small Business Store	83
5.5.	SMB Contractor Rebates	86
5.6.	Large Customer Opt-In and Opt-Out Options	89
6.	Pilot Programs	91
6.1.	On-Bill Payments	92
6.2.	Induction Cooktops	93
6.3.	Health & Safety Pilot	94
6.4.	Super-Efficient All-Electric New Homes	95
6.5.	My Energy Analyzer	96
6.6.	Workforce Development	97
6.7.	Refrigerant Swap	98
6.8.	Local Government Benchmarking	99
6.9.	Refrigeration Optimization and Peak Shifting	100
6.10.	Combined Heat and Power	101
Appendix A: Detailed Program Measures		102

List of Tables

Table ES-1. Electricity Investment and Savings Compared to Targets (2024-2025)	2
Table ES-2. Natural Gas Investment and Savings Compared to Targets (2024-2025)	2
Table ES-3. Summary Investment and Percentage of Total Investment (2024-2025)	2
Table ES-4. Summary of Portfolio Planned First Year Annual Savings and Total Investments, 2024-2025	3
Table ES-5. Summary of Total Portfolio Cost of Conserved Energy, 2024-2025	4
Table 1-1. 2024-2025 Program Summary	12
Table 2-1. Implementation Contractors	17
Table 2-2. Program-Specific EM&V Approaches	21
Table 3-1. EWR Programs Investment Summary	26
Table 3-2. Electricity Programs Investment and Savings Compared to Statutory Targets	26

TABLE OF CONTENTS

Table 3-3. Natural Gas Programs Investment and Savings Compared to Statutory Targets	26
Table 3-4. Summary of Planned First-Year Annual Savings and Total Investments, 2024 and 2025	27
Table 3-5. Summary of Planned First-Year Annual Savings and Total Investments, 2024	28
Table 3-6. Summary of Planned First-Year Annual Savings and Total Investments, 2025	29
Table 3-7. Cost-Effectiveness Test Perspectives	30
Table 3-8. Allocation of Benefits and Costs from Different Perspectives	31
Table 3-9. Summary of Portfolio Benefit-Cost Test Results (2024 and 2025).....	33
Table 3-10. Summary of Electricity Programs' Benefit-Cost Test Results (2024 and 2025).....	33
Table 3-11. Summary of Natural Gas Programs' Benefit-Cost Test Results (2024 and 2025).....	34
Table 4-1. Appliance Recycling Customer Eligibility Parameters	38
Table 4-2. Appliance Recycling Estimated Investment.....	39
Table 4-3. Appliance Recycling Energy-Savings Targets	39
Table 4-4. Appliance Recycling Cost-Effectiveness Results	39
Table 4-5. Assessments and Behavioral Customer Eligibility Parameters.....	41
Table 4-6. Assessments and Behavioral Program Estimated Investment	43
Table 4-7. Assessments and Behavioral Energy-Savings Targets	43
Table 4-8. Assessments and Behavioral Cost-Effectiveness Results	43
Table 4-9. Home Solutions Customer Eligibility Parameters.....	45
Table 4-10. Home Solutions Estimated Investment	47
Table 4-11. Home Solutions Energy-Savings Targets	47
Table 4-12. Home Solutions Cost-Effectiveness Results	47
Table 4-13. Income-Qualified Customer Eligibility Parameters	50
Table 4-14. Income-Qualified Estimated Investment.....	53
Table 4-15. Income-Qualified Energy-Savings Targets.....	53
Table 4-16. Income-Qualified Cost-Effectiveness Results	53
Table 4-17. Income-Qualified Multifamily Customer Eligibility Parameters.....	55

TABLE OF CONTENTS

Table 4-18. Income-Qualified Multifamily Estimated Investment	57
Table 4-19. Income-Qualified Multifamily Energy-Savings Targets	57
Table 4-20. Income-Qualified Multifamily Cost-Effectiveness Results	57
Table 4-21. Market-Rate Multifamily Customer Eligibility Parameters	59
Table 4-22. Market-Rate Multifamily Estimated Investment.....	60
Table 4-23. Market-Rate Multifamily Energy-Savings Targets	60
Table 4-24. Market-Rate Multifamily Cost-Effectiveness Results	60
Table 4-25. New Home Construction Customer Eligibility Parameters.....	62
Table 4-26. New Home Construction Estimated Investment.....	63
Table 4-27. New Home Construction Energy-Savings Targets	63
Table 4-28. New Home Construction Cost-Effectiveness Results	63
Table 4-29. ENERGY STAR Appliances Customer Eligibility Parameters.....	65
Table 4-30. Retail Rebates Estimated Investment	66
Table 4-31. Retail Rebates Energy-Savings Targets.....	66
Table 4-32. Retail Rebates Cost-Effectiveness Results.....	67
Table 4-33. Think! Energy Customer Eligibility Parameters	69
Table 4-34. Think! Energy Estimated Investment	70
Table 4-35. Think! Energy Energy-Savings Targets.....	70
Table 4-36. Think! Energy Cost-Effectiveness Results.....	70
Table 5-1. Prescriptive Customer Targets and Eligibility.....	72
Table 5-2. Prescriptive Estimated Investment	75
Table 5-3. Prescriptive Energy-Savings Targets.....	75
Table 5-4. Prescriptive Cost-Effectiveness Results.....	75
Table 5-5. Custom Solutions Customer Eligibility Parameters	77
Table 5-6. Custom Solutions: Incentive Summary.....	77

TABLE OF CONTENTS

Table 5-7. Custom Solutions Estimated Investment	79
Table 5-8. Custom Solutions Energy-Savings Targets.....	79
Table 5-9. Custom Solutions Cost-Effectiveness Results.....	79
Table 5-10. Energy Assessments Customer Eligibility Parameters.....	81
Table 5-11. Energy Assessments Estimated Investment.....	82
Table 5-12. Energy Assessments Energy-Savings Targets	82
Table 5-13. Energy Assessments Cost-Effectiveness Results	82
Table 5-14. Small Business Store Customer Eligibility Parameters	83
Table 5-15. Small Business Store Estimated Investment	84
Table 5-16. Small Business Store Energy-Savings Targets.....	84
Table 5-17. Small Business Store Cost-Effectiveness Results	85
Table 5-18. SMB Contractor Rebates Customer Eligibility Parameters.....	86
Table 5-19. SMB Contractor Rebates Estimated Investment.....	87
Table 5-20. SMB Contractor Rebates Energy-Savings Targets	88
Table 5-21. SMB Contractor Rebates Cost-Effectiveness Results	88
Table 6-1. 2024-2025 EWR Plan Pilot Programs.....	91

List of Figures

Figure ES-1. 2024-2025 Energy Waste Reduction Portfolio Structure	1
Figure ES-2. Product Mapping from 2022–2025 EWR Plan to 2024-2025 EWR Plan.....	6
Figure 1-1. Portfolio Planning Process.....	10
Figure 4-1. Residential Portfolio Structure	36
Figure 5-1. Business Portfolio Structure.....	71

ACRONYMS AND ABBREVIATIONS

Acronyms and Abbreviations

Acronym	Definition
BPI	Building Performance Institute
CARE	Consumers Affordable Resource for Energy
CHP	Combined Heat and Power
DSM	Demand-side management
ECS	Energy Concierge Services
eHER	Electronic home energy report
EM&V	Evaluation, measurement, and verification
EWR	Energy waste reduction
GAF	Gross adjustment factor
HER	Home energy report
HERS	Home Energy Rating System
HVAC	Heating, ventilation, and air conditioning
IIJA	Infrastructure Investment and Jobs Act
IRP	Integrated resource plan
IRA	Inflation Reduction Act
MEMD	Michigan Energy Measures Database
MPSC	Michigan Public Service Commission
PCT	Participant cost test
Plan	2024-2025 EWR Plan (this document)
RIM	Ratepayer impact measure test
SCT	Societal cost test
SEM	Industrial and Strategic Energy Management
SMB	Small- and medium-sized business
TRC	Total resource cost test
UCT	Utility cost test

EXECUTIVE SUMMARY

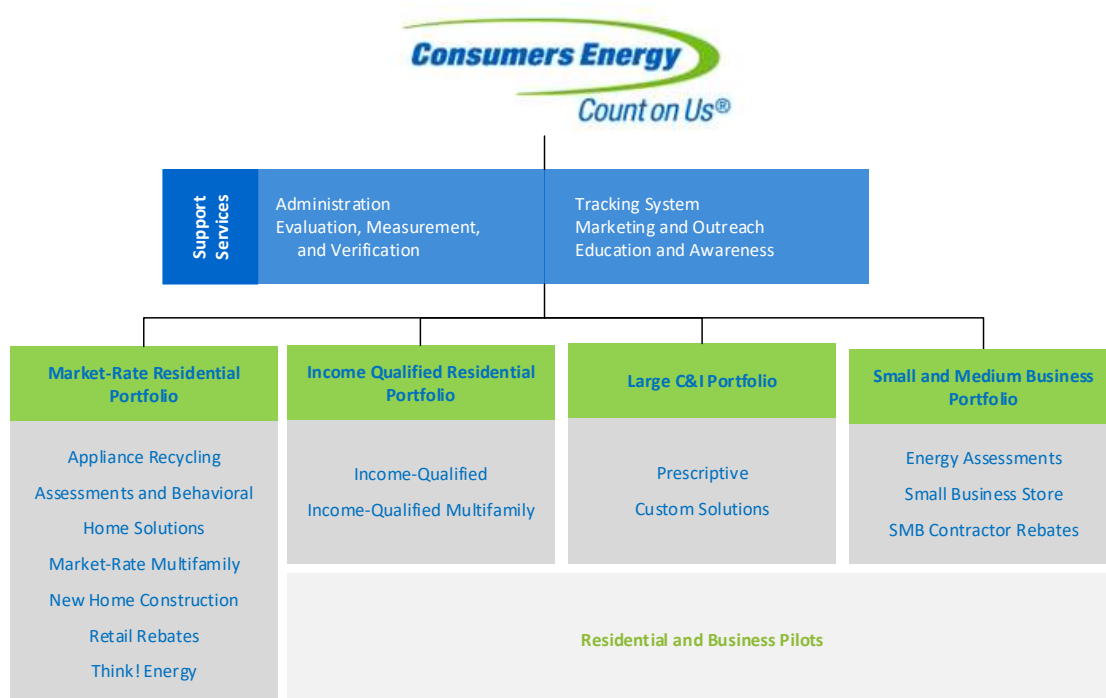
Executive Summary

Consumers Energy Company (Consumers Energy or the Company) has provided reliable, affordable electricity and natural gas service to its customers for more than 130 years. The Company remains committed to planning for and ensuring an adequate electricity and natural gas supply to meet the needs of Michigan homes and businesses, while leading the charge toward a clean energy future and supporting Michigan's clean energy goals.

In compliance with Public Act 295 of 2008, as amended by Public Act 342 of 2016, and pursuant to the Michigan Public Service Commission (MPSC) Order issued December 21, 2022, in Docket No. U-21321, et al., the Company presents this 2024-2025 EWR Plan (Plan) for consideration by the MPSC. This Plan details the portfolio of residential and business programs Consumers Energy will offer to exceed its annual statutory targets of 1% electric savings and 0.75% natural gas savings (as a percentage of energy sales).

To continue its commitment to exceeding the statutory energy-savings targets each year, the Company has adopted corporate savings goals that will nearly double its statutory electric savings target and exceed the natural gas target by 33%. To accomplish this, Consumers Energy modified its program portfolios. In its residential portfolio, the Company bundled some programs under broader, more comprehensive offerings that will give customers more opportunities to save energy based on a logical journey. Alternatively, Consumers Energy unbundled some of its commercial programs to provide a more customized experience for its large and small business customers. The proposed portfolio will continue to provide all customers with opportunities to reduce their energy usage, decrease their environmental impact, and lower their utility bills. Figure ES-1 presents the portfolio structure.

Figure ES-1. 2024-2025 Energy Waste Reduction Portfolio Structure



EXECUTIVE SUMMARY

This comprehensive Plan presents detailed information on Consumers Energy's proposed approach to energy waste reduction (EWR). Based on its experience with EWR since the portfolio launch in July 2009, Consumers Energy anticipates that portions of the Plan will require revision over time to reflect better information and changing market conditions. Consumers Energy will update the MPSC regarding any significant revisions to this Plan.

EWR Portfolio Summary and Savings Goals

Consumers Energy is proposing to invest a total of \$562 million in its electricity and natural gas EWR programs over calendar years 2024 and 2025. As detailed in Table ES-1, Consumers Energy plans to achieve 1.9% of the statutory electricity savings goal. As detailed in Table ES-2, the Company plans to achieve 1% of the statutory natural gas savings goal.

Table ES-1. Electricity Investment and Savings Compared to Targets (2024-2025)

	2024	2025
Planned Investment, Electricity Programs	\$190,925,844	\$180,031,566
Annual Electricity Savings, Statutory Target (MWh)	328,825	326,667
Annual Electricity Savings, Statutory Target (%)	1.0%	1.0%
Annual Electricity Savings, Planned (MWh)	632,156	610,853
Annual Electricity Savings, Planned (%)	1.9%	1.9%

Table ES-2. Natural Gas Investment and Savings Compared to Targets (2024-2025)

	2024	2025
Planned Investment, Natural Gas Programs	\$95,487,640	\$95,066,407
Annual Natural Gas Savings, Statutory Target (Mcf)	2,156,570	2,148,090
Annual Natural Gas Savings, Statutory Target	0.75%	0.75%
Annual Natural Gas Savings, Planned (Mcf)	2,934,071	2,944,466
Annual Natural Gas Savings, Planned (%)	1.0%	1.0%

As detailed in Table ES-3, during the two years of the proposed portfolio, approximately 65% of the investment is allocated for electricity programs and 35% is allocated for natural gas programs.

Table ES-3. Summary Investment and Percentage of Total Investment (2024-2025)

	2024	2025
Planned Investment, Electricity Programs	\$190,925,844	\$180,031,566
Percentage of Total Investment	66.7%	65.4%
Planned Investment, Natural Gas Programs	\$95,487,640	\$95,066,407
Percentage of Total Investment	33.3%	34.6%
Total Investment, EWR Programs	\$286,413,484	\$275,097,973

Table ES-4 presents the total first year energy savings and corresponding investment levels over the two Plan years.

EXECUTIVE SUMMARY

Table ES-4. Summary of Portfolio Planned First Year Annual Savings and Total Investments, 2024-2025

Program	Annual Electric Savings (MWh)	Annual Demand Reduction (MW)	Program Investment, Electric	UCT Results, Electric	Annual Natural Gas Savings (Mcf)	Program Investment, Natural Gas	UCT Results, Natural Gas	Total EWR Program Investment	UCT Results, Total Program
Residential Programs									
Appliance Recycling	65,408	9.8	\$19,197,037	1.71	-	-	-	\$19,197,037	1.71
Assessments and Behavioral	48,643	1.1	\$11,262,804	0.57	614,972	\$10,345,906	1.16	\$21,608,710	0.85
Home Solutions	5,378	1.9	\$7,641,707	0.85	583,977	\$23,265,228	1.90	\$30,906,935	1.64
Income-Qualified	54,037	2.8	\$21,600,000	1.20	338,974	\$42,298,000	0.45	\$63,898,000	0.70
Income-Qualified Multifamily	22,787	1.4	\$24,381,597	0.53	184,290	\$21,303,358	0.40	\$45,684,955	0.47
Market-Rate Multifamily	10,779	1.3	\$7,805,536	0.74	367,672	\$5,605,799	2.30	\$13,411,336	1.39
New Home Construction	3,516	1.9	\$1,845,387	3.64	118,583	\$2,101,068	5.21	\$3,946,456	4.47
Retail Rebates	12,882	2.7	\$5,620,450	1.52	258,906	\$7,104,288	1.45	\$12,724,739	1.48
Think! Energy	11,422	0.9	\$2,793,750	2.30	263,083	\$2,142,679	3.67	\$4,936,429	2.90
Residential Pilot Programs	18,266	1.8	\$9,557,216	1.23	212,369	\$9,437,180	1.77	\$18,994,396	1.49
Subtotal, Residential Programs	253,119	25.6	\$111,705,485	1.23	2,942,825	\$123,603,507	1.77	\$235,308,992	1.49
Business Programs									
Prescriptive	719,207	106.9	\$132,823,632	3.81	1,549,945	\$29,091,911	3.60	\$161,915,543	3.77
Custom Solutions	90,812	7.9	\$9,786,276	7.02	596,789	\$7,377,016	5.90	\$17,163,292	6.54
Energy Assessments	18,915	3.1	\$15,503,669	0.54	401,700	\$8,930,859	1.64	\$24,434,528	0.95
Small Business Store	6,780	0.7	\$1,347,965	2.83	11,791	\$182,610	2.39	\$1,530,575	2.78
SMB Contractor Rebates	48,142	0.2	\$14,061,778	1.20	-	\$0	-	\$14,061,778	1.20
Business Pilot Programs	68,744	9.2	\$16,409,803	3.44	199,128	\$3,901,603	3.56	\$20,311,406	3.47
Subtotal, Business Programs	952,600	128.1	\$189,933,123	3.44	2,759,355	\$49,483,998	3.56	\$239,417,121	3.47
Support Services									
Utility Oversight	-	-	\$44,528,640	-	-	\$8,991,360	-	\$53,520,000	-
Education and Awareness	37,290	4.8	\$11,128,722	2.34	176,356	\$5,716,621	2.30	\$16,845,344	2.33
EM&V	-	-	\$13,661,440	-	-	\$2,758,560	-	\$16,420,000	-
Subtotal, Support Services	37,290	4.8	\$69,318,802	2.34	176,356	\$17,466,541	2.30	\$86,785,344	2.33
Total	1,243,009	158.5	\$370,957,410	2.34	5,878,537	\$190,554,047	2.30	\$561,511,457	2.33

Note: The Market-Rate Multifamily program is in the Residential portfolio; however, measures installed in common areas on a commercial billing rate contribute savings to the business portfolio. Income-qualified programs are excluded from benefit-cost analysis at the portfolio level.

EXECUTIVE SUMMARY

Table ES-5 shows the lifetime cost of conserved energy per megawatt-hour or Mcf and average measure life per program. As shown, the cost of lifetime electric savings in the 2024-2025 EWR Plan is expected to be \$0.022/kWh with an average measure life of 11.4 years, and the total cost of lifetime natural gas savings for the Plan is expected to be \$2.707/Mcf with an average measure life of 11.2 years. The electric acquisition costs in the residential sector are more than 300% higher than the cost of conserved energy in the business sector. Even when the impacts from higher income qualified investments are factored in, the cost of conserved energy is increasing, particularly in the residential sector, as potential declines and delivery costs increase.

Table ES-5. Summary of Total Portfolio Cost of Conserved Energy, 2024-2025

Program	Lifetime Cost of Conserved Energy		Average Measure Life	
	\$/kWh	\$/Mcf	Electric	Natural Gas
Residential Programs				
Appliance Recycling	\$0.038	\$0.000	7.8	0.0
Assessments and Behavioral	\$0.105	\$4.543	2.2	3.7
Home Solutions	\$0.096	\$2.539	14.8	15.7
Income-Qualified	\$0.041	\$10.905	9.8	11.4
Income-Qualified Multifamily	\$0.096	\$12.297	11.2	9.4
Market-Rate Multifamily ¹	\$0.084	\$2.191	8.6	7.0
New Home Construction	\$0.026	\$0.886	20.0	20.0
Retail Rebates	\$0.049	\$3.614	9.0	7.6
Think! Energy	\$0.024	\$1.414	10.1	5.8
Residential Pilot Programs	\$0.055	\$4.484	8.0	9.3
Subtotal, Residential Programs	\$0.055	\$4.484	8.0	9.3
Business Programs				
Prescriptive	\$0.015	\$1.340	12.5	14.0
Custom Solutions	\$0.007	\$0.824	14.8	15.0
Energy Assessments	\$0.000	\$3.174	0.0	7.0
Small Business Store	\$0.214	\$2.175	9.7	7.1
SMB Contractor Rebates	\$0.004	\$0.000	7.0	0.0
Business Pilot Programs	\$0.016	\$1.358	12.3	13.1
Subtotal, Business Programs	\$0.016	\$1.358	12.3	13.1
Total	\$0.022	\$2.707	11.4	11.2

¹ The Market-Rate Multifamily program is in the Residential portfolio, however, measures installed in common areas on a commercial billing rate contribute savings to the Business portfolio.

Schedule and Plan Changes

Consumers Energy is prepared to implement this plan on January 1, 2024, providing uninterrupted services to its customers. All the programs described in this Plan are currently in place and operational. While some programs outlined in this Plan reflect changes in how they are presented, they all comprise mature program elements that Consumers Energy has been delivering to customers for many years.

EXECUTIVE SUMMARY

In the residential sector, this Plan combines several legacy programs into new, more comprehensive product offerings that leverage similar incentive structures and create a more streamlined customer journey. This approach will offer several benefits:

- Reduces confusion and provides an easier participation process for customers looking to implement holistic EWR solutions
- Streamlines and reduces waste in management and administrative processes
- Facilitates more broadly effective and efficient marketing tactics

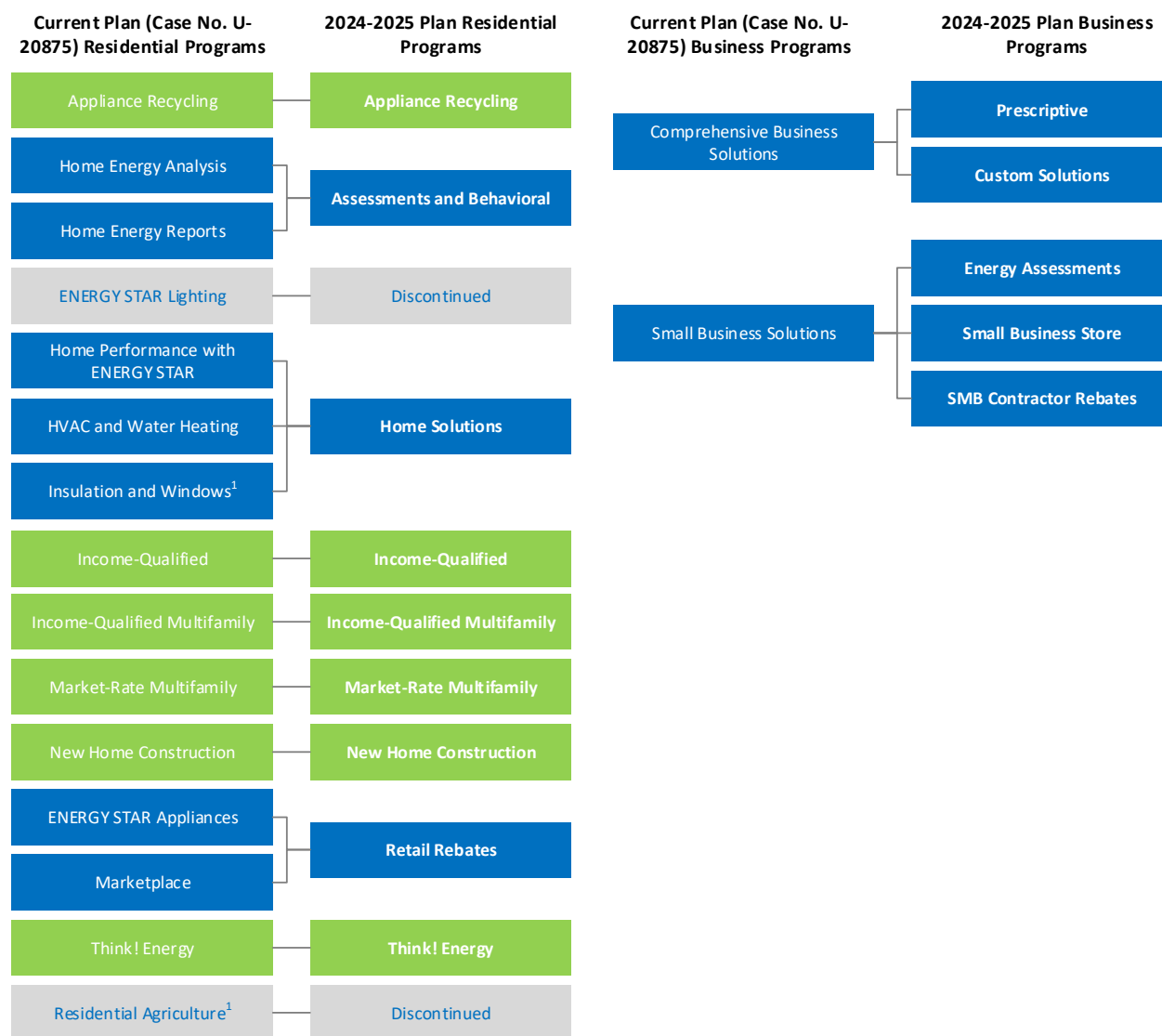
Consumers Energy will also restructure some of its legacy business-sector programs, separating out several components into stand-alone programs. Specifically, the Company will separate the Custom and Prescriptive pathways of its legacy Business Solutions program. As these two offerings produce the largest share of energy savings, implementing separate Custom Solutions and Prescriptive programs will enable the Company to increase the visibility of these programs to customers and to dedicate attention to each delivery strategy. Additionally, Consumers Energy will separate its legacy Small Business Solutions program into three elevated stand-alone offerings for its small- and medium-sized business (SMB) customers. This adjustment reflects the importance of SMB participation as a source of continued EWR potential and the need to provide targeted support to engage this hard-to-reach customer segment.

Finally, while some offerings have been discontinued¹ or no longer appear as specific programs or program pathways, the Company expects to continue providing incentives for all available measures and giving customers access to the same benefits they have received from Consumers Energy programs in the past. Figure ES-2 maps programs in the Company's current EWR Plan portfolio to its proposed 2024-2025 EWR Plan portfolio. In the figure, programs that are unchanged are shown in green, while discontinued programs are shown in gray and programs that have been expanded or absorbed into other offerings are shown in blue.

¹ Only the measures and incentives available through the current ENERGY STAR Lighting program are being discontinued in this Plan, due to changes in federal lighting standards. All other program offerings will be available to customers through alternative programs included in the revised portfolio structure.

EXECUTIVE SUMMARY

Figure ES-2. Product Mapping from 2022–2025 EWR Plan to 2024-2025 EWR Plan



¹ The contractor-facing measures for the Insulation and Windows program were absorbed into Home Solutions and the do-it-yourself measures were absorbed into Retail Rebates. The measures offered through the Residential Agriculture program will continue to be offered through appropriate business programs.

Consumers Energy continuously reviews its program designs, measure offerings, and customer participation levels to ensure that its programs remain consistent with best practices and continue to meet customer demand. The Company reserves the right to exercise flexibility regarding mid-Plan program modifications and budget reallocations in response to market trends and demand. Having this flexibility is critical to ensuring that Consumers Energy can maintain program continuity and ongoing EWR support for its customers.

EXECUTIVE SUMMARY

Plan Organization

Consumers Energy's 2024-2025 EWR Plan is divided into several sections:

- *Section 1: Plan Overview:* Provides an overview the Company's Plan goals and objectives and a summary of the programs that comprise the Plan.
- *Section 2: Portfolio Management:* Presents an overview of Consumers Energy's approach to delivering its EWR programs, including its approaches for conducting education and awareness, administering the programs through a combination of in-house staff resources and third-party implementation contractors, and providing program tracking and reporting and third-party evaluation, measurement, and verification (EM&V). Additionally, this section includes a brief description of Consumers Energy's efforts to coordinate with other entities, MPSC work groups, and state and federal initiatives.
- *Section 3: Summary of EWR Benefits and Costs:* Details the summary results of the annual electricity and natural gas savings projections, investment allocations, and benefit-cost results.
- *Section 4: Residential Portfolio:* Presents detailed program plans for Consumers Energy's proposed residential programs.
- *Section 5: Business Portfolio:* Presents detailed program plans for Consumers Energy's proposed business programs.
- *Section 6: Pilot Programs:* Summarizes Consumers Energy's proposed pilot programs.
- *Appendix A:* Includes a table of detailed program measures, incentive levels, participation estimates, and savings forecasts.

PLAN OVERVIEW

1. Plan Overview

Since 2009, Consumers Energy has been implementing a diverse portfolio of EWR programs that have achieved energy savings for all major sectors and customer classes, including small businesses and low-income customers. The Company proposes to continue offering a portfolio of proven programs with demonstrated market interest and acceptance. Additionally, Consumers Energy is proposing a new portfolio structure intended to streamline administrative processes, facilitate the implementation of deeper residential EWR upgrades, and increase the focus on specific business customer sectors and their individual needs. These changes will facilitate the achievement of EWR program and Company clean energy goals, pave the way toward next-generation EWR technologies, and provide EWR participation opportunities for all customers.

In 2019, Consumers Energy began a transformative journey with the approval of its first integrated resource plan (IRP), known as the *Clean Energy Plan*. In June 2022, the MPSC approved the Company's current IRP that relies on demand-side management (DSM) and renewable energy sources to meet an increasing portion of its energy goals.

Consumers Energy also developed and annually updates its *Natural Gas Delivery Plan*, which maps the Company's vision to deliver safe, reliable, affordable, and increasingly clean energy to natural gas customers. EWR is a cornerstone of the IRP and a critical mechanism for customers to save money and protect the environment. EWR impacts and benefits are also a key component of the Company's natural gas strategy, as described in the *Natural Gas Delivery Plan*. In line with both the IRP and *Natural Gas Delivery Plan*, the Company is committed to exceeding statutory energy-savings goals, targeting an average of 1.9% electric and 1% incremental natural gas savings over the course of the 2024-2025 EWR Plan.

Consumers Energy presents its 2024-2025 EWR Plan at a time of considerable uncertainty and market disruption. Changing baselines, increasing saturation of efficient technologies, and advances in federal standards have eroded electric savings potential. In particular, the phase out of low-cost energy-saving

EWR Accomplishments

More than just an energy supply company, Consumers Energy remains a vital part of the state's economic, social, and environmental fabric, committed to the customers and communities it serves. Since 2009, the Company has achieved many goals:

- Becoming a leading supplier of renewable energy in Michigan and committing to expand renewable energy capacity to comprise 34% of its fuel mix by 2025 and over 60% by 2040.
- Achieving the state's renewable energy standard one year ahead of schedule and below early cost estimates.
- Installing emissions control equipment at coal-fueled generating plants to help make Michigan's air the cleanest it has been in decades.
- Helping customers save more than \$5.5 billion in energy costs since 2009 through EWR programs.
- Saving over 6 million MWh since 2009 with a path to saving over 9 million MWh by 2040.
- Adding over \$5.8 billion in net economic growth to the Michigan economy.
- Helping nearly 200,000 low-income customers make their homes more energy efficient and affordable.
- Preventing the emissions of over 24.5 million tons of carbon dioxide.

PLAN OVERVIEW

measures such as LEDs and the anticipated adoption of a new state-level building energy code create a more challenging environment to reach the cost-effective energy savings the Company has achieved over the last several years, especially impacting the residential sector. Additional factors—such as changing weather patterns and electrification adoption that affect demand planning, uncertain economic conditions, and continuing ramifications from the COVID-19 pandemic (including customer behaviors around working from home)—create uncertainty for the Company’s EWR programs and *Clean Energy Plan* goals.

At the same time, new funding provided through the Inflation Reduction Act (IRA), Infrastructure Investment and Jobs Act (IIJA; also known as the Bipartisan Infrastructure Law) could boost program participation, help decarbonize energy systems, increase skilled workforce resources, and reduce the energy burden for lower-income Americans. However, at the time of this filing, federal and state governments are still in the process of identifying how these programs will be rolled out and how the new federal initiatives will intersect with utility and community programs. While the Company is anticipating collaboration opportunities to support IRA and IIJA utilization, much is still unknown at this time regarding details of both Company EWR program opportunities and risks associated with IIJA and IRA implementation.

Given these challenges and uncertainties, Consumers Energy acknowledges that it will be difficult to capture sustained cost-effective savings and that it may not be possible to mitigate every market disruption outlined above or to anticipate other disruptions that may arise. As the energy landscape evolves, utilities across the country are grappling with the implications for their EWR programs and determining how to best manage their regulatory obligations while continuing to provide comprehensive and reliable energy and EWR services to customers. Over the next few years, as these market trends continue to evolve, utilities will likely face increasing challenges to achieving cost-effective energy savings and may need to look for new ways to assign benefits, such as by using non-energy benefits, changing the allocation of costs, or both. Furthermore, as alternative sustainability programs focused on renewable energy and electrification continue to mature and expand, utilities are beginning to explore how to best offer a comprehensive portfolio of sustainability products to their customers and how such programs may intersect in the regulatory sphere.

1.1. Plan Development Process

In developing this 2024-2025 EWR Plan, Consumers Energy looked for ways to meet its electric and natural gas savings goals by building on the success of its existing EWR programs, refining them to optimize customer participation, and accounting for updated equipment standards and savings values.

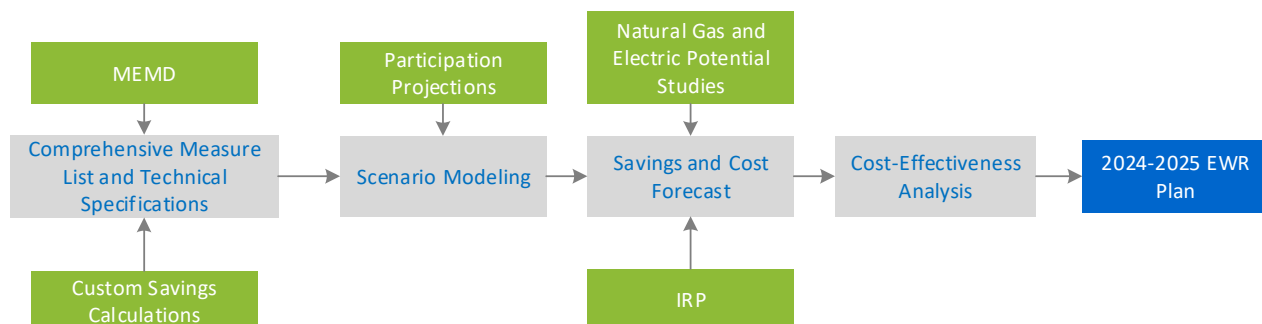
Consumers Energy built the Plan portfolio by compiling potential electric and natural gas measures into a comprehensive list and applying energy savings sourced from the Michigan Energy Measures Database (MEMD), a database of EWR measures and deemed savings values developed in conjunction with MPSC staff and other stakeholders for the Michigan market. For each measure considered in the Plan, Consumers Energy compiled MEMD data on technical specifications, weather-normalized end-use energy savings and peak demand impacts, and costs. For programs using more holistic strategies, such as Custom Solutions and the Home Energy Report pathway of the Assessments and Behavioral program, Consumers Energy made unit savings assumptions based on custom savings analyses that included a review of historical data.

PLAN OVERVIEW

Next, Consumers Energy consolidated measures into the new program structures outlined in this Plan and used historical program data and input from its implementation contractors to estimate program participation. Consumers Energy used this consolidated data to model various Plan savings scenarios and screen measures based on their utility cost test (UCT) results and arrived at a two-year savings forecast. To fill the savings gap between this business-as-usual forecast and Consumers Energy's corporate savings goal of a minimum 1.8% electric savings and 1% natural gas savings, the Company used a modeling process that calculates new participation and savings results based on adjustments to incentive levels, marketing investments, and program delivery. Consumers Energy also aligned its savings and cost forecasts with current research and other planning efforts, particularly aligning its natural gas and electric potential studies and IRP with its EWR goals over this planning period.

In June 2023, Consumers Energy convened a stakeholder meeting to review its Plan strategy, costs, and savings estimates. Finally, Consumers Energy conducted a cost-effectiveness analysis of each program and the overall portfolio. Figure 1-1 illustrates the process the Company used to derive the programs outlined in the 2024-2025 EWR Plan. Inputs to and considerations that informed the plan are shown in green while planning steps are shown in grey.

Figure 1-1. Portfolio Planning Process



The resulting Plan builds on past success, but acknowledges and accounts for a changing market, new opportunities, increased savings goals, and the Company's commitment to a triple bottom line of people, planet, and prosperity.

1.2. Goals and Objectives

Consumers Energy has several goals and objectives for the 2024-2025 EWR Plan:

- Exceed statutory savings targets and meet the increased resource acquisition goals tied to Company IRP commitments. Continue to support long-term market transformation.
- Contribute to the Company's *Clean Energy Plan* goals to end coal use for electricity generation by 2025, reduce carbon emissions by more than 63 million tons, and meet customer needs with 90% clean energy resources (including renewable energy and EWR) by 2040.
- Offer a diverse, cost-effective portfolio of programs that provide participation opportunities for all customers.

PLAN OVERVIEW

- Foster equity and increased EWR participation opportunity for low-income and hard-to-reach populations through several actions:
 - Continuing investment in the Company's Health & Safety pilot and Flint Initiative, both of which are administered through the Income-Qualified and Income-Qualified Multifamily programs.
 - Working with stakeholders and evaluation contractors and leveraging the Company's *2022 Low Income Needs Assessment* and other research in program planning to target diverse customers in historically underserved areas and disadvantaged communities for EWR engagement.
 - Continuing to work with EWR collaboratives and work groups such as the MPSC Energy Affordability and Accessibility Collaborative and EWR Low Income Workgroup to increase EWR opportunities among diverse communities.
 - Supporting coordinated efforts to expand weatherization program access and direct customers who need energy assistance to EWR offerings that provide a holistic approach focused on reducing their energy burden.
- Realize opportunities to expand EWR through coordination with other providers of EWR services (such as DTE Energy and Michigan Saves).
- Provide programs that create customer value and engender customer satisfaction.
- Facilitate the adoption of next-generation technologies and EWR services through its pilot programs.
- Work to increase supplier diversity and diverse supplier spending through engagement, training, and collaboration with EWR equipment dealers, contractors and trade allies, nongovernmental organizations, industry groups, and other program partners.
- Inform and educate customers to use energy more efficiently, using easy-to-access support and messaging that emphasizes comprehensive and deep energy savings.
- Collaborate with the MPSC; the Department of Environment, Great Lakes, and Energy; and other state and community partners to support the development of programs that deploy IIJA and IRA funds in ways that complement utility EWR programs and benefit all Michigan customers.
- Fulfill the legislative requirements set forth in Public Act 295 of 2008 as amended by Public Act 342.

1.3. Plan Composition

The Plan offers a comprehensive set of programs and initiatives for acquiring energy-efficiency resources during the two-year Plan period in 2024 and 2025. It continues, refines, and expands upon the successful energy-efficiency programs Consumers Energy has offered for more than a decade. The Plan consists of nine residential and five commercial EWR programs, as outlined in Table 1-1.

PLAN OVERVIEW

Table 1-1. 2024-2025 Program Summary

Program Name	Markets Served	Program Offerings
Residential EWR Portfolio		
Appliance Recycling	All residential electric customers	<ul style="list-style-type: none"> Incentive and environmentally responsible, free pick up of older, inefficient refrigerators, freezers, and small appliances
Assessments and Behavioral	All residential customers	<ul style="list-style-type: none"> Walk-through or virtual home inspection, installation of free energy-saving measures, and customized post-assessment report with energy-saving tips and recommendations tailored to customer's fuel type (dual fuel, natural gas-only, or electric-only) Personalized household reports, sent by mail and/or email, with individual energy usage tips and program recommendations
Home Solutions	Residential customers in single-family homes	<ul style="list-style-type: none"> Comprehensive home assessments including diagnostic testing and visual inspection performed by a Building Performance Institute (BPI)-certified contractor with a comprehensive final report that uses energy modeling to provide energy-savings estimates, upgrade costs, and payback associated with recommended improvements Prescriptive midstream and downstream rebates for the purchase and installation of high-efficiency heating, cooling, and hot water equipment Prescriptive downstream rebates for qualified energy-saving windows and home insulation Support to HVAC and insulation contractors including training, educational materials, account management representation, and marketing collateral Web-based Find-a-Contractor tool
Income-Qualified	Residential low-income customers in single-family homes	<ul style="list-style-type: none"> Free walk-through or virtual home inspection/assessment with direct install measures tailored to customer's fuel type (dual fuel, natural gas-only, or electric-only) Home weatherization assistance, installation of energy-efficient measures, and education about how to conserve energy and manage utility costs Collaboration with community partners to provide maximum and coordinated benefit to income-qualified customers
Income-Qualified Multifamily	Residential low-income customers in multifamily housing	<ul style="list-style-type: none"> Direct, no-cost installation of energy-saving devices in individual tenant units and common areas Educational materials explaining the program's energy- and money-saving benefits Prescriptive and custom incentives (offered at a higher rate than those in the Market-Rate Multifamily program) for property owners to install energy-saving equipment in individual units and common areas
Market-Rate Multifamily	Residential and commercial multifamily property owners	<ul style="list-style-type: none"> Turnkey services for residents to reduce energy use in their living units through the direct installation of energy-saving devices at no cost to the property owners or tenants Educational materials explaining the program's energy- and money-saving benefits Prescriptive and custom incentives for property owners to install energy-saving equipment in individual units and common areas
New Home Construction	Residential builders	<ul style="list-style-type: none"> Incentives for builders who construct new homes to ENERGY STAR standards or achieve a minimum Home Energy Rating System (HERS) rating Builder training on high-performance building practices and how to promote the value of energy-efficient homes

PLAN OVERVIEW

Program Name	Markets Served	Program Offerings
Retail Rebates	All residential customers	<ul style="list-style-type: none"> Instant rebates for customers who purchase qualifying products through Consumers Energy's online store Prescriptive downstream rebates for customers who purchase qualifying ENERGY STAR–certified appliances through a Consumers Energy retail partner
Think! Energy	Early elementary to high school students and community groups	<ul style="list-style-type: none"> In-person or virtual EWR presentations and educational content for teachers and community groups Free energy-saving take-home kit including low-cost energy-efficiency measures and educational content
Business EWR Portfolio		
Prescriptive	Large business customers	<ul style="list-style-type: none"> Prescriptive downstream and midstream rebates ranging from 20% to 40% of the incremental cost of high-efficiency electric and natural gas equipment
Custom Solutions	Large business customers	<ul style="list-style-type: none"> Analysis, performance-based incentives, and technical assistance for large commercial and industrial customers who install high-efficiency equipment or process improvements not covered through the Prescriptive program
Energy Assessments	SMB customers	<ul style="list-style-type: none"> On-site energy assessments with limited direct installation measures and a report on the measures installed, product recommendations, and tips on how to save more energy Installation and direct distribution (via mailed kits) of free measures including showerheads, faucet aerators, pre-rinse sprayers, pipe wrap, and programmable and smart thermostats
Small Business Store	SMB customers	<ul style="list-style-type: none"> Self-service, online marketplace that provides instant incentives for the purchase of qualifying energy-efficient products
SMB Contractor Rebates	SMB customers	<ul style="list-style-type: none"> Installation of common lighting and refrigeration measures by participating trade allies

PORTFOLIO MANAGEMENT

2. Portfolio Management

Consumers Energy has over a decade of successful program management and implementation experience and will use its accumulated knowledge and experience, lessons learned, and industry relationships to deliver programs that are effectively managed by its EWR staff and implementers.

2.1. Education and Awareness

Educating customers to increase their general awareness of EWR benefits and strategies is vital to increasing customer participation in energy efficiency. Training trade allies on best practices and encouraging them to participate in Consumers Energy programs is critical to the successful delivery of the Company's EWR portfolio. Consumers Energy's general education and awareness activities permeate its programs, customer touch points, and communications and generally fall into two categories to address these needs: general energy awareness education for customers and trade ally training and education.

General Energy Awareness Education for Customers

General energy awareness entails providing non-program-specific information, resources, and outreach to customers focused on increasing their knowledge of (1) the benefits of EWR and energy-efficient technologies, such as saving energy costs, improving comfort and air quality, increasing equipment durability and property values, contributing to local economic development, increasing employee productivity, and reducing the emissions of greenhouse gases and other pollutants; (2) ways to save energy through behavioral changes and by installing energy-efficiency technologies; and (3) specific approaches to saving energy in homes and businesses. Consumers Energy offers several types of general awareness information, resources, and learning opportunities to communicate EWR messaging to customers.

- Educational materials distributed during or after program engagement (such as leave-behind materials and assessment reports) that promote EWR and provide tips to help customers save energy.
- One-on-one education delivered by program implementation and trade ally partners during energy assessments or other in-person touch points.
- Participation in events such as home and trade shows and community events.
- Advertising and promotions through Consumers Energy's website, social media, and mass-market general education to promote energy-efficiency awareness.
- Consumers Energy's website, which provides customers with several tools and information to help them better understand and act on EWR opportunities:
 - [Managing Your Energy Use](#) provides customers with EWR information including tips on behavioral changes and equipment upgrades to help them manage energy use across a range of end uses.
 - The [Find-a-Contractor](#) tool helps Consumers Energy customers locate trade ally partners who provide a range of EWR services in their area.

PORTFOLIO MANAGEMENT

- Tools to help [small business customers analyze their energy use](#) and develop a personalized energy-savings plan and to help [residential customers estimate their energy savings and rebates](#) when they upgrade their insulation and windows.
- Tools to help [small business customers analyze their energy use](#) and develop a personalized energy-savings plan and to help [residential customers estimate their energy savings and rebates](#) when they upgrade their insulation and windows.
- [Education resources](#) for teachers, parents, students, Cub Scout and Girl Scout troops, and other community groups to increase their awareness of energy safety and the science of electricity and natural gas, sustainability, and other topics. Resources include lesson plans, home school materials, games, and tips to engage kids in science and technology and in learning about energy.
- Tips on ways to save energy for [homeowners](#), [renters](#), and [businesses](#).
- Guides to help customers plan and install [do-it-yourself](#) home weatherization projects.
- Customer trainings, generally targeting commercial property managers, facility engineers, and maintenance and operations personnel on technical topics such as conducting efficient building operations, measuring and benchmarking energy performance, optimizing efficient equipment usage, improving indoor environmental quality, and practicing sustainable operations and maintenance.

Trade Ally Training and Education

Trade ally training and education is essential for maintaining the quality of Consumers Energy's programs and high customer satisfaction levels. Consumers Energy offers an online [Energy Efficiency Learning Center](#) for trade allies and conducts in-person and virtual training for the range of partners engaged in program delivery including contractors, builders, energy assessors, HERS raters, distributors, and retailers. For programs that require a high degree of technical competency, Consumers Energy offers technical training—and in many cases requires participating trade allies to attend that training to maintain the required skills or certifications. Trade ally training generally covers several types of topics:

- General information and orientation on EWR programs, participation benefits, requirements, and rules, as well as engagement processes, qualifying measure options and incentives, and how to fill out program applications.
- Sales training with information and techniques the trade allies can use to promote Consumers Energy's programs to their customers.
- Technical training in specialty areas for specific programs. This could involve classroom or field training and may include certification for some trade allies. Technical training for trade allies may include (but is not limited to) several types of topics:
 - Home energy assessment professionals are trained to use a whole-house, building science-based approach to properly diagnose a home for energy-efficient improvements.
 - BPI training and certification is required for trade allies who provide whole-home assessments through the Home Solutions program.
 - Builders must have training on ENERGY STAR standards and high-performance building practices.

PORTFOLIO MANAGEMENT

- HERS training and certification is required for HERS raters participating in the New Home Construction program.
- Builders and HERS raters will be offered training on new residential building codes that are expected to be adopted in the second half of 2023.
- All trade allies are offered training on new technologies and equipment and on proper installation techniques and requirements (including their applications and uses) and related quality assurance and quality control standards.
- Trade allies are offered comprehensive tune-up training on using advanced diagnostic tools to fully analyze heating and cooling equipment.

2.2. Program Administration

A portfolio of this size and scope requires careful management. Consumers Energy staff provide administrative and operational oversight, including management, financial planning, budgeting, and several additional activities:

- Program leadership and management of the implementation contractors:
 - High-level guidance, oversight, and direction.
 - Review and revision of proposed annual implementation plans and proposed milestones.
 - Daily engagement with the contractor team when working through strategy and policy issues.
 - Guidance and direction on new initiatives or strategies proposed by the implementation contractors.
 - Communication to the implementation contractors on opportunities for targeted marketing, customer acquisition, and cross-program promotion.
- Investment administration, including review and approval of implementation contractor invoices to ensure that programs are within budget and on schedule.
- Review of implementation contractor operational databases to ensure the accuracy of Consumers Energy's comprehensive tracking and reporting system.
- Review of measure characteristics and calculations of EWR product impacts.
- Progress monitoring to facilitate energy-saving goal achievement.
- Coordination of marketing strategy and public relations:
 - Customer EWR education.
 - Public education and outreach to community groups, trade allies, and trade associations.
 - Review and approval of printed materials and advertising plans.
 - Development and placement of marketing materials and advertising.
- Engagement with program evaluation and recommendations for improvement.
- Monitoring and assessment to ensure a high level of customer satisfaction.
- Periodic review of methods for program measurement, analysis, and design.

PORTFOLIO MANAGEMENT

- Data warehousing.
- Quality assurance and quality control.
- Regulatory support, including program-related reconciliation efforts.

Costs associated with outside services needed throughout the year (such as for Plan filing benefit-cost tests) are included in administration costs.

Consumers Energy manages a diverse portfolio of programs through a combination of in-house utility staff and competitively selected third-party implementation contractors. Table 2-1 lists the current implementation contractors and the programs they administer.

Table 2-1. Implementation Contractors

Implementation Contractor	Customer Class	Program
CLEAResult	Residential	Appliance Recycling Assessments and Behavioral – Virtual Home and In-Home Energy Assessment pathways (dual fuel and natural gas-only) Income-Qualified (dual fuel and natural gas-only)
DNV	Business	Prescriptive Custom Solutions Energy Assessments (dual fuel and electric-only) SMB Contractor Rebates
Energy Science ¹	Business	Prescriptive (provides services for compressed air projects)
Franklin Energy	Residential	Income-Qualified Multifamily Market-Rate Multifamily
ICF	Residential	Home Solutions New Home Construction Retail Rebates Residential pilots
National Energy Foundation	Residential	Think! Energy
Solutions for Energy Efficient Logistics ¹	Residential	Assessments and Behavioral – Virtual Home and In-Home Energy Assessment pathways (electric-only) Income-Qualified (electric-only)
	Business	Energy Assessments (natural gas-only)
Uplight	Residential	Assessments and Behavioral – Home Energy Report pathway
	Business	Small Business Store

¹ Diverse supplier

Implementation contractors work with program managers to ensure that programs run smoothly and achieve their energy-savings goals. The implementation contractors are responsible for handling several types of program implementation-related administrative requirements:

- Trade ally and retailer education
- Program-specific marketing and messaging support

PORTFOLIO MANAGEMENT

- Field services
- Rebate processing
- Data tracking and reporting
- Investment tracking and reporting
- Contact with call center services
- Public relations management
- Quality assurance and quality control procedures
- Customer satisfaction and problem resolution

2.3. Tracking and Reporting

Consumers Energy uses a comprehensive tracking database and data management system to record all program participation data. Consumers Energy's implementation contractors use this system to record information on EWR program participation, such as property characteristics, baseline conditions, and installed measure details, and to upload application documents and reports. Measure characteristics within the system align with the MEMD and custom measure savings calculations. The energy-savings values contained within the tracking database are the basis for the annual energy-savings certification performed by third-party evaluation contractors.

Implementation contractors update the database, adding new measures and making modifications based on changes to the MEMD parameter values and measure mix and based on emerging technologies, as well as making other necessary updates. Third-party evaluation contractors conduct a rigorous quality review and approval process before updates are added to the tracking system. Consumers Energy, in consultation with its evaluation teams, conducts an annual review of the system that includes validating that the system correctly incorporates installation rate adjustment factors, net-to-gross factors, measure lives, and any other changes to the MEMD.

2.4. Evaluation, Measurement, and Verification

EM&V is key for validating program impacts and measuring performance. Ongoing evaluation research ensures that program results are measurable, validated, and defensible, and that participation in programs is maximized, the portfolio is cost-effective, and customers are satisfied.

2.4.1. Third-Party Evaluation Contractors

All evaluation activities are conducted by nationally recognized third-party evaluation contractors. [TRC](#) is the lead evaluator for the Business portfolio and [Cadmus](#) is the lead evaluator for the Residential portfolio. Each year the evaluation contractors review, audit, and certify savings and include the results in an annual report provided to the MPSC. The evaluation contractors also assess performance metrics, such as customer satisfaction, awareness, and savings trends, that enable the programs to operate effectively and provide customer value.

PORTFOLIO MANAGEMENT

Consumers Energy's evaluation contractors also participate in MPSC EWR collaborative efforts including with the EWR Collaborative and its technical subcommittee, the EWR Low Income workgroup, and the Energy and Accessibility and Affordability Collaborative. These collaboratives provide effective forums to develop evaluation guidelines, calibrate measure savings and other parameter values, collectively resolve EM&V questions, annually review the MEMD to identify new measures that could be added and existing measures that may require updates, and to analyze proposed changes and validate the accuracy of savings estimates for the Michigan market. Further, to foster utility alignment and limit redundancies, the Company's evaluation contractors coordinate activities with DTE Energy and other Michigan utilities.

2.4.2. Objective of EM&V

Evaluations are designed to provide an ongoing assessment of EWR programs, including tracking program participation and measure installation, applying accurate savings and persistence values, calculating achieved gross and net demand and energy impacts, and measuring customer response and satisfaction. Timely and ongoing feedback allows for mid-course adjustments in program implementation if the results indicate that progress is falling short of expectations. The evaluation contractors perform three primary types of evaluation activities for Consumers Energy:

- **Impact Evaluation:** The primary objective of an impact evaluation is to assess the change in energy consumption that can be attributed to a particular program intervention (such as the installation of energy-efficient equipment). Impact evaluations include verifying equipment installations, performance, and operating conditions, as well as the application of accurate savings values; applying appropriate adjustments to MEMD saving estimates based on metering, engineering, or statistical methods as well as weather-normalization; and determining net savings directly attributable to a program.
- **Process Evaluation:** Through a process evaluation, Consumers Energy's evaluation contractors study all aspects of program administration and implementation. This includes but is not limited to internal and external procedures and operations, the alignment of program activities and objectives, the professionalism and efficiency of implementation contractors, the manner and effectiveness of program staff interactions with key market players (such as customers and trade allies), and the program's effectiveness in addressing market barriers. Increasingly, Consumers Energy process evaluation efforts provide near-real-time feedback based on frequent customer input related to program awareness, participation experience, and overall satisfaction. Evaluation contractors also frequently conduct benchmarking research of peer utility programs and industry best practices to offer context and provide comparison metrics against which to measure and manage program performance.
- **Market Assessment:** Through market assessment research, the evaluation contractors identify factors in the market that may affect program delivery or lead to improvements in program design, including customer acceptance of new technologies, market barriers, outreach methods and messaging that can be leveraged to improve customer awareness of programs, and emerging trends that may impact the future potential for EWR programs. These assessments also provide information concerning the impact that EWR programs have on market transformation and technology adoption.

PORTFOLIO MANAGEMENT

EM&V also encompasses a variety of tasks that do not pertain to specific programs but are important to the overall evaluation effort:

- Conducting general research to identify new sources of energy savings and support best practice program delivery.
- Reviewing deemed savings estimates and recommending revisions (if needed) to the MEMD.
- Coordinating and participating in the Technical Subcommittee and other statewide collaboratives established by the MPSC.
- Conducting calibration research and other statewide studies that improve the accuracy of savings estimates.
- Reviewing and approving updates to Consumers Energy's EWR tracking system.
- Certifying savings through a systematic review and validation of all tracking system data to ensure the accuracy of reported savings by measure, by program, and for the total portfolio of EWR programs.
- Preparing certified savings reports and annual reports for submission to the MPSC.

2.4.3. EM&V Practices by Program

In each annual evaluation cycle, Consumers Energy's evaluation contractors work with individual program managers and the Company's EM&V and Product Experience and Performance teams, as well as with the Executive Director of DSM and the Company's residential, SMB, and commercial and industrial program directors, to identify research objectives and tasks that consider program-level spending and savings goals, challenges, market trends, and opportunities for expansion. The evaluation contractors then develop annual, program-specific evaluation plans that outline appropriate evaluation methodologies, sampling and data needs, the schedule, and deliverables. The general approaches used to evaluate different program types are outlined in Table 2-2.

PORTFOLIO MANAGEMENT

Table 2-2. Program-Specific EM&V Approaches

Program	Delivery Type	Process Evaluation Approaches	Impact Evaluation Approaches
Residential Programs			
Assessments and Behavioral	Behavioral, direct install	Participant experience surveys ¹ Annual research to assess program performance varies	Evaluation contractor verifies that deemed savings were applied to measures directly installed during home energy assessments using the four-step process described below. Evaluation contractor conducts regression analysis of monthly customer bills (using a matched comparison group) to estimate behavioral electricity and natural gas savings per household accruing from the distribution of home energy reports. ²
Appliance Recycling	Direct delivery, prescriptive downstream rebates		Evaluation contractor verifies deemed savings from the MEMD (applied by program implementation contractors) using a four-step process: 1. Compare and reconcile tracking system and implementer data 2. Verify measure-level savings as referenced in the MEMD 3. Verify the proper application of adjustment factors (such as installation rates and net-to-gross values) 4. Calculate verified annual and lifetime savings
Home Solutions	Contractor delivery, prescriptive downstream and midstream rebates		
Income-Qualified ³	Direct delivery, direct install, prescriptive downstream contractor rebates		
Income-Qualified Multifamily ³			
Market-Rate Multifamily			
New Home Construction	Contractor delivery, downstream rebates		
Retail Rebates	Online marketplace and retail partnerships, instant discounts, prescriptive downstream rebates		
Think! Energy	Direct delivery, kit distribution		
Residential Pilots	Pilot programs	Annual research to assess program performance varies	

PORTFOLIO MANAGEMENT

Program	Delivery Type	Process Evaluation Approaches	Impact Evaluation Approaches
Business Programs			
Prescriptive	Prescriptive downstream and midstream rebates	Ongoing customer satisfaction surveys Annual research to assess program performance varies	<p>Evaluation contractor performs impact evaluations every two to three years to update gross adjustment factors (GAFs), which primarily account for installation rates. Evaluation contractor uses these GAFs to develop the verified savings during the certification process.</p> <p>For prescriptive measure installations, the evaluation contractor applies and verifies deemed savings from the MEMD using a four-step process:</p> <ol style="list-style-type: none"> 1. Compare and reconcile tracking system and implementer data 2. Verify measure-level savings as referenced in the MEMD 3. Verify the proper application of adjustment factors (such as GAFs and net-to-gross values) 4. Calculate verified annual and lifetime savings
Custom Solutions	Performance-based custom projects		<p>Evaluation contractor performs annual impact evaluations to update GAFs, which primarily account for installation rates and engineering adjustments made to the reported savings estimates. Evaluation contractor uses these GAFs to develop the verified savings during the certification process.</p> <p>For custom project installations, the evaluation contractor verifies project savings using a three-step process:</p> <ol style="list-style-type: none"> 1. Verify the proper application of workpaper custom measures lives 2. Verify the proper application of adjustment factors (such as GAFs and net-to-gross values) 3. Calculate verified annual and lifetime savings
Energy Assessments	On-site assessments with direct install and virtual assessments with direct distribution kits		Evaluation contractor performs impact evaluations every two to three years to update GAFs, which primarily account for installation rates. Evaluation contractor uses these GAFs to develop the verified savings during the certification process.
Small Business Store	Online marketplace		Evaluation contractor applies and verifies deemed savings from the MEMD using a four-step process:
SMB Contractor Rebates	Performance-based contractor rebates		<ol style="list-style-type: none"> 1. Compare and reconcile tracking system and implementer data 2. Verify measure-level savings as referenced in the MEMD 3. Verify the proper application of adjustment factors (such as GAFs and net-to-gross values) 4. Calculate verified annual and lifetime savings

PORTFOLIO MANAGEMENT

Program	Delivery Type	Process Evaluation Approaches	Impact Evaluation Approaches
Business Pilots	Pilot programs	Annual research to assess program performance varies	Evaluation contractor conducts custom savings analysis as needed using appropriate engineering or statistical analysis methods to determine pilot savings impacts and cost-effectiveness. Evaluation contractor performs pilot evaluation to inform the next step in the pilot product lifecycle (specifically whether to transition to a formal EWR program or discontinue the pilot).

¹ Participant experience surveys are not administered to tenants in multifamily properties due to the limited availability of customer emails.

² To conduct custom savings analyses for behavioral programs, evaluation contractors follow the guidelines outlined in the current *Michigan Behavioral Resource Manual*.

³ EM&V for the Income-Qualified and Income-Qualified Multifamily programs will include tracking and analyzing specific metrics as outlined in Consumers Energy's Settlement Agreement in Case No. U-20875 for participants in the Health & Safety pilot and in the Flint Initiative. These metrics include entities performing work, customer served, deferrals identified and resolved, disconnections, installed measures, repairs completed, energy saved, bill impacts, disconnections, impact on arrears, and health impacts.

SUMMARY OF EWR BENEFITS AND COSTS

2.5. Coordination with External Partners

Consumers Energy works with a range of partners to optimize the efficiency and reach of its EWR programs.

2.5.1. Inter-Utility Coordination

Consumers Energy works with DTE Energy and other utilities to support the effectiveness of its EWR programs. Ongoing communication and coordination with DTE Energy is especially important for areas where natural gas and electricity service territories overlap. The two companies work together to identify administrative and implementation cost savings, to provide a consistent message, to manage programs in a similar manner (which removes barriers for customers and trade allies), and to share savings in cases where measures installed in one utility's single-fuel territory provide fuel savings provided by the other utility.

Additionally, Consumers Energy and DTE Energy work together to provide joint funding and oversight for research studies and other initiatives that benefit state EWR efforts generally and that improve the accuracy of the MEMD.

2.5.2. Coordination with Other Efficiency Initiatives

Other entities provide EWR services in Michigan, including state and federal governments, the Midwest Energy Efficiency Alliance, the U.S. Environmental Protection Agency, the U.S. Department of Energy's ENERGY STAR brand, Michigan Saves, and the Michigan Department of Environment, Great Lakes, and Energy, in addition to other MPSC programs being offered (such as Michigan Energy Assistance Program for low-income customers). Consumers Energy will continue to work diligently to maintain these relationships and coordinate with these entities to realize benefits for Michigan utility customers. During the 2024-2025 EWR Plan delivery period, Consumers Energy anticipates coordinating with many of these organizations, particularly the Michigan Department of Environment, Great Lakes, and Energy, regarding the design, implementation, marketing, and education of programs intended to distribute funding and other benefits associated with the IRA and IIJA, with the goals of maximizing benefits for customers and the state of Michigan and avoiding administrative and market inefficiencies.

Consumers Energy, along with the Upper Peninsula Power Company, DTE Energy, and Indiana Michigan Power, founded the Michigan Heat Pump Collaborative and partnered with Slipstream to deliver the collaborative's mission to "Create a holistic education, outreach and training forum to pursue deeper engagement with manufacturers, distributors, trade allies, customers and other stakeholders to identify needs, remove barriers and ultimately increase adoption and participation in heat pump technologies." This collaborative is a long-term heat pump education commitment for market transformation in Michigan and will continue for the 2024-2025 EWR Plan years.

2.5.3. Trade Ally and Contractor Coordination

Trade allies and contractors are essential for effective program implementation and for achieving positive energy-savings results. Consumers Energy currently has over 2,500 trade allies and contractors who help customers reduce their energy waste. Consumers Energy will continue to cultivate and nurture these important

SUMMARY OF EWR BENEFITS AND COSTS

relationships through numerous methods to ensure effective two-way communication. Ongoing training and program updates are a key part of program delivery and have been effective for stimulating trade ally involvement.

Consumers Energy has incorporated program feedback from trade allies about what is working and what is not, as well as suggestions for improvement. Consumers Energy will continue to emphasize coordination, listening sessions, and frequent communications with these key partners to advance program goals.

2.5.4. Michigan Saves Collaboration

Consumers Energy offers a financing option in conjunction with [Michigan Saves](#), presenting buy-down or payment options from a typical Michigan Saves rate and allowing customers who would not otherwise complete a project to participate in the EWR program. Consumers Energy will continue to work with Michigan Saves to provide a low-cost EWR financing option for residential and business customers.

SUMMARY OF EWR BENEFITS AND COSTS

3. Summary of EWR Benefits and Costs

Consumers Energy strives to optimize EWR by emphasizing deep energy savings and providing customer value at a minimum cost. This 2024-2025 EWR Plan presents a two-year portfolio investment consistent with legislative requirements. Consumers Energy will review incentive levels and other program costs on an annual basis and will modify budget allocations to reflect changes in market conditions or implementation processes and to maximize cost-effective savings. Consumers Energy reports such modifications in its annual EWR report submitted to the MPSC.

3.1. Savings and Investment Forecasts

Consumers Energy is proposing to invest \$561.5 million in EWR programs during calendar years 2024 and 2025. This 2024-2025 EWR Plan is designed to maximize the amount of program funds that go directly to customers through incentives, training and technical assistance, and customer and trade ally education. The portfolio also accounts for program costs needed to adequately plan, develop, deliver, and evaluate its programs. The Company applies the balance of the expenditures to program administration, including maintaining a comprehensive data tracking system. Consumers Energy developed this Plan to cost-effectively exceed the annual statutory electricity and natural gas savings targets and achieve its corporate savings goals. For this Plan, Consumers Energy's annual savings targets are calculated based on its 2023 retail sales forecast. Consumers Energy's annual savings and investment amounts for program years 2024 and 2025 are detailed in Table 3-1 through Table 3-6.

Table 3-1. EWR Programs Investment Summary

	2024	2025
Planned Investment, Electricity Programs	\$190,925,844	\$180,031,566
Percentage of Total Investment	66.7%	65.4%
Planned Investment, Natural Gas Programs	\$95,487,640	\$95,066,407
Percentage of Total Investment	33.3%	34.6%
Total Investment, EWR Programs	\$286,413,484	\$275,097,973

Table 3-2. Electricity Programs Investment and Savings Compared to Statutory Targets

	2024	2025
Planned Investment, Electricity Programs	\$190,925,844	\$180,031,566
Annual Electricity Savings, Statutory Target (MWh)	328,825	326,667
Annual Electricity Savings, Planned (MWh)	632,156	610,853
Percentage of Target	1.9%	1.9%

Table 3-3. Natural Gas Programs Investment and Savings Compared to Statutory Targets

	2024	2025
Planned Investment, Natural Gas Programs	\$95,487,640	\$95,066,407
Annual Natural Gas Savings, Statutory Target (Mcf)	2,156,570	2,148,090
Annual Natural Gas Savings, Planned (Mcf)	2,934,071	2,944,466
Percentage of Target	1.0%	1.0%

SUMMARY OF EWR BENEFITS AND COSTS

Table 3-4. Summary of Planned First-Year Annual Savings and Total Investments, 2024 and 2025

Program	Annual Electric Savings (MWh)	Annual Demand Reduction (MW)	Program Investment, Electric	UCT Results, Electric	Annual Natural Gas Savings (Mcf)	Program Investment, Natural Gas	UCT Results, Natural Gas	Total EWR Program Investment	UCT Results, Total Program
Residential Programs									
Appliance Recycling	65,408	9.8	\$19,197,037	1.71	-	-	-	\$19,197,037	1.71
Assessments and Behavioral	48,643	1.1	\$11,262,804	0.57	614,972	\$10,345,906	1.16	\$21,608,710	0.85
Home Solutions	5,378	1.9	\$7,641,707	0.85	583,977	\$23,265,228	1.90	\$30,906,935	1.64
Income-Qualified	54,037	2.8	\$21,600,000	1.20	338,974	\$42,298,000	0.45	\$63,898,000	0.70
Income-Qualified Multifamily	22,787	1.4	\$24,381,597	0.53	184,290	\$21,303,358	0.40	\$45,684,955	0.47
Market-Rate Multifamily ¹	10,779	1.3	\$7,805,536	0.74	367,672	\$5,605,799	2.30	\$13,411,336	1.39
New Home Construction	3,516	1.9	\$1,845,387	3.64	118,583	\$2,101,068	5.21	\$3,946,456	4.47
Retail Rebates	12,882	2.7	\$5,620,450	1.52	258,906	\$7,104,288	1.45	\$12,724,739	1.48
Think! Energy	11,422	0.9	\$2,793,750	2.30	263,083	\$2,142,679	3.67	\$4,936,429	2.90
Residential Pilot Programs	18,266	1.8	\$9,557,216	0.81	212,369	\$9,437,180	0.86	\$18,994,396	0.84
Subtotal, Residential Programs	253,119	25.6	\$111,705,485	1.23	2,942,825	\$123,603,507	1.77	\$235,308,992	1.49
Business Programs									
Prescriptive	719,207	106.9	\$132,823,632	3.81	1,549,945	\$29,091,911	3.60	\$161,915,543	3.77
Custom Solutions	90,812	7.9	\$9,786,276	7.02	596,789	\$7,377,016	5.90	\$17,163,292	6.54
Energy Assessments	18,915	3.1	\$15,503,669	0.54	401,701	\$8,930,859	1.64	\$24,434,528	0.95
Small Business Store	6,780	0.7	\$1,347,965	2.83	11,791	\$182,610	2.39	\$1,530,575	2.78
SMB Contractor Rebates	48,142	0.2	\$14,061,778	1.20	-	-	-	\$14,061,778	1.20
Business Pilot Programs	68,744	9.2	\$16,409,803	3.03	199,129	\$3,901,603	3.31	\$20,311,406	3.08
Subtotal, Business Programs	952,600	128.1	\$189,933,123	3.44	2,759,355	\$49,483,998	3.56	\$239,417,121	3.47
Support Services									
Utility Oversight	-	-	\$44,528,640	-	-	\$8,991,360	-	\$53,520,000	-
Education and Awareness	37,290	4.8	\$11,128,722	2.34	176,356	\$5,716,621	2.30	\$16,845,344	2.33
EM&V	-	-	\$13,661,440	-	-	\$2,758,560	-	\$16,420,000	-
Subtotal, Support Services	37,290	4.8	\$69,318,802	2.34	176,356	\$17,466,541	2.30	\$86,785,344	2.33
Total	1,243,009	158	\$370,957,410	2.34	5,878,537	\$190,554,047	2.30	\$561,511,457	2.33

¹ The Market-Rate Multifamily program is in the Residential portfolio; however, measures installed in common areas on a commercial billing rate contribute savings to the Business portfolio.

SUMMARY OF EWR BENEFITS AND COSTS

Table 3-5. Summary of Planned First-Year Annual Savings and Total Investments, 2024

Program	Electric Savings (MWh)	Demand Reduction (MW)	Program Investment, Electric	Average Electric Measure Life (Years)	Natural Gas Savings (Mcf)	Program Investment, Natural Gas	Average Natural Gas Measure Life (Years)	Total EWR Program Investment
Residential Programs								
Appliance Recycling	32,704	4.9	\$9,701,706	7.8	-	-	-	\$9,701,706
Assessments and Behavioral	24,629	0.7	\$6,000,000	2.4	294,739	\$5,000,000	3.8	\$11,000,000
Home Solutions	2,664	0.9	\$3,840,071	14.9	290,419	\$11,657,067	15.7	\$15,497,139
Income-Qualified	27,074	1.4	\$10,600,000	9.5	169,487	\$21,000,000	11.4	\$31,600,000
Income-Qualified Multifamily	11,328	0.7	\$11,792,227	11.1	93,547	\$10,500,524	9.5	\$22,292,751
Market-Rate Multifamily ¹	5,389	0.6	\$3,938,945	8.6	184,218	\$2,802,141	7.0	\$6,741,086
New Home Construction	1,954	1.0	\$979,173	20.0	67,257	\$1,142,089	20.0	\$2,121,261
Retail Rebates	6,441	1.3	\$2,821,671	9.0	129,428	\$3,599,909	7.6	\$6,421,580
Think! Energy	5,711	0.5	\$1,400,900	10.1	131,542	\$1,073,132	5.8	\$2,474,032
Residential Pilot Programs	9,170	0.9	\$4,801,705	8.0	105,827	\$4,702,583	9.5	\$9,504,288
Subtotal, Residential Programs	127,065	13.0	\$55,876,398	8.0	1,466,465	\$61,477,446	9.5	\$117,353,844
Business Programs								
Prescriptive	368,771	54.8	\$70,321,683	12.5	774,973	\$14,658,228	14.0	\$84,979,911
Custom Solutions	45,406	3.9	\$4,987,589	14.8	298,395	\$3,690,440	15.0	\$8,678,029
Energy Assessments	9,457	1.6	\$7,800,000	6.9	200,850	\$4,680,000	7.0	\$12,480,000
Small Business Store	3,340	0.3	\$682,255	9.7	5,808	\$92,385	7.1	\$774,640
SMB Contractor Rebates	24,071	0.1	\$7,040,000	7.0	-	-	-	\$7,040,000
Business Pilot Programs	35,081	0.9	\$8,563,105	12.3	99,558	\$1,981,551	13.1	\$10,544,656
Subtotal, Business Programs	486,127	61.7	\$99,394,631	12.3	1,379,584	\$25,102,604	13.1	\$124,497,235
Support Services								
Utility Oversight	-	-	\$22,688,640	-	-	\$4,581,360	-	\$27,270,000
Education and Awareness	18,965	2.4	\$5,727,775	11.4	88,022	\$2,864,629	11.2	\$8,592,405
EM&V	-	-	\$7,238,400	-	-	\$1,461,600	-	\$8,700,000
Subtotal, Support Services	18,965	2.4	\$35,654,815	11.4	88,022	\$8,907,589	11.2	\$44,562,405
Total	632,156	77.2	190,925,844	11.4	2,934,071	95,487,640	11.2	\$286,413,484

¹ The Market-Rate Multifamily program is in the Residential portfolio; however, measures installed in common areas on a commercial billing rate contribute savings to the Business portfolio.

SUMMARY OF EWR BENEFITS AND COSTS

Table 3-6. Summary of Planned First-Year Annual Savings and Total Investments, 2025

Program	Electric Savings (MWh)	Demand Reduction (MW)	Program Investment, Electric	Average Electric Measure Life (Years)	Natural Gas Savings (Mcf)	Program Investment, Natural Gas	Average Natural Gas Measure Life (Years)	Total EWR Program Investment
Residential Programs								
Appliance Recycling	32,704	4.9	\$9,495,331	7.8	-	-	-	\$9,495,331
Assessments and Behavioral	24,014	0.5	\$5,262,804	2.0	320,232	\$5,345,906	3.6	\$10,608,710
Home Solutions	2,714	1.0	\$3,801,636	14.8	293,558	\$11,608,160	15.7	\$15,409,796
Income-Qualified	26,964	1.4	\$11,000,000	10.0	169,487	21,298,000	11.4	\$32,298,000
Income-Qualified Multifamily	11,459	0.7	\$12,589,370	11.2	90,743	\$10,802,834	9.3	\$23,392,204
Market-Rate Multifamily ¹	5,389	0.6	\$3,866,591	8.6	183,454	\$2,803,658	6.9	\$6,670,249
New Home Construction	1,562	0.8	\$866,214	20.0	51,326	\$958,980	20.0	\$1,825,194
Retail Rebates	6,441	1.3	\$2,798,779	9.0	129,478	\$3,504,379	7.6	\$6,303,158
Think! Energy	5,711	0.5	\$1,392,850	10.1	131,542	\$1,069,546	5.8	\$2,462,397
Residential Pilot Programs	9,097	0.9	\$4,755,511	8.0	106,541	\$4,734,597	9.2	\$9,490,108
Subtotal, Residential Programs	126,054	12.6	\$55,829,087	8.0	1,476,361	\$62,126,061	9.2	\$117,955,148
Business Programs								
Prescriptive	350,436	52.1	\$62,501,949	12.5	774,973	\$14,433,683	14.0	\$76,935,631
Custom Solutions	45,406	3.9	\$4,798,688	14.8	298,395	\$3,686,576	15.0	\$8,485,264
Energy Assessments	9,457	1.6	\$7,703,669	6.9	200,850	\$4,250,859	7.0	\$11,954,528
Small Business Store	3,440	0.4	\$665,710	9.7	5,983	\$90,225	7.1	\$755,935
SMB Contractor Rebates	24,071	0.1	\$7,021,778	7.0	0	\$0	-	\$7,021,778
Business Pilot Programs	33,663	4.5	\$7,846,699	12.3	99,571	\$1,920,052	13.1	\$9,766,750
Subtotal, Business Programs	466,473	62.6	\$90,538,492	12.3	1,379,771	\$24,381,394	13.1	\$114,919,886
Support Services								
Utility Oversight	0	0.0	\$21,840,000	-	0	\$4,410,000	-	\$26,250,000
Education and Awareness	18,326	2.3	\$5,400,947	11.4	88,334	\$2,851,992	11.1	\$8,252,939
EM&V	0	0.0	\$6,423,040	-	0	\$1,296,960	-	\$7,720,000
Subtotal, Support Services	18,326	2.3	\$33,663,987	11.4	88,334	\$8,558,952	11.1	\$42,222,939
Total	610,853	77.5	\$180,031,566	11.4	2,944,466	\$95,066,407	11.1	\$275,097,973

¹ The Market-Rate Multifamily program is in the Residential portfolio; however, measures installed in common areas on a commercial billing rate contribute savings to the Business portfolio.

SUMMARY OF EWR BENEFITS AND COSTS

3.2. Benefit-Cost Analysis

Michigan Law established that EWR programs, excluding program offerings to low-income residential customers, must collectively be cost-effective according to the UCT. Industry standards for analyzing the cost-effectiveness of conservation programs are outlined in the *California Standard Practice Manual*, which defines five primary cost-effectiveness tests. Each test measures program economic performance from different stakeholder perspectives, as outlined in Table 3-7.

Table 3-7. Cost-Effectiveness Test Perspectives

Cost-Effectiveness Test	Stakeholder Perspective
Utility Cost Test (UCT)	Utility
Total Resource Cost Test (TRC)	Utility and program participants combined
Participant Cost Test (PCT)	Program participants
Ratepayer Impact Measure Test (RIM)	All Consumers Energy customers (including nonparticipants, also referred to as ratepayers)
Societal Cost Test (SCT)	Society at large

To assess cost-effectiveness, each test allocates costs and benefits based on their impacts to the stakeholder perspective being tested.

- The **UCT** measures the net benefits of an EWR program based on the costs and benefits incurred by the utility and excluding net costs incurred by program participants. The benefits include avoided energy supply costs and the reduction in transmission, distribution, generation, and capacity valued at marginal costs for the periods when load reduction occurs. The costs comprise program costs incurred by the utility, including the incentives paid to the customers and the increased supply costs for the periods in which load is increased.
- The **TRC** measures the total net resource expenditures of a DSM program from the viewpoint of the utility and program participants. Resource costs include changes in supply and participant costs and benefits include avoided energy, capacity, and system costs.
- The **PCT** illustrates the relative magnitude of net benefits that accrue to program participants compared to net benefits achieved from other perspectives. The benefits derived from this test include customer bill reductions and utility or third-party incentives and any tax credits. Costs include customers' out-of-pocket expenses from participating in a program, plus any increases in their utility bills.
- The **RIM** measures the benefits and costs that affect utility rates resulting from changes in revenues and operating costs. A higher RIM test result implies a lower impact on increasing energy rates.
- The **SCT** is similar to the TRC test but also accounts for external benefits, such as reductions in pollutants (such as carbon dioxide) and non-energy resources and costs (such as water, operations, and maintenance).

The allocation of the benefit and cost components for each cost-effectiveness test perspective is illustrated in Table 3-8.

SUMMARY OF EWR BENEFITS AND COSTS

Table 3-8. Allocation of Benefits and Costs from Different Perspectives

	Stakeholder Perspective				
	UCT	PCT	RIM	SCT	TRC
Benefits					
Avoided Energy Costs	•		•	•	•
Avoided Capacity Costs	•		•	•	•
Avoided Transmission and Distribution Losses	•		•	•	•
Avoided Secondary Fuel Costs	•		•	•	•
Bill Reductions		•			
Externalities Adder				•	
Non-Energy Benefits		•		•	•
Utility Incentives		•			
Costs					
Incremental Measure Costs		•		•	•
Utility Costs Incurred as Incentives	•		•		
Utility Costs Other than incentives	•		•	•	•
Lost Revenues			•		

Source: California Energy Commission. October 2001. *California Standard Practice Manual for Economic Analysis of Demand-Side Management Programs and Projects*.

In addition to calculating benefit-cost UCT ratios, Consumers Energy calculated benefit-cost ratios for three more cost-effectiveness tests using the standards outlined in the *California Standard Practice Manual*. Consumers Energy chose not to calculate benefit-cost ratios for the SCT because of the uncertain value of environmental externalities. Regardless of which perspective is used, a benefit-cost ratio equal to or greater than 1.0 indicates that a program is cost-effective from that perspective.

For each program and the Plan overall, Consumers Energy calculated cost-effectiveness by valuing its benefits (as measured by the Company's avoided energy, transmission and distribution, and capacity costs) and its life-cycle benefits. Consumers Energy uses a software program called DSMore™ to calculate cost-effectiveness, which applies avoided cost savings generated by each measure or program across the entire portfolio. To determine the value of avoided electric benefits in the analysis, Consumers Energy uses historical hourly price data from the Midcontinent Independent System Operator market, along with hourly weather data. The Company applies the electric savings, by measure, using the measure's load shape at specific hours over the year (since prices vary by hour). Consumers Energy weights these prices based on the probability of weather variations over 33 years of weather history so that the full range of weather and prices are properly captured. Each hour has a unique price that the Company escalates over time: this ensures that the savings reflect the value expected in the market over time from the avoided energy sales. Similarly, Consumers Energy calculates the avoided benefits for natural gas using weather-adjusted prices, which are derived from Henry Hub sales market data and are based on daily natural gas prices (versus hourly prices for electric). The Company tailors hourly load and price distributions to the specific group of customers for which a program is designed.

SUMMARY OF EWR BENEFITS AND COSTS

3.2.1 Program Benefit and Cost Components

DSMore uses a range of modeling inputs to calculate cost-effectiveness from each stakeholder perspective:

- **Discount Rates:** There is a time value associated with money because money spent in the future does not have the same value as money spent today. This time value is represented by a discount rate (analogous to an interest rate). Economic equations use the discount rate to convert all costs and benefits to a present value for comparison purposes. Consumers Energy used uniform after-tax discount rates of 5.67% for electricity and 5.82% for natural gas EWR programs and supply-side resources.
- **Pricing Scenario:** The DSMore price simulation file allows for modeling a range of energy cost scenarios. Consumers Energy developed these prices for DSMore based on the Midcontinent Independent System Operator's historical energy prices by hour correlated to weather on that hour. Then the Company applied these price and weather correlations over 33 years of hourly weather observations to get a full distribution of weather and prices in relation to hourly load shapes. For subsequent years within the analysis, the Company used its projected escalation factors to model expected future energy price changes.
- **Avoided Capacity and Energy Benefits:** The DSMore avoided cost benefits fall into two categories: avoided capacity benefits and avoided energy benefits. Avoided capacity benefits are the benefits derived from deferring the need to build new generating plants in the future. Avoided capacity benefits are based on Midcontinent Independent System Operator projections of future power plant costs considering expected levels of capacity available over future years and the costs of that capacity. DSMore estimates avoided energy benefits using the annual hourly patterns of equipment use, with input values that incorporate the varying costs to purchase electricity at different times of the day and year across weather-weighted price variations.
- **Avoided Transmission and Distribution Benefits:** Transmission and distribution system line losses can be avoided through energy savings at the home or premise. Consumers Energy used its line loss study to value losses at the primary, secondary, and transmission voltage levels.
- **Administration, Implementation, and Direct Costs:** The Company included non-incentive costs to deliver programs as technology inputs of DSMore to allow for aggregation into total program cost-effectiveness. Consumers Energy adds its support services that are not specific to individual programs as costs at the portfolio level for all programs, allocated proportionately by fuel type (electricity and natural gas). The Company applies incentive costs at the measure level.
- **Load Shapes:** The value of demand management, such as EWR, requires a detailed understanding of *when* these resources can decrease system loads. A program or measure that decreases load during a peak period, for example, can offset the need to acquire additional supply to service that peak. Consumers Energy developed and applied territory-specific residential load shapes to its cost-effectiveness calculations based on a territory-specific study completed in spring 2021. For the commercial programs, Consumers Energy applied regional customer meter shapes in DSMore. Consumers Energy is in the process of developing territory-specific commercial load shapes and expects to complete this task in 2024.
- **Measure-Level Energy Savings:** The Company used measure-level energy savings and demand reduction in calculations from the MEMD, with appropriate net-to-gross factors and installation factors applied.

SUMMARY OF EWR BENEFITS AND COSTS

3.2.1 Benefit-Cost Test Results

As shown in Table 3-9, the 2024 and 2025 portfolio of EWR programs passes the UCT with a ratio of 2.33. Table 3-10 and Table 3-11 show that both the electricity and the natural gas program portfolios are cost effective with UCT ratios of 2.34 and 2.30 respectively.

Table 3-9. Summary of Portfolio Benefit-Cost Test Results (2024 and 2025)

Program	UCT	TRC	PCT	RIM
Residential Portfolio				
Appliance Recycling	1.71	1.44	11.96	0.29
Assessments and Behavioral	0.85	0.87	-	0.29
Home Solutions	1.64	0.41	1.03	0.41
Income-Qualified	0.70	0.70	-	0.24
Income-Qualified Multifamily	0.47	1.50	9.43	0.21
Market-Rate Multifamily ¹	1.39	0.96	4.79	0.36
New Home Construction	4.47	1.79	4.01	0.52
Retail Rebates	1.48	0.59	1.90	0.35
Think! Energy	2.90	2.90	-	0.38
Residential Pilot Programs	0.84	0.84	-	0.28
Residential Portfolio Total ²	1.49	0.74	2.83	0.35
Business Portfolio				
Prescriptive	3.77	1.47	5.34	0.33
Custom Solutions	6.54	4.67	14.91	0.35
Energy Assessments	0.95	0.77	8.92	0.31
Small Business Store	2.78	1.10	4.24	0.31
SMB Contractor Rebates	1.20	1.18	20.44	0.23
Business Pilot Programs	3.08	3.08	-	0.34
Business Portfolio Total	3.47	1.63	6.48	0.33
Total Portfolio with Support Services ²	2.33	1.24	5.55	0.33

¹ The Market-Rate Multifamily program is in the Residential portfolio; however, measures installed in common areas on a commercial billing rate accrue costs and contribute savings to the Business portfolio.

² Income-qualified programs are excluded from benefit-cost analysis at the portfolio level.

Table 3-10. Summary of Electricity Programs' Benefit-Cost Test Results (2024 and 2025)

Program	UCT	TRC	PCT	RIM
Residential Portfolio				
Appliance Recycling	1.71	1.44	11.96	0.29
Assessments and Behavioral	0.57	0.59	-	0.21
Home Solutions	0.85	0.21	0.66	0.30
Income-Qualified	1.20	1.20	-	0.24
Income-Qualified Multifamily	0.53	1.25	8.79	0.20
Market-Rate Multifamily ¹	0.74	0.65	8.74	0.24
New Home Construction	3.64	1.39	3.05	0.52

SUMMARY OF EWR BENEFITS AND COSTS

Program	UCT	TRC	PCT	RIM
Retail Rebates	1.52	0.59	2.17	0.31
Think! Energy	2.30	2.30	-	0.29
Residential Pilot Programs	0.81	0.81	-	0.24
Residential Portfolio Total ²	1.23	0.77	4.50	0.29
Business Portfolio				
Prescriptive	3.81	1.55	6.06	0.31
Custom Solutions	7.02	5.48	21.47	0.30
Energy Assessments	0.54	0.46	8.07	0.22
Small Business Store	2.83	1.04	4.07	0.30
SMB Contractor Rebates	1.20	1.18	20.44	0.23
Business Pilot Programs	3.03	3.03	-	0.31
Business Portfolio Total	3.44	1.66	7.29	0.30
Total Portfolio with Support Services ²	2.34	1.34	7.06	0.29

¹ The Market-Rate Multifamily program is in the Residential portfolio; however, measures installed in common areas on a commercial billing rate accrue costs and contribute savings to the Business portfolio.

² Income-qualified programs are excluded from benefit-cost analysis at the portfolio level.

Table 3-11. Summary of Natural Gas Programs' Benefit-Cost Test Results (2024 and 2025)

Program	UCT	TRC	PCT	RIM
Residential Portfolio				
Appliance Recycling	-	-	-	-
Assessments and Behavioral	1.16	1.18	-	0.38
Home Solutions	1.90	0.48	1.15	0.44
Income-Qualified	0.45	0.45	-	0.25
Income-Qualified Multifamily	0.40	2.11	10.82	0.23
Market-Rate Multifamily ¹	2.30	1.22	3.67	0.45
New Home Construction	5.21	2.18	4.92	0.51
Retail Rebates	1.45	0.59	1.66	0.40
Think! Energy	3.67	3.67	-	0.48
Residential Pilot Programs	0.86	0.86	-	0.34
Residential Portfolio Total ²	1.77	0.72	2.00	0.43
Business Portfolio				
Prescriptive	3.60	1.19	2.75	0.49
Custom Solutions	5.90	3.79	8.08	0.52
Energy Assessments	1.64	1.25	9.84	0.42
Small Business Store	2.39	1.99	10.23	0.45
SMB Contractor Rebates	-	-	-	-
Business Pilot Programs	3.31	3.31	-	0.48
Business Portfolio Total	3.56	1.53	3.86	0.49
Total Portfolio with Support Services ²	2.30	1.04	2.92	0.45

¹ The Market-Rate Multifamily program is in the Residential portfolio; however, measures installed in common areas on a commercial billing rate accrue costs and contribute savings to the Business portfolio.

² Income-qualified programs are excluded from benefit-cost analysis at the portfolio level.

RESIDENTIAL PORTFOLIO

4. Residential Portfolio

The Residential portfolio of Consumers Energy's 2024-2025 EWR Plan consists of nine programs designed to provide residential customers with a diverse range of opportunities to reduce their electricity and natural gas usage. Customers of all income levels, in all housing types, and across all fuel services will have opportunities to participate in EWR. The programs presented in this Plan will provide Consumers Energy's residential customers with a range of ways to engage with energy efficiency in whatever manner they are most comfortable. Educational resources to help customers better understand EWR opportunities are available through schools, in-home or virtual technical support (through audits and trained trade ally partners), and home energy reports. Discounted and rebated energy-efficient products are offered through upstream, midstream, and downstream delivery channels. Additionally, Consumers Energy will continue its support for and commitment to its lower-income customers through investments in its income-qualified offerings.

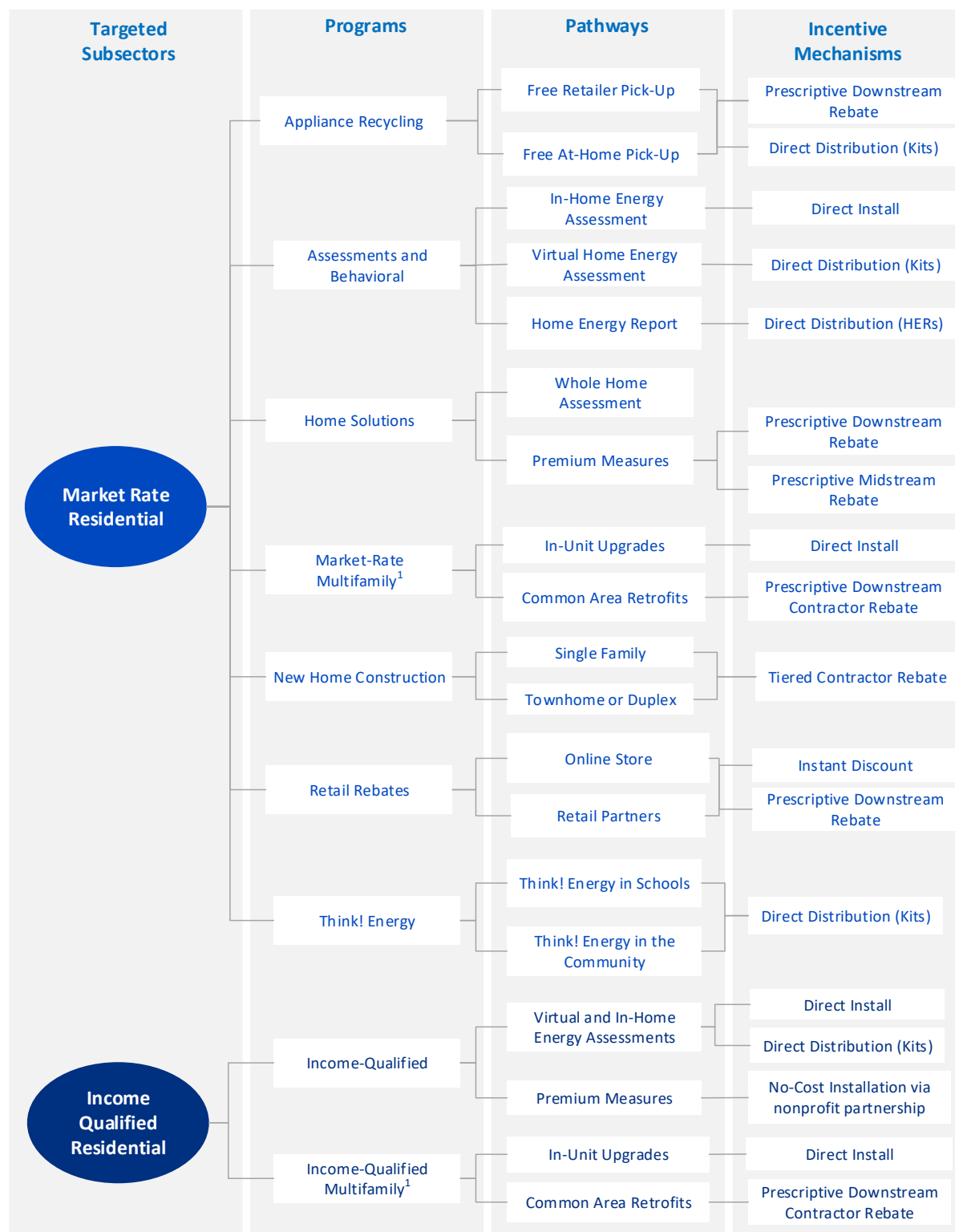
In its 2024-2025 EWR Plan, Consumers Energy is introducing a more streamlined residential portfolio that bundles several of its legacy programs into broader offerings that align with a typical customer journey. Specifically, this Plan includes three new program bundles:

- The **Assessments and Behavioral program** combines Consumers Energy's legacy Home Energy Assessment and Home Energy Report programs. In this program, the Company will offer home energy assessments with a greater focus on educating customers about energy-efficient behaviors. After their assessment, participants will be automatically enrolled to receive home energy reports (HERs) that reinforce behavioral messaging on an ongoing basis. Likewise, Consumers Energy will promote home energy assessments through HERs as a way for customers to better understand their opportunities to save.
- The **Home Solutions program** bundles Consumers Energy's legacy Home Performance with ENERGY STAR, HVAC and Water Heating, and Insulation and Windows programs. The Home Solutions program will focus on providing customers with whole-home efficiency upgrades through a simpler, more streamlined program, where they can access incentives for the most common and impactful EWR measures.
- The **Retail Rebates program** brings all of Consumers Energy's retail based EWR measures together under a single program umbrella. The Retail Rebates program combines the legacy ENERGY STAR Appliances and Marketplace programs, as well as the do-it-yourself measures from the legacy Insulation and Windows program and will continue to offer customers incentives for high-efficiency equipment purchases through its online store as well as through traditional retail partnerships.

Additionally, in this Plan, Consumers Energy is retiring its long-standing ENERGY STAR Lighting program in recognition of new federal lighting standards that take effect in 2023. Figure 4-1 provides a depiction of Consumers Energy's residential portfolio structure reflecting its re-bundled program strategy. The remainder of this section provides detailed descriptions of each residential program, along with energy-savings estimates, budgets, and cost-effectiveness analysis results.

RESIDENTIAL PORTFOLIO

Figure 4-1. Residential Portfolio Structure



¹ Costs incurred and savings obtained are allocated based on the customer meter.

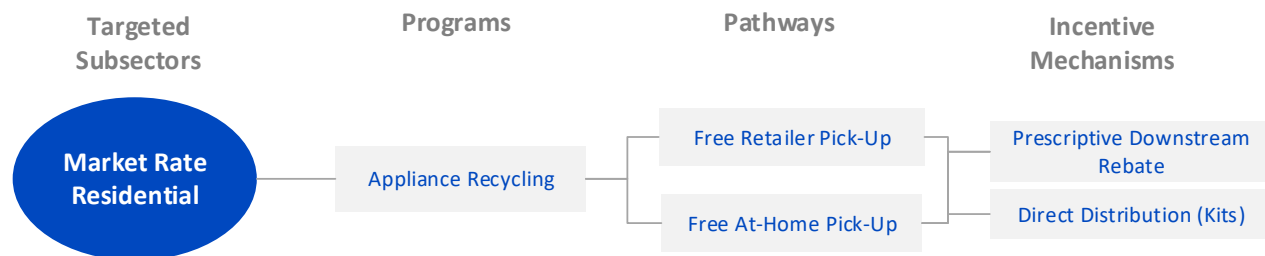
APPLIANCE RECYCLING PROGRAM

4.1. Appliance Recycling

The average household replaces a refrigerator every 10 years. However, many of the refrigerators and freezers being replaced still function and often end up as back-up appliances in basements and garages or are sold in a used appliance market. Through the Appliance Recycling program, Consumers Energy targets these older refrigerators and freezers for recycling, providing the multiple benefits of decreasing energy consumption and keeping these appliances out of the used appliance market, as well as ensuring they are decommissioned in an environmentally responsible manner. An appliance recycling implementation contractor provides turnkey services including verifying customer eligibility, scheduling pick-up appointments, picking appliances up, and processing rebates. The implementation contractor delivers units to a recycling facility, where they are decommissioned and recycled. The recycling process involves removing chlorofluorocarbon-based refrigerant and other hazardous materials, preparing for reclamation, and recycling components such as metal, foam, and plastic.

The program accepts smaller refrigerant-containing appliances (dehumidifiers, room air conditioners, and refrigerators less than 10 cubic feet) when pick-ups also include a larger appliance. The Company also provides alternative appliance collection options through program drop-off events and retailer programs.

Customers who participate receive free pick-up services, a cash incentive, and a free kit that contains self-install EWR measures, as well as cross-promotional materials for other Consumers Energy EWR programs.



4.1.1. Objectives

Through the Appliance Recycling program, Consumers Energy aims to produce long-term electric energy savings in the residential sector by permanently removing operable but older, inefficient refrigerators, freezers, and small appliances from the power grid and recycling them in an environmentally safe manner.

4.1.2. Customer Targets and Eligibility

The Appliance Recycling program targets residential electric customers who are currently operating a second refrigerator or freezer or who are replacing their primary refrigerator. Table 4-1 provides customer eligibility parameters.

APPLIANCE RECYCLING PROGRAM

Table 4-1. Appliance Recycling Customer Eligibility Parameters

	Eligible Customers
Customer Class	Residential or commercial electric customer rate class ¹
Building Type	Single family, multifamily, commercial, or industrial
Building Vintage	Existing construction
Other	Unit must be operable at the time of pick up; limited to two large and four small appliances per customer per year

¹ While the program primarily targets residential customers, any type of customer with a qualifying appliance may participate. Consumers Energy allocates program savings and costs between the residential and nonresidential sectors based on the actual meter class impacted by participation.

4.1.3. Qualifying Measures and Incentives

Program participants who recycle an existing full-size refrigerator or freezer receive a \$50 rebate and free pick up and disposal of their appliance. Typically, appropriate disposal of these units entails a municipal fee of approximately \$35; therefore, the free pick-up service provides an additional value. Participants also receive a free kit that contains self-install EWR measures.

Participants who recycle an old but operable qualifying room air conditioner, dehumidifier, or small refrigerator are eligible for a \$15 rebate as well as free pick up when they recycle a full-size refrigerator or freezer at the same time. Consumers Energy also sponsors periodic turn-in events, when customers may drop off these small appliances and receive the rebate.

Customers may receive program rebates and incentives by check, on-bill credit, installation of equipment, coverage or cost of equipment, gift of energy, online payment service (such as PayPal), or gift card. Details on eligible program measures and incentive levels are outlined in *Appendix A*.

Participation Benefits

- Free pick up of qualifying large appliances
- Free pick up of qualifying small appliances when larger appliances are picked up at the same time
- Financial incentives
- Free energy-efficiency kit
- Environmentally responsible recycling and disposal of all component parts and volatile compounds

4.1.4. Marketing Strategy

Marketing materials for the Appliance Recycling program carry a strong consumer education message emphasizing the environmental impact and cost of operating second refrigerators and freezers and older, inefficient appliances, and the importance of proper disposal and recycling of retired units.

There are several key elements of the marketing strategy:

- Email marketing
- Paid media (such as print advertising, radio, or digital media)
- Program website
- Cross-promotion from other EWR programs

APPLIANCE RECYCLING PROGRAM

- Sponsorship, promotion of, and participation in community recycling events
- Partnerships with retail and discount resale stores to promote the program and schedule pick ups

4.1.5. Estimated Investment

Table 4-2 provides the estimated annual investment levels for the Appliance Recycling program.

Table 4-2. Appliance Recycling Estimated Investment

	2024	2025
Electricity	\$9,701,706	\$9,495,331
Natural Gas	\$0	\$0
Total	\$9,701,706	\$9,495,331

4.1.6. Savings Targets

Table 4-3 provides energy-savings and demand reduction goals for the Appliance Recycling program.

Table 4-3. Appliance Recycling Energy-Savings Targets

	2024	2025
MWh	32,704	32,704
MW	4.9	4.9
Mcf	-	-

4.1.7. Benefit-Cost Results

The Appliance Recycling program is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 1.71. Table 4-4 provides program cost-effectiveness results.

Table 4-4. Appliance Recycling Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	1.71
Total Resource Cost Test	1.44
Participant Cost Test	11.96
Rate Impact Measure Test	0.29

ASSESSMENTS AND BEHAVIORAL PROGRAM

4.2. Assessments and Behavioral

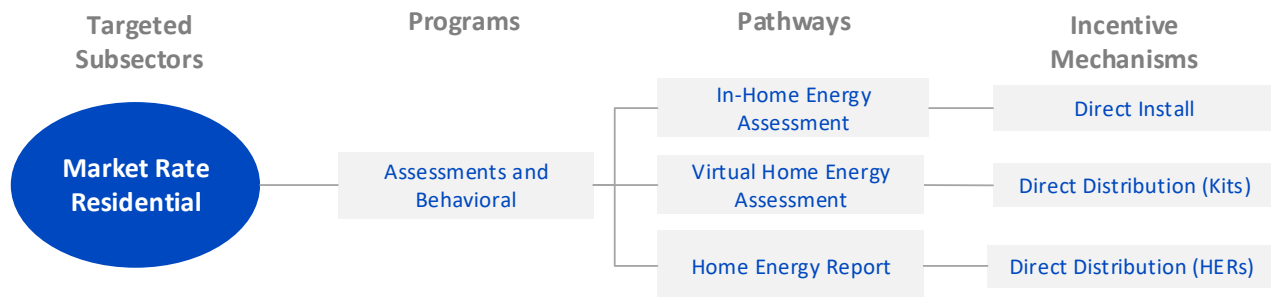
Through the Assessments and Behavioral program, customers will have a seamless journey that includes the opportunity to receive an in-person or virtual walk-through assessment of their home, instant energy savings through the direct installation of low-cost EWR measures, and ongoing behavioral messaging that encourages them to adopt permanent energy-efficient behaviors.

The Assessments and Behavioral program offers three distinct pathways.

- During an **In-Home Energy Assessment**, a trained analyst will conduct a visual inspection of the home, install energy-efficiency measures, and provide a customized summary report with energy-savings tips and recommendations aimed at encouraging the installation of larger EWR measures and adopting energy-efficient behaviors. The report also describes other Consumers Energy programs that can provide the customer with additional energy-saving opportunities in their EWR journey. This pathway offers distinct implementation procedures for customers depending on the fuel service delivered by Consumers Energy: a standard home energy assessment targets dual-fuel and natural gas-only customers while the electric-only home energy assessment targets customers in the electric-only territory and is focused on electric energy-saving direct install measures and equipment upgrade recommendations.
- Consumers Energy offers a **Virtual Home Energy Assessment** as an option for customers to pursue a “no-touch” assessment of their homes. During a virtual assessment, the program analyst engages with the customer through a video call and provides participants with a customized self-install measure kit following their assessment.
- Through the **Home Energy Report** pathway, Consumers Energy encourages customers to save energy by sending them personalized energy information (through periodic printed HERs sent through the mail and/or monthly electronic home energy reports [eHERs]) to help them understand their energy use habits and make informed decisions to reduce their energy use and costs. Behavioral science research has demonstrated that peer-based comparisons are highly motivating. The program employs this approach by comparing the energy use of each participating residence with the energy use of nearby homes of similar size. Participating customers receive targeted savings tips based on their energy-use patterns, housing characteristics, and demographics. Where applicable, the tips refer customers to other energy-efficiency programs (cross-promotion).

Consumers Energy automatically enrolls customers in the program as part of a randomized controlled trial design, wherein eligible customers are randomly assigned to a treatment or control group. This approach allows Consumers Energy to measure the program’s impact on per-household energy savings. Beginning in 2020, Consumers Energy began conducting custom analyses of net per-household energy savings using Consumers Energy customer billing data. The 2024-2025 EWR Plan savings projections rely on these custom savings values, rather than applying the deemed savings values in the *Michigan Behavioral Resource Manual*, as these calculations provide a more accurate estimate of actual program impacts.

ASSESSMENTS AND BEHAVIORAL PROGRAM



4.2.1. Objectives

Through the Assessments and Behavioral program, Consumers Energy aims to introduce customers to energy efficiency, increase their awareness of the benefits of EWR, and encourage them to use less energy and to save money on their monthly bills by providing them with personalized information on their energy use, opportunities to conserve energy in their homes, and customized energy-saving advice. In addition, Consumers Energy designed the Assessments and Behavioral program to enrich the effectiveness of the overall Residential portfolio by increasing participation and savings in other programs.

4.2.2. Customer Targets and Eligibility

The Assessments and Behavioral program targets residential homeowners throughout Consumers Energy's service territory, regardless of the fuel type they receive from Consumers Energy. Table 4-5 provides customer eligibility parameters.

Table 4-5. Assessments and Behavioral Customer Eligibility Parameters

	Eligible Customers	
	Home Energy Assessment	Home Energy Report ¹
Customer Class	Standard home energy assessment: Residential natural gas-only or dual-fuel customer rate class ²	Residential customer rate class
	Electric-only home energy assessment: Residential electric-only customer rate class ²	
Building Type	Single-family dwellings ³	Single family or multifamily
Building Vintage	Existing	Existing or new construction
Other	Renters must obtain written or verbal consent from property owner	N/A

¹ As an opt-out program, customers are not required to apply for the program, but are automatically enrolled. All participants can opt out of receiving reports at any time throughout the duration of the program.

² Virtual assessments are available to all customers regardless of the fuel type they receive from Consumers Energy.

³ For this program, single-family dwellings are defined as residential buildings with up to four individual units.

ASSESSMENTS AND BEHAVIORAL PROGRAM

4.2.3. Qualifying Measures and Incentives

Participating In-Home Energy Assessment customers receive free direct installation of energy-saving measures, a walkthrough energy inspection, and a customized summary report that includes energy-saving tips and recommendations. Virtual Home Energy Assessment customers receive a kit with direct install measures after their virtual energy inspection, along with a customized summary report.

The direct installation measures that are provided at no cost to customers are outlined in *Appendix A* and address end uses such as heating and cooling and water heat. All installed measures must save fuel supplied by Consumers Energy.

Participation Benefits

- Free visual inspection of the home
- Free direct installation of energy-saving measures such as low-flow showerheads, bathroom and kitchen aerators, water heater pipe insulation, and Wi-Fi thermostats
- Customized post-assessment report with recommended energy-saving improvements
- Ongoing education and information on behavioral actions customer can take or other EWR programs available to help them reduce their energy consumption

Consumers Energy does not provide incentives through the Home Energy Report pathway and customers incur no direct costs. Rather, the program theory, which is based on established behavioral science, posits that by providing personalized energy conservation education, information, and strategies, customers will change their energy usage behavior, thereby producing energy savings.

4.2.4. Marketing Strategy

Consumers Energy markets both In-Home and Virtual Home Energy Assessments through traditional and digital media and direct outreach. There are several key elements of the marketing strategy:

- Direct mail campaigns targeted to specific geographic areas
- Home Energy Reports
- Utility newsletter and bill inserts
- Program website
- Press releases in targeted communities
- Email messaging
- Community outreach events throughout the state
- Training trade allies to promote the program
- Direct mail and email media advertising to promote and direct customers to contact the call center or visit the program website for program information and to schedule their In-Home or Virtual Home Energy Assessment
- Social media and digital advertising
- Neighborhood canvassing and door hangers
- Partnerships with businesses, community groups, and houses of worship

ASSESSMENTS AND BEHAVIORAL PROGRAM

Due to the opt-out nature of HER and eHER delivery, the pathway does not require any marketing. Consumers Energy automatically delivers HERs and eHERs on an opt-out basis to treatment group customers.

4.2.5. Estimated Investment

Table 4-6 provides the estimated annual investment levels for the Assessments and Behavioral program.

Table 4-6. Assessments and Behavioral Program Estimated Investment

	2024	2025
Electricity	\$6,000,000	\$5,262,804
Natural Gas	\$5,000,000	\$5,345,906
Total	\$11,000,000	\$10,608,710

4.2.6. Savings Targets

Table 4-7 provides energy-savings and demand reduction goals for the Assessments and Behavioral program.

Table 4-7. Assessments and Behavioral Energy-Savings Targets

	2024	2025
MWh	24,629	24,014
MW	0.7	0.4
Mcf	294,739	320,232

4.2.7. Benefit-Cost Results

The Assessments and Behavioral program is not cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 0.85. The labor and material costs to deliver the program are considerable, and because lighting savings have declined it is no longer possible to achieve cost-effective savings from direct installation measures. However, the program provides valuable information and education to customers and is an entry point for many of Consumers Energy's other EWR programs.

Table 4-8 provides program cost-effectiveness results.

Table 4-8. Assessments and Behavioral Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	0.85
Total Resource Cost Test	0.87
Participant Cost Test	-
Rate Impact Measure Test	0.29

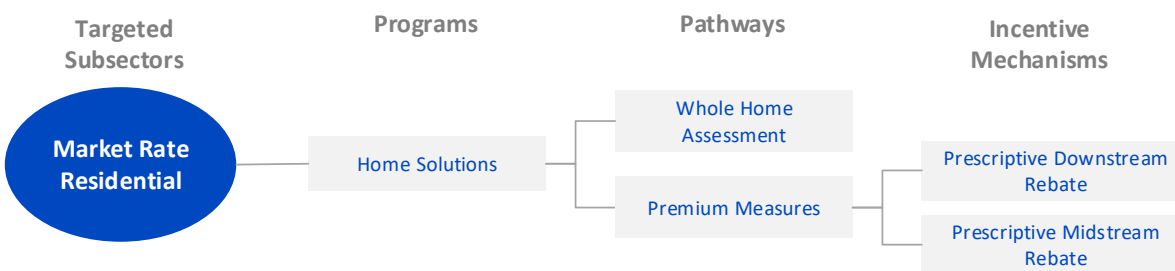
HOME SOLUTIONS PROGRAM

4.3. Home Solutions

Through the Home Solutions program, Consumers Energy produces long-term electricity and natural gas energy savings in the residential sector by educating customers about their energy use, emphasizing a holistic approach to maximize energy savings and customer benefits, and offering rebates to customers who purchase new qualifying HVAC, windows, air sealing, and insulation measures. The program consists of two pathways.

- To implement the **Whole Home Assessment** pathway, the Company relies on a network of participating contractors who have been trained and certified in building science to deliver comprehensive home assessments. Contractors provide homeowners with a comprehensive home assessment report that has recommendations for whole-home EWR improvements and contractors administer all the required rebate paperwork on behalf of the customer once improvements are completed and a test-out has been performed to verify the home's post-installation energy savings. Contractors provide these incentives to the customer as a discount on the project invoice or as a rebate check once eligibility has been determined following receipt of an application.
- Through the **Premium Measures** pathway, Consumers Energy also offers rebates to residential customers in single-family dwellings who purchase a new qualifying measure, such as a high-efficiency central air conditioning system; natural gas condensing furnace; boiler; programmable, Wi-Fi, or smart thermostat; energy-saving windows; or home insulation, or who have a comprehensive tune-up performed on their heating or cooling systems. Additionally, Consumers Energy provides distributor rebates for certain HVAC systems offered through a midstream delivery channel.

Consumers Energy encourages homeowners to continue to improve their home's energy efficiency by offering bonuses when they install multiple efficiency improvements. Such bonuses are promoted through messaging that emphasizes *The More you do, the More you Get!* and can be earned by installing multiple measures, either in one transaction or over time as they invest in additional energy-efficiency options. This enables all participants to continue to maximize the benefit of *Doing More*.



4.3.1. Objectives

Through the Home Solutions program, Consumers Energy aims to produce significant long-term electricity and natural gas energy savings in the residential sector by helping customers understand their energy use and identify conservation opportunities, as well as by providing incentives for the installation of high-efficiency weatherization measures, heating and cooling systems, and water heating equipment.

HOME SOLUTIONS PROGRAM

4.3.2. Customer Targets and Eligibility

Residential homeowners in Consumers Energy’s natural gas, electric, or dual-fuel service territory are eligible for the Home Solutions program. The program targets customers who are interested in understanding and implementing holistic home efficiency improvements as well as those installing new HVAC equipment and weatherization upgrades. Table 4-9 provides customer eligibility parameters.

Table 4-9. Home Solutions Customer Eligibility Parameters

	Eligible Customers
Customer Class	Residential customer rate class
Building Type	Single-family dwellings ¹
Building Vintage	Existing
Other	HVAC and water heater measures: the participant home must be individually owned and metered Insulation and windows measures: electric-only customers must have central air conditioning or electric heat

¹ For this program, single-family dwellings are defined as residential buildings with up to two individual units.

4.3.3. Qualifying Measures and Incentives

Customers participating in the Home Solutions program can receive financial incentives for a range of measures that address heating, cooling, and water heating end uses as well as comprehensive tune-ups to support maximum lifetime savings through diagnostic assessments. Participants can also receive financial incentives for measures that address their home’s envelope, such as windows, patio doors, and insulation, and for measures that reduce air leakage that results in energy loss.

Consumers Energy provides downstream rebates

for all qualifying measures as well as midstream incentives to participating equipment distributors and dealers for select measures. The Company offers tiered incentives based on the fuel type and efficiency level of the measure installed to encourage the installation of higher-efficiency equipment, as well as bonus incentives when customers install multiple measures.

Participation Benefits

- Financial incentives for measures that increase heating, cooling, building envelope, and water heating efficiency
- Multiple measure bonus incentive
- Made in Michigan bonus incentive
- Comprehensive home energy assessment with diagnostic testing and customized report

Applications can be submitted by the customer or by the contractor on the customer’s behalf. Customers must submit their application within 30 days of project completion and can do so online or via email or mail.

Customers may receive program rebates and incentives by check, on-bill credit, installation of equipment, coverage or cost of equipment, gift of energy, online payment service (such as PayPal), or gift card. Measures installed in garages or manufactured homes are not eligible, and enclosed porches are only eligible if they are heated by the home’s central heating system. Installed measures must save fuel supplied by Consumers Energy. Customers receive an additional rebate when they participate in the Made in Michigan program, which supports and promotes the local Michigan economy by specifying energy-efficiency products that are at least 50% manufactured in Michigan. Details on eligible program measures and incentive levels are outlined in *Appendix A*.

HOME SOLUTIONS PROGRAM

4.3.4. Marketing Strategy

Consumers Energy conducts marketing and outreach through a range of channels, targeting customers, local contractors, and trade allies. Consumers Energy recognizes that its trade allies have the most direct influence on customer purchasing decisions and maintains a trade ally website, where contractors can access all the necessary program information, including incentive details and downloadable rebate applications. Further, Consumers Energy recruits HVAC equipment distributor representatives to support the program by passing information on to the contractors they serve.

Consumers Energy also uses data analytics to identify and target potential participants based on propensity scores and other data. The Company uses this information to target customers who are most likely to participate, offering promotions and outreach that leverage promotional codes (which allows the Company to track response rates).

Consumers Energy uses a variety of communication channels to develop and execute multifaceted campaigns that promote program awareness and encourage customer participation. There are two key elements of the marketing strategy.

Direct Marketing and Outreach to Customers

- Providing portfolio-focused email communications that include savings-driven promotions for all Consumers Energy EWR programs
- Sending strategically scheduled, seasonally appropriate direct mail postcards, bill inserts, and email promotional offers
- Providing a program website, Find-a-Contractor website tool, and online Energy Dashboard
- Offering paid media that may include print advertising and radio
- Providing Facebook video media advertising
- Offering digital marketing via search, native, and display advertising
- Promoting next-step EWR programs through the call center

Marketing and Outreach to Trade Allies

- Providing educational materials through training meetings, in-person visits, and an online order form for trade allies to share with their customers
- Meeting with contractors to discuss the program and solicit their involvement
- Offering training sessions with contractors
- Providing incentive forms and other collateral materials to HVAC contractors
- Offering marketing strategy assistance for participating contractors (such as co-op advertising and a contractor swatch book to help sell packages)
- Maintaining online program information and rebate applications
- Listing participating contractors on Consumers Energy's website
- Offering mass media, digital advertising, printed materials, and email outreach

HOME SOLUTIONS PROGRAM

4.3.5. Estimated Investment

Table 4-10 provides the estimated annual investment levels for the Home Solutions program.

Table 4-10. Home Solutions Estimated Investment

	2024	2025
Electricity	\$3,840,071	\$3,801,636
Natural Gas	\$11,657,067	\$11,608,160
Total	\$15,497,139	\$15,409,796

4.3.6. Savings Targets

Table 4-11 provides energy-savings and demand reduction goals for the Home Solutions program.

Table 4-11. Home Solutions Energy-Savings Targets

	2024	2025
MWh	2,664	2,714
MW	0.9	1.0
Mcf	290,419	293,558

4.3.7. Benefit-Cost Results

The Home Solutions program is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 1.64. Table 4-12 provides program cost-effectiveness results.

Table 4-12. Home Solutions Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	1.64
Total Resource Cost Test	0.41
Participant Cost Test	1.03
Rate Impact Measure Test	0.41

INCOME-QUALIFIED PROGRAM

4.4. Income-Qualified

Operating under the Consumers Energy Helping Neighbors program brand, the Income-Qualified program helps low-income customers—those who are at or below 250% of the federal poverty level or 80% of the area median income—to lower their energy bills. To accomplish this, Consumers Energy provides tailored home weatherization assistance, installation of energy-efficient measures, and education about how to conserve energy usage and manage utility costs, based on the fuel service the customer receives from Consumers Energy (electric-only, natural gas-only, or dual fuel). For each participant, Consumers Energy either funds 100% of the service and measure costs provided through the program (non-leveraged measures) or shares the cost with other organizations that deliver program services (leveraged measures). This coordination with other community organizations is a cornerstone of the Company's Income-Qualified program that extends its ability to offer comprehensive program services at lower administrative costs.

The Company provides Income-Qualified program services through two pathways.

- Through **Virtual and In-Home Energy Assessments**, Consumers Energy provides the direct installation of LED lighting, water-saving devices, HVAC controls, and carbon monoxide detection (on-site testing and monitoring with the installation of a carbon monoxide alarm). The technician who conducts the assessment also provides a home energy assessment report with recommendations that are reinforced with verbal coaching to customers. The home energy assessment is generally the main entry point for single-family customers to participate in the Premium Measures pathway, with the goal of achieving deeper savings.

Income-Qualified Program Highlights

In addition to its standard Income-Qualified program offerings, Consumers Energy conducts several targeted efforts to support low-income customers.

- The **Manufactured Homes initiative** supports mobile home customers by providing direct install measures, duct system improvements, and envelope efficiency upgrades.
- The **Community Distribution Partnership** is a collaboration with existing community assistance networks to provide qualified households with energy-efficiency measures such as window film installation kits.
- Through partnerships with over 45 **local nonprofit organizations**, Consumers Energy leverages funds for comprehensive whole-house weatherization for single-family customers.
- Consumers Energy partners with **over 70 nonprofit organizations** to install home weatherization for income-qualifying customers.
- Through **Agency Rewards** Consumers Energy offers financial incentives to organizations that direct customers into the Income-Qualified program and schedule their initial appointment.
- Consumers Energy **partners with cities** to provide braided funding for EWR projects, allowing these city partners to enhance their customer offerings.
- Consumers Energy works with community action agencies to offer services to customers who are at or below **250% of the federal poverty level**. This supports customers whose income exceeds the standard threshold but who do not have the financial means to invest in high-efficiency equipment.

INCOME-QUALIFIED PROGRAM

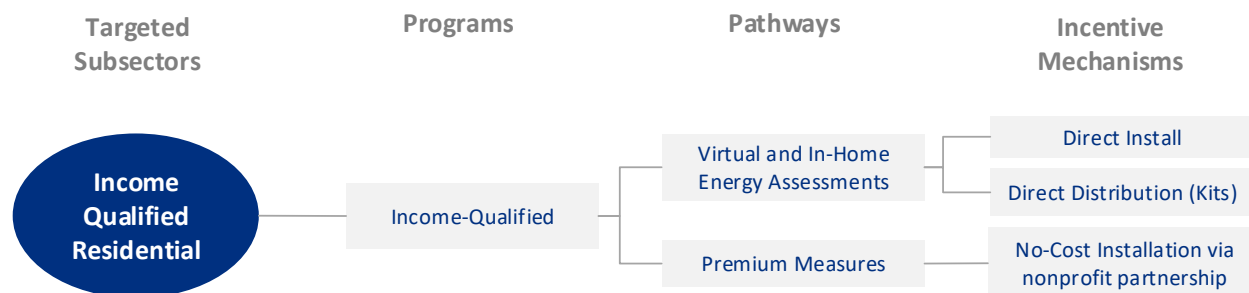
- Through the **Premium Measures** pathway, Consumers Energy provides no-cost installation of more substantial energy-savings measures that help to lower participants' energy cost burden and that improves the comfort, health, and safety of their homes. Premium measures include an air conditioner, furnace, boiler, or refrigerator replacement; cold-climate heat pump installation; air conditioner or furnace tune-up; attic, wall, floor, or manufactured housing belly insulation; and air or duct sealing. The technician provides blower door testing and installs Premium Measures recommended during the Virtual or In-Home Energy Assessment.

In addition to its standard program pathways, Consumers Energy offers income-qualified program services through several targeted partnerships and focus areas (described in the call-out box above).

Additionally, throughout the 2024-2025 EWR Plan period, Consumers Energy will continue to offer two targeted initiatives through the Income-Qualified program, in compliance with the Company's settlement agreement in Case No. U-20875: the Income-Qualified Health and Safety and Arrears Pilot (Health & Safety pilot, as detailed in MPSC Case Nos. U-20372 and U-20875 and described in Section 6 of this Plan) and the Flint Initiative.

- Consumers Energy launched the **Health & Safety pilot** in 2020 to provide funding to participants in the Income-Qualified program so they can address home health and safety issues that could otherwise result in those customers being deferred for energy-efficiency upgrades. Program staff install various health and safety measures in a participant's home depending on their needs. These measures may include air quality improvements (such as hypoallergenic bedding and air purifiers), insulation or air sealing, HVAC measures (such as ventilation, furnaces, heat pumps, heat pump water heaters, and air conditioners), duct cleaning and improvements, or structural/deferral remediation (including pest control, asbestos remediation, and floor replacement). In addition, the pilot emphasizes the installation of healthy building materials and includes an energy assistance arrears component to promote participation by income-qualified customers who are in arrears.
- The Income-Qualified and Income-Qualified Multifamily programs will continue the **Flint Initiative** launched in 2023, in which the Company will invest up to \$1 million between 2023 and 2024 to support EWR improvements through a geographically targeted approach in and around Flint (directed to Flint zip codes 48502 through 48507). The Flint Initiative incorporates the Low-Income Needs Assessment prioritization scenarios and uses a coordinated community approach with partners including Flint elementary schools and parent/teacher associations, the City of Flint Lead Remediation program, medical providers, neighborhood organizations, and the Company's Think! Energy EWR and energy assistance programs. EWR efforts are targeted to Consumers Affordable Resource for Energy (CARE) program, Low Income Home Energy Assistance Program, Michigan Energy Assistance Program, and arrearage customers. The Flint Initiative supports a holistic approach to EWR for both single-family and multifamily income-qualified customers that includes assessments, direct install measures, premium appliance and building shell improvements, and health and safety and healthier homes initiative assessment to improve indoor air quality and living conditions, reduce environmental triggers in the home, and allow for further EWR upgrades. The Company will use Flint Initiative evaluation and project delivery learnings to develop a second geotargeted effort in 2025.

INCOME-QUALIFIED PROGRAM



4.4.1. Objectives

Through the Income-Qualified program, Consumers Energy aims to provide limited-income customers with home weatherization and energy-efficient equipment upgrades at no cost. Additionally, the Company provides energy-efficiency education to help participants reduce their energy use and better manage their energy bills over the long term.

4.4.2. Customer Targets and Eligibility

The Income-Qualified program targets Consumers Energy customers who qualify for federal poverty assistance. To participate in the program, customers must be an active Consumers Energy electricity, natural gas, or dual-fuel account holder. Customers who live in a rental property must obtain property owner consent (written or verbal) for the technician to enter the home and install any measures. Table 4-13 provides customer eligibility parameters.

Table 4-13. Income-Qualified Customer Eligibility Parameters

	Eligible Customers
Customer Class	Residential customer rate class
Building Type	Single-family ¹ and manufactured home
Building Vintage	Existing
Other	Household income at or below 250% of the federal poverty level or up to 80% of the area median income, tenants of rental properties must obtain owner's approval

¹ For this program, single-family dwellings are defined as residential buildings with up to four individual units.

INCOME-QUALIFIED PROGRAM

4.4.3. Qualifying Measures and Incentives

Consumers Energy offers the Income-Qualified program to assist limited-income customers with free home weatherization and energy-efficient equipment upgrades as well as energy usage and conservation education. Customers who participate receive a free home energy assessment that includes the direct installation of a range of measures that provide instant energy savings, a customized energy report with improvement recommendations, and more substantial energy-saving equipment and weatherization services as recommended by the site technician. The Company designed the Income-Qualified program to address each home's individual needs. Homes can receive a variety of weatherization and equipment upgrades based on the program technician's recommendations. All measures are provided at no cost to customers. Installed measures must save fuel supplied by Consumers Energy. Details on eligible program measures and incentive levels are outlined in *Appendix A*.

Participation Benefits

- Free comprehensive home energy assessment
- Free direct installation of measures such as low-flow showerheads and faucet aerators, water heater pipe wrap, and advanced power strips
- Assessment report with tailored recommendations
- Free equipment upgrades that address heating, cooling, water heating, lighting, and other end uses

4.4.4. Marketing Strategy

Marketing messages for the Income-Qualified program highlight initiatives within the Income-Qualified portfolio to reach the target market for each initiative. Consumers Energy employs several outreach methods to engage customers and market the program:

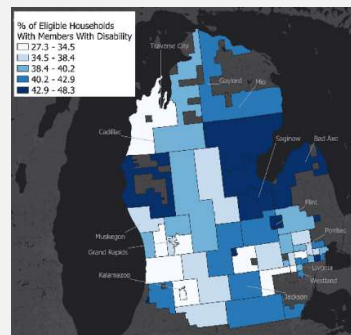
- Participation in community events
- Advertising to engage customers in their daily routines (such as at bill payment centers and neighborhood centers)
- Targeted email campaigns
- Bill inserts
- Press releases
- Distribution of a range of marketing collateral to engage customers and reinforce energy-saving messages, including educational brochures, posters, yard signs, door hangers, newsletters, articles, and thank-you postcards
- Coordination with Consumers Energy's CARE and other energy assistance programs to refer participants in its low-income assistance efforts to the Income-Qualified program

INCOME-QUALIFIED PROGRAM

Geographic Targeting Protocol and Implementation Strategy

In addition to the marketing efforts outlined above, Consumers Energy will implement a geographic targeting strategy to increase engagement among income-qualified customers in vulnerable communities and historically underserved areas. In 2022, the Company completed a *Low-Income Needs Assessment (LINA)*, which identified gaps in its programs' historical participation, characterized eligible communities within those areas, and provided prioritization scenarios for marketing to customers in underrepresented areas using targeted messaging and channels tailored to their prevalent characteristics. The LINA identified communities within the Company's territory that had high proportions of households meeting specific targeting criteria based on several priorities, overlaying each onto GIS shapefiles (as shown below):

- Overall energy burden
- Children under 18
- Members who are elderly
- Members with a disability
- Multifamily housing
- Renters
- Electric heat
- Natural gas heat



Consumers Energy leveraged this research to develop a targeted marketing and outreach approach for its Flint Initiative and will continue to use this research throughout the 2024-2025 EWR Plan delivery period to identify and develop a second geotargeted initiative in 2025, utilizing learnings from the Flint Initiative, which is scheduled to conclude in 2024.

Specifically, the LINA and prioritization scenarios suggested Kalamazoo, Muskegon, or Saginaw as potential communities for a second geotargeted initiative. The Income-Qualified programs will work with the program implementers, stakeholders, and evaluators to develop and implement an initiative that aligns with the key characteristics associated with customers in the underserved areas within the targeted community. As with Flint, the second effort will focus on full engagement of community partners and will include the Company's full suite of income-qualified services, including health and safety interventions and whole-home weatherization improvements with an emphasis on air sealing and insulation measures. Additionally, the Company will work with local community groups to increase engagement with and knowledge of healthy homes concepts among the local contractor base in those communities.

To support continued focus on geotargeting analyses and implementation, Consumers Energy will incorporate deliverables related to this work into its program implementer contracts and will share Flint Initiative evaluation research plans and findings with stakeholders in future program development efforts.

INCOME-QUALIFIED PROGRAM

4.4.5. Estimated Investment

Table 4-14 provides the estimated annual investment levels for the Income-Qualified program.

Table 4-14. Income-Qualified Estimated Investment

	2024	2025
Electricity	\$10,600,000	\$11,000,000
Natural Gas	\$21,000,000	\$21,298,000
Total	\$31,600,000	\$32,298,000

4.4.6. Savings Targets

Table 4-15 provides energy-savings and demand reduction goals for the Income-Qualified program.

Table 4-15. Income-Qualified Energy-Savings Targets

	2024	2025
MWh	27,074	26,964
MW	1.4	1.4
Mcf	169,487	169,487

4.4.7. Benefit-Cost Results

The Income-Qualified program benefit-cost results are provided below; however, the program is excluded from the benefit-cost analysis at the portfolio level because its primary purpose is to ensure that income-qualified customers (who often face a higher energy burden, are in less-efficient homes, and have less ability to invest in EWR) can participate in and benefit from EWR programs. Table 4-16 provides program cost-effectiveness results.

Table 4-16. Income-Qualified Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	0.70
Total Resource Cost Test	0.70
Participant Cost Test	-
Rate Impact Measure Test	0.24

INCOME-QUALIFIED MULTIFAMILY PROGRAM

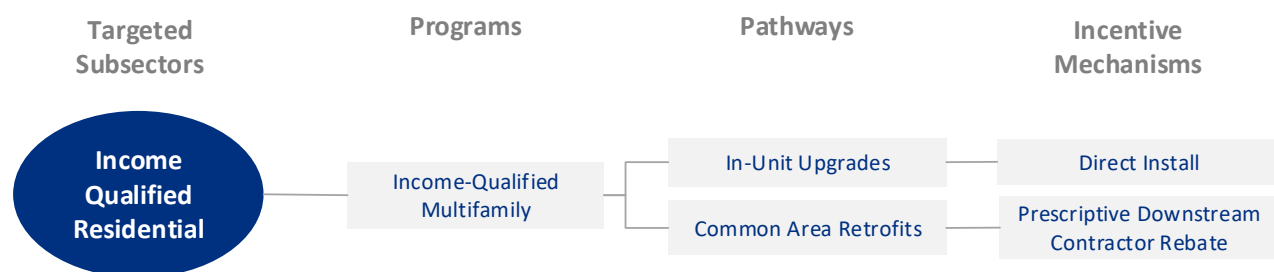
4.5. Income-Qualified Multifamily

Consumers Energy designed the Income-Qualified Multifamily program to offer property owners a turnkey service for increasing the efficiency of their income-qualified properties' common areas and resident units. The Company provides (1) direct installation of various energy-saving devices to help reduce energy use in residents' living units and in common areas, free to both the property owners and residents, (2) incentives to property owners who purchase high-efficiency equipment measures to retrofit individual units and common areas within the property, and (3) energy usage and conservation education. Additionally, income-qualified properties are eligible for higher equipment incentives than those provided through the Market-Rate Multifamily program. In addition to the products installed, program technicians leave educational materials in the individual units that explain the energy- and money-saving benefits associated with the energy-efficient measures.

By addressing the needs of both the residential and commercial spaces, Consumers Energy designed the program to encourage property owners to complete comprehensive energy improvements by following a whole property approach to address individual unit and common area energy savings for the entire housing complex.

Throughout the 2024-2025 EWR Plan period, Consumers Energy will continue to offer two targeted initiatives through the Income-Qualified Multifamily program, in compliance with the Company's settlement agreement in Case No. U-20875: the Income-Qualified Health & Safety Pilot (as detailed in MPSC Case Nos. U-20372 and U-20875) and the Flint Initiative. The Income-Qualified Multifamily program is – and will continue to be – a core pillar of Consumers Energy's geotargeting initiative. Additional details are provided in *Section 4.4* and *Section 6.3* of this Plan.

Consumers Energy will continue to offer cold-climate heat pumps through the Income-Qualified Multifamily program. Through this effort, customers who have an electric heating system may receive a free or discounted cold-climate heat pump, contingent upon satisfying certain requirements. Further, the Company will provide the Income-Qualified Multifamily program implementer and trade-allies with education and training to address cold-climate heat pump adoption barriers and increase awareness of the benefits of heat pump technology when beneficial for customers.



4.5.1. Objectives

Through the Income-Qualified Multifamily program, Consumers Energy aims to produce immediate electricity and natural gas energy savings in income-qualified multifamily buildings through the direct installation of

INCOME-QUALIFIED MULTIFAMILY PROGRAM

energy-saving measures in individual living units and common areas. A second program objective is to achieve deeper energy savings through the promotion of comprehensive high-efficiency equipment retrofits through prescriptive and custom projects.

4.5.2. Customer Targets and Eligibility

Consumers Energy uses interactive geographic mapping tools developed through its *2022 Low Income Needs Assessment* and provided by MiEJScreen² to target potential participants for the Income-Qualified Multifamily program. All property owners of multifamily buildings (which includes apartments, condominiums, senior housing communities, and dormitories) with at least 66% of residents living at or below 250% of the federal poverty level or 80% of the area median income are eligible to participate in the Income-Qualified Multifamily program. Both residential and commercial-metered properties that meet this criterion are eligible. Table 4-17 provides customer eligibility parameters.

Table 4-17. Income-Qualified Multifamily Customer Eligibility Parameters

	Eligible Customers
Customer Class	Residential customer, may include commercially metered facilities ¹
Building Type	Multifamily ²
Building Vintage	Existing and new construction
Other	At least two-thirds of residents are income-qualified (with a household income at or below 250% of the federal poverty level or up to 80% of the area median income)

¹ While the program targets multifamily residential buildings, properties may have either residential and commercial meters (or both). Consumers Energy allocates program savings and costs between the residential and nonresidential sectors based on the actual meter class impacted by the measures installed.

² Consumers Energy defines multifamily properties as those having three or more living units.

² [MiEJScreen](#) is an interactive mapping tool, sponsored by the Michigan Department of Environment, Great Lakes, and Energy, that identifies Michigan communities that may be disproportionately impacted by environmental hazards.

INCOME-QUALIFIED MULTIFAMILY PROGRAM

4.5.3. Qualifying Measures and Incentives

Through the Income-Qualified Multifamily program, Consumers Energy offers property owners and residents the direct installation of energy-efficiency measures to reduce in-unit and common area energy use at no cost. Customers who participate receive a range of measures that provide instant energy savings (such as LED bulbs, low-flow showerheads, pipe wrap, and faucet aerators), along with educational materials on the benefits of energy efficiency and ways to save.

Additionally, the Company offers prescriptive and custom energy-saving measures for common areas in multifamily complexes, with higher incentives than those available through the Market-Rate Multifamily program for qualifying properties. Equipment upgrades are recommended by a program technician who conducts an energy assessment of the property. Installed measures must save fuel supplied by Consumers Energy. Customers may receive program rebates and incentives by check, on-bill credit, installation of equipment, coverage or cost of equipment, gift of energy, online payment service (such as PayPal), or gift card. Details on eligible program measures and incentive levels are outlined in *Appendix A*.

Participation Benefits

- Free comprehensive multifamily property energy assessment
- Free in-unit direct installation of measures such as LED bulbs, low-flow showerheads and faucet aerators, water heater pipe wrap, and advanced power strips
- Assessment report with tailored recommendations
- Free common area equipment upgrades that address heating, cooling, water heating, lighting, and other end uses

4.5.4. Marketing Strategy

To optimize program cost-effectiveness, the implementer prioritizes the recruitment of income-qualified property management companies to address multiple properties through a single point of contact, as well as owners and managers of individual properties. Program messaging promotes opportunities to save energy and maintenance costs, increase comfort, and improve safety, as well as aesthetic improvements that can lead to lower vacancy rates. There are several key marketing and outreach strategies for the Income-Qualified Multifamily program:

- In-person visits by energy advisors to income-qualified properties with three or more units
- Direct outreach to property management associations to recruit them to assist with distributing information about the program through existing channels
- Promotions using the trade ally network
- Digital marketing efforts aimed at multifamily customers

4.5.5. Estimated Investment

Table 4-18 provides the estimated annual investment levels for the Income-Qualified Multifamily program.

INCOME-QUALIFIED MULTIFAMILY PROGRAM

Table 4-18. Income-Qualified Multifamily Estimated Investment

	2024	2025
Electricity	\$11,792,227	\$12,589,370
Natural Gas	\$10,500,524	\$10,802,834
Total	\$22,292,751	\$23,392,204

4.5.6. Savings Targets

Table 4-19 provides energy-savings and demand reduction goals for the Income-Qualified Multifamily program.

Table 4-19. Income-Qualified Multifamily Energy-Savings Targets

	2024	2025
MWh	11,328	11,459
MW	0.7	0.7
Mcf	93,547	90,743

4.5.7. Benefit-Cost Results

The Income-Qualified Multifamily program benefit-cost results are provided below; however, the program is excluded from the benefit-cost analysis because its primary purpose is to ensure that income-qualified customers (who often face a higher energy burden, are in less-efficient homes, and have less ability to invest in EWR) can participate in and benefit from EWR programs. Table 4-1620 provides program cost-effectiveness results.

Table 4-20. Income-Qualified Multifamily Cost-Effectiveness Results

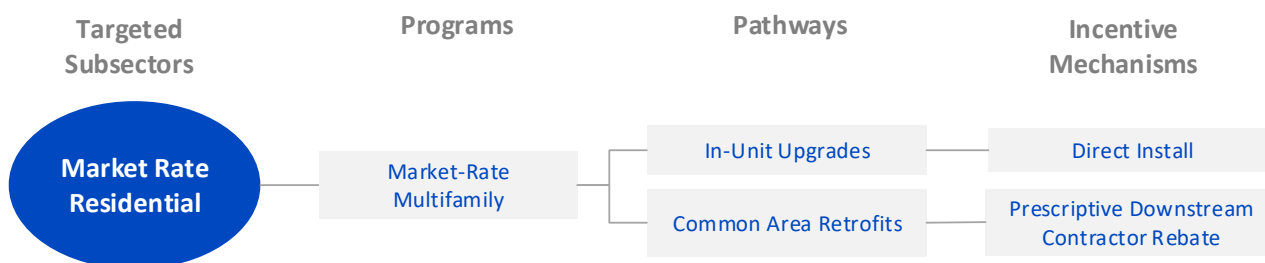
Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	0.47
Total Resource Cost Test	1.50
Participant Cost Test	9.43
Rate Impact Measure Test	0.21

MARKET-RATE MULTIFAMILY PROGRAM

4.6. Market-Rate Multifamily

Consumers Energy designed the Market-Rate Multifamily program to offer property owners a turnkey service for increasing the efficiency of their properties' common areas and resident units. The Company provides free direct installation of various energy-saving devices to help reduce energy use in residents' living units and in common areas, along with incentives to property owners who purchase high-efficiency equipment measures to retrofit individual units and common areas within the property, and energy usage and conservation education. Consumers Energy provides the direct install service at no cost to the property owners or residents. In addition to the products installed, program technicians leave educational materials in the individual units that explain the energy- and money-saving benefits associated with the energy-efficient measures.

By addressing the needs of both the residential and commercial spaces, the program encourages property owners to complete comprehensive energy improvements by following a whole property approach to address individual unit and common area energy savings for the entire housing complex.



4.6.1. Objectives

Through the Market-Rate Multifamily program, Consumers Energy aims to produce immediate electricity and natural gas energy savings in multifamily buildings through the direct installation of energy-saving measures in the individual living units and common areas. A second program objective is to achieve deeper energy savings by promoting comprehensive high-efficiency equipment retrofits through prescriptive and custom incentives.

4.6.2. Customer Targets and Eligibility

All property owners of multifamily buildings with three or more living units (which includes apartments, condominiums, senior housing communities, and dormitories) are eligible to participate. Although the program is part of Consumers Energy's Residential portfolio, both residential and commercial metered properties meeting this criterion are eligible. Table 4-21 provides customer eligibility parameters.

MARKET-RATE MULTIFAMILY PROGRAM

Table 4-21. Market-Rate Multifamily Customer Eligibility Parameters

	Eligible Customers
Customer Class	Residential customer, may include those in commercially metered properties ¹
Building Type	Multifamily ²
Building Vintage	Existing and new construction
Other	N/A

¹ While the program targets multifamily residential buildings, properties may have either residential and commercial meters (or both). Consumers Energy allocates program savings and costs between the residential and nonresidential sectors based on the actual meter class impacted by the measures installed.

² Consumers Energy defines multifamily properties as those having three or more living units.

4.6.3. Qualifying Measures and Incentives

Through the Market-Rate Multifamily program, Consumers Energy offers building assessments and the direct installation of energy-efficiency measures at no cost to property owners and residents to reduce both in-unit and common area energy consumption. Customers who participate in direct install receive a range of measures that provide instant energy savings (such as low-flow showerheads, pipe wrap, and faucet aerators), along with educational materials on the benefits of energy efficiency and ways to save.

Customers may receive program rebates and incentives by check, on-bill credit, installation of equipment, coverage or cost of equipment, gift of energy, online payment service (such as PayPal), or gift card. Installed measures must save fuel that is supplied by Consumers Energy. Details on eligible program measures and incentive levels are outlined in *Appendix A*.

Participation Benefits

- Free comprehensive multifamily property energy assessment
- Free in-unit direct installation of measures such as low-flow showerheads and faucet aerators, water heater pipe wrap, and advanced power strips
- Assessment report with tailored recommendations
- Incentives for common area equipment upgrades that address heating, cooling, water heating, and other end uses

4.6.4. Marketing Strategy

To optimize program cost-effectiveness, the implementer prioritizes the recruitment of property management companies to address multiple properties through a single point of contact, as well as owners and managers of individual properties. Messaging focuses on opportunities to save energy and maintenance costs, increase comfort, and improve safety, as well as aesthetic improvements that can lead to lower vacancy rates. There are several key marketing and outreach strategies for the Market-Rate Multifamily program:

- In-person visits by energy advisors to multifamily properties
- Targeted advertising in trade organization and association publications
- Direct outreach to property management associations to recruit for assistance with distributing information about the program through existing channels
- Promotions using the trade ally network
- Digital marketing efforts aimed at multifamily customers

MARKET-RATE MULTIFAMILY PROGRAM

4.6.5. Estimated Investment

Table 4-22 provides the estimated annual investment levels for the Market-Rate Multifamily program.

Table 4-22. Market-Rate Multifamily Estimated Investment

	2024	2025
Electricity	\$3,938,945	\$3,866,591
Natural Gas	\$2,802,141	\$2,803,658
Total	\$6,741,086	\$6,670,249

4.6.6. Savings Targets

Table 4-23 provides energy-savings and demand reduction goals for the Market-Rate Multifamily program.

Table 4-23. Market-Rate Multifamily Energy-Savings Targets

	2024	2025
MWh	5,389	5,389
MW	0.6	0.6
Mcf	184,218	183,454

4.6.7. Benefit-Cost Results

The Market-Rate Multifamily program is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 1.39. Table 4-24 provides program cost-effectiveness results.

Table 4-24. Market-Rate Multifamily Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	1.39
Total Resource Cost Test	0.96
Participant Cost Test	4.79
Rate Impact Measure Test	0.36

NEW HOME CONSTRUCTION PROGRAM

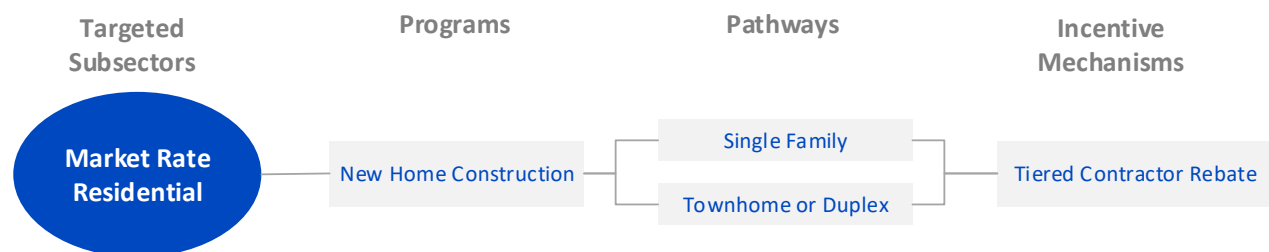
4.7. New Home Construction

Through the New Home Construction program, Consumers Energy creates long-term electricity and natural gas savings by encouraging the construction of single-family homes, townhomes, and duplexes that meet ENERGY STAR Version 3.1 standards or a minimum HERS rating.³ Homes built to higher EWR standards create multiple benefits for homeowners compared to homes built to lower energy standards, including lower long-term operating costs, better quality construction, greater comfort, and potentially higher housing value.

An implementation contractor recruits residential builders to participate in the program through various channels including builder, trade, and rater associations and events, and through direct outreach to targeted home builders. Participating builders are eligible for incentives based on the home type, level of efficiency achieved above the Michigan Uniform Energy Code, and fuel(s) delivered by Consumers Energy. Participating builders also receive training on high-performance building practices and how to promote the value of energy-efficient homes to their customers.

4.7.1. Objectives

Through the New Home Construction program, Consumers Energy aims to produce long-term electricity and natural gas energy savings and accelerate market transformation in the residential building and development sector by encouraging the construction of single-family homes that meet ENERGY STAR Version 3.1 standards or achieve a minimum HERS rating.



4.7.2. Customer Targets and Eligibility

The program targets new home builders and builders of affordable housing, such as those who work for Habitat for Humanity, and actively encourages participants to build homes that meet current ENERGY STAR Version 3.1 or HERS standards. To participate in the New Home Construction program, the new home or townhome must be

³ The Joint Committee on Administrative Rules, a statutorily created bipartisan legislative committee within the state of Michigan, is currently reviewing and expected to update the uniform energy construction code in 2024. However, at the time of this Plan's development, the specific timing and eventual rules to be adopted under the new code are unclear. Therefore, the program outlined in this Plan, and all related assumptions used to model energy savings, budgets, and cost-effectiveness, are drawn from the existing program. Consumers Energy will review the program design and adjust its savings assumptions when the new code is formally adopted and takes effect.

NEW HOME CONSTRUCTION PROGRAM

built within Consumers Energy’s electricity, natural gas, or dual-fuel territory. Table 4-25 provides customer eligibility parameters.

Table 4-25. New Home Construction Customer Eligibility Parameters

	Eligible Customers
Customer Class	Residential customer rate class
Building Type	Single-family homes, townhomes, and connected housing ¹ with individual meters for natural gas, electricity, or both; individual heat and domestic hot water equipment; and individual entrances to each unit
Building Vintage	New construction
Other	N/A

¹ Connected homes must be four units or fewer. Condominiums, apartments, duplexes, flats, cooperatives, and manufactured homes are not eligible.

4.7.3. Qualifying Measures and Incentives

The Company offers program incentives to builders based on achieving ENERGY STAR certification according to the current Version 3.1 standard or a minimum HERS rating of 59 or lower. Incentive levels are based on the home type, achievement of ENERGY STAR certification, HERS rating, and fuel type. To encourage deeper energy savings, Consumers Energy provides tiered incentives that increase as the home’s HERS rating declines. Installed measures must save fuel supplied by Consumers Energy. Builders may receive program rebates and incentives by check, on-bill credit, installation of equipment, coverage or cost of equipment, gift of energy, online payment service (such as PayPal), or gift card. Details on eligible program measures and incentive levels are outlined in *Appendix A*.

Participation Benefits

- Incentives for new homes that meet minimum energy-efficiency standards
- Incentives for townhomes and duplexes that meet minimum savings targets
- Additional incentives for building solar panels or electric vehicle-ready homes and for installing solar systems and electric vehicle chargers
- Bonus incentives for achieving minimum air leakage levels

4.7.4. Marketing Strategy

Consumers Energy markets the program to builders primarily through direct business-to-business contacts via program outreach staff and through participating HERS raters. The implementation contractor also presents information about the program at builder, realtor, rater, and other trade association meetings and secures the placement of information in association newsletters.

The Company markets the program directly to customers at home shows, parades of homes, and other events focused on residential home buildings.

NEW HOME CONSTRUCTION PROGRAM

4.7.5. Estimated Investment

Table 4-26 provides the estimated annual investment levels for the New Home Construction program.

Table 4-26. New Home Construction Estimated Investment

	2024	2025
Electricity	\$979,173	\$866,214
Natural Gas	\$1,142,089	\$958,980
Total	\$2,121,261	\$1,825,194

4.7.6. Savings Targets

Table 4-27 provides energy-savings and demand reduction goals for the New Home Construction program.

Table 4-27. New Home Construction Energy-Savings Targets

	2024	2025
MWh	1,954	1,562
MW	1.0	0.8
Mcf	67,257	51,326

4.7.7. Benefit-Cost Results

The New Home Construction program is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 4.47. Table 4-28 provides program cost-effectiveness results.

Table 4-28. New Home Construction Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	4.47
Total Resource Cost Test	1.79
Participant Cost Test	4.01
Rate Impact Measure Test	0.52

RETAIL REBATES PROGRAM

4.8. Retail Rebates

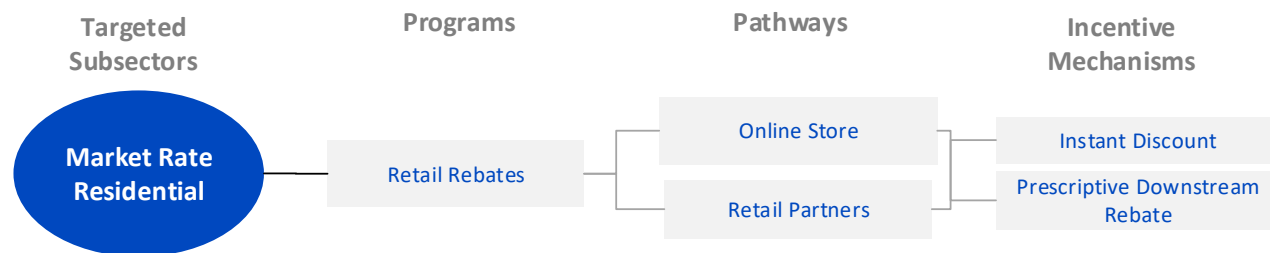
Through the Retail Rebates program, Consumers Energy produces long-term electric and natural gas energy savings in the residential sector by offering rebates to customers who purchase new qualifying appliances, weatherization measures, thermostats, and more via the Consumers Energy online store, retail partner websites, or physical retail stores. The program consists of two pathways.

- Through the **Retail Partners** pathway, Consumers Energy employs a web-based and in-store promotional strategy, coupled with robust incentives and multiple participation options, to influence the purchase of high-efficiency appliances. The Company provides rebates to residential customers who purchase eligible ENERGY STAR–certified clothes washers, clothes dryers, refrigerators, freezers, bathroom fans, faucet aerators, window film insulation kits, room air conditioners, dehumidifiers, air purifiers, pool pumps, advanced power strips, low-flow showerheads, televisions, and Wi-Fi–enabled thermostats. Customers may purchase appliances through one of Consumers Energy’s retail partners and apply for rebates by mail or online, or they can receive incentives on qualifying products through instant price markdowns at select retailers. Since appliance standards, as well as the market share of high-efficiency appliances, are gradually increasing, the Company offers specific qualifying appliance models and uses targeted marketing to educate customers about the benefits of efficient products.
- Since the 2021 program year, Consumers Energy has offered its **Online Store** as a stand-alone program.⁴ Through the Online Store pathway, the Company provides instant incentives through price markdowns to customers who purchase qualified products. Consumers Energy residential customers can purchase discounted Wi-Fi thermostats, water-saving measures, advanced power strips, electronics, and small ENERGY STAR–certified appliances. Beginning in 2024, the online marketplace also plans to include non-rebated products (e.g., caulk) that complement EWR products, to promote increased awareness and utilization of the online store for rebate eligible EWR product purchases. When they use the Online Store, Customers receive the convenience of an instant rebate and free shipping for purchases above a minimum order price. Customers can log into the online store by entering their name and home address and can then verify that they are eligible for incentives by entering their Consumers Energy account information. The online store also promotes the Smart Thermostat demand response program⁵ to customers who purchase qualifying thermostats.

⁴ Consumers Energy launched its online marketplace in 2019 as a delivery mechanism under its ENERGY STAR Appliances program.

⁵ Programs offered through Consumers Energy’s demand response portfolio are not included in this Plan.

RETAIL REBATES PROGRAM



4.8.1. Objectives

Through the Retail Partners and Online Store pathways, Consumers Energy aims to produce long-term energy savings in the residential sector by promoting high-efficiency home appliances and other energy-saving measures through retail partnerships and convenient online channels.

4.8.2. Customer Targets and Eligibility

The Retail Partners and Online Store pathways target residential natural gas, electric, and dual-fuel customers who purchase a new appliance or other household product. Residential rental property owners and residents are also eligible to participate. Table 4-29 provides customer eligibility parameters.

Table 4-29. ENERGY STAR Appliances Customer Eligibility Parameters

	Eligible Customers
Customer Class	Residential customer rate class
Building Type	Single family or multifamily
Building Vintage	Existing construction
Other	Measure must save fuel that is supplied by Consumers Energy

4.8.3. Qualifying Measures and Incentives

Customers participating in the Retail Rebates program can receive financial incentives for a range of measures that address heating, cooling, lighting, and water heating end uses. The Retail Partners and Online Store pathways offer a range of small appliances and low-cost EWR measures. Installed measures must save fuel that is supplied by Consumers Energy. Customers may receive program rebates and incentives by check, on-bill credit, installation of equipment, coverage or cost of equipment, gift of energy, online payment service (such as PayPal), or gift card as well as instant discounts on items sold through the online store and select measures

Participation Benefits

- Financial incentives for measures that increase heating, cooling, building envelope, and water heating efficiency
- Instant markdowns available in stores or from the online store
- Free shipping on online store purchases above a minimum threshold

RETAIL REBATES PROGRAM

purchased through the Retail Partners pathway. Details on eligible program measures and incentive levels are outlined in *Appendix A*.

4.8.4. Marketing Strategy

Consumers Energy's EWR marketing team works with program managers and implementers to execute an integrated marketing strategy that includes general consumer education on the benefits of energy conservation along with program-specific marketing to motivate participation. There are several key elements of the Retail Partners and Online Store pathways' marketing strategies:

- Customer marketing through Consumers Energy's website
- Email, bill inserts, television, and radio ads that encourage customers to visit Consumers Energy's website to purchase measures via the online store and/or find out more about ways to save energy and money
- Hosting occasional in-store promotion events
- Digital ads, including paid search and remarketing ads, to customers who have previously visited the online store
- Access to additional non-rebated products through the online store

The website carries a strong consumer education message emphasizing the benefits of high-efficiency appliances and early replacement with ENERGY STAR-certified models (lifetime dollar savings, energy savings, water savings, and lower noise).

4.8.5. Estimated Investment

Table 4-30 provides the estimated annual investment levels for the Retail Partners and Online Store pathways.

Table 4-30. Retail Rebates Estimated Investment

	2024	2025
Electricity	\$2,821,671	\$2,798,779
Natural Gas	\$3,599,909	\$3,504,379
Total	\$6,421,580	\$6,303,158

4.8.6. Savings Targets

Table 4-31 provides energy-savings and demand reduction goals for the Retail Partners and Online Store pathways.

Table 4-31. Retail Rebates Energy-Savings Targets

	2024	2025
MWh	6,441	6,441
MW	1.3	1.3
Mcf	129,428	129,478

RETAIL REBATES PROGRAM

4.8.7. Benefit-Cost Results

The Retail Rebates program is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 1.48. Table 4-32 provides program cost-effectiveness results.

Table 4-32. Retail Rebates Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	1.48
Total Resource Cost Test	0.59
Participant Cost Test	1.90
Rate Impact Measure Test	0.35

THINK! ENERGY PROGRAM

4.9. Think! Energy

Through Think! Energy, an energy-efficiency education program, Consumers Energy encourages actions to reduce home energy use and increase energy efficiency. Through the Think! Energy program, Consumers Energy will offer two program pathways, each with several targeted initiatives.

- Through the **Think! Energy in Schools** pathway, the Company provides energy-efficiency presentations⁶ and take-home kits that include information about saving energy along with several low-cost measures that can lead to reductions in electricity, natural gas, and water use and can enhance customer safety. Prior to the in-class or virtual presentation, teachers distribute a letter to parents that explains the program and instructs parents to contact the teacher if they do not want to receive the kit.

The program educational resources include posters, study guides, curricula, and presentations provided to participating teachers, as well as an age-appropriate Family Activity Guide with activities families can complete at home to save energy and a Home Energy Worksheet so students can indicate which kit measures they installed. Consumers Energy also provides teachers with mini-grants of \$100 to \$150 for returning Home Energy Worksheets to the program implementer.

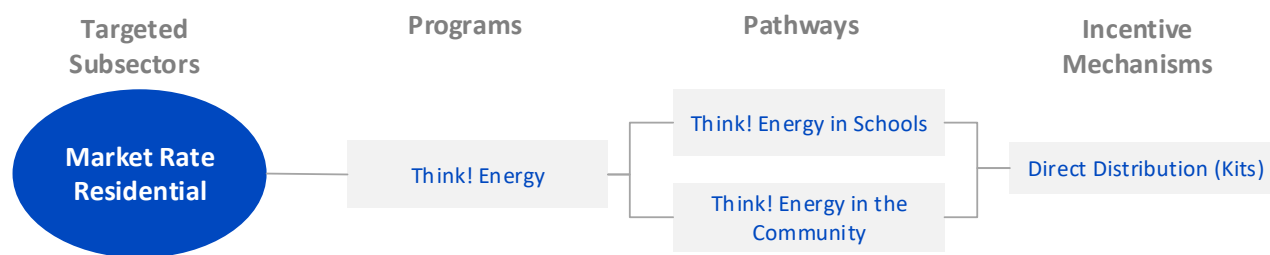
Consumers Energy sponsors the Think! Energy program to classes in areas where it provides both electric and natural gas service and collaborates with DTE Energy, Efficiency United, the Lansing Board of Water & Light, and the SEMCO ENERGY Gas Company to offer the program in shared service territories where it provides only natural gas or only electric service.

There are three targeted initiatives within this program pathway:

- The new **Bright Kids** initiative targets second- and third-grade students.
- The **Take Action** initiative targets fourth- through sixth-grade students.
- The **Innovation** initiative targets seventh- through twelfth-grade students.
- Through the **Think! Energy in the Community** pathway, Consumers Energy provides energy outreach, education, and EWR measures to senior citizens and community groups. Through this pathway, the program implementation contractor coordinates with senior centers, recreational centers, and support services centers in Consumers Energy territory to provide in-person or virtual presentations on using energy efficiently, safely, and wisely. Those who participate in the presentations receive a free take-home kit containing EWR measures such as window insulation kits, door weatherstripping, water heater pipe wrap, a showerhead, and kitchen and bathroom faucet aerators. Consumers Energy also provides hosting facilities with a grant of \$250 to \$500 based on the number of kits distributed.

⁶ Presentations can be live or virtual based on teacher preference.

THINK! ENERGY PROGRAM



4.9.1. Objectives

Through the Think! Energy program, Consumers Energy aims to influence its customers to take actions that can reduce their home energy use and increase efficiency.

4.9.2. Customer Targets and Eligibility

The Think! Energy program targets students and community centers throughout the Consumers Energy dual-fuel and single-fuel service territories. In areas where Consumers Energy supplies only one fuel, the program is delivered in collaboration with the Lansing Board of Water & Light, DTE Energy, Efficiency United, and the SEMCO ENERGY Gas Company. Table 4-33 provides customer eligibility parameters.

Table 4-33. Think! Energy Customer Eligibility Parameters

	Eligible Customers
Customer Class	Residential customer rate class
Building Type	Single family or multifamily
Building Vintage	Existing or new construction
Other	Students in schools located in Consumers Energy territory and their families Senior citizens and other clients of community service centers

4.9.3. Qualifying Measures and Incentives

Consumers Energy provides energy education coupled with take-home kits containing measures that address hot water energy consumption, air leakage, and electrical consumption such as advanced power strips, faucet aerators, weatherstripping, low-flow showerheads, pipe wrap, and window insulation kits. Consumers Energy customizes the kit contents for each target population and provides all measures at no cost to customers.

Participation Benefits

- Educational resources including posters, study guides, curricula, and classroom presentations
- Take-home kits containing a range of energy-saving measures
- Mini-grants for participating teachers

Consumers Energy offers up to \$100 for each elementary classroom and \$150 to each secondary classroom that participates in the program: \$50 is provided for distributing kits, with additional funds available for the return of the Home Energy Worksheet, a home survey about the program experience. Details on eligible program measures and incentive levels are outlined in *Appendix A*.

THINK! ENERGY PROGRAM

4.9.4. Marketing Strategy

The program implementor coordinates marketing through emails, follow-up calls, and direct mail letters sent to community centers, school districts, and past participating teachers within Consumers Energy's service territory.

4.9.5. Estimated Investment

Table 4-34 provides the estimated annual investment levels for the Think! Energy program.

Table 4-34. Think! Energy Estimated Investment

	2024	2025
Electricity	\$1,400,900	\$1,392,850
Natural Gas	\$1,073,132	\$1,069,546
Total	\$2,474,032	\$2,462,397

4.9.6. Savings Targets

Table 4-35 provides energy-savings and demand reduction goals for the Think! Energy program.

Table 4-35. Think! Energy Energy-Savings Targets

	2024	2025
MWh	5,711	5,711
MW	0.5	0.5
Mcf	131,542	131,542

4.9.7. Benefit-Cost Results

The Think! Energy program is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 2.90
Table 4-36 provides program cost-effectiveness results.

Table 4-36. Think! Energy Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	2.90
Total Resource Cost Test	2.90
Participant Cost Test	-
Rate Impact Measure Test	0.38

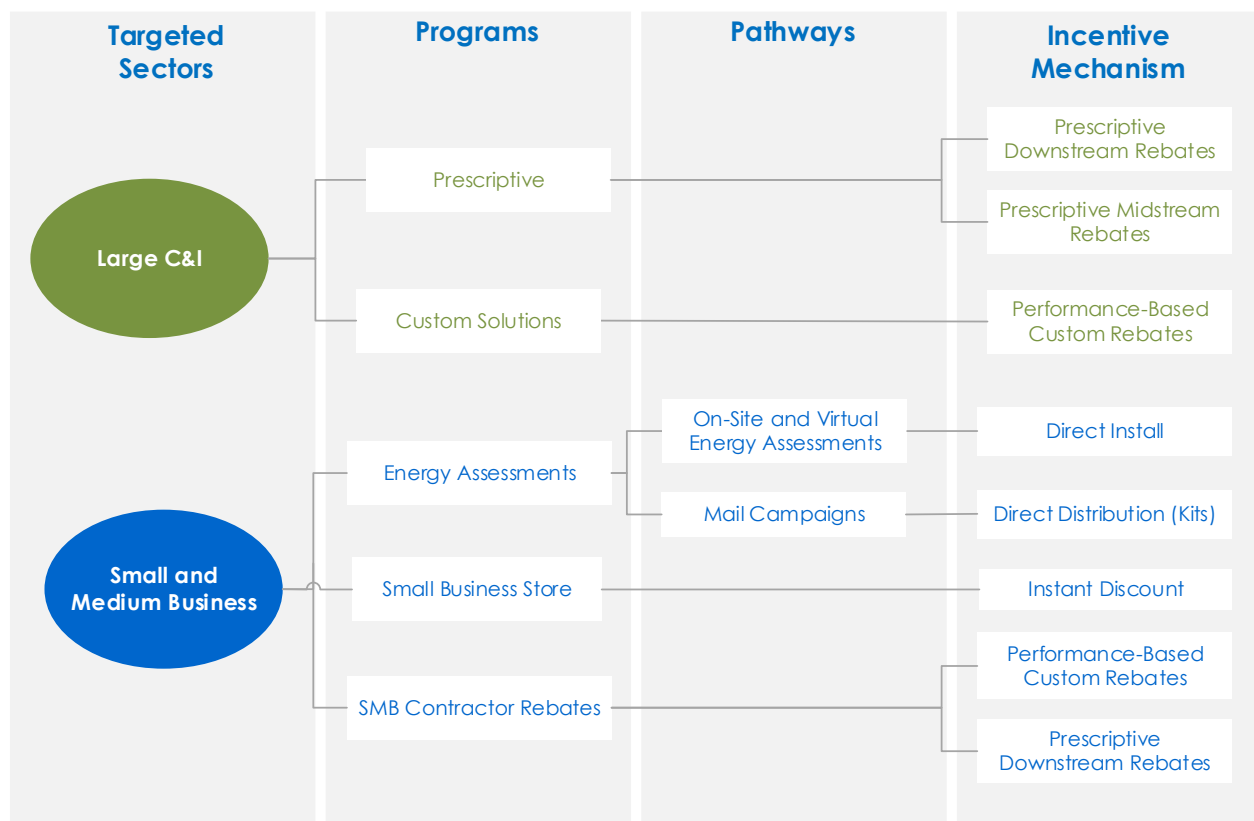
BUSINESS PORTFOLIO

5. Business Portfolio

The Business portfolio of Consumers Energy’s 2021-2025 EWR Plan consists of five broad programs designed to provide large commercial and industrial and SMB customers with a range of opportunities to reduce their electricity and natural gas usage. The portfolio offers two programs targeting large commercial and industrial customers—Prescriptive and Custom Solutions—and three programs targeting SMB customers—Energy Assessments, Small Business Store, and SMB Contractor Rebates. This structure will enable Consumers Energy to fine tune their delivery strategies to be targeted and relevant for each business sector. Distinguishing the Prescriptive and Custom Solutions programs for the large commercial and industrial sector will allow for increased customer visibility and tailored strategies that reflect the nuances of these distinct offerings. The SMB sector structure is designed to enable various participation pathways for increased accessibility in this hard-to-reach segment. The Business portfolio has traditionally provided a significant share of the total EWR benefits, reflective of the size and breadth of the business sector.

Figure 5-1 depicts Consumers Energy’s business portfolio structure reflecting its separated program strategy. The remainder of this section provides detailed descriptions of each business program including objectives, implementation strategy energy-savings estimates, budgets, and cost-effectiveness results.

Figure 5-1. Business Portfolio Structure



PREScriptive PROGRAM

5.1. Prescriptive

The Prescriptive program creates energy savings for business customers by promoting high-efficiency electricity and natural gas equipment via downstream and midstream incentives. As part of the Prescriptive program, cash-back mail-in incentives typically range from 25% to 40% of the incremental cost to purchase high-efficiency equipment. The prescriptive midstream incentives are provided to distributors to discount the cost of selected products including lighting, HVAC, and food service equipment.



5.1.1. Objectives

Through the Prescriptive program, Consumers Energy aims to (1) generate energy savings for its business customers by offering prescriptive financial incentives for peer-reviewed and established high-efficiency electricity and natural gas measures and to (2) increase the market share of commercial-grade high-efficiency technologies sold through a range of market channels.

5.1.2. Customer Targets and Eligibility

The Prescriptive program targets commercial and industrial electric and natural gas customers in existing buildings in Consumers Energy territory who wish to purchase qualifying equipment or services. Consumers Energy provides EWR assistance to support any customer's needs. Table 5-1 provides customer eligibility parameters.

Table 5-1. Prescriptive Customer Targets and Eligibility

	Eligible Customers
Customer Class	Business electric or natural gas customer in a commercial rate class (excludes natural gas transportation and retail open access customers)
Customer Size	Any
Building Type	Commercial and industrial facilities
Building Vintage	Existing construction
Other	Projects must result in the permanent reduction in electrical and/or natural gas use compared to the baseline standard

PRESCRIPTIVE PROGRAM

5.1.3. Qualifying Measures and Incentives

Consumers Energy offers prescriptive incentives equaling between 25% and 40% of the incremental cost to purchase energy-efficient products when customers submit a rebate application by mail or online. To simplify the application process and reduce administrative costs, the Company focuses this pathway on standard equipment measures with predictable, deemed savings. For some measures, the Company uses tiered incentives to promote investments in premium-efficiency equipment and multi-measure projects.

Participation Benefits

- Rebates for standard equipment measures that increase the efficiency of heating, cooling, building envelope, water heating, and other end uses
- Instant discounts for contractors and customers who purchase qualifying measures from participating distributors
- Industrial and Strategic Energy Management
- Energy Concierge Services

Consumers Energy also uses a midstream distribution channel to deploy energy-efficiency measures. The Company recruits distributors, who offer energy-efficient equipment (such as lighting, HVAC, water heaters, and food service equipment) to contractors and customers who participate in the program. The participating contractors and customers receive instant discounts on qualified products at the time of purchase and the participating distributors are compensated weekly for each instant discount they provide. The Company also offers midstream incentives on selected products such as lighting, HVAC, and food service equipment.

Additionally, the Company supports Industrial and Strategic Energy Management (SEM), a focused initiative that aims to create persistent energy savings through program engagement tailored to the individual customer, as well as Energy Concierge Services (ECS).

- Through SEM, the Company helps its large customers integrate energy management into their permanent business practices through a range of tools including technical assistance; energy audits and/or building assessments; benchmarking support; energy performance target setting; project identification, implementation, and management support; energy coaching, training, and certification (where applicable); and development of a customer-managed internal energy team.
- Through ECS, the company provides a designated single point of contact and customized assistance to achieve the customer's unique energy-savings goals. ECS advisors work directly with the customer to identify energy-savings projects, develop energy-savings business cases to support and encourage customer organization investment in EWR, and determine how to maximize EWR incentives through the rebate process.

Details on eligible program measures and incentive levels are outlined in *Appendix A*.

5.1.4. Marketing Strategy

Consumers Energy uses targeted, proactive outreach efforts to influence trade allies such as wholesalers, distributors, midstream suppliers, contractors, and retailers who market qualifying technologies. Additionally, energy solutions managers and energy advisors directly contact larger customers, particularly those in high-impact/high-need business sectors, such as schools, municipal buildings, hospitals, retail, food service, and

PREScriptive PROGRAM

lodging, as well as commercial and industrial customers whose building load or process design would benefit from energy-efficient technology. Consumers Energy employs several marketing strategies to recruit business customers into the Prescriptive program.

Engage Trade Allies

- Providing training to targeted trade allies whose businesses benefit from promoting incentives to their customers
- Featuring active participating trade allies on Consumers Energy's website with their name, discipline, website, and level of program activity
- Providing co-branding opportunities for participating trade allies in the form of marketing and promotional materials (such as product sheets and rebate forms)
- Directly engaging trade allies through direct mail, telephone, orientation meetings, and in-person visits by field representatives
- Providing presentations and seminars to trade association members (such as ASHRAE, the Metro Detroit Building Superintendent Association, and the West Michigan Association of Energy Engineers)
- Conducting seasonal campaigns, such as for boiler tune-ups (offered from September through March) and chiller tune-ups (offered from April through August), as well as ongoing geographical campaigns targeting low participation areas
- Conducting midstream marketing efforts targeting suppliers and end users
- Offering market intelligence and quarterly bonuses

Directly Market to Targeted Customers

- Conducting in-person visits to the largest business customers and targeted SMBs
- Offering walk-through energy assessments to identify opportunities for efficiency improvements
- Providing targeted audits for select industrial customers to uncover potential opportunities with an emphasis on process improvements
- Conducting targeted advertising in trade and business publications, online static and banner ads, press releases, and mass-media channels
- Partnering with economic development organizations for new construction projects
- Providing program details through Consumers Energy's website including a comprehensive program description, list of qualifying measures, downloadable incentive applications and program documents, and fact sheets and case studies for various customer segments and technologies
- Conducting direct networking to leverage relationships with trade allies, local economic development organizations, and other business associations and encourage them to promote the program, refer projects, and identify potential projects for their members and industry contacts
- Promoting and facilitating the Michigan Saves financing program to make energy-efficiency investments more accessible

PREScriptive PROGRAM

5.1.5. Estimated Investment

Table 5-2 provides the estimated annual investment levels for the Prescriptive program.

Table 5-2. Prescriptive Estimated Investment

	2024	2025
Electricity	\$70,321,683	\$62,501,949
Natural Gas	\$14,658,228	\$14,433,683
Total	\$84,979,911	\$76,935,631

5.1.6. Savings Targets

Table 5-3 provides energy-savings and demand reduction goals for the Prescriptive program.

Table 5-3. Prescriptive Energy-Savings Targets

	2024	2025
MWh	368,771	350,436
MW	54.8	52.1
Mcf	774,973	774,973

5.1.7. Benefit-Cost Results

The Prescriptive program is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 3.77.

Table 5-4 provides program cost-effectiveness results.

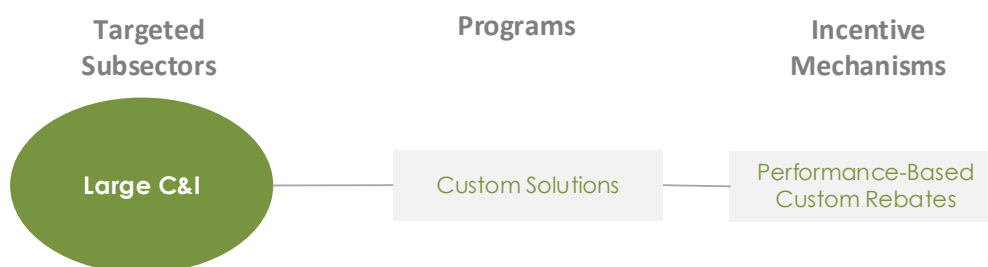
Table 5-4. Prescriptive Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	3.77
Total Resource Cost Test	1.47
Participant Cost Test	5.34
Rate Impact Measure Test	0.33

CUSTOM SOLUTIONS PROGRAM

5.2. Custom Solutions

The Custom Solutions program targets customers in Consumers Energy's large commercial and industrial sector, as well as those engaged in new construction projects. Through the Custom Solutions program, the Company assists larger commercial and industrial customers with analyzing and selecting high-efficiency equipment or process improvements that are not covered under the Prescriptive program. The Company helps customers identify more complex energy-savings projects, provides economic analysis, and aids with completing the incentive application. Consumers Energy provides incentives for installed measures based on the energy saved.



5.2.1. Objectives

Through the Custom Solutions program, Consumers Energy aims to generate persistent energy savings for its business customers through promotions, technical support, and financial incentives for high-efficiency electricity and natural gas equipment. There are two primary program objectives:

- To influence business customers to select and install high-efficiency equipment and projects, such as process improvements or projects involving multiple technologies.
- To reduce energy use and improve the performance of existing long-life equipment to ensure peak operating efficiency for business customers.

5.2.2. Customer Targets and Eligibility

Consumers Energy targets large commercial and industrial electric and natural gas customers in existing buildings for the Custom Solutions program. This includes customers such as hospitals, municipalities, and manufacturing facilities, whose operations could most benefit from a custom approach; however, the program is available to customers of any size who wish to install measures not covered by the Prescriptive program. Additionally, the program targets business customers who are interested in designing and building new energy-efficient commercial and/or industrial facilities. Table 5-5 provides customer eligibility parameters.

CUSTOM SOLUTIONS PROGRAM

Table 5-5. Custom Solutions Customer Eligibility Parameters

	Eligible Customers
Customer Class	Business electric or natural gas customer in a commercial rate class (excludes natural gas transportation and retail open access customers)
Customer Size	Any
Building Type	Commercial and industrial facilities
Building Vintage	Existing or new construction
Other	Projects must result in a permanent reduction in electrical and/or natural gas use compared to the baseline

5.2.3. Qualifying Measures and Incentives

Consumers Energy awards incentives for energy savings on a per-kWh or a per-Mcf basis for installed measures not covered in the Prescriptive program. Often these projects are more complex and address a system or process requiring unique technologies. The Company calculates the incentive amount on a case-by-case basis for qualifying equipment or processes. All technologies are subject to eligibility and energy savings verification.

Participation Benefits

- Custom Rebates for nonstandard efficiency projects
- Additional incentives for new building construction projects that qualify for LEED certification
- Industrial and Strategic Energy Management

Customers engaged in new building construction who are interested in pursuing LEED (Leadership in Energy and Environmental Design) certification can receive additional incentives based on a performance energy modeling analysis demonstrating significant improvement in the proposed building design compared to the program's baseline standard. The building must achieve LEED certification to qualify for whole-building incentives.

Additionally, the Custom Program offers Industrial and SEM, a focused initiative that aims to create persistent energy savings through program engagement tailored to the individual customer. Through SEM, the Company helps its large customers integrate energy management into their permanent business practices through a range of tools including technical assistance; energy audits and/or building assessments; benchmarking support; energy performance target setting; project identification, implementation, and management support; energy coaching, training, and certification (where applicable); and development of a customer-managed internal energy team. Details on eligible program measures and incentive levels are outlined in *Appendix A*. The Company uses the criteria outlined in Table 5-6 to determine incentive amounts.

Table 5-6. Custom Solutions: Incentive Summary

	Electric Incentives	Natural Gas Incentives
Annual customer incentive limit	\$2,000,000	\$1,000,000
Minimum project payback	1 year	1 year
Portion of project cost covered ¹	Maximum 50%	100% up to \$500,000, then 50%

¹ Customers may be eligible for feasibility studies and investment-grade audits to identify energy-savings opportunities.

CUSTOM SOLUTIONS PROGRAM

The Consumers Energy program team works closely with prospective customers to determine if projects qualify for incentives and to assist with completing an incentive application. The Company may modify incentives and caps to meet program needs.

Consumers Energy uses a competitive request for proposals process for larger projects exceeding the project maximums listed in Table 5-6. The Company selects projects based on cost-effectiveness results or on a first-come, first-served basis.

5.2.4. Marketing Strategy

Consumers Energy uses targeted, proactive outreach efforts to influence trade allies such as wholesalers, distributors, and midstream suppliers, contractors, and retailers who market qualifying technologies. Additionally, energy solutions managers and energy advisors directly contact larger customers, particularly those in high-impact/high-need business sectors, such as schools, municipal buildings, hospitals, retail, food service, and lodging, as well as commercial and industrial customers whose building load or process design would benefit from energy-efficient technology. Consumers Energy employs several marketing strategies to recruit business customers into the Custom Solutions program.

Engage Trade Allies

- Providing training to targeted trade allies whose businesses benefit from promoting custom incentives to their customers
- Featuring active participating trade allies on Consumers Energy's website with their name, discipline, website, and level of program activity
- Providing co-branding opportunities for participating trade allies in the form of marketing and promotional materials (such as product sheets and rebate forms)
- Directly engaging trade allies through direct mail, telephone, orientation meetings, and in-person visits by field representatives
- Providing presentations and seminars to trade association members (such as ASHRAE, the Metro Detroit Building Superintendent Association, and the West Michigan Association of Energy Engineers)
- Conducting quarterly and seasonal campaigns, such as for boiler tune-ups (offered from September through March) and chiller tune-ups (offered from April through August), as well as ongoing geographical campaigns targeting low participation areas
- Conducting midstream marketing efforts targeting suppliers and end users
- Offering market intelligence and quarterly bonuses

Directly Market to Targeted Customers

- Conducting in-person visits to the largest business customers and targeted SMBs
- Offering walk-through energy assessments to identify opportunities for custom efficiency improvements
- Providing targeted audits for select industrial customers to uncover potential opportunities with an emphasis on process improvements

CUSTOM SOLUTIONS PROGRAM

- Conducting targeted advertising in trade and business publications, online static and banner ads, press releases, and mass-media channels
- Partnering with economic development organizations for new construction projects
- Offering promotions through Consumers Energy's website including a detailed program description, qualifying measures, downloadable incentive applications and program documents, and fact sheets and case studies for various customer segments and technologies
- Conducting direct networking to leverage relationships with trade allies, local economic development organizations, and other business associations and encouraging them to promote the program, refer projects, and identify potential projects for their members and industry contacts
- Promoting and facilitating on-bill financing options, Michigan Saves, and other financing programs to make energy-efficiency investments more accessible

5.2.5. Estimated Investment

Table 5-7 provides the estimated annual investment levels for the Custom Solutions program.

Table 5-7. Custom Solutions Estimated Investment

	2024	2025
Electricity	\$4,987,589	\$4,798,688
Natural Gas	\$3,690,440	\$3,686,576
Total	\$8,678,029	\$8,485,264

5.2.6. Savings Targets

Table 5-8 provides energy-savings and demand reduction goals for the Custom Solutions program.

Table 5-8. Custom Solutions Energy-Savings Targets

	2024	2025
MWh	45,406	45,406
MW	3.9	3.9
Mcf	298,395	298,395

5.2.7. Benefit-Cost Results

The Custom Solutions program is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 6.54. Table 5-9 provides program cost-effectiveness results.

Table 5-9. Custom Solutions Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	6.54
Total Resource Cost Test	4.67
Participant Cost Test	14.91
Rate Impact Measure Test	0.35

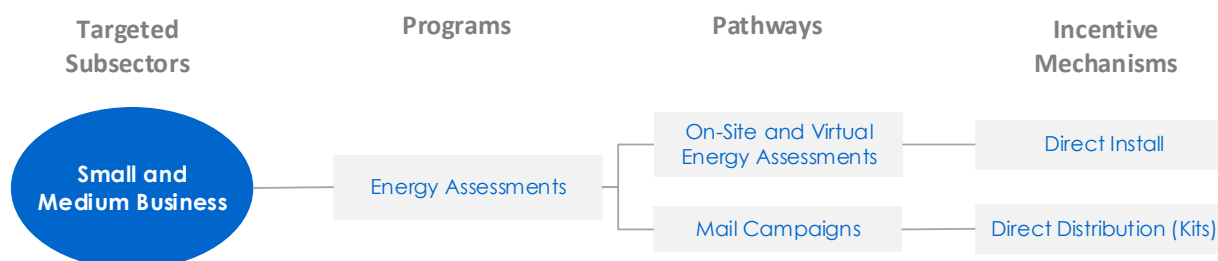
ENERGY ASSESSMENTS PROGRAM

5.3. Energy Assessments

The Energy Assessments program is designed to target customers in Consumers Energy’s SMB sector. Through the Energy Assessments program, Consumers Energy offers two program pathways.

- Through the **On-Site Energy Assessments** pathway, Consumers Energy provides complimentary energy assessments of a customer’s facility along with free direct installation of energy-saving products. Experienced technicians (known as energy assessors) conduct the assessment, discuss EWR opportunities with the business owner, and install high-efficiency measures including lighting, showerheads, pipe wrap, pre-rinse sprayers, and faucet aerators. Participants receive a report via mail and email indicating the measures installed as well as tips and recommendations to continue saving energy.
- Through **Mail Campaigns**, Consumers Energy offers a direct mail kit that targets program nonparticipants. These direct mail kits have low-cost energy-efficiency measures including a smart strip, and photocell night lights, all of which are easy for the customer to install themselves. These kits include marketing materials that raise customers’ awareness of the EWR programs and encourage them to seek out additional energy-efficiency opportunities.

5.3.1. Objectives



Through the Energy Assessments program, Consumers Energy introduces SMB customers to energy efficiency, increases their awareness of the benefits of EWR, and encourages them to use less energy and to save money on their monthly bills. The program provides SMB customers with personalized information on their energy use, opportunities to conserve energy in their businesses, and customized energy-saving recommendations.

5.3.2. Customer Targets and Eligibility

The Energy Assessments program targets SMB customers in Consumers Energy territory. Table 5-10 provides customer eligibility parameters.

ENERGY ASSESSMENTS PROGRAM

Table 5-10. Energy Assessments Customer Eligibility Parameters

	Eligible Customers
Customer Class	Small business electric or natural gas customer in a commercial rate class (excludes natural gas transportation and retail open access customers)
Customer Size	Businesses (contract accounts on commercial rate) with less than 500 employees, with annual usage under 1.2 million kWh (electric) or 15,000 Mcf (natural gas)
Building Type	Small commercial and industrial facilities
Building Vintage	Existing construction
Other	Businesses in tenant facilities must have building owner approval

5.3.3. Qualifying Measures and Incentives

Through the Energy Assessments program, Consumers Energy provides complimentary energy assessments and direct installation of low-cost products. These products include water heater pipe insulation, wired and wireless guest room energy management systems, beverage vending machine controllers, pre-rinse sprayers, low-flow showerheads, low-flow faucet aerators, and direct mail kits.

Customers incur no costs to participate in the program and all EWR products and services are provided for free. Details on eligible program measures and incentive levels are outlined in *Appendix A*.

Participation Benefits

- Complimentary energy assessments
- Free direct installation of low-cost measures
- Customized post-assessment report with recommendations for building upgrades with the potential for greater energy-savings benefits

5.3.4. Marketing Strategy

Consumers Energy employs a variety of marketing strategies to attract business customers to the Energy Assessments program:

- Direct marketing to targeted customers through door-to-door canvassing, in-person visits, and outreach to small business associations and community groups
- Promoting the program through the program website, email marketing, and targeted media advertising (including trade and business journals, press releases, and mass media channels)
- Providing tailored energy assessment reports that guide customers to additional energy-saving opportunities and available incentives
- Following up with customers to review energy assessment results to discuss next steps

ENERGY ASSESSMENTS PROGRAM

5.3.5. Estimated Investment

Table 5-11 provides the estimated annual investment levels for the Energy Assessments program.

Table 5-11. Energy Assessments Estimated Investment

	2024	2025
Electricity	\$7,800,000	\$7,703,669
Natural Gas	\$4,680,000	\$4,250,859
Total	\$12,480,000	\$11,954,528

5.3.6. Savings Targets

Table 5-12 provides energy-savings and demand reduction goals for the Energy Assessments program.

Table 5-12. Energy Assessments Energy-Savings Targets

	2024	2025
MWh	9,457	9,457
MW	1.6	1.6
Mcf	200,850	200,850

5.3.7. Benefit-Cost Results

The Energy Assessments program is not cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 0.95. The labor and material costs to deliver the program are considerable, and because lighting savings have declined it is no longer possible to achieve cost-effective savings from direct installation measures. However, the program provides valuable information and education to customers and is an entry point for Consumers Energy's other EWR programs. Table 5-13 provides program cost-effectiveness results.

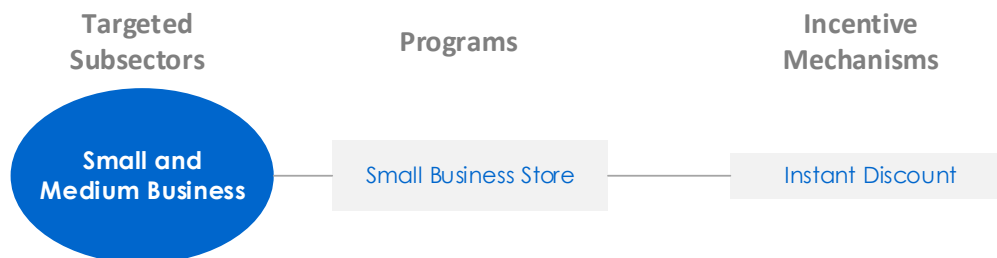
Table 5-13. Energy Assessments Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	0.95
Total Resource Cost Test	0.77
Participant Cost Test	8.92
Rate Impact Measure Test	0.31

SMALL BUSINESS STORE

5.4. Small Business Store

The Small Business Store is designed to target customers in Consumers Energy’s SMB sector. The Small Business Store is a scalable, self-service online store that gives small business customers an opportunity to purchase discounted energy-efficient products through a convenient shopping experience. Consumers Energy promotes the Small Business Store via email and targeted social media ads.



5.4.1. Objectives

Through the Small Business Store, Consumers Energy aims to provide EWR opportunities for small businesses that are typically considered hard to reach and have limited resources to invest in energy efficiency.

5.4.2. Customer Targets and Eligibility

The Small Business Store targets businesses such as small retail, convenience and small grocery stores, small offices, service stations, restaurants and lodging, nonprofit organizations, and small manufacturing facilities. Table 5-14 summarizes customer eligibility requirements.

Table 5-14. Small Business Store Customer Eligibility Parameters

	Eligible Customers
Customer Class	Small business electric or natural gas customer in a commercial rate class (excludes natural gas transportation and retail open access customers)
Customer Size	Businesses (contract accounts on commercial rate) with less than 500 employees and annual usage under 1.2 million kWh (electric) or 15,000 Mcf (natural gas)
Building Type	Small commercial and industrial facilities
Building Vintage	Existing construction
Other	Businesses in tenant facilities must have building owner approval

SMALL BUSINESS STORE

5.4.3. Qualifying Measures and Incentives

Through the Small Business Store, Consumers Energy offers discounts on energy-efficient products through an easy, self-serve retail platform. All installed measures must save fuel that is provided by Consumers Energy. Some measures offered through this program are pre-rinse sprayers, low-flow showerheads, faucet aerators, and some LED lighting. All details on eligible program measures and incentive levels are outlined in *Appendix A*.

Participation Benefits

- Instant discounts on a range of energy-saving products
- Easy-to-use participation platform
- Seasonal discounts and promotional offers like free shipping

5.4.4. Marketing Strategy

Consumers Energy emphasizes the Small Business Store's user-friendly platform, cost savings, and energy efficiency advantages, while presenting a selection of products specifically designed for small businesses. To attract business customers, Consumers Energy promotes the program through the program website, targeted media advertising, targeted email, targeted direct mail, and mass media channels.

5.4.5. Estimated Investment

Table 5-15 provides the estimated annual investment levels for the Small Business Store.

Table 5-15. Small Business Store Estimated Investment

	2024	2025
Electricity	\$682,255	\$665,710
Natural Gas	\$92,385	\$90,225
Total	\$774,640	\$755,935

5.4.6. Savings Targets

Table 5-16 provides energy-savings and demand reduction goals for the Small Business Store.

Table 5-16. Small Business Store Energy-Savings Targets

	2024	2025
MWh	3,340	3,440
MW	0.3	0.4
Mcf	5,808	5,983

SMALL BUSINESS STORE

5.4.7. Benefit-Cost Results

The Small Business Store is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 2.78. Table 5-17 provides program cost-effectiveness results.

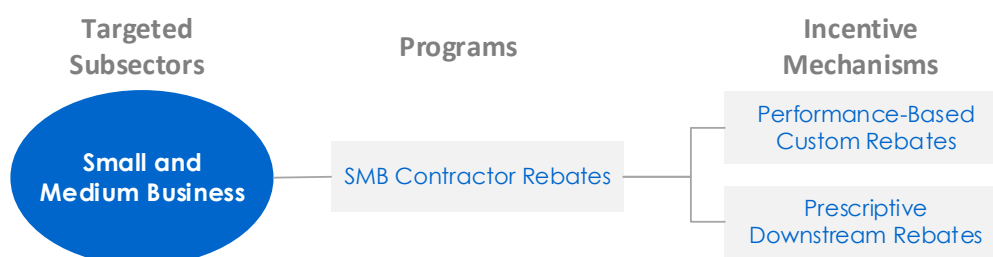
Table 5-17. Small Business Store Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	2.78
Total Resource Cost Test	1.10
Participant Cost Test	4.24
Rate Impact Measure Test	0.31

SMB CONTRACTOR REBATES PROGRAM

5.5. SMB Contractor Rebates

The SMB Contractor Rebates program is designed to target customers in Consumers Energy’s SMB sector. The program engages and uses trade allies to promote energy-saving opportunities such as lighting and refrigeration measures to small businesses. Trade allies are responsible for conducting site assessments, proposing qualifying energy-efficient upgrades, specifying equipment, performing installations, handling all paperwork, and providing required warranties. The program implementer conducts inspections to verify pre- and post-installation conditions and equipment, administers application submittals, distributes incentives to the trade allies, and oversees the program. The implementer also provides all necessary program information and uses a web-based application tool to enter, track, and receive approval and payment for projects.



5.5.1. Objectives

Through the SMB Contractor Rebates program, Consumers Energy aims to provide cost-effective energy-efficient lighting and refrigeration upgrades with little to no capital investment for SMBs and nonprofit customers and to drive business to Consumers Energy’s trade ally partners.

5.5.2. Customer Targets and Eligibility

The SMB Contractor Rebates program targets SMBs in Consumers Energy territory. Table 5-18 provides customer eligibility parameters.

Table 5-18. SMB Contractor Rebates Customer Eligibility Parameters

	Eligible Customers
Customer Class	Small business electric or combination customer in a commercial rate class (excludes natural gas transportation and retail open access customers)
Customer Size	Businesses (contract accounts on commercial rate) with less than 500 employees, with annual usage under 1.2 million kWh (electric) or 15,000 Mcf (natural gas)
Building Type	Small commercial and industrial facilities
Building Vintage	Existing construction
Other	Businesses in tenant facilities must have building owner approval

SMB CONTRACTOR REBATES PROGRAM

5.5.3. Qualifying Measures and Incentives

Through the SMB Contractor Rebates program, Consumers Energy provides incentives that cover up to 100% of more costly efficiency upgrades and often yields an average payback of approximately one year. SMBs often struggle with a lack of available capital to complete energy-saving projects, so the incentives are paid directly to the trade ally and the customer is only responsible for a small co-pay. Some of the

available measures include lighting, lighting controls, anti-sweat heater controls, and electronically commutated motors, among others. All details on eligible program measures and incentive levels are outlined in *Appendix A*.

Participation Benefits

- Seamless way to implement energy assessment recommendations
- Turnkey program delivery by qualified trade allies
- Incentives covering up to 100% of project costs

5.5.4. Marketing Strategy

Consumers Energy markets the SMB Contractor Rebates program by emphasizing the financial benefits of participation to both contractors and their customers. Key activities are focused on providing training and resources for contractors to better understand and promote the rebate program, offering co-branding opportunities and marketing materials, and featuring participating contractors on the program website to boost their visibility. Consumers Energy employs a range of marketing strategies to attract trade allies to the SMB Contractor Rebates program, who in turn market the program to their customers:

- Recruit and engage trade allies by using targeted, proactive outreach
- Provide co-branding opportunities for participating trade allies in the form of marketing and promotional materials
- Promote top trade allies by featuring their discipline and contact information on the program website
- Launch a geo-targeted campaign to promote program participation among key segments such as HVAC and lighting contractors
- Provide training for targeted trade allies whose businesses benefit from promoting the program to their customers
- Provide leads to trade allies that are identified through the Energy Assessments program

5.5.5. Estimated Investment

Table 5-19 provides the estimated annual investment levels for the SMB Contractor Rebates program.

Table 5-19. SMB Contractor Rebates Estimated Investment

	2024	2025
Electricity	\$7,040,000	\$7,021,778
Natural Gas	\$0	\$0
Total	\$7,040,000	\$7,021,778

SMB CONTRACTOR REBATES PROGRAM

5.5.6. Savings Targets

Table 5-20 provides energy-savings and demand reduction goals for the SMB Contractor Rebates program.

Table 5-20. SMB Contractor Rebates Energy-Savings Targets

	2024	2025
MWh	24,071	24,071
MW	0.1	0.1
Mcf	-	-

5.5.7. Benefit-Cost Results

The SMB Contractor Rebates program is cost-effective from a utility cost perspective, achieving a benefit-cost ratio of 1.20. Table 5-21 provides program cost-effectiveness results.

Table 5-21. SMB Contractor Rebates Cost-Effectiveness Results

Benefit-Cost Test	Benefit-Cost Ratio
Utility Cost Test	1.20
Total Resource Cost Test	1.18
Participant Cost Test	20.44
Rate Impact Measure Test	0.23

OPT-IN AND OPT-OUT OPTIONS

5.6. Large Customer Opt-In and Opt-Out Options

5.6.1. Opt-In Options for Business Customers

Eligible customers may choose a one-time option to voluntarily opt in to Consumers Energy's EWR programs for business. Opt-in customers are required to pay the full EWR surcharge for each enrolled account and submit energy-saving rebate applications through the normal business program process described in the proceeding sections. Consumers Energy offers two opt-in options for its business customers.

- **Electricity Municipal Lighting Opt-In Rate:** Electric municipal customers,⁷ using customer- or Company-owned lighting systems, may enroll in an EWR program at any time, with EWR surcharges collected retroactively to the January billing cycle.
- **Electricity Rate GSG-2:** Electric self-generation and general self-generation 2 (GSG-2) customers are eligible to participate in the opt-in program. They may enroll in the program at any time, with EWR surcharges collected retroactively to the January billing cycle.

5.6.2. Opt-Out Option for Large Natural Gas Customers

Eligible large natural gas transportation business customers can self-direct and opt out of Consumers Energy's EWR programs. However, customers who opt out are still required to pay the low-income program surcharge and must also design and plan their own projects and provide annual progress reports. Energy savings resulting from customers' self-directed programs count toward Consumers Energy's overall portfolio savings goals. Self-direct customers are required to implement savings equal to or greater than the minimum savings standard of 0.75% as set by the 2008 Public Act 295.

Natural gas transportation customer account(s) using greater than 100,000 Mcf annually are eligible to participate in the opt-out option and may enroll at any time. Customers who plan to opt out of the program are responsible for providing Consumers Energy with detailed plans, savings, costs, and timelines by mid-July of the previous year. Consumers Energy reviews and evaluates the customer's annual reports to verify that they include the required elements. Consumers Energy also tracks savings and other program elements to meet its annual reporting requirements.

Customers who choose to opt out are not eligible to participate in Consumers Energy's natural gas EWR programs but may still participate in electric EWR programs. A customer who opts out is eligible for a one-time return to the EWR program.

5.6.3. Opt-Out Option for Large Electricity Customers

Eligible large electric business customers can self-direct and opt out of Consumers Energy's EWR programs. However, customers who opt out are still responsible for paying the low-income program surcharge and need to design and plan their own projects and provide annual progress reports. Energy savings resulting from

⁷ The following rate classifications are eligible for opt-in rates: general service metered lighting (GML), general service unmetered lighting (GUL), and general unmetered experimental lighting (GU-XL).

OPT-IN AND OPT-OUT OPTIONS

customers' self-directed programs count toward Consumers Energy's overall portfolio savings goals. Self-direct customers are required to implement savings that are equal to or greater than the minimum savings standard of 1.0% as set by the 2008 Public Act 295.

Electricity customers who use greater than 1 MW annually are eligible to participate in the opt-out option and may enroll at any time. Customers who plan to opt out of the program are responsible for providing Consumers Energy with detailed plans, savings, costs, and timelines by mid-July of the previous year. Consumers Energy will review and evaluate the customer's annual reports to verify that they include the required elements. Consumers Energy will also track savings and other program elements to meet its annual reporting requirements.

Customers who choose to opt out are not eligible to participate in Consumers Energy's electric EWR programs but may still participate in natural gas EWR programs. A customer who opts out is eligible for a one-time return to the EWR program.

PILOT PROGRAMS

6. Pilot Programs

In compliance with regulatory guidelines, and inclusive of the Company's request in this filing to increase the income-qualified Health & Safety pilot to 2% of the EWR budget, Consumers Energy has set aside 7% of the EWR budget to pursue new initiatives and technology approaches that could capture additional energy savings within the residential and business sectors. To identify new pilot concepts, the Company works with its evaluation contractors, implementation contractors, and EWR Plan stakeholders directly and through MPSC EWR workgroups to identify emerging strategies and technology applications that will increase EWR savings, appeal to broader customer segments, or support more effective delivery of EWR services. Customers participating in the pilot programs described in this section, as well as in pilot offerings that may be added during the 2024-2025 EWR Plan period, may receive pilot and program rebates and incentives by check, on-bill credit, installation of equipment, coverage or cost of equipment, gift of energy, online payment service (such as PayPal), or gift card.

The MPSC defines a pilot as, "a limited duration experiment or program to determine the impact of a measure, integrated solution, or new business relationship on one or more outcomes of interest." Consumers Energy groups pilots into three categories:

- **Pilot Measure:** New measures or delivery strategies (pathways) tested within an existing program framework. If pilot measures prove beneficial for the EWR portfolio, they are integrated into an existing program.
- **Proof of Concept:** Early stage, small-scale experiments to test the viability of new measures or programs prior to full-scale pilot testing. Programs or measures at a proof-of-concept stage may entail preliminary research prior to launching a pilot program. If successful, proof of concepts transition into pilot measures or programs.
- **Pilot Program:** A test of a new concept outside of existing programs.

Table 6-1 lists select Consumers Energy pilots currently planned for 2024 and 2025 and how they each align with the three pilot categories.

Table 6-1. 2024-2025 EWR Plan Pilot Programs

	Residential Pilots	Commercial Pilots
Pilot Measure	Induction Cooktops	Induction Cooktops Refrigerant Swap
Proof of Concept	On-Bill Payment My Energy Analyzer	On-Bill Payment
Pilot Program	Health & Safety Super-Efficient All Electric New Homes Workforce Development	Combined Heat and Power Health & Safety Local Government Benchmarking Refrigeration Optimization and Peak Shifting

Summaries of each residential and business pilot listed in Table 6-1 are provided below.

PILOT PROGRAMS

6.1. On-Bill Payments

On-Bill Payments is a proof of concept, through which Consumers Energy aims to bring customers one or more financing solutions to help remove barriers that would otherwise deter them from updating to equipment with more efficient technology in their homes and businesses (these barriers include high up-front costs and limited capital to spend on non-emergent infrastructure work). The Company will test this concept by providing low-barrier access to financing for energy-efficiency upgrades with repayment included in the customer's energy bill.

Through this proof of concept, Consumers Energy will determine whether an energy-efficiency financing option (where payback is facilitated through the customer's utility bill) allows customers who otherwise would not be able to participate to make energy-efficiency upgrades and whether it increases the adoption of energy-efficiency technologies by making them more accessible and affordable. Based on the results of the proof of concept, the Company will consider expanding this to a larger pilot.

On-Bill Payments

Sector: Residential, Commercial

Pilot Category: Proof-of-Concept

Timeline

Pilot Launch: May 2022

Evaluation: December 2023

Costs

Projected: \$1,100,000

Stakeholder(s)

Partners: None

6.1.1. Objectives

Consumers Energy aims to reduce customer's financial barriers to installing energy-efficiency technologies and to reach customers who have historically been unable to participate in EWR programs due to those barriers.

6.1.2. Pilot Outcomes

Through the proof-of-concept phase, Consumers Energy will seek to understand if an alternative financing mechanism removes customers' barriers and increases adoption and participation in energy-efficiency projects.

PILOT PROGRAMS

6.2. Induction Cooktops

Consumers Energy will partner with owners of multifamily properties to convert existing electric and natural gas stoves to electric induction cooktops. This pilot measure will be offered through the Company's existing Market-Rate Multifamily and Income-Qualified Multifamily programs. Consumers Energy will provide an incentive for customers who wish to pursue this option and will conduct an enhanced evaluation to assess customer impacts.

Despite preliminary findings indicating that induction cooktops are typically 15% to 55% more efficient than their conventional electric and natural gas counterparts, incentivizing induction cooktops based on energy savings alone will likely not be cost-effective due to their low energy draw and limited daily energy use. Understanding this, the Company proposes to approach piloting induction cooktops with special consideration for the impact of coupling energy and cost savings benefits with non-energy benefits for the purpose of assessing their cost-effectiveness.

Induction Cooktops

Sector: Residential, Commercial

Pilot Category: Pilot Measure

Timeline

Pilot Launch: January 2024

Evaluation December 2024

Costs

Projected: TBD

Stakeholder(s)

Partners: TBD

6.2.1. Objectives

Consumers Energy is seeking to understand the energy and cost savings implications, as well as the accompanying non-energy benefits (such as indoor air quality improvement and greenhouse gas emissions reductions), of transitioning from an existing electric or natural gas stove to an induction cooktop. Additionally, the Company seeks to demonstrate whether attributing both energy savings and non-energy benefits to calculate a comprehensive cost-effectiveness metric will drive greater adoption of more efficient induction cooktops and similar technologies.

6.2.2. Pilot Outcomes

Through this pilot, Consumers Energy expects to gain a better understanding of the market potential for and cost-effectiveness of induction cooktops after accounting for all potential energy savings and non-energy benefits.

PILOT PROGRAMS

6.3. Health & Safety Pilot

The Health & Safety pilot is offered within Consumers Energy's income-qualified products for single-family and multifamily customers. The pilot aims to provide financial assistance to help customers overcome health and safety deferrals preventing them from making energy-efficiency improvements. These include mold remediation; asbestos abatement; roof repair or replacement; fixing structural, electrical, or plumbing issues; addressing inadequate electric panels; and addressing egress and accessibility issues, among others.

The Company is working with agencies and contractors to identify customers who have deferred an EWR project due to a health or safety concern. These contractors then remedy the concern and implement the energy-efficiency upgrade. Through this pilot, Consumers Energy will be responsible for several tasks:

- Promote the use of healthy building materials, specifically training and educating trade allies on the use of healthy insulation and air-sealing materials
- Promote energy assistance to customers in arrears, including CARE, Home Heating Credit, and State Emergency Relief recipients
- Track specific data points, including number of customers served, deferrals identified and resolved, disconnections, health impacts (aggregated air quality data as identified by health provider organizations and participant surveys), number of measures installed, and repairs completed
- Evaluate impacts on customer bills, disconnections, arrears with a third-party evaluator
- Provide core EWR measures coupled with expanded remediation actions to customers with asthma, COPD, and other respiratory issues with the aim to improve indoor air quality and reduce environmental triggers in the home

Health & Safety Pilot

Sector: Residential, Commercial

Pilot Category: Pilot Program

Timeline

Pilot Launch: September 2020

Evaluation: December 2025

Costs

Projected: \$2,800,000

Stakeholder(s)

Partners: Franklin Energy, CLEAResult, Habitat for Humanity

6.3.1. Objectives

Through this pilot, Consumers Energy aims to reduce the number of EWR projects that are deferred due to health and safety constraints and to reach income-qualified customers who have been unable to participate in EWR due to these challenges. The pilot also aims to assess health and air quality benefits from the home repair coupled with EWR measures installation.

6.3.2. Pilot Outcomes

Consumers Energy seeks to understand customer needs for health and safety to support energy-efficiency project implementation. The pilot will allow the Company to explore the non-energy impacts associated with health and safety issues and their relationship to energy savings and evaluate how to scale and commercialize the pilot into a full-scale customer solution. This work could also lead to partnerships with health care providers and insurance companies.

PILOT PROGRAMS

6.4. Super-Efficient All-Electric New Homes

Through the Super-Efficient All-Electric New Homes pilot, Consumers Energy seeks to understand if stacked incentives will encourage builders to construct all-electric new homes and expand energy efficiency for homeowners.

Continuing from previous years, the Company has already engaged a mix of 50 market rate and low-income homes for the pilot. These homes are built to be zero net-energy ready or have rooftop photovoltaic systems installed. They are electric vehicle-ready, have a cold-climate heat pump and heat pump hot water heater, and are equipped with ENERGY STAR appliances and ENERGY STAR triple-pane windows. They also feature comprehensive air sealing and premium insulation. Builders must achieve a HERS rating of 40 or below to qualify for incentives.

6.4.1. Objectives

The objective of the Super-Efficient All Electric New Homes pilot is to educate builders and homeowners on the energy, cost, and environmental benefits of all-electric homes and to build the market for these homes through increased understanding and market acceptance.

6.4.2. Pilot Outcomes

Consumers Energy will determine how the energy consumption of all-electric homes compares to dual-fuel homes, monitoring and measuring the impacts of several factors:

- Energy bills
- Customer comfort
- Builder barriers
- Cost-effectiveness

The Company will also explore builder and homeowner satisfaction as well as the challenges and barriers associated with building and owning an all-electric home. Consumers Energy will use this information to help determine the next steps for the pilot and whether its benefits warrant transitioning the pilot into a formal EWR program.

Super-Efficient All-Electric New Homes

Sector: Residential

Pilot Category: Pilot Program

Timeline

Pilot Launch: June 2020

Evaluation: June 2023

Costs

Projected: \$880,000

Stakeholder(s)

Partners: ICF

PILOT PROGRAMS

6.5. My Energy Analyzer

My Energy Analyzer is a proof-of-concept pilot with approximately 80 employee customers currently enrolled. This pilot uses Powerley software to bring real-time energy usage data to customers' fingertips through an energy bridge and mobile phone app. In addition to real-time usage, customers can see their bill and consumption history, set budget goals and track their progress toward those goals, and receive energy-savings tips.

6.5.1. Objectives

Through the employee customer proof of concept effort, Consumers Energy will test the technology and validate that it accurately and consistently provides real-time energy usage data. Consumers Energy will also evaluate the customer experience to understand what features help influence changes in customers' energy consumption behavior.

6.5.2. Pilot Outcomes

Consumers Energy will analyze the pilot's potential to change user behavior and save energy to inform whether the proof-of-concept warrants development of a larger scale pilot offered to non-employee customers. Additionally, the Company will assess how employee customers use the app's features and energy bridge device.

My Energy Analyzer

Sector: Residential

Pilot Category: Proof of Concept

Timeline

Pilot Launch: June 2023

Evaluation: June 2024

Costs

Projected: \$250,000

Stakeholder(s)

Partners: Powerley, ICF

PILOT PROGRAMS

6.6. Workforce Development

The Workforce Development pilot originated from a need to increase the capacity of skilled tradespeople working in energy and energy efficiency. The Company is implementing the pilot in two phases in the Flint market. The first phase, Industry Upskilling, was an accelerated program aimed at building the skills of individuals who are currently employed in residential weatherization, home performance, or related industries and helping them earn two nationally recognized industry credentials. This phase consisted of five full days of classroom and supplemental field training, culminating in a written exam and two-hour field exam.

The second phase, Unskilled Training, focused on supporting under- or unemployed individuals interested in a career in the energy industry. Consumers Energy provided participants with a \$16 per hour wage to complete their training along with additional services such as transportation assistance, childcare, and meals over the course of the eight-week training. In addition to classroom and field training that led to industry certifications, some participants received on-the-job training that led to full-time employment with the training provider.

Workforce Development

Sector: Residential, SMB

Pilot Category: Pilot Program

Timeline

Pilot Launch: August 2022

Evaluation: May 2023

Costs

Projected: \$415,844

Stakeholder(s)

Partners: Walker-Miller, MSPC EWR
Workforce Subcommittee

6.6.1. Objectives

Through its Workforce Development pilot, Consumers Energy is seeking to increase the availability of skilled technicians capable of supporting the implementation of its programs, particularly in under-represented areas, and to support the economic development of disadvantaged regions of its territory by expanding access to good paying jobs in the energy-efficiency industry.

6.6.2. Pilot Outcomes

The Industry Upskilling phase of the pilot resulted in 100% of the participants gaining their BPI Building Analyst and Healthy Housing Principles certifications. The Unskilled Training phase resulted in a 100% pass rate for the BPI and Healthy Housing Principles exams and only one individual failed to pass their field exam (although they will have a future opportunity to retake it). Among the latter cohort, 50% found employment in the energy industry and the remaining half are receiving job placement assistance. In future iterations of this pilot, the Company hopes to maintain the exam success rate and improve on the job placement rate.

Following the successful completion of phases one and two, Consumers Energy seeks to improve on the pilot's instruction and the additional services it provides (based on feedback from participants) and to expand its reach. Consumers Energy will continue to offer the pilot in Flint and will expand the size of its cohorts, relocating to a larger, more accommodating training facility, then will consider expanding to other markets.

PILOT PROGRAMS

6.7. Refrigerant Swap

Refrigerant Swap is a technology demonstration focused on commercial retail customers, through which Consumers Energy is evaluating the potential energy savings from upgrading refrigerants from R-404a to R-448a.

R-404a refrigerant has been used in a wide range of commercial applications and has been subject to increased regulation and mandatory bans due to its greenhouse gas impacts.

Consumers Energy will measure and verify energy savings among enrolled restaurant and grocer customers by the end of 2023 and submit findings to the MPSC in early 2024.

6.7.1. Objectives

Through the Refrigerant Swap pilot, Consumers Energy aims to validate energy savings from upgrading commercial retail customers refrigerant from R-404a to R-448a, thereby reducing the environmental impact and energy usage of existing refrigeration systems.

6.7.2. Outcomes

Through the demonstration phase, Consumers Energy seeks to validate energy savings, influence market awareness, and submit refrigeration swap as a prescriptive measure through the MEMD approval process.

Refrigerant Swap

Sector: Commercial

Pilot Category: Pilot Measure

Timeline

Pilot Launch: September 2022

Evaluation: April 2024

Costs

Projected: \$850,000

Stakeholder(s)

Partners: CLEAResult

PILOT PROGRAMS

6.8. Local Government Benchmarking

Local Government Benchmarking is a pilot through which Consumers Energy will partner with local communities to provide benchmarking best practices and utility-funded energy-efficiency resources to influence SMB adoption of EWR projects.

Within the pilot, Consumers Energy will explore the digital experience of an energy benchmarking software platform, MyMeter, including how it integrates into ENERGY STAR Portfolio Manager and visualizes building energy usage data. In addition, with a limited number of participants, Consumers Energy will use the pilot to test the use of a meter overlay device to understand if customers' value real-time energy use information and if it enables them to identify inefficient equipment solutions.

6.8.1. Objectives

Through the pilot, Consumers Energy will validate whether providing building energy use benchmarking and data visualization promotes the adoption of energy-efficiency measures and if partnering with local communities creates greater awareness of energy-efficiency benefits.

6.8.2. Pilot Outcomes

Through the pilot, Consumers Energy seeks to further understand business customers' preferences around real-time data use, how benchmarking and data visualization promotes the adoption of energy-efficient measures, and whether a full-scale program would be cost-effective.

Local Government Benchmarking

Sector: Commercial

Pilot Category: Pilot Program

Timeline

Pilot Launch: January 2022

Evaluation: December 2023

Costs

Projected: \$1,675,000

Stakeholder(s)

Partners: DNV, Center for Energy & Environment, Accelerated Innovations, Intelligent Energy Management

PILOT PROGRAMS

6.9. Refrigeration Optimization and Peak Shifting

Consumers Energy will offer Refrigeration Optimization and Peak Shifting as a pilot to grocery customers to help them reduce the high energy use associated with refrigeration loads.

This pilot uses a device attached to a refrigeration unit with accompanying software overlay. The software leverages artificial intelligence and machine learning to optimize refrigeration control setpoints, reduce energy usage, and enable customers to precool low-temperature refrigeration cases and shift compressor loads to off-peak hours.

6.9.1. Objectives

Consumers Energy aims to validate the energy savings from optimizing control setpoints, test peak-shifting capabilities, understand customers' willingness to pay for software-as-a-service, and explore best practices to gain market awareness and adoption around the technology.

6.9.2. Outcomes

Through the pilot, Consumers Energy seeks to understand the overall benefits of optimization software and determine whether it is cost-effective and to promote market adoption.

Refrigeration Optimization and Peak Shifting

Sector: Commercial

Pilot Category: Pilot

Timeline

Pilot Launch: September 2022

Evaluation: July 2024

Costs

Projected: \$572,000

Stakeholder(s)

Partners: CLEAResult

PILOT PROGRAMS

6.10. Combined Heat and Power

Consumers Energy proposes to launch a Combined Heat and Power (CHP) pilot. CHP is a behind-the-meter cogeneration process that uses waste heat from industrial processes or facilities to generate power that can fuel continuing general operations for the facility. Through this pilot, Consumers Energy will work with its implementation vendors and trade partners to identify customers who are interested in pursuing CHP solutions and determine their potential to benefit from CHP. The Company will offer incentives coupled with technical assistance to design, develop, and install projects.

CHP is specifically recognized in the Michigan Department of Environment, Great Lakes, and Energy's [MI Healthy Climate Plan](#) as "the most fuel-efficient way to produce and utilize both electric and thermal energy from a single fuel source." Further, the inclusion of a requirement to survey large customers regarding CHP in the Company's 2021 IRP Settlement Agreement demonstrates stakeholder interest in supporting CHP customer solutions.

Combined Heat and Power

Sector: Commercial

Pilot Category: Pilot Program

Timeline

Pilot Launch: January 2024

Evaluation: December 2027

Costs

Projected: \$3,127,000

Stakeholder(s)

Partners: CLEAResult

6.10.1. Objectives

Through this pilot, Consumers Energy seeks to install and gather insights to ascertain whether behind-the-meter CHP applications can provide energy and cost savings to customers, aid in grid reliability, and drive clean, efficient energy processes for some of the state's largest energy consumers, thereby reducing their carbon emissions. Additionally, the Company will evaluate the payback period for customers who install these systems and other variables such as thermal load of the facility, modifications needed to facilitate retrofit installations, the heat recovery mechanism, total system efficiency, and the price of electricity and natural gas.

6.10.2. Pilot Outcomes

Consumers Energy will deploy two to four CHP units that are at least 1 MW each for commercial and industrial electric and natural gas combination customers in its service territory. The Company estimates that it will achieve a total of 15,000 MWh of electricity savings over a three-year period and will measure attributable natural gas savings during the measurement and verification process.

The Company estimates that these two projects could result in a reduction of 2,179 metric tons of CO₂, which is equivalent to the greenhouse gas emissions avoided by taking 463 passenger-driven cars off the road for one year.

APPENDIX A: DETAILED PROGRAM MEASURES

Appendix A: Detailed Program Measures

APPENDIX A: DETAILED PROGRAM MEASURES

Appendix A: Detailed Program Measures

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
Appliance Recycling Program									
RTE0038	Advanced Power Strip Tier 1 AV Systems	E	5	Units	\$22.25	31,875	31,875	70.8	-
RTE0034	Customer Bonus	E	1	Units	\$10.00	20,000	20,000	-	-
RTE0022	Dehumidifier Recycling	E	8	Units	\$15.00	2,388	2,388	127.9	-
RTE0021	Freezer Recycling	E	8	Units	\$50.00	6,399	6,399	651.4	-
RTE0020	Refrigerator Recycling	E	8	Units	\$50.00	28,136	28,136	908.5	-
RTE0023	Room Unit Air Conditioner Recycling	E	8	Units	\$15.00	2,257	2,257	127.9	-
RTE0037	Small Freezer Recycling	E	5.6	Units	\$15.00	200	200	174.4	-
RTE0036	Small Refrigerator recycling	E	5.6	Units	\$15.00	402	402	221.4	-
Assessments and Behavioral Program									
ROE11A	11a: 2017 Electric Only	E	1	Units	\$0.00	29,474	27,850	117.4	-
ROG13	13: 2018 Gas Refill	G	1	Units	\$0.00	16,708	15,789	-	1.0
ROE14	14: 2019 Electric Refill	E	1	Units	\$0.00	20,153	19,055	147.6	-
ROE15	15: 2020 Uplight Electric Only	E	1	Units	\$0.00	33,641	31,064	97.8	-
ROG16	16: 2020 Uplight Gas Only	G	1	Units	\$0.00	97,531	90,831	-	0.3
ROG18	18: 2021 Natural Gas Only	G	1	Units	\$0.00	32,377	30,227	-	0.5
ROE19-2024	19: 2022 Electric Backfill-2024	E	1	Units	\$0.00	27,929	-	79.8	-
ROE19-2025	19: 2022 Electric Backfill-2025	E	1	Units	\$0.00	-	27,440	99.3	-
ROG20-2024	20: 2022 Gas Backfill-2024	G	1	Units	\$0.00	88,101	-	-	0.5
ROG20-2025	20: 2022 Gas Backfill-2025	G	1	Units	\$0.00	-	86,242	-	0.6
ROE21-2024	21: 2023 Uplight Electric Backfill-2025	E	1	Units	\$0.00	18,982	-	107.3	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
ROE21-2025	21: 2023 Uplight Electric Backfill-2025	E	1	Units	\$0.00	-	18,015	146.5	-
ROG22-2024	22: 2023 Uplight Gas Backfill-2024	G	1	Units	\$0.00	189,440	-	-	0.5
ROG22-2025	22: 2023 Uplight Gas Backfill-2025	G	1	Units	\$0.00	-	179,438	-	0.7
ROE23-2024	23: 2024 Electric Backfill-2024	E	1	Units	\$0.00	125,000	-	22.1	-
ROE23-2025	23: 2024 Electric Backfill-2025	E	1	Units	\$0.00	-	117,948	41.4	-
RXE0362	ENERGY STAR Air Purifier CADR 201-250	E	9	Units	\$0.00	1,600	1,500	611.3	-
RFE0015	Audit/Education (Electric Measures - OTG)	E	1	Units	\$0.00	3,961	3,961	-	-
RFE0036	Virtual - Audit Education (Electric Measures - OTG)	E	1	Units	\$0.00	559	559	-	-
RXG0302	Assessment Performed - Customer Refused DI (Gas Customer)	G	1	Units	\$0.00	500	500	-	-
RXE0340	Audit Education (Electric Measures - OTG)	E	1	Units	\$0.00	4,269	4,269	-	-
RXG0339	Audit Education (Gas Measures - OTG)	G	1	Units	\$0.00	6,110	6,110	-	-
NEW STP - E	STP Enrollment - Electric	E	1	Units	\$85.00	300	300	-	-
RXE0356	Amends Setback Thermostat - Electric	E	1	Units	\$43.55	34	-	-	-
RXG0356	Amends Setback Thermostat - Gas	G	1	Units	\$43.55	6	6	-	-
RXE0357	Amends Wifi Thermostat - Electric	E	1	Units	\$120.25	34	-	-	-
RXG0357	Amends Wifi Thermostat - Gas	G	1	Units	\$120.25	49	49	-	-
RXE0352	Advanced Power Strip Tier 1 AV Stations	E	5	Units	\$0.00	532	413	70.8	-
RXE0351	Advanced Power Strip Tier 1 Workstations	E	5	Units	\$0.00	157	122	23.7	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE0021	Wi-Fi Programmable Thermostat - Full setback (Tier 2)	E	9	Units	\$0.00	351	752	143.3	-
RXG0346	Setback Thermostat - Moderate Setback	G	9	Units	\$0.00	1,234	1,234	-	5.6
RXG0347	Wi-Fi Thermostat - Moderate Setback	G	9	Units	\$0.00	1,612	1,612	-	6.3
New Door 4	Door Sealing - Electric	E	5	Units	\$0.00	342	-	2.7	-
RFE0045	CFL baseline - LED A-line LT or EQ 13W Replacing A-line Equivalent	E	2	Units	\$0.00	876	-	3.1	-
RFE0046	CFL baseline - LED Bulb Replacing 9W CFL with A-Line	E	2	Units	\$0.00	85	-	2.5	-
RFE0043	Exterior Candelabra	E	3	Units	\$0.00	93	-	112.2	-
RFE0051	Holiday Lights	E	10	Units	\$0.00	37	-	9.8	-
RFE0003	LED Bulb Replacing A-Line 60W	E	2	Units	\$0.00	5,258	-	26.2	-
RFE0012	LED Candelabra <= 5W	E	3	Units	\$0.00	1,753	-	21.8	-
RFE0018	LED Exterior Fixture Lamp Replacement-2020 & 2021	E	12	Units	\$0.00	486	-	112.2	-
RFE0013	LED Globe <= 8W	E	3	Units	\$0.00	1,291	-	24.8	-
RFE0004	LED Night Light	E	12	Units	\$0.00	3,505	-	18.7	-
RFE0014	LED PAR/R/BR <= 15.5W	E	3	Units	\$0.00	1,227	-	49.7	-
RFE0048	LED PAR/R/BR 14W replacing CFL	E	3	Units	\$0.00	172	-	6.2	-
RFE0016	Outdoor LED PAR/Flood	E	3	Units	\$0.00	388	-	254.3	-
RFE0049	Outdoor LED PAR/Flood = 14W replacing CFL	E	3	Units	\$0.00	118	-	31.8	-
REE0016A-B	LED Task Light	E	12	Units	\$0.00	3,961	3,961	31.9	-
RFE0041	DI HEA - Advanced Power Strips Tier 1	E	5	Units	\$0.00	40	40	59.1	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE0052	ENERGY STAR Air Purifier CADR 201-250	E	9	Units	\$0.00	79	79	611.3	-
NEWESDHUM	ES Dehumidifier	E	12	Units	\$0.00	992	770	236.8	-
RXE0318	LED Night Light	E	12	Units	\$0.00	23,263	2,614	18.7	-
RXE0360	Programming Existing Thermostat - Full - Electric	E	3	Units	\$0.00	34	-	132.7	-
RXE0361	Programming Existing Thermostat - Moderate - Electric	E	9	Units	\$0.00	37	3	142.8	-
RXG0361	Programming Existing Thermostat - Moderate - Gas	G	9	Units	\$0.00	598	598	-	6.6
RXE0330	Setback thermostat - full setback - Electric Customer Only	E	9	Units	\$0.00	34	-	234.5	-
RXG0331	Setback thermostat - full setback - Gas Customer Only	G	9	Units	\$0.00	10	10	-	14.2
RXE0338	Setback Thermostat - Moderate Setback - Electric	E	9	Units	\$0.00	160	29	209.4	-
RXE0339	Wi-Fi Thermostat - Moderate Setback - Electric	E	9	Units	\$0.00	283	48	188.7	-
RXE0331	Wifi Thermostat - Full Setback - Electric	E	9	Units	\$0.00	34	-	189.4	-
RXG0344	Wifi Thermostat - Full Setback - Gas Customer Only	G	9	Units	\$0.00	6	6	-	15.5
RXG0362	Window Film Insulation Kit (Coverage = 15 SQ FT Glazing)	G	1	Units	\$0.00	5,636	5,636	-	1.3
RFE0001	Dual Spray Kitchen Low Flow Aerator (1.5 gpm)	E	10	Units	\$0.00	119	119	246.8	-
RFE0005	Low Flow Showerheads (1.5 gpm)	E	10	Units	\$0.00	238	238	287.0	-
RFE0006	Low Flow Showerheads (1.5 gpm) - Handheld	E	10	Units	\$0.00	238	238	315.1	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE0008	Pipe Wrap 3/4" - Electric Water Heater (R3)	E	15	Units	\$0.00	2,377	2,377	46.9	-
RFE0002	Shower Start/Thermostatic Shower Head (1.5 gpm)	E	10	Units	\$0.00	158	158	371.6	-
RFE0011	Std Low Flow Bath Aerator (1.0 gpm)	E	10	Units	\$0.00	792	792	60.5	-
RFE0022	Virtual - Dual Spray Kitchen Low Flow Aerator (1.5 gpm)	E	10	Units	\$0.00	61	61	224.3	-
RFE0026	Virtual - Low Flow Showerheads (1.5 gpm)	E	10	Units	\$0.00	67	67	281.7	-
RFE0028	Virtual - Std Low Flow Bath Aerator (1.0 gpm)	E	10	Units	\$0.00	168	168	53.6	-
RFE0037	Virtual HEA - Pipe Wrap R3 - Electric Water Heater	E	15	Linear Feet	\$0.00	240	240	38.3	-
RXG0311	Dual Spray Kitchen Low Flow Aerator (1.5 gpm) - Gas Water Heater	G	10	Units	\$0.00	3,380	3,380	-	1.0
RXE0312	Dual Spray Kitchen Low Flow Aerator (1.5gpm) - Electric Water Heater	E	10	Units	\$0.00	120	93	246.8	-
RXE0314	Handheld Showerheads (1.5 gpm) - Electric water heater	E	10	Units	\$0.00	292	227	315.1	-
RXG0313	Handheld Showerheads (1.5 gpm) - Gas Water Heater	G	10	Units	\$0.00	5,575	5,575	-	1.3
RXE0319	Low Flow Showerheads (1.5 gpm) - Electric water heater	E	10	Units	\$0.00	157	122	287.0	-
RXG0320	Low Flow Showerheads (1.5 gpm) - Gas water heater	G	10	Units	\$0.00	2,166	2,166	-	1.2
RXG0321	Low Flow Showerheads (1.5 gpm) + Shower Start - Gas Water Heater	G	10	Units	\$0.00	3	3	-	1.3

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RXE0324	Pipe Wrap 0.50 Inch - electric water heater	E	15	Linear Feet	\$0.00	11	-	46.9	-
RXE0325	Pipe Wrap 0.75 Inch - electric water heater	E	15	Linear Feet	\$0.00	5,693	4,422	46.9	-
RXG0326	Pipe Wrap 0.75 Inch - Gas Water Heater	G	15	Linear Feet	\$0.00	139,409	139,409	-	0.2
RXE0342	Shower Flow Optimizer (1.5gpm) - Electric Water Heater	E	10	Units	\$0.00	8	6	315.1	-
RXG0341	Shower Flow Optimizer (1.5gpm) - Gas Water Heater	G	10	Units	\$0.00	160	160	-	1.3
RXG0316	Shower Start (1.5 gpm) - Gas Water Heater	G	10	Units	\$0.00	35	35	-	1.2
RXE0327	Std Low Flow Bath Aerator (1.0 gpm) - Electric Water Heater	E	10	Units	\$0.00	285	221	60.5	-
RXG0328	Std Low Flow Bath Aerator (1.0 gpm) - Gas Water Heater	G	10	Units	\$0.00	9,122	9,122	-	0.3
ROC17	17: 2020 Uplight Dual Fuel	C	1	Units	\$0.00	40,240	36,140	60.2	-
RXC0300	Assessment Performed - Customer Refused DI (Combination Customer)	C	1	Units	\$0.00	35	35	-	-
RXC0338	Audit Education (Combo or Gas and Electric Measures - OTG)	C	1	Units	\$0.00	3,787	3,787	-	-
NEW STP - C	STP Enrollment - Combo	C	1	Units	\$85.00	2,756	2,980	-	-
RXC0356	Amends Setback Thermostat - Combination	C	1	Units	\$43.55	10	10	-	-
RXC0357	Amends Wifi Thermostat - Combination	C	1	Units	\$120.25	32	32	-	-
RXC0345	Setback Thermostat - Moderate Setback	C	9	Units	\$0.00	429	429	159.0	-
RXC0346	Wi-Fi Thermostat - Moderate Setback	C	9	Units	\$0.00	769	769	163.3	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE0016IQEE	LED PAR/R/BR <=15.5 Watt	E	3	Units	\$0.00	8,064	-	127.1	-
RXE0317	LED Bulb Replacing A-Line 60W	E	2	Units	\$0.00	43,868	-	13.1	-
RXE0349IQEE	Outdoor LED PAR Flood	E	3	Units	\$0.00	4,516	-	49.7	-
RXC0361	Programming Existing Thermostat - Moderate - Combination	C	9	Units	\$0.00	36	36	188.0	-
Home Solutions Program									
RWC0001	Roof (attic) Insulation R-38-Combo	C	20	Units	\$125.00	60	61	-	14.6
RWC0002	Wall Insulation-Combo	C	25	Units	\$125.00	259	263	-	10.5
RWC0003	Basement Wall Insulation-Combo	C	25	Units	\$50.00	22	22	-	8.9
RWC0004	Crawlspace Insulation-Combo	C	25	Units	\$50.00	48	49	-	2.7
RWC0006	Rim Joist Insulation - Combo	C	25	Units	\$50.00	130	132	-	2.8
RWC0008	Window Replacement (Per Unit) - Combo	C	25	Units	\$15.00	9,120	9,257	-	0.4
RWC0009	Door Replacement (Per Unit) - Combo	C	25	Units	\$40.00	320	324	-	0.7
RWC0011	MIM - Wall Insulation - Combo	C	25	Units	\$175.00	10	11	-	8.9
RWC0017	Roof (attic) Insulation R-49-Combo	C	20	Units	\$175.00	183	186	-	15.1
RWC0018	MIM - Roof (attic) Insulation R-38-Combo	C	20	Units	\$225.00	1	1	-	4.9
RWC0019	MIM - Roof (attic) Insulation R-49-Combo	C	20	Units	\$275.00	41	42	-	14.9
RWC0020	Roof (attic) Insulation R-30-Combo	C	20	Units	\$125.00	55	56	-	17.7
RWC0021	Roof (attic) Insulation R-60-Combo	C	20	Units	\$200.00	142	144	-	15.6
RWC0023	MIM - Roof (attic) Insulation R-60-Combo	C	20	Units	\$300.00	50	50	-	16.3
RWC0024	Triple Pane Window - Combo	C	25	Units	\$15.00	450	450	12.8	-
RWC2000	Customer Amends (Combination Customer)	C	1	Units	\$190.00	8	8	-	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RWE0001	Roof (attic) Insulation R-38-Electric	E	20	Units	\$50.00	17	17	353.2	-
RWE0002	Wall Insulation-Electric	E	25	Units	\$50.00	112	114	186.4	-
RWE0003	Basement Wall Insulation-Electric	E	25	Units	\$50.00	15	16	31.3	-
RWE0004	Crawlspace Insulation-Electric	E	25	Units	\$10.00	20	20	28.9	-
RWE0006	Rim Joist Insulation - Electric	E	25	Units	\$20.00	75	76	52.0	-
RWE0008	Window Replacement (Per Unit) - Electric	E	25	Units	\$15.00	6,259	6,350	8.8	-
RWE0009	Door Replacement (Per Unit) - Electric	E	25	Units	\$40.00	218	221	22.6	-
RWE0011	MIM - Wall Insulation - Electric	E	25	Units	\$100.00	5	5	191.8	-
RWE0017	Roof (attic) Insulation R-49 -Electric	E	20	Units	\$60.00	106	108	305.5	-
RWE0019	MIM - Roof (attic) Insulation R-49-Electric	E	20	Units	\$160.00	20	20	376.7	-
RWE0020	Roof (attic) Insulation R-30-Electric	E	20	Units	\$50.00	20	21	327.6	-
RWE0021	Roof (attic) Insulation R-60-Electric	E	20	Units	\$70.00	50	50	401.6	-
RWE0018	MIM - Roof (attic) Insulation R-38-Electric	E	20	Units	\$150.00	7	7	313.8	-
RWE0024	Triple Pane Window - Electric	E	25	Units	\$15.00	346	35	14.8	-
RWE2000	Customer Amends (Electric Customer)	E	1	Units	\$50.00	8	8	-	-
RWE0023	MIM - Roof (attic) Insulation R-60-Electric	E	20	Units	\$170.00	16	16	358.1	-
RWG0001	Roof (attic) Insulation R-38-Gas	G	20	Units	\$125.00	87	89	-	13.6
RWG0002	Wall Insulation-Gas	G	25	Units	\$125.00	361	367	-	9.7
RWG0003	Basement Wall Insulation-Gas	G	25	Units	\$50.00	29	29	-	5.3
RWG0004	Crawlspace Insulation-Gas	G	25	Units	\$50.00	60	61	-	2.6
RWG0006	Rim Joist Insulation - Gas	G	25	Units	\$50.00	206	209	-	2.5

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RWG0008	Window Replacement (Per Unit) - Gas	G	25	Units	\$15.00	21,655	21,970	-	0.3
RWG0009	Door Replacement (Per Unit) - Gas	G	25	Units	\$40.00	1,095	1,111	-	0.8
RWG0011	MIM - Wall Insulation - Gas	G	25	Units	\$175.00	51	52	-	8.5
RWG0017	Roof (attic) Insulation R-49 -Gas	G	20	Units	\$175.00	602	611	-	13.4
RWG0022	MIM - Roof (attic) Insulation R-30-Gas	G	20	Units	\$225.00	5	5	-	10.1
RWG0024	Triple Pane Window - Gas	G	25	Units	\$15.00	4,263	4,323	-	0.3
RWG2000	Customer Amends (Gas Customer)	G	1	Units	\$205.00	8	8	-	-
RWG0018	MIM - Roof (attic) Insulation R-38-Gas	G	20	Units	\$225.00	2	2	-	18.5
RWG0019	MIM - Roof (attic) Insulation R-49-Gas	G	20	Units	\$275.00	225	228	-	14.7
RWG0020	Roof (attic) Insulation R-30-Gas	G	20	Units	\$125.00	70	71	-	15.4
RWG0021	Roof (attic) Insulation R-60-Gas	G	20	Units	\$200.00	450	457	-	15.8
RWG0023	MIM - Roof (attic) Insulation R-60-Gas	G	20	Units	\$300.00	86	87	-	14.3
RZC0007	Basement Wall Insulation - Combination Customer	C	25	Units	\$100.00	5	5	-	7.6
RZC0063	Natural Gas Boiler 95% - Combination Customer	C	15	Units	\$1,250.00	3	3	(1,048.3)	-
RZC2000	Customer Amends (Combination Customer)	C	1	Units	\$600.00	5	5	-	-
RZE0010	Duct Sealing 15% Reduction - Electric Customer	E	18	Units	\$15.00	2	2	8.5	-
RZG2000	Customer Amends (Gas Customer)	G	1	Units	\$350.00	3	3	-	-
RZC0008	Crawlspace Insulation - Combination Customer	C	25	Units	\$100.00	60	61	-	1.8

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RZC0009	Duct Insulation and or Replacement - Combination Customer	C	20	Units	\$50.00	2	2	-	6.9
RZC0010	Duct Sealing 15% Reduction - Combination Customer	C	18	Units	\$50.00	131	132	-	0.5
RZC0011	Duct Sealing 30% Reduction - Combination Customer	C	18	Units	\$100.00	185	187	-	1.2
RZC0018	Infiltration Reduction of 20% - Combination Customer	C	13	Units	\$100.00	100	101	-	4.4
RZC0019	Infiltration Reduction of 30% - Combination Customer	C	13	Units	\$150.00	88	89	-	5.7
RZC0020	Infiltration Reduction of 50% - Combination Customer	C	13	Units	\$200.00	37	38	-	9.1
RZC0022	Roof (attic) Insulation - Combination Customer	C	20	Units	\$250.00	124	125	-	14.5
RZC0023	Wall Insulation - Combination Customer	C	25	Units	\$200.00	200	202	-	11.1
RZC0055	Rim Joist Insulation - Combination Customers	C	25	Units	\$100.00	190	192	-	2.9
RZC0060	Window Replacement - Combination Customers	C	25	Square Feet	\$2.00	528	528	-	0.0
RZC0081	MIM - Roof (attic) Insulation - Combination Customer	C	20	Units	\$350.00	39	39	-	14.8
RZC0082	MIM - Wall Insulation - Combination Customer	C	25	Units	\$250.00	4	4	-	11.5
RZC0086	Knee Wall Insulation - Combination Customers	C	20	Units	\$50.00	29	30	-	4.3
RZC0089	Tier 3 Thermostat - Combination	C	9	Units	\$100.00	291	294	-	4.0
RZC0090	R-30 Roof (attic) Insulation - Combo	C	20	Units	\$125.00	44	44	-	20.2
RZE0008	Crawlspace Insulation - Electric Customer	E	25	Units	\$20.00	7	7	14.2	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RZE0018	Infiltration Reduction of 20% - Electric Customer	E	13	Units	\$40.00	6	6	66.2	-
RZE0019	Infiltration Reduction of 30% - Electric Customer	E	13	Units	\$60.00	8	8	89.6	-
RZE0020	Infiltration Reduction of 50% - Electric Customer	E	13	Units	\$80.00	5	5	122.8	-
RZE0021	Operations and Maintenance HVAC Tune Up - Electric Customer	E	5	Units	\$65.00	4	4	109.5	-
RZE0022	Roof (attic) Insulation - Electric Customer	E	20	Units	\$70.00	3	3	90.9	-
RZE0023	Wall Insulation - Electric Customer	E	25	Units	\$50.00	10	11	202.2	-
RZE0055	Rim Joist Insulation - Electric Customers	E	25	Units	\$20.00	18	18	47.7	-
RZE0063	Window Replacement - Electric Customers	E	25	Square Feet	\$2.00	520	560	0.5	-
RZE0082	MIM - Roof (attic) Insulation - Electric Customer	E	20	Units	\$170.00	4	4	344.9	-
RZE0058	Split System Central AC GT SEER 15	E	15	Units	\$75.00	14	14	160.9	-
RZE0086	Split System Central AC GT SEER 16	E	15	Units	\$150.00	41	42	160.5	-
RZE0089	Split System Central AC GT SEER 19	E	15	Units	\$500.00	10	11	349.5	-
RZE0090	Split System Central AC GT SEER 20	E	15	Units	\$500.00	47	47	265.2	-
RZE0093	Knee Wall Insulation - Electric Customers	E	20	Units	\$15.00	1	1	100.3	-
RZE0096	Tier 3 Thermostat - Electric Customer	E	9	Units	\$50.00	1	1	125.7	-
RZE0097	R-30 Roof (attic) Insulation - Electric	E	20	Units	\$35.00	7	7	442.5	-
RZG0007	Basement Wall Insulation - Gas Customer	G	25	Units	\$100.00	5	5	-	4.7

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RZG0008	Crawlspace Insulation - Gas Customer	G	25	Units	\$100.00	42	42	-	1.8
RZG0009	Duct Insulation and or Replacement - Gas Customer	G	20	Units	\$50.00	16	16	-	1.2
RZG0010	Duct Sealing 15% Reduction - Gas Customer	G	18	Units	\$50.00	23	23	-	0.6
RZG0011	Duct Sealing 30% Reduction - Gas Customer	G	18	Units	\$100.00	49	50	-	1.1
RZG0012	Floor Insulation - Gas Customer	G	25	Units	\$100.00	2	2	-	29.9
RZG0014	Gas Furnace 95% AFUE	G	15	Units	\$100.00	59	59	-	6.9
RZG0015	Gas Furnace 96% AFUE	G	15	Units	\$200.00	202	204	-	8.1
RZG0016	Gas Furnace 97% AFUE	G	15	Units	\$500.00	5	5	-	9.5
RZG0017	Gas Furnace 98% AFUE	G	15	Units	\$500.00	97	98	-	10.5
RZG0018	Infiltration Reduction of 20% - Gas Customer	G	13	Units	\$100.00	134	135	-	5.4
RZG0019	Infiltration Reduction of 30% - Gas Customer	G	13	Units	\$150.00	137	139	-	5.3
RZG0020	Infiltration Reduction of 50% - Gas Customer	G	13	Units	\$200.00	32	32	-	8.3
RZG0021	Operations and Maintenance HVAC Tune Up - Gas Customer	G	5	Units	\$65.00	18	19	-	7.8
RZG0022	Roof (attic) Insulation - Gas Customer	G	20	Units	\$250.00	219	221	-	13.7
RZG0023	Wall Insulation - Gas Customer	G	25	Units	\$200.00	234	236	-	10.2
RZG0055	Rim Joist Insulation - Gas Customers	G	25	Units	\$100.00	239	241	-	3.3
RZG0057	Tankless Water Heater - Gas or Combination Customers	G	20	Units	\$200.00	2	2	-	4.7
RZG0060	Window Replacement - Gas Customers	G	25	Square Feet	\$2.00	423	423	-	0.0

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RZG0078	Wi-Fi Enabled Thermostat - Gas	G	9	Units	\$50.00	8	8	-	3.0
RZG0082	MIM - Roof (attic) Insulation - Gas Customer	G	20	Units	\$350.00	67	68	-	11.3
RZG0083	MIM - Wall Insulation - Gas Customer	G	25	Units	\$250.00	3	3	-	6.4
RZG0087	Knee Wall Insulation - Gas Customers	G	20	Units	\$50.00	83	84	-	4.1
RZG0090	Tier 3 Thermostat - Gas	G	9	Units	\$50.00	60	61	-	5.0
RZG0091	R-30 Roof (attic) Insulation - Gas	G	20	Units	\$125.00	29	29	-	16.3
RHC0100	Setback Thermostat - Combination	C	9	Units	\$10.00	908	917	-	4.1
RHC0107	MIDSTREAM Wi-Fi Enabled Thermostat - Combination	C	9	Units	\$100.00	4	4	-	6.3
RHC0108	MIDSTREAM Wi-Fi Enabled Thermostat Tier 3 - Combination	C	9	Units	\$100.00	107	108	-	3.9
RHC0101	Wi-Fi Enabled Thermostat - Combination	C	9	Units	\$100.00	757	764	-	5.1
RHC0105	Wi-Fi Enabled Thermostat Tier 3 - Combination	C	9	Units	\$100.00	1,155	1,166	-	4.0
RHE0034	Midstream ENERGY STAR Heat Pump Water Heaters LT or EQ 55 gal - UEF GT or EQ 3.0	E	10	Units	\$750.00	1	1	1,906.2	-
RHE0023	SEER21 Minisplit Heat pump - Electric only	E	15	Units	\$350.00	61	61	2,421.6	-
RHE0027	SEER 18 HSPF 9 Minisplit Heat Pump - Electric	E	15	Units	\$250.00	20	20	3,272.8	-
RHE0028	SEER 19 HSPF 9 Minisplit Heat Pump - Electric	E	15	Units	\$250.00	13	13	3,908.1	-
RHE0029	SEER 20 HSPF 10 Minisplit Heat Pump - Electric	E	15	Units	\$250.00	29	30	4,076.5	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RHE0095	ENERGY STAR Heat Pump Water Heaters LT or EQ 55 gal - UEF GT or EQ 3.0	E	10	Units	\$750.00	1	1	1,906.2	-
RHE0036	Self-Submit Heat Pump Water Heater	E	10	Units	\$500.00	3	3	1,549.3	-
RHE0030	Midstream ECM Boiler Circulator Pump, LT 100W	E	15	Units	\$75.00	10	10	419.5	-
RHE0031	Midstream ECM Boiler Circulator Pump, 100-500W	E	15	Units	\$75.00	2	2	2,099.4	-
RHE0037	MIDSTREAM Split System Central AC GT SEER 15	E	15	Units	\$75.00	437	441	151.5	-
RHE0038	MIDSTREAM Split System Central AC GT SEER 16	E	15	Units	\$150.00	492	496	177.8	-
RHE0043	MIDSTREAM Split System Central AC GT SEER 17	E	15	Units	\$300.00	48	48	202.6	-
RHE0044	MIDSTREAM Split System Central AC GT SEER 18	E	15	Units	\$500.00	127	128	263.1	-
RHE0045	MIDSTREAM Split System Central AC GT SEER 19	E	15	Units	\$500.00	55	56	401.7	-
RHE0046	MIDSTREAM Split System Central AC GT SEER 20	E	15	Units	\$500.00	103	104	275.9	-
RHE0047	MIDSTREAM Split System Central AC GT SEER 21	E	15	Units	\$500.00	15	15	274.5	-
RHE0041	MIDSTREAM Tier 2 air source heat pump GT 15 SEER	E	15	Units	\$150.00	4	4	269.7	-
RHE0042	MIDSTREAM Tier 3 air source heat pump GT 16 SEER	E	15	Units	\$250.00	4	4	374.3	-
RHE0099	ECM Boiler Circulator Pump, LT 100W	E	15	Units	\$75.00	10	10	419.5	-
RHE0098	ECM Boiler Circulator Pump, 100-500W	E	15	Units	\$75.00	2	2	2,099.4	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RHE0006	Split System Central AC GT SEER 15	E	15	Units	\$75.00	1,034	1,044	163.4	-
RHE0007	Split System Central AC GT SEER 16	E	15	Units	\$150.00	1,486	1,500	182.9	-
RHE0017	Split System Central AC GT SEER 17	E	15	Units	\$300.00	343	346	224.8	-
RHE0018	Split System Central AC GT SEER 18	E	15	Units	\$500.00	288	291	206.9	-
RHE0019	Split System Central AC GT SEER 19	E	15	Units	\$500.00	58	59	274.0	-
RHE0020	Split System Central AC GT SEER 20	E	15	Units	\$500.00	86	87	300.1	-
RHE0021	Split System Central AC GT SEER 21	E	15	Units	\$500.00	26	26	367.9	-
RHE0008	Tier 1 ground source heat pump GT 17 EER	E	15	Units	\$200.00	2	2	572.6	-
RHE0009	Tier 2 ground source heat pump GT 19 EER	E	15	Units	\$300.00	31	31	829.7	-
RHE0011	Tier 2 air source heat pump GT 15 SEER	E	15	Units	\$150.00	9	9	252.2	-
RHE0012	Tier 3 air source heat pump GT 16 SEER	E	15	Units	\$250.00	37	37	244.9	-
RHE0016	Operations and Maintenance HVAC Tune Up - Electric	E	5	Units	\$65.00	1,200	1,500	91.2	-
RHE0004	Setback Thermostat - Electric	E	9	Units	\$10.00	455	460	111.5	-
RHE0048	MIDSTREAM Wi-Fi Enabled Thermostat - Electric	E	9	Units	\$50.00	2	2	102.2	-
RHE0050	MIDSTREAM Wi-Fi Enabled Thermostat Tier 3 - Electric	E	9	Units	\$50.00	67	68	140.5	-
RHG0029-1	Midstream Energy Star Certified UEF rated Tankless gas water htr	G	20	Units	\$150.00	363	367	-	4.7
RHG0032-1	Midstream Energy Star Certified UEF rated Gas Tank Water Heater	G	13	Units	\$60.00	269	272	-	1.6
RHG0036	MIDSTREAM Natural Gas Furnace 96% AFUE	G	15	Units	\$200.00	4,872	4,920	-	7.9

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RHG0037	MIDSTREAM Natural Gas Furnace 97% AFUE	G	15	Units	\$500.00	26	27	-	9.6
RHG0038	MIDSTREAM Natural Gas Furnace 98% OR GT AFUE	G	15	Units	\$500.00	1,084	1,095	-	10.9
RHG0031	Midstream Natural gas boiler GT 95% AFUE	G	15	Units	\$900.00	225	227	-	10.1
RHE0022	Wi-Fi Enabled Thermostat - Electric	E	9	Units	\$50.00	276	278	130.9	-
RHE0026	Wi-Fi Enabled Thermostat Tier 3 - Electric	E	9	Units	\$50.00	829	837	139.0	-
RHG0010	Natural Gas Furnace 95% AFUE	G	15	Units	\$100.00	1,009	1,019	-	7.7
RHG0011	Natural Gas Furnace 96% AFUE	G	15	Units	\$200.00	10,965	11,074	-	8.8
RHG0012	Natural Gas Furnace 97% AFUE	G	15	Units	\$500.00	992	1,002	-	10.5
RHG0013	Natural Gas Furnace 98% OR GT AFUE	G	15	Units	\$500.00	395	399	-	9.8
RHG0016	Natural gas boiler GT 95% AFUE	G	15	Units	\$800.00	11	11	-	11.1
RHG0022	Wi-Fi Enabled Thermostat - Gas	G	9	Units	\$50.00	1,572	1,588	-	4.7
RHG0028	Wi-Fi Enabled Thermostat Tier 3 - Gas	G	9	Units	\$50.00	4,532	4,577	-	4.2
RHG0040	MIDSTREAM Wi-Fi Enabled Thermostat Tier 3 - Gas	G	9	Units	\$50.00	143	144	-	4.3
RHE9000	A C Tune-Up -- No Energy Savings	E	1	Units	\$65.00	25	25	-	-
RHE2000	Customer Amends (Electric Measures)	E	1	Units	\$410.00	25	25	-	-
RHG2000	Customer Amends (Gas Measures)	G	1	Units	\$700.00	65	65	-	-
RHG0004	Setback Thermostat - Gas	G	9	Units	\$10.00	754	761	-	4.4
DoMoRE2E	Do More 2 Measure Bonus - Electric	E	1	Units	\$50.00	136	136	-	-
DoMoRE3E	Do More 3 Measure Bonus - Electric	E	1	Units	\$100.00	27	27	-	-
DoMoRE4E	Do More 4 Measure Bonus - Electric	E	1	Units	\$150.00	14	14	-	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
DoMoRE5E	Do More 5 Measure Bonus - Electric	E	1	Units	\$200.00	8	8	-	-
DoMoRE6E	Do More 6+ Measure Bonus - Electric	E	1	Units	\$300.00	3	3	-	-
DoMoRE2G	Do More 2 Measure Bonus - Gas	G	1	Units	\$50.00	7,786	7,786	-	-
DoMoRE3G	Do More 3 Measure Bonus - Gas	G	1	Units	\$100.00	1,552	1,552	-	-
DoMoRE4G	Do More 4 Measure Bonus - Gas	G	1	Units	\$150.00	792	792	-	-
DoMoRE5G	Do More 5 Measure Bonus - Gas	G	1	Units	\$200.00	482	482	-	-
DoMoRE6G	Do More 6+ Measure Bonus - Gas	G	1	Units	\$300.00	197	197	-	-
Income-Qualified Program									
RFE2022	ENERGY STAR Dehumidifier (NON-CAA)	E	12	Units	\$0.00	147	167	236.8	-
RFE2026	Refrigerator - 15 cf -- Income Qualified Direct Install - ENERGY STAR	C	8.3	Units	\$0.00	-	29	1,175.8	-
RFE2027	Refrigerator - 18 cf -- Income Qualified Direct Install - ENERGY STAR	C	8.3	Units	\$0.00	-	29	1,175.8	-
RFE2028	Refrigerator - 21 cf -- Income Qualified Direct Install - ENERGY STAR	E	8.3	Units	\$0.00	11	42	1,175.8	-
RIE0999	Air Purifier CADR 201-250 ENERGY STAR (Direct Program)	E	9	Units	\$0.00	400	500	664.5	-
RIE0132	ENERGY STAR Dehumidifier - (Agency Rebate)	E	12	Units	\$0.00	6	6	236.8	-
RIE0097	ENERGY STAR Dehumidifier (Direct Program)	E	12	Units	\$0.00	650	650	236.8	-
RIE0124	Refrigerator Recycling & Replacement - (Agency Rebate)	E	8.3	Units	\$0.00	37	37	1,175.8	-
RFE2001	Audit Education (Electric Measures - OTG)	E	1	Units	\$0.00	3,678	4,166	-	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE2050	Virtual - Audit Education (Electric Measures - OTG)	E	1	Units	\$0.00	502	568	-	-
RIG0141	Audit Education (Gas Measures - OTG)	G	1	Units	\$0.00	2,404	2,404	-	-
RIE0085	Audit Education Electric Measures - OTG (Direct Program)	E	1	Units	\$0.00	58	58	-	-
RIG0163	Carbon Monoxide Testing (Direct Program)	G	1	Units	\$0.00	4,852	4,852	-	-
RIG0084	Caz, Health and Safety Testing - Gas Customer (Direct Program)	G	1	Units	\$0.00	803	803	-	-
RIG0206	CO Detector Gas Customer - (Agency Rebate)	G	1	Units	\$0.00	211	211	-	-
RIG0085	CO Detector Gas Customer (Direct Program)	G	1	Units	\$0.00	6,610	6,610	-	-
RIE0149	Customer Declined Direct Install Measures - (Direct Program)	E	1	Units	\$0.00	5	5	-	-
RIG0227	Customer Declined Direct Install Measures - (Direct Program)	G	1	Units	\$0.00	7	7	-	-
RIG0151	MHI - Post Blower Door Test (Direct Program)	G	1	Units	\$0.00	369	369	-	-
RIG0150	MHI - Pre Blower Door Test (Direct Program)	G	1	Units	\$0.00	567	567	-	-
RIG0083	Post Weatherization Blower Door Test - Gas Customer (Direct Program)	G	1	Units	\$0.00	1,200	1,200	-	-
RIG0082	Pre Weatherization Blower Door Test - Gas Customer (Direct Program)	G	1	Units	\$0.00	1,500	1,500	-	-
RIG0167	Add-A-Wire Module Installation - Gas Only Service (Direct Program)	G	1	Units	\$0.00	15	15	-	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIG0222	Chimney liner Installation - (Direct Program)	G	1	Units	\$0.00	28	28	-	-
RIG0221	Condensate Pump Installation - (Direct Program)	G	1	Units	\$0.00	248	248	-	-
RIG0144	Furnace Inspection Trade Ally (Direct Program)	G	1	Units	\$0.00	90	90	-	-
RIG0218	Major Gas Piping Changes - (Direct Program)	G	1	Units	\$0.00	149	149	-	-
RIG0184	Multimeasure Bonus - (Agency Rebate)	G	1	Units	\$0.00	120	120	-	-
RIG0220	Return Air Duct Modifications - (Direct Program)	G	1	Units	\$0.00	241	241	-	-
RIG0229	Return Air Duct Modifications - (Direct Program)	G	1	Units	\$0.00	76	76	-	-
RIG0219	Supply Duct Modifications - (Direct Program)	G	1	Units	\$0.00	405	405	-	-
RIG0198	Air Sealing - 20% Reduction - (Agency Rebate)	G	13	Square Feet	\$0.00	42,000	42,000	-	0.0
RIG0199	Air Sealing - 30% Reduction - (Agency Rebate)	G	13	Square Feet	\$0.00	38,000	38,000	-	0.0
RIG0171	Air Sealing - 40% Reduction - (Agency Rebate)	G	13	Square Feet	\$0.00	21,000	21,000	-	0.0
RIG0172	Air Sealing - 50% Reduction - (Agency Rebate)	G	13	Square Feet	\$0.00	18,000	18,000	-	0.0
RIG0113	Attic Hatch Insulation (R-38 scuttle hole) (NON-CAA)	G	20	Units	\$0.00	7	7	-	0.2
RIE0115	Attic Insulation to R-30 - (Agency Rebate)	E	20	Square Feet	\$0.00	186,363	186,363	0.4	-
RIG0176	Attic Insulation to R30 - (Agency Rebate)	G	20	Square Feet	\$0.00	21,551	21,551	-	0.0

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIG0177	Attic Insulation to R49 - (Agency Rebate)	G	20	Square Feet	\$0.00	120,000	120,000	-	0.0
RIG0183	Band Joist Insulation - (Agency Rebate)	G	25	Units	\$0.00	5	5	-	4.4
RIE0119	Basement Wall Insulation - (Agency Rebate)	E	25	Square Feet	\$0.00	3,970	3,970	0.1	-
RIG0180	Basement Wall Insulation - (Agency Rebate)	G	25	Square Feet	\$0.00	931	931	-	0.0
RIG0182	Crawlspace Insulation - (Agency Rebate)	G	25	Square Feet	\$0.00	3,548	3,548	-	0.0
RIE0121	Crawlspace Wall Insulation - (Agency Rebate)	E	25	Square Feet	\$0.00	2,321	2,321	0.1	-
RIG0095	Door weatherstripping (Single Family) (NON-CAA)	G	5	Units	\$0.00	33	33	-	0.2
RIG0205	ENERGY STAR Window Replacement (Per Square Footage) - (Agency Rebate)	G	25	Square Feet	\$0.00	220	220	-	0.0
RIE0120	Floor Insulation - (Agency Rebate)	E	25	Square Feet	\$0.00	2,153	2,153	0.2	-
RIG0181	Floor Insulation - (Agency Rebate)	G	25	Square Feet	\$0.00	1,308	1,308	-	0.0
RIG0179	Kneewall Insulation - (Agency Rebate)	G	20	Square Feet	\$0.00	939	939	-	0.0
RIE0118	Kneewall Insulation to R-19 - (Agency Rebate)	E	20	Square Feet	\$0.00	398	398	0.6	-
RIE0133	Manufactured Belly insulation 100% coverage base - (Agency Rebate)	E	25	Square Feet	\$0.00	5,349	5,349	0.1	-
RIE0122	Rim (Band) Joist Insulation - (Agency Rebate)	E	25	Units	\$0.00	17	17	34.5	-
RIE0108	Single Family Air Sealing - 20% Reduction - (Agency Rebate)	E	13	Square Feet	\$0.00	36,000	36,000	0.0	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIE0109	Single Family Air Sealing - 30% Reduction - (Agency Rebate)	E	13	Square Feet	\$0.00	31,000	31,000	0.1	-
RIE0110	Single Family Air Sealing - 40% Reduction - (Agency Rebate)	E	13	Square Feet	\$0.00	25,000	25,000	0.1	-
RIE0111	Single Family Air Sealing - 50% Reduction - (Agency Rebate)	E	13	Square Feet	\$0.00	22,000	22,000	0.1	-
RIE0117	Wall Insulation - (Agency Rebate)	E	25	Square Feet	\$0.00	9,587	9,587	0.2	-
RIG0178	Wall Insulation - (Agency Rebate)	G	25	Square Feet	\$0.00	14,483	14,483	-	0.0
RIE0107	Advanced Power Strip Tier 1 AV Systems (Direct Program)	E	5	Units	\$0.00	520	520	77.0	-
RFE2058	Minisplit Cold Climate Heat pump SEER 21 HSPF 11 Elec Resistance base	E	15	Units	\$0.00	4	12	4,242.1	-
RFE2055	SEER18 Minisplit Heat pump - Electric only	E	15	Units	\$0.00	-	31	3,827.8	-
RIE0146	16 SEER or Higher AHRI certified AC Greater Than 3 Tons - (Direct Program)	E	15	Units	\$0.00	8	8	213.0	-
RIE0145	16 SEER or Higher AHRI certified AC up to 2.5 tons - (Direct Program)	E	15	Units	\$0.00	96	96	148.4	-
RIE0126	Central AC - 16 SEER or Higher - (Agency Rebate)	E	15	Units	\$0.00	2	2	142.1	-
RIG0135	Duct sealing GT or EQ 15% and LT 20% leakage base (Manufactured _ NON-CAA)	G	18	Square Feet	\$0.00	58,300	58,300	-	0.0
RIG0136	Duct sealing GT or EQ 20% and LT 25%leakage base (Manufactured _ NON-CAA)	G	18	Square Feet	\$0.00	403,000	403,000	-	0.0
RIG0137	Duct sealing GT or EQ 25% and LT 30% leakage base (Manufactured _ NON-CAA)	G	18	Square Feet	\$0.00	78,000	78,000	-	0.0

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIG0145	Duct sealing GT or EQ 30% and LT 35% leakage base (Manufactured _ NON-CAA)	G	18	Square Feet	\$0.00	208,000	208,000	-	0.0
RIG0146	Duct sealing GT or EQ 35% and LT 40% leakage base (Manufactured _ NON-CAA)	G	18	Square Feet	\$0.00	117,000	117,000	-	0.0
RIG0147	Duct sealing GT or EQ 40% and LT 45% leakage base (Manufactured _ NON-CAA)	G	18	Square Feet	\$0.00	78,000	78,000	-	0.0
RIG0148	Duct sealing GT or EQ 45% and LT 50% leakage base (Manufactured _ NON-CAA)	G	18	Square Feet	\$0.00	26,000	26,000	-	0.0
RIG0149	Duct sealing GT or EQ 50% leakage base (Manufactured _ NON-CAA)	G	18	Square Feet	\$0.00	19,500	19,500	-	0.0
RIG0209	Emergency Manufactured Home Natural Gas Furnace AFUE > = 95 - (Agency Rebate)	G	15	Units	\$0.00	140	140	-	13.4
RIG0208	Emergency Natural Gas Furnace AFUE > = 96 - (Agency Rebate)	G	15	Units	\$0.00	310	310	-	6.7
RIE0138	ENERGY STAR Continuous Bathroom Exhaust Fan - (Agency Rebate)	E	15	Units	\$0.00	20	20	54.3	-
RIG0196	Manufactured Home Natural Gas Furnace AFUE > = 95% - (Agency Rebate)	G	15	Units	\$0.00	4	4	-	14.0
RIG0215	Natural Gas Boiler AFUE > = 95 - (Direct Program)	G	15	Units	\$0.00	20	20	-	7.5
RIG0191	Natural Gas Boiler AFUE > = 95% - (Agency Rebate)	G	15	Units	\$0.00	4	4	-	4.9
RIG0216	Natural Gas Furnace AFUE > = 96 - (Direct Program)	G	15	Units	\$0.00	614	614	-	8.1
RIG0217	Natural Gas Furnace AFUE > = 96 (100 KBTUH) - (Direct Program)	G	15	Units	\$0.00	10	10	-	13.6

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIG0189	Natural Gas Furnace AFUE > = 96% - (Agency Rebate)	G	15	Units	\$0.00	48	48	-	5.8
RIG0190	Natural Gas Furnace AFUE > = 96% with Project Roof Replacement - (Agency Rebate)	G	15	Units	\$0.00	2	2	-	7.0
RIG0187	Natural Gas Furnace Tune-Up - (Agency Rebate)	G	2	Units	\$0.00	151	151	-	7.6
RIG0166	NEST E Programmable Thermostats Tier 3 - Gas Only Service (NON-CAA)	G	9	Units	\$0.00	151	151	-	4.5
RIG0100	O and M Tune-up Boiler Only - Single Family (NON-CAA)	G	2	Units	\$0.00	100	100	-	5.7
RIG0052	O and M Tune-up Furnace Only - Direct Install (NON-CAA)	G	2	Units	\$0.00	1,400	1,400	-	2.9
RIE0136	Programmable Thermostat Moderate Setback - (Agency Rebate)	E	9	Units	\$0.00	360	360	105.0	-
RIG0200	Programmable Thermostat Moderate Setback - (Agency Rebate)	G	9	Units	\$0.00	17	17	-	5.2
RIE0137	Programmable Thermostat Moderate Setback - (Direct Program)	E	9	Units	\$0.00	3	3	274.3	-
RIG0201	Programmable Thermostat Moderate Setback - (Direct Program)	G	9	Units	\$0.00	956	956	-	4.5
RIG0228	Trade Ally Programmable Thermostat Moderate Setback - (Direct Program)	G	9	Units	\$0.00	206	206	-	5.3
RIE0130	Wi-Fi Enabled Thermostat Moderate Setback - (Agency Rebate)	E	9	Units	\$0.00	10	10	101.4	-
RFE2035	9W LED Distribution for Food Banks	E	2	Units	\$0.00	17,288	-	11.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE2089	Exterior Candelabra	E	3	Units	\$0.00	294	-	53.7	-
RFE2010	LED Bulb Replacing A-Line 60W (Base Incandescent)	E	2	Units	\$0.00	26,190	-	12.5	-
RFE2019	LED Candelabra Medium Base LT or EQ 5W	E	3	Units	\$0.00	920	-	10.4	-
RFE2018	LED Candelabra Small Base LT or EQ 5W	E	3	Units	\$0.00	5,444	-	10.4	-
RFE2013	LED Exterior Fixture Lamp Replacement	E	12	Units	\$0.00	1,067	-	53.7	-
RFE2017	LED Globe LT or EQ 8W	E	3	Units	\$0.00	3,016	-	11.9	-
RFE2004	LED Night Light (NON-CAA)	E	12	Units	\$0.00	14,088	15,955	22.0	-
RFE2011	LED PAR/R/BR <= 15.5W	E	3	Units	\$0.00	4,046	-	23.8	-
RFE2034	Outdoor LED PAR Distribution for Food Banks	E	3	Units	\$0.00	7,320	-	112.9	-
RFE2012	Outdoor LED PAR Flood-2020 & 2021	E	3	Units	\$0.00	772	-	121.6	-
RFE2039	Virtual - LED Night Light	E	12	Units	\$0.00	1,926	2,181	19.9	-
REE0099A-B	LED 3 way bulb	E	12	Units	\$0.00	37	-	15.3	-
RIE0094	LED A-line LT or EQ 6W Replacing 40W Equivalent (Direct Program)	E	2	Units	\$0.00	110,000	110,000	19.6	-
RIE0098	LED Candelabra Medium Base LT or EQ 5W (Direct Program)	E	3	Units	\$0.00	14,000	14,000	23.7	-
RIE0096	LED Candelabra Small Base LT or EQ 5W (Direct Program)	E	3	Units	\$0.00	44,333	44,333	23.7	-
RIE0086	LED Exterior Fixture Lamp Replacement (Direct Program)	E	12	Units	\$0.00	2,804	2,804	122.0	-
RIE0095	LED Globe LT or EQ 8W (Direct Program)	E	3	Units	\$0.00	72,333	72,333	27.0	-
RIE0135	LED Holiday Lights (Direct Program)	E	10	Units	\$0.00	967	967	10.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE2121	Above Grade Wall Insulation	E	25	1000 Square Feet	\$0.00	6	6	185.5	-
RFE2090	AC replacement SEER 13 to SEER 16	C	15	Units	\$0.00	-	3	182.5	-
RFE2091	AC replacement SEER 13 to SEER 17	C	15	Units	\$0.00	-	3	237.7	-
RFE2116	Basement Wall Insulation	E	25	1000 Square Feet	\$0.00	1	2	77.7	-
RFE2117	Crawlspace Wall Insulation	E	25	1000 Square Feet	\$0.00	2	3	93.8	-
RFE2127	ENERGY STAR Air Purifier CADR 201-250	E	9	Units	\$0.00	190	250	664.5	-
RFE2086	ENERGY STAR Heat Pump Water Heaters in Conditioned Space, <= 55 gallons UEF >= 3.0	E	10	Units	\$0.00	74	83	2,473.0	-
RFE2087	ENERGY STAR Heat Pump Water Heaters in Conditioned Space, <= 55 gallons UEF >= 3.5	E	10	Units	\$0.00	87	208	2,612.0	-
RFE2107	ENERGY STAR Room AC greater than or equal 8,000 Btu hr	E	9	Units	\$0.00	7	4	94.0	-
RFE2106	ENERGY STAR Room AC less than 8,000 Btu hr	E	9	Units	\$0.00	-	83	31.5	-
RFE2108	Food Bank Night Lights	E	12	Units	\$0.00	17,620	9,977	20.4	-
RFE2109	Infiltration reduction - 20%	E	13	1000 Square Feet	\$0.00	7	8	32.7	-
RFE2110	Infiltration reduction - 30%	E	13	1000 Square Feet	\$0.00	7	8	49.8	-
RFE2111	Infiltration reduction - 40%	E	13	1000 Square Feet	\$0.00	14	16	77.7	-
RFE2096	LED Holiday Lights	E	10	Units	\$0.00	331	417	10.6	-
RFE2124	Manufactured Home Duct Sealing 50%	E	18	1000 Square Feet	\$0.00	12	15	810.9	-
RFE2119	Manufactured Home Floor Insulation R-19 or higher	E	25	1000 Square Feet	\$0.00	5	5	390.2	-
RFE2056	Minisplit Cold Climate Heat pump SEER 19 HSPF 11 Elec Resistance base	E	15	Units	\$0.00	2	12	12,041.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE2057	Minisplit Cold Climate Heat pump SEER 20 HSPF 11 Elec Resistance base	E	15	Units	\$0.00	4	12	3,827.8	-
RFE2113	R-30 Roof Insulation	E	20	1000 Square Feet	\$0.00	20	22	408.0	-
RFE2114	R-49 Roof Insulation	E	20	1000 Square Feet	\$0.00	24	28	285.0	-
RFE2115	Rim Joist Insulation	E	25	1000 Square Feet	\$0.00	37	43	27.2	-
RFE2125	Setback thermostat - moderate setback	C	9	Units	\$0.00	-	29	95.7	-
RFE2118	Single Family Home Floor Insulation R-19 or higher	E	25	1000 Square Feet	\$0.00	5	6	95.5	-
RFE2037	Virtual - Shower Start/Thermostatic Shower Head (1.5 gpm)	E	10	Units	\$0.00	10	16	361.1	-
RIE0106	Advanced Power Strip Tier 1 Workstations (Direct Program)	E	5	Units	\$0.00	143	143	25.8	-
RIG0252	Attic Insulation Installed _ R-38 Final Effective value - (Direct Program)	G	20	Square Feet	\$0.00	15,099	15,099	-	0.0
RIG0253	Attic Insulation Installed _ R-49 Final Effective value - (Direct Program)	G	20	Square Feet	\$0.00	765,904	765,904	-	0.0
RIG0251	Attic Preparation Hourly Rate (Direct Program)	G	1	Units	\$0.00	3,384	3,384	-	-
RIG0240	Emergency Tanked Water Heater Energy Star UEF > = 0.64 - (Agency Rebate)	G	13	Units	\$0.00	9	9	-	1.8
RIE0025	LED Night Light (Direct Program)	E	12	Units	\$0.00	85,000	85,000	22.0	-
RIE0143	LED Night Light Food Bank Bulb Distribution	E	12	Units	\$0.00	680,000	680,000	18.3	-
RIG0236	Low Flow Kitchen Faucet Aerator - Gas 1.5gpm - Gas Kit (Direct Program)	G	10	Units	\$0.00	4,200	4,200	-	0.5

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIG0254	Manufactured Home Natural Gas Furnace AFUE > = 95% - (Direct Program)	G	15	Units	\$0.00	80	80	-	8.2
RIG0248	Manufactured Home O and M Tune-up Furnace Only - Direct Install (Direct Program)	G	2	Units	\$0.00	700	700	-	5.1
RIG0261	Pipe Wrap R3 Insulation Kit (Coverage = 6 Linier FT) Food Bank Bulb Distribution - (Direct Program)	G	15	Units	\$0.00	67,475	67,475	-	0.5
RIG0260	Programming Existing Thermostat - Moderate - Gas - (Direct Program)	G	3	Units	\$0.00	33	33	-	5.6
RIG0255	Single Family Air Sealing - 20% Reduction - (Direct Program)	G	13	Square Feet	\$0.00	1,461,366	1,461,366	-	0.0
RIG0256	Single Family Air Sealing - 30% Reduction - (Direct Program)	G	13	Square Feet	\$0.00	12,340	12,340	-	0.0
RIG0257	Single Family Air Sealing - 40% Reduction - (Direct Program)	G	13	Square Feet	\$0.00	6,033	6,033	-	0.0
RIG0258	Single Family Air Sealing - 50% Reduction - (Direct Program)	G	13	Square Feet	\$0.00	3,078	3,078	-	0.0
RIG0259	Trade Ally Band Joist R-20 or higher - (Direct Program)	G	25	Units	\$0.00	58	58	-	2.9
RIE0032	TubSpout with Showerhead 1.5 GPM, electric DHW	E	10	Units	\$0.00	800	800	36.0	-
RIG0250	Wi-Fi Thermostat - Moderate Setback - (Direct Program)	G	9	Units	\$0.00	314	314	-	5.0
RIG0249	Window Film Insulation Kit (Coverage = 15 SQ FT Glazing) Food Bank Bulb Distribution - (Direct Program)	G	1	Units	\$0.00	23,940	23,940	-	1.0
RFE2008	Low Flow Bath Faucet Aerators - Electric 1.0gpm (NON-CAA)	E	10	Units	\$0.00	2,685	3,041	63.5	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE2007	Low Flow Kitchen Faucet Aerator - Electric 1.5gpm (NON-CAA)	E	10	Units	\$0.00	257	292	258.8	-
RFE2005	Low Flow Showerhead - 1.5 gpm (NON-CAA)	E	10	Units	\$0.00	184	208	345.9	-
RFE2006	Low Flow Showerhead - 1.5 gpm Handheld (NON-CAA)	E	10	Units	\$0.00	294	333	342.5	-
RFE2015	Low Flow Showerheads + Shower Start - Electric Water Heater (NON-CAA)	E	10	Units	\$0.00	368	1,666	403.9	-
RFE2009	Pipe Wrap - Electric (NON-CAA)	E	15	Linear Feet	\$0.00	3,311	3,749	51.0	-
RFE2014	Shower Start Added to Existing Low Flow Showerhead (1.5 gpm) - Water Heater (NON-CAA)	E	10	Units	\$0.00	368	1,666	61.4	-
RFE2036	Virtual - Dual Spray Kitchen Low Flow Aerator (1.5 gpm)	E	10	Units	\$0.00	150	175	243.8	-
RFE2040	Virtual - Low Flow Showerheads (1.5 gpm)	E	10	Units	\$0.00	50	63	306.2	-
RFE2041	Virtual - Low Flow Showerheads (1.5 gpm) - Handheld	E	10	Units	\$0.00	100	114	306.2	-
RFE2042	Virtual - Std Low Flow Bath Aerator (1.0 gpm)	E	10	Units	\$0.00	301	341	58.2	-
RFE2074	Virtual IQ - Pipe Wrap R3 - Electric Water Heater	E	15	Linear Feet	\$0.00	351	399	41.7	-
RIE0116	Attic Insulation to R-49 - (Agency Rebate)	E	20	Square Feet	\$0.00	52,000	52,000	0.1	-
RIG0210	Emergency ENERGY STAR Tankless Water Heater Replacement UEF>= 0.81 - (Agency Rebate)	G	20	Units	\$0.00	11	11	-	5.1
RIG0211	Emergency Power Vented Water Heater ENERGY STAR UEF > = 0.64 - (Agency Rebate)	G	13	Units	\$0.00	115	115	-	1.8

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIE0148	ENERGY STAR Heat Pump Water Heaters in Semi-Conditioned Space e 2.5 UEF - (Direct Program)	E	10	Units	\$0.00	21	21	1,858.0	-
RIE0125	ENERGY STAR Heat Pump Water Heaters in Semi-Conditioned Space, <= 55 gallons - (Agency Rebate)	E	10	Units	\$0.00	47	47	1,684.0	-
RIG0193	ENERGY STAR Water Heater Replacement UEF > = 0.64 UEF - (Agency Rebate)	G	13	Units	\$0.00	2	2	-	1.8
RIG0194	ENERGY STAR Water Power Vented Heater Replacement UEF > = 0.64 - (Agency Rebate)	G	13	Units	\$0.00	42	42	-	1.8
RIG0226	High Capacity Natural Gas On-demand Water Heater e 0.81 UEF - (Direct Program)	G	20	Units	\$0.00	27	27	-	5.1
RIG0224	High Capacity Natural Gas Storage Power Vented Water Heater ENERGY STAR UEF e 0.64 UEF - (Direct Program)	G	13	Units	\$0.00	570	570	-	1.8
RIE0048	Low Flow Bath Faucet Aerators - Electric 1.0gpm (NON-CAA)	E	10	Units	\$0.00	356	356	63.5	-
RIG0093	Low Flow Bath Faucet Aerators - Gas 1.0gpm (NON-CAA)	G	10	Units	\$0.00	3,975	3,975	-	0.3
RIE0039	Low Flow Kitchen Faucet Aerator - Electric 1.5gpm (NON-CAA)	E	10	Units	\$0.00	239	239	258.8	-
RIG0053	Low Flow Kitchen Faucet Aerator - Gas 1.5gpm (NON-CAA)	G	10	Units	\$0.00	2,363	2,363	-	1.1
RIE0035	Low Flow Showerhead - 1.5 gpm (NON-CAA)	E	10	Units	\$0.00	500	500	345.9	-
RIG0049	Low Flow Showerhead - 1.5 gpm (NON-CAA)	G	10	Units	\$0.00	1,465	1,465	-	1.4

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIE0036	Low Flow Showerhead - 1.5 gpm Handheld (NON-CAA)	E	10	Units	\$0.00	230	230	342.5	-
RIG0050	Low Flow Showerhead - 1.5 gpm Handheld (NON-CAA)	G	10	Units	\$0.00	2,584	2,584	-	1.4
RIG0160	Low Flow Showerheads (1.5 gpm) + Shower Start - Gas Water Heater (NON-CAA)	G	10	Units	\$0.00	5	5	-	1.7
RIG0223	Natural Gas Storage Power Vented Water Heater ENERGY STAR UEF > = 0.64 - (Direct Program)	G	13	Units	\$0.00	100	100	-	1.8
RIE0050	Pipe Wrap - Electric (NON-CAA)	E	15	Linear Feet	\$0.00	21,400	21,400	47.9	-
RIG0097	Pipe Wrap - Gas (NON-CAA)	G	15	Linear Feet	\$0.00	40,493	40,493	-	0.2
RIG0161	Shower Flow Optimizer (1.5gpm) - Gas Water Heater (NON-CAA)	G	10	Units	\$0.00	11	11	-	1.4
RIE0092	Shower Flow Optimizer 1.5gpm - Electric Water Heater (Direct Program)	E	10	Units	\$0.00	1	1	334.0	-
RIG0159	Shower Start Added to Existing Low Flow Showerhead (1.5 gpm) - Gas Water Heater (NON-CAA)	G	10	Units	\$0.00	5	5	-	0.3
RFE2083	Partner Refrigerator Rebate	E	8.3	Units	\$0.00	74	84	1,175.8	-
RFE2073	Heat Pump Admin Costs	E	1	Units	\$0.00	10	327	-	-
RFE2112	Infiltration reduction - 50%	E	13	1000 Square Feet	\$0.00	5	5	96.6	-
RFE2123	Manufactured Home Duct Sealing 40%	E	18	1000 Square Feet	\$0.00	12	15	568.2	-
RFE2105	Premium Measure Admin cost	E	1	Units	\$0.00	362	543	-	-
REE0016IQEE	LED Task Light	E	12	Units	\$0.00	736	833	34.7	-
CGE2003IQEE	1L 4' LED Tube replacing T8 1L 4' lamp (kitchen, garage, workshop) (18 watts LED Shop Light)	E	18	Units	\$0.00	736	833	49.4	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE2021	Tier 1 Advanced Power Strips (NON-CAA)	E	5	Units	\$0.00	2,943	3,333	77.0	-
RIC0004	Audit Education (Combo or Gas and Electric Measures - OTG)	C	1	Units	\$0.00	2,313	2,313	-	-
RIC0021	MHI - Post Weatherization Blower Door Test - Gas Customer (Direct Program)	C	1	Units	\$0.00	198	198	-	-
RIC0020	MHI - Pre Weatherization Blower Door Test - Gas Customer (Direct Program)	C	1	Units	\$0.00	241	241	-	-
RIC0023	Add-A-Wire Module Installation - Combination Service (Direct Program)	C	1	Units	\$0.00	2	2	-	-
RIC0040	Multimeasure Bonus - (Agency Rebate)	C	1	Units	\$0.00	160	160	-	-
RIC0025	Air Sealing - 20% Reduction - (Agency Rebate)	C	13	Square Feet	\$0.00	45,000	45,000	0.0	-
RIC0026	Air Sealing - 30% Reduction - (Agency Rebate)	C	13	Square Feet	\$0.00	27,162	27,162	0.1	-
RIC0027	Air Sealing - 40% Reduction - (Agency Rebate)	C	13	Square Feet	\$0.00	17,102	17,102	0.1	-
RIC0028	Air Sealing - 50% Reduction - (Agency Rebate)	C	13	Square Feet	\$0.00	8,712	8,712	0.1	-
RIC0032	Attic Insulation to R30 - (Agency Rebate)	C	20	Square Feet	\$0.00	36,309	36,309	0.4	-
RIC0033	Attic Insulation to R49 - (Agency Rebate)	C	20	Square Feet	\$0.00	16,298	16,298	0.4	-
RIC0039	Band Joist Insulation - (Agency Rebate)	E	25	Units	\$0.00	7	7	68.1	-
RIC0036	Basement Wall Insulation - (Agency Rebate)	C	25	Square Feet	\$0.00	1,128	1,128	0.1	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIC0038	Crawlspace Insulation - (Agency Rebate)	C	25	Square Feet	\$0.00	918	918	0.1	-
RIC0047	ENERGY STAR Window Replacement (Per Square Footage) - (Agency Rebate)	C	25	Square Feet	\$0.00	314	314	0.7	-
RIC0037	Floor insulation - (Agency Rebate)	C	25	Square Feet	\$0.00	1,066	1,066	0.1	-
RIC0035	Kneewall Insulation to R-19 - (Agency Rebate)	C	20	Square Feet	\$0.00	585	585	0.7	-
RIC0043	Manufactured Belly insulation 100% coverage base - (Agency Rebate)	C	25	Square Feet	\$0.00	1,572	1,572	0.1	-
RIC0034	Wall Insulation - (Agency Rebate)	C	25	Square Feet	\$0.00	15,933	15,933	0.2	-
RIC0012	Duct sealing GT or EQ 15% and LT 20% leakage base (MHI _ NON-CAA)	C	18	Square Feet	\$0.00	200,000	200,000	0.1	-
RIC0013	Duct sealing GT or EQ 20% and LT 25%leakage base (MHI _ NON-CAA)	C	18	Square Feet	\$0.00	310,000	310,000	0.1	-
RIC0014	Duct sealing GT or EQ 25% and LT 30% leakage base (MHI _ NON-CAA)	C	18	Square Feet	\$0.00	190,000	190,000	0.2	-
RIC0015	Duct sealing GT or EQ 30% and LT 35% leakage base (MHI _ NON-CAA)	C	18	Square Feet	\$0.00	60,000	60,000	0.3	-
RIC0016	Duct sealing GT or EQ 35% and LT 40% leakage base (MHI _ NON-CAA)	C	18	Square Feet	\$0.00	30,000	30,000	0.4	-
RIC0017	Duct sealing GT or EQ 40% and LT 45% leakage base (MHI _ NON-CAA)	C	18	Square Feet	\$0.00	20,000	20,000	0.6	-
RIC0018	Duct sealing GT or EQ 45% and LT 50% leakage base (MHI _ NON-CAA)	C	18	Square Feet	\$0.00	15,000	15,000	0.6	-
RIC0019	Duct sealing GT or EQ 50% leakage base (MHI _ NON-CAA)	C	18	Square Feet	\$0.00	26,000	26,000	0.8	-
RIC0022	NEST E Programmable Thermostats Tier 3 - Combination Service (NON-CAA)	C	9	Units	\$0.00	84	84	161.8	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RIC0044	Programmable Thermostat Moderate Setback - (Agency Rebate)	C	9	Units	\$0.00	20	20	99.4	-
RIC0045	Programmable Thermostat Moderate Setback - (Direct Program)	C	9	Units	\$0.00	316	316	99.7	-
RIC0048	Trade Ally Programmable Thermostat Moderate Setback - (Direct Program)	C	9	Units	\$0.00	62	62	115.5	-
RIC0042	Wi-Fi Enabled Thermostat Moderate Setback - (Agency Rebate)	C	9	Units	\$0.00	2	2	201.6	-
RIC0055	Attic Insulation Installed _ R-38 Final Effective value - (Direct Program)	C	20	Square Feet	\$0.00	100,000	100,000	0.1	-
RIC0056	Attic Insulation Installed _ R-49 Final Effective value - (Direct Program)	C	20	Square Feet	\$0.00	1,300,000	1,300,000	0.1	-
RIC0061	Programming Existing Thermostat - Moderate - Combination - (Direct Program)	C	3	Units	\$0.00	4	4	125.1	-
RIC0057	Single Family Air Sealing - 20% Reduction - (Direct Program)	C	13	Square Feet	\$0.00	172,708	172,708	0.0	-
RIC0058	Single Family Air Sealing - 30% Reduction - (Direct Program)	C	13	Square Feet	\$0.00	54,983	54,983	0.1	-
RIC0059	Single Family Air Sealing - 40% Reduction - (Direct Program)	C	13	Square Feet	\$0.00	24,331	24,331	0.1	-
RIC0060	Single Family Air Sealing - 50% Reduction - (Direct Program)	C	13	Square Feet	\$0.00	8,132	8,132	0.1	-
RIC0054	Wi-Fi Thermostat - Moderate Setback - (Direct Program)	C	9	Units	\$0.00	274	274	130.4	-
RFE2026	Refrigerator - 15 cf -- Income Qualified Direct Install - ENERGY STAR	C	8.3	Units	\$0.00	7	42	1,175.8	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RFE2027	Refrigerator - 18 cf -- Income Qualified Direct Install - ENERGY STAR	C	8.3	Units	\$0.00	7	42	1,175.8	-
RFE2090	AC replacement SEER 13 to SEER 16	C	15	Units	\$0.00	-	42	183.7	-
RFE2091	AC replacement SEER 13 to SEER 17	C	15	Units	\$0.00	18	42	237.7	-
RFE2125	Setback thermostat - moderate setback	C	9	Units	\$0.00	-	42	86.5	-
RIG0251	Attic Preparation Hourly Rate (Direct Program)	E	1	Units	\$0.00	5,800	5,900	-	-
RIG0251	Attic Preparation Hourly Rate (Direct Program)	G	1	Units	\$0.00	5,800	5,900	-	-
RIG0249	Window Film Insulation Kit (Coverage = 15 SQ FT Glazing) - (Direct Program)	E	1	Units	\$0.00	11,000	19,000	-	-
RIG0249	Window Film Insulation Kit (Coverage = 15 SQ FT Glazing) - (Direct Program)	G	1	Units	\$0.00	11,000	11,000	-	1.0
RIC0039	Band Joist Insulation - (Agency Rebate)	G	25	Units	\$0.00	7	7	-	3.8
RIC0039	Spray Foam Band Joist R-20 or higher - (Direct Program)	E	25	Units	\$0.00	1	1	47.6	-
RIC0039	Spray Foam Band Joist R-20 or higher - (Direct Program)	G	25	Units	\$0.00	1	1	-	3.9
Income-Qualified Multifamily Program									
RQE0001	Bonus-Multifamily Custom-Electric	E	15	Units	\$20,542.70	33	36	68,475.7	-
RQE0003	LED Exit Sign	E	15	Units	\$100.00	450	400	201.0	-
RQE0166	LED A-Series Lamp-40W Replacement	E	2	Units	\$6.00	165	124	18.5	-
RQE0167	LED A-Series Lamp-50-79W Replacement	E	2	Units	\$8.50	103	77	94.7	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RQE0168	LED A-Series Lamp-60W Replacement	E	2	Units	\$6.00	7,329	5,497	26.9	-
RQE0171	LED Lamp-Flood/PAR	E	3	Units	\$12.50	5	3	149.9	-
RQE0223	Bonus-Limited Time Bonus-Electric	E	1	Units	\$0.01	508,706,585	586,093,300	-	-
RQE0224	LED Lamp-Globe	E	3	Units	\$9.00	688	516	27.0	-
RQE0228	DI-Energy Star Refrigerator & Recycle-15cf	E	8.3	Units	\$0.00	500	500	1,175.8	-
RQE0232	NC-Low-Flow Bath Aerator-1.5gpm-Electric DHW	E	10	Units	\$5.00	208	208	41.5	-
RQE0234	NC-Low-Flow Showerhead-1.5gpm-Electric DHW	E	10	Units	\$25.00	118	118	315.9	-
RQE0235	NC-Low-Flow Showerhead-1.75gpm-Electric DHW	E	10	Units	\$25.00	121	121	237.4	-
RQE0246	NC-LED A-Series Lamp-60W Replacement	E	4	Units	\$3.00	30	22	6.7	-
RQE0250	Bonus-NC-Limited Time Bonus-Electric	E	1	Units	\$0.01	38,946,178	38,946,178	-	-
RQE0284	NC-ENERGY STAR Door (Electric)	E	20	Units	\$70.00	100	100	48.1	-
RQE0287	DI-Pipe Wrap-DHW-Common Area (Electric)	E	20	Linear Feet	\$0.00	150	150	44.7	-
RQE0296	DI-LED Candelabra	E	3	Units	\$0.00	625	469	23.7	-
RQE0297	DI-LED A-Series Lamp-60W Replacement	E	2	Units	\$0.00	1,163	872	26.9	-
RQE0298	DI-LED Lamp-Flood/PAR	E	3	Units	\$0.00	14	10	54.0	-
RQE0299	DI-LED Lamp-Globe	E	3	Units	\$0.00	175	131	27.0	-
RQE0300	DI-LED Candelabra	E	3	Units	\$0.00	22	16	124.0	-
RQE0302	DI-LED A-Series Lamp-50-79W Replacement	E	2	Units	\$0.00	26	20	94.7	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RQE0308	LED Fixture replacing Fluorescent Tube Fixture	E	18	Watts Removed	\$1.25	70,000	70,000	2.7	-
RQE0309	LED Fixture (24/7) replacing Fluorescent Tube Fixture	E	6	Watts Removed	\$5.00	95,000	95,000	8.8	-
RQE0311	NC-ECM on Domestic Hot Water Recirculation 100-500W	E	15	Units	\$1,200.00	2	2	5,008.0	-
RQE0319	NC-Low-Flow Bath Aerator-1.0gpm-Electric DHW	E	10	Units	\$7.00	59	59	70.9	-
RQE0320	DI-Low-Flow Bath Aerator-Electric DHW	E	10	Units	\$0.00	32	32	68.3	-
RQE0321	DI-Low-Flow Kitchen Aerator-1.5gpm-Electric DHW	E	10	Units	\$0.00	53	53	197.2	-
RQE0322	DI-Low-Flow Showerhead-1.5gpm-Electric DHW	E	10	Units	\$0.00	16	16	315.9	-
RQE0323	DI-Low-Flow Handheld Showerhead-1.5gpm-Electric DHW	E	10	Units	\$0.00	26	26	334.3	-
RQE0324	DI-Low-Flow Bath Aerator-Electric DHW	E	10	Units	\$0.00	2	2	161.2	-
RQE0325	DI-Low-Flow Kitchen Aerator-Electric DHW	E	10	Units	\$0.00	2	2	197.2	-
RQE0336	LED Fixture-Interior	E	3	Units	\$30.00	1,793	1,345	44.0	-
RQE0337	LED Fixture-Exterior	E	12	Units	\$40.00	214	161	122.0	-
RQE0338	LED Fixture-Interior	E	3	Units	\$40.00	261	196	141.5	-
RQE0339	LED Fixture-Exterior	E	2	Units	\$50.00	7	5	165.3	-
RQE0353	LED (Night Only) Replacing HID Fixture	E	16	Watts Removed	\$2.50	350,000	350,000	4.3	-
RQE0354	LED (24/7) Replacing HID Fixture	E	16	Watts Removed	\$1.80	10,000	10,000	8.8	-
RQE0369	NC-Air Source Heat Pump-14.5 SEER-8.7 HSPF	E	15	Tons	\$60.00	40	40	67.5	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RQE0371	NC-Air Source Heat Pump-15 SEER-8.7 HSPF	E	15	Tons	\$60.00	108	108	130.5	-
RQE0373	NC-Air Source Heat Pump-16 SEER-9.0 HSPF	E	15	Tons	\$120.00	58	58	205.0	-
RQE0375	NC-Air Source Heat Pump-17 SEER-9.4 HSPF	E	15	Tons	\$120.00	86	86	217.4	-
RQE0380	Air Source Heat Pump-20 SEER-9.7 HSPF	E	15	Tons	\$200.00	90	90	474.7	-
RQE0382	Air Source Heat Pump-21 SEER-9.7 HSPF	E	15	Tons	\$400.00	97	97	527.4	-
RQE0402	NC-Air Source Heat Pump-16 SEER-9.0 HSPF	E	15	Tons	\$120.00	10	10	256.9	-
RQE0414	NC-LED Fixture-Interior	E	15	Units	\$8.00	7,066	5,299	11.0	-
RQE0415	NC-LED Fixture-Exterior	E	12	Units	\$7.50	76	57	20.3	-
RQE0424	NC-LED Fixture-Exterior (RES Code)	E	2	Units	\$10.00	29	21	41.3	-
RQE0427	Occupancy Sensor (<180W)	E	10	Units	\$50.00	7,500	7,500	96.1	-
RQE0454	NC-LPD Interior (Com Code)	E	15	Watts Removed	\$2.00	4,500	4,500	2.7	-
RQE0455	NC-LPD Exterior (Com Code)	E	12	Watts Removed	\$3.00	15,000	15,000	4.3	-
RQE0458	Bonus - NC - NEEP ASHP Limited Time Bonus	E	1	Units	\$0.01	133,855,025	133,855,025	-	-
RQE0463	NC - LED Fixture - Interior (RES Code)	E	3	Units	\$10.00	46	34	141.5	-
RQE0464	Exterior Occupancy Sensor (per watt controlled)	E	10	Watts Controlled	\$1.20	9,000	9,000	3.5	-
RQE0470	DI - Window Insulation Kits (Electric)	E	1	Units	\$0.00	1,000	1,100	978.7	-
RQE0475	DI-Pipe Wrap R3-DHW-In-Unit (Electric)	E	15	Linear Feet	\$0.00	350	350	51.0	-
RQE0487	NC-Split System Air Conditioner-SEER 15-In-Unit	E	15	Tons	\$30.00	650	650	83.9	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RQE0503	NC-Split System Air Conditioner-SEER 14-Common Area	E	15	Tons	\$30.00	10	10	39.6	-
RQE0505	NC-Split System Air Conditioner-SEER 15-Common Area	E	15	Tons	\$30.00	15	15	52.6	-
RQE0513	LED A-line 450-799 Lumen output-Replacing CFL-In-Unit	E	2	Units	\$3.00	55	41	2.6	-
RQE0525	LED A-line 800-1099 Lumen output-Replacing CFL-24/7 Common Area	E	2	Units	\$5.00	286	215	33.0	-
RQE0530	LED PAR/R/BR-Replacing CFL-12/7 Common Area	E	3	Units	\$5.00	5	3	35.0	-
RQE0534	LED Fixture-Replacing CFL-12/7 Common Area	E	3	Units	\$15.00	164	123	48.2	-
RQE0535	LED Fixture-Replacing CFL-24/7 Common Area	E	3	Units	\$15.00	1,176	882	96.4	-
RQE0558	NC-LED Fixture-Replacing CFL-12/7 Common Area	E	3	Units	\$10.00	21	15	48.2	-
RQE0559	NC-LED Fixture-Replacing CFL-24/7 Common Area	E	3	Units	\$10.00	95	71	96.4	-
RQE0560	1 Lamp 2 Foot T8 LED Lamp replacing 1 Lamp 2 Foot T12-In-Unit	E	18	Units	\$15.00	859	859	12.8	-
RQE0561	1 Lamp 2 Foot T8 LED Lamp replacing 1 Lamp 2 Foot T8-In-Unit	E	18	Units	\$15.00	69	69	6.9	-
RQE0563	1 Lamp 4 Foot T8 LED Lamp replacing 1 Lamp 4 Foot T12-In-Unit	E	18	Units	\$25.00	3,000	3,000	18.1	-
RQE0564	1 Lamp 4 Foot T8 LED Lamp replacing 1 Lamp 4 Foot T8-In-Unit	E	18	Units	\$25.00	5,700	5,800	12.6	-
RQE0570	1 Lamp 2 Foot T8 LED Lamp replacing 1 Lamp 2 Foot T12-12/7 Common Area	E	18	Units	\$20.00	10	10	66.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RQE0572	1 Lamp 2 Foot T8 LED Lamp replacing 1 Lamp 2 Foot T8-12/7 Common Area	E	18	Units	\$20.00	200	200	35.9	-
RQE0576	1 Lamp 4 Foot T8 LED Lamp replacing 1 Lamp 4 Foot T12-12/7 Common Area	E	18	Units	\$30.00	2,000	2,000	94.2	-
RQE0577	1 Lamp 4 Foot T8 LED Lamp replacing 1 Lamp 4 Foot T12-24/7 Common Area	E	18	Units	\$30.00	45	45	188.3	-
RQE0578	1 Lamp 4 Foot T8 LED Lamp replacing 1 Lamp 4 Foot T8-12/7 Common Area	E	18	Units	\$30.00	5,000	5,000	65.7	-
RQE0579	1 Lamp 4 Foot T8 LED Lamp replacing 1 Lamp 4 Foot T8-24/7 Common Area	E	18	Units	\$30.00	2,500	2,500	131.4	-
RQE0603	DI-Advanced Power Strips Tier 1	E	5	Units	\$0.00	3,000	3,000	64.2	-
RQE0604	DI - Energy Star Air Purifier CADR Over 250	E	9	Units	\$0.00	2,000	2,000	885.0	-
RQG0001	Bonus-Multifamily Custom-Natural Gas	G	16	Units	\$2,507.88	68	65	-	515.1
RQG0011	Space Heating Boiler Tune-Up	G	2	kBtu/h	\$0.90	26,000	30,000	-	0.0
RQG0020	Furnace Tune-Up (40-80 MBH)	G	2	MBH	\$0.90	160,000	160,000	-	0.1
RQG0034	Airtight Can Light (Gas)	G	15	Units	\$25.00	626	626	-	1.0
RQG0035	ENERGY STAR Window (Gas)	G	25	Square Feet	\$2.00	250	225	-	4.2
RQG0119	Low-Flow Kitchen Aerator-1.5gpm-Natural Gas DHW	G	10	Units	\$7.00	250	206	-	0.8
RQG0120	Low-Flow Bath Aerator-1.5gpm-Natural Gas DHW	G	10	Units	\$5.00	147	147	-	0.2
RQG0131	DHW Boiler Tune-Up	G	2	MBH	\$0.60	7,800	7,800	-	0.1
RQG0137	Furnace Replacement >= 95 AFUE	G	15	Units	\$18.50	1,000	1,500	-	0.1

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RQG0145	Indirect Water Heater (High Efficiency, 90 percent TE)	G	15	MBH	\$6.00	2,300	2,500	-	0.2
RQG0149	Low-Flow Showerhead-1.5gpm-Natural Gas DHW	G	10	Units	\$25.00	361	361	-	1.3
RQG0170	Bonus-Limited Time Bonus-Natural Gas	G	1	Units	\$0.01	915,180,000	921,280,000	-	-
RQG0176	NC-Low-Flow Bath Aerator-1.5gpm-Natural Gas DHW	G	10	Units	\$5.00	300	300	-	0.2
RQG0177	NC-Low-Flow Kitchen Aerator-1.5gpm-Natural Gas DHW	G	10	Units	\$7.00	112	112	-	0.8
RQG0178	NC-Low-Flow Showerhead-1.5gpm-Natural Gas DHW	G	10	Units	\$25.00	184	184	-	1.3
RQG0179	NC-Low-Flow Showerhead-1.75gpm-Natural Gas DHW	G	10	Units	\$25.00	112	112	-	1.0
RQG0182	NC-Furnace Replacement >= 95 AFUE	G	15	Units	\$18.50	216	216	-	0.1
RQG0185	NC-Furnace Replacement e 95 AFUE	G	15	Units	\$1,100.00	10	10	-	9.0
RQG0193	NC-Indirect Water Heater (High Efficiency, 90 percent TE)	G	15	MBH	\$6.00	1,673	1,673	-	0.2
RQG0196	Bonus-Program Incentive Match-Natural Gas	G	1	Units	\$0.01	8,568,281	1,482,243	-	-
RQG0212	DI-Pipe Wrap-Space Heat-Common Area	G	20	Linear Feet	\$0.00	7,000	6,000	-	0.4
RQG0213	DI-Pipe Wrap-DHW-Common Area (Gas)	G	20	Linear Feet	\$0.00	350	250	-	0.2
RQG0221	Setback thermostat - moderate setback	G	9	Units	\$232.29	1,402	1,402	-	0.8
RQG0222	DI-Programmable T-stat-Common Area (Gas)	G	9	Units	\$0.00	7	7	-	0.8
RQG0223	Wi-Fi Programmable T-stat-Common Area (Gas)	G	9	Units	\$80.00	10	10	-	1.3

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RQG0225	NC-Low-Flow Bath Aerator-1.0gpm-Natural Gas DHW	G	10	Units	\$7.00	185	185	-	0.3
RQG0226	DI-Low-Flow Bath Aerator-Natural Gas DHW	G	10	Units	\$0.00	2,000	1,200	-	0.3
RQG0227	DI-Low-Flow Kitchen Aerator-1.5gpm-Natural Gas DHW	G	10	Units	\$0.00	1,000	600	-	0.8
RQG0228	DI-Low-Flow Showerhead-1.5gpm-Natural Gas DHW	G	10	Units	\$0.00	314	314	-	1.3
RQG0229	DI-Low-Flow Handheld Showerhead-1.5gpm-Natural Gas DHW	G	10	Units	\$0.00	454	454	-	1.4
RQG0230	NC-Large High Efficiency Tank-Style DHW Unit (94 percent TE)	G	13	Units	\$1,000.00	5	5	-	30.0
RQG0265	Boiler 95% plus AFUE 82 AFUE BASE	G	20	MBH	\$23.00	1,600	1,600	-	0.3
RQG0269	Boiler 300 - 2500 kBtuh 90 Et	G	20	MBH	\$15.00	6,500	6,500	-	0.2
RQG0275	Boiler Combination for Space and Water Heating 95% AFUE	G	20	MBH	\$23.00	1,000	1,200	-	0.3
RQG0277	ENERGY STAR High Efficiency Medium Draw Gas Storage Water Heater 0.64 UEF, <= 55 gallons	G	13	Units	\$75.00	4	4	-	1.8
RQG0283	DI - Window Insulation Kits (Gas)	G	1	Units	\$0.00	5,000	5,000	-	4.9
RQG0288	DI-Pipe Wrap R3-DHW-In-Unit (Gas)	G	15	Linear Feet	\$0.00	1,300	1,200	-	0.3
RQG0293	DI-Duct Sealing (Gas)	G	18	Square Feet	\$0.00	750,000	650,000	-	0.0
Market-Rate Multifamily Program									
CTE0003	LED Exit Sign CTE0003	E	15	Units	\$20.00	50	50	184.9	-
CTE0031	Occupancy Sensor (180-600W) CTE0031	E	10	Units	\$40.00	200	200	265.2	-
CTE0108	Programmable T-stat-In-Unit (Electric) CTE0108	E	9	Units	\$15.00	23	23	49.9	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CTE0119	Low-Flow Kitchen Aerator-1.5gpm-Electric DHW CTE0119	E	10	Units	\$5.00	40	40	186.9	-
CTE0150	Exterior Bilevel Controls (12/7) CTE0150	E	8	Watts Controlled	\$0.40	2,000	2,000	2.2	-
CTE0167	Low-Flow Showerhead-1.5gpm-Electric DHW CTE0167	E	10	Units	\$15.00	219	219	290.6	-
CTE0173	Low-Flow Bath Aerator-1.0gpm-Electric DHW CTE0173	E	10	Units	\$3.00	40	40	65.2	-
CTE0200	2-Foot LED tube Replacing 2-Foot T12 CTE0200	E	18	Units	\$5.00	322	322	37.8	-
CTE0201	2-Foot LED tube Replacing 2-Foot T8 CTE0201	E	18	Units	\$2.50	214	214	20.6	-
CTE0202	4-Foot LED tube Replacing 4-Foot T12 CTE0202	E	18	Units	\$7.50	673	673	61.4	-
CTE0203	4-Foot LED tube Replacing 4-Foot T8 CTE0203	E	18	Units	\$5.00	397	397	45.5	-
CTE0206	Two 4-Foot LED tube Replacing 8-Foot T8 CTE0206	E	18	Units	\$7.50	86	86	81.1	-
CTE0222	NC-Low-Flow Bath Aerator-1.5gpm-Electric DHW CTE0222	E	10	Units	\$2.00	750	750	38.2	-
CTE0223	NC-Low-Flow Kitchen Aerator-1.5gpm-Electric DHW CTE0223	E	10	Units	\$5.00	350	350	186.9	-
CTE0224	NC-Low-Flow Showerhead-1.5gpm-Electric DHW CTE0224	E	10	Units	\$15.00	650	650	290.6	-
CTE0225	NC-Low-Flow Showerhead-1.75gpm-Electric DHW CTE0225	E	10	Units	\$10.00	100	100	218.4	-
CTE0242	ENERGY STAR Room Air Conditioner (>8000 BTU/hr) CTE0242	E	9	Units	\$15.00	6	6	86.5	-
CTE0271	NC-ENERGY STAR Door (Electric) CTE0271	E	20	Units	\$15.00	166	166	44.2	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CTE0274	DI-Pipe Wrap-DHW-Common Area (Electric) CTE0274	E	20	Linear Feet	\$0.00	119	119	41.2	-
CTE0275	DI-Pipe Wrap-DHW-In-Unit (Electric) CTE0275	E	15	Linear Feet	\$0.00	249	249	41.4	-
CTE0282	DI-LED A-Series Lamp-60W Replacement CTE0282	E	2	Units	\$0.00	1,299	1,299	24.7	-
CTE0283	DI-LED Lamp-Flood/PAR CTE0283	E	3	Units	\$0.00	9	9	49.7	-
CTE0284	DI-LED Lamp-Globe CTE0284	E	3	Units	\$0.00	489	489	24.8	-
CTE0287	DI-LED A-Series Lamp-50-79W Replacement CTE0287	E	2	Units	\$0.00	14	14	87.1	-
CTE0290	NC-Exterior Bilevel Controls (12/7) CTE0290	E	8	Watts Controlled	\$0.40	1,350	1,350	2.2	-
CTE0292	NC-Parking Garage Bilevel Controls (24/7) CTE0292	E	8	Watts Controlled	\$0.40	1,500	1,500	2.8	-
CTE0293	LED Fixture replacing Fluorescent Tube Fixture CTE0293	E	18	Watts Removed	\$0.30	10,000	10,000	2.5	-
CTE0294	LED Fixture (24/7) replacing Fluorescent Tube Fixture CTE0294	E	6	Watts Removed	\$1.20	20,000	20,000	8.1	-
CTE0295	NC-ECM on Domestic Hot Water Recirculation <100W CTE0295	E	15	Units	\$200.00	10	10	921.8	-
CTE0296	NC-ECM on Domestic Hot Water Recirculation 100-500W CTE0296	E	15	Units	\$650.00	1	1	4,607.4	-
CTE0298	NC-ECM on Hydronic Heating <100W CTE0298	E	15	Units	\$75.00	1	1	419.5	-
CTE0299	NC-ECM on Hydronic Heating 100-500W CTE0299	E	15	Units	\$400.00	23	23	2,099.4	-
CTE0300	NC-ECM on Hydronic Heating >500W CTE0300	E	15	Units	\$1,100.00	2	2	8,398.7	-
CTE0304	NC-Low-Flow Bath Aerator-1.0gpm-Electric DHW CTE0304	E	10	Units	\$3.00	450	450	65.2	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CTE0305	DI-Low-Flow Bath Aerator-Electric DHW CTE0305	E	10	Units	\$0.00	52	52	65.2	-
CTE0306	DI-Low-Flow Kitchen Aerator-1.5gpm-Electric DHW CTE0306	E	10	Units	\$0.00	38	38	186.9	-
CTE0307	DI-Low-Flow Showerhead-1.5gpm-Electric DHW CTE0307	E	10	Units	\$0.00	124	124	290.6	-
CTE0308	DI-Low-Flow Handheld Showerhead-1.5gpm-Electric DHW CTE0308	E	10	Units	\$0.00	17	17	307.5	-
CTE0323	NC-Split System Air Conditioner-<5.4 Tons (1 ph)-14 SEER CTE0323	E	15	Tons	\$25.00	100	100	227.7	-
CTE0325	NC-Split System Air Conditioner-<5.4 Tons (1 ph)-15 SEER CTE0325	E	15	Tons	\$35.00	275	275	327.7	-
CTE0333	NC-Air Source Heat Pump-14.5 SEER-8.7 HSPF CTE0333	E	15	Tons	\$15.00	160	160	62.1	-
CTE0337	NC-Air Source Heat Pump-16 SEER-9.0 HSPF CTE0337	E	15	Tons	\$35.00	15	15	188.6	-
CTE0339	NC-Air Source Heat Pump-17 SEER-9.4 HSPF CTE0339	E	15	Tons	\$35.00	9	9	200.0	-
CTE0343	NC-Air Source Heat Pump-19 SEER-9.7 HSPF CTE0343	E	15	Tons	\$65.00	84	84	383.1	-
CTE0345	NC-Air Source Heat Pump-20 SEER-9.7 HSPF CTE0345	E	15	Tons	\$65.00	57	57	436.7	-
CTE0347	NC-Air Source Heat Pump-21 SEER-9.7 HSPF CTE0347	E	15	Tons	\$95.00	55	55	485.2	-
CTE0352	NC-Split System Air Conditioner-<5.4 Tons (1 ph)-14 SEER CTE0352	E	15	Tons	\$25.00	100	100	228.1	-
CTE0354	NC-Split System Air Conditioner-<5.4 Tons (1 ph)-15 SEER CTE0354	E	15	Tons	\$35.00	22	22	326.6	-
CTE0366	NC-Air Source Heat Pump-16 SEER-9.0 HSPF CTE0366	E	15	Tons	\$35.00	14	14	236.4	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CTE0368	NC-Air Source Heat Pump-17 SEER-9.4 HSPF CTE0368	E	15	Tons	\$35.00	7	7	278.3	-
CTE0370	NC-Air Source Heat Pump-18 SEER-9.7 HSPF CTE0370	E	15	Tons	\$65.00	10	10	389.6	-
CTE0374	NC-Air Source Heat Pump-20 SEER-9.7 HSPF CTE0374	E	15	Tons	\$65.00	15	15	597.9	-
CTE0376	NC-Air Source Heat Pump-21 SEER-9.7 HSPF CTE0376	E	15	Tons	\$95.00	7	7	599.1	-
CTE0391	Occupancy Sensor (<180W) CTE0391	E	10	Units	\$10.00	300	300	88.4	-
CTE0418	NC-LPD Interior (Com Code) CTE0418	E	15	Watts Removed	\$0.30	6,500	6,500	2.5	-
CTE0419	NC-LPD Exterior (Com Code) CTE0419	E	12	Watts Removed	\$0.45	20,000	20,000	4.0	-
CTE0420	NC-LPD Parking Garage (24/7) (Com Code) CTE0420	E	12	Watts Removed	\$0.65	5,000	5,000	8.1	-
CTE0431	DI - Window Insulation Kits (Electric) CTE0431	E	1	Units	\$0.00	1,000	1,000	518.7	-
CTE0436	DI-Pipe Wrap R3-DHW-In-Unit (Electric) CTE0436	E	15	Linear Feet	\$0.00	895	895	46.9	-
CTE0439	Split System Air Conditioner-SEER 15-In-Unit CTE0439	E	15	Tons	\$10.00	96	96	77.2	-
CTE0446	NC-Split System Air Conditioner-SEER 14-In-Unit CTE0446	E	15	Tons	\$10.00	570	570	41.9	-
CTE0448	NC-Split System Air Conditioner-SEER 15-In-Unit CTE0448	E	15	Tons	\$10.00	700	700	77.2	-
CTE0449	NC-Split System Air Conditioner-SEER 16-In-Unit CTE0449	E	15	Tons	\$27.50	250	250	106.6	-
CTE0537	1 Lamp 4 Foot T8 LED Lamp replacing 1 Lamp 4 Foot T12-12/7 Common Area CTE0537	E	18	Units	\$12.50	100	100	86.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CTE0538	1 Lamp 4 Foot T8 LED Lamp replacing 1 Lamp 4 Foot T12-24/7 Common Area CTE0538	E	18	Units	\$12.50	150	150	173.3	-
CTE0565	DI - Energy Star Air Purifier CADR Over 250 CTE0565	E	9	Units	\$0.00	2,000	2,000	0.8	-
CTG0010	Steam Trap Repair or Replacement CTG0010	G	6	Units	\$200.00	750	700	-	26.7
CTG0011	Space Heating Boiler Tune-Up CTG0011	G	2	mBtu	\$0.60	35,000	35,000	-	0.0
CTG0016	Pipe Wrap-Space Heat-Common Area CTG0016	G	20	Linear Feet	\$4.00	600	550	-	0.4
CTG0020	Furnace Tune-Up (40-80 MBH) CTG0020	G	2	MBH	\$0.60	170,000	170,000	-	0.1
CTG0030	ENERGY STAR Door (Gas) CTG0030	G	20	Units	\$15.00	55	55	-	1.1
CTG0035	ENERGY STAR Window (Gas) CTG0035	G	25	Square Feet	\$0.50	6,200	6,400	-	0.0
CTG0044	Furnace Replacement e 95 AFUE CTG0044	G	15	Units	\$200.00	2	2	-	13.8
CTG0104	Low-Flow Bath Aerator-1.5gpm-Natural Gas DHW CTG0104	G	10	Units	\$2.00	27	27	-	0.2
CTG0105	Low-Flow Showerhead-1.75gpm-Natural Gas DHW CTG0105	G	10	Units	\$10.00	26	26	-	0.9
CTG0114	Low-Flow Kitchen Aerator-1.5gpm-Natural Gas DHW CTG0114	G	10	Units	\$5.00	258	258	-	0.8
CTG0122	DHW Boiler Tune-Up CTG0122	G	2	MBH	\$0.50	6,906	6,906	-	0.1
CTG0126	Furnace Replacement >= 95 AFUE CTG0126	G	15	MBH	\$2.70	5,100	5,100	-	0.1
CTG0131	Indirect Water Heater (High Efficiency, 90 percent TE) CTG0131	G	15	MBH	\$3.00	1,500	1,500	-	0.2

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CTG0136	Low-Flow Showerhead-1.5gpm-Natural Gas DHW CTG0136	G	10	Units	\$15.00	475	475	-	1.2
CTG0142	Low-Flow Bath Aerator-1.0gpm-Natural Gas DHW CTG0142	G	10	Units	\$3.00	240	245	-	0.3
CTG0159	Roof Insulation (Gas) CTG0159	G	25	1000 Square Feet	\$25.00	65	70	-	6.2
CTG0160	Large High Efficiency Tank-Style DHW Unit (94 percent TE) CTG0160	G	13	Units	\$300.00	2	3	-	27.6
CTG0161	NC-Low-Flow Bath Aerator-1.5gpm-Natural Gas DHW CTG0161	G	10	Units	\$2.00	900	920	-	0.2
CTG0162	NC-Low-Flow Kitchen Aerator-1.5gpm-Natural Gas DHW CTG0162	G	10	Units	\$5.00	1,300	1,300	-	0.8
CTG0163	NC-Low-Flow Showerhead-1.5gpm-Natural Gas DHW CTG0163	G	10	Units	\$15.00	600	650	-	1.2
CTG0164	NC-Low-Flow Showerhead-1.75gpm-Natural Gas DHW CTG0164	G	10	Units	\$10.00	750	750	-	0.9
CTG0166	NC-Furnace Replacement >= 92 AFUE CTG0166	G	15	MBH	\$1.35	2,280	3,000	-	0.1
CTG0167	NC-Furnace Replacement >= 95 AFUE CTG0167	G	15	MBH	\$2.70	21,000	21,000	-	0.1
CTG0169	NC-Furnace Replacement e 92 AFUE CTG0169	G	15	Units	\$100.00	7	7	-	13.9
CTG0170	NC-Furnace Replacement e 95 AFUE CTG0170	G	15	Units	\$200.00	80	80	-	14.8
CTG0173	NC-ENERGY STAR Door (Gas) CTG0173	G	20	Units	\$15.00	600	650	-	1.1
CTG0174	NC-Instant Hot Water Heater-Common Area CTG0174	G	20	Units	\$200.00	12	15	-	11.3
CTG0177	NC-Indirect Water Heater (High Efficiency, 90 percent TE) CTG0177	G	15	MBH	\$3.00	5,000	5,000	-	0.2

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CTG0186	DI-Pipe Wrap-Space Heat-Common Area CTG0186	G	20	Linear Feet	\$0.00	600	550	-	0.4
CTG0187	DI-Pipe Wrap-DHW-Common Area (Gas) CTG0187	G	20	Linear Feet	\$0.00	2,000	2,500	-	0.2
CTG0193	Wi-Fi Programmable T-stat-In-Unit (Gas) CTG0193	G	9	Units	\$20.00	750	750	-	2.0
CTG0194	NC-Low-Flow Bath Aerator-1.0gpm-Natural Gas DHW CTG0194	G	10	Units	\$3.00	50	60	-	0.3
CTG0195	DI-Low-Flow Bath Aerator-Natural Gas DHW CTG0195	G	10	Units	\$0.00	1,176	1,176	-	0.3
CTG0196	DI-Low-Flow Kitchen Aerator-1.5gpm-Natural Gas DHW CTG0196	G	10	Units	\$0.00	450	400	-	0.8
CTG0197	DI-Low-Flow Showerhead-1.5gpm-Natural Gas DHW CTG0197	G	10	Units	\$0.00	613	613	-	1.2
CTG0198	DI-Low-Flow Handheld Showerhead-1.5gpm-Natural Gas DHW CTG0198	G	10	Units	\$0.00	321	321	-	1.2
CTG0199	NC-Large High Efficiency Tank-Style DHW Unit (94 percent TE) CTG0199	G	13	Units	\$300.00	40	45	-	27.6
CTG0201	DI-Low-Flow Bath Aerator-Natural Gas DHW CTG0201	G	10	Units	\$0.00	4	4	-	0.6
CTG0204	DI-Low-Flow Handheld Showerhead-1.5gpm-Natural Gas DHW CTG0204	G	10	Units	\$0.00	5	5	-	2.5
CTG0248	NC - Boiler Combination for Space and Water Heating 95% AFUE CTG0248	G	20	MBH	\$6.00	2,106	2,300	-	0.3
CTG0250	NC - ENERGY STAR High Efficiency Medium Draw Gas Storage Water Heater 0.64 UEF, <= 55 gallons CTG0250	G	13	Units	\$25.00	63	63	-	1.6
CTG0255	DI - Window Insulation Kits (Gas) CTG0255	G	1	Units	\$0.00	6,000	6,000	-	2.6

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CTG0257	DI-Door weatherstripping-Sweep Only (Gas) CTG0257	G	5	Units	\$0.00	100	100	-	0.1
CTG0265	DI-Duct Sealing (Gas) CTG0265	G	18	Square Feet	\$0.00	1,200,000	1,000,000	-	0.0
RME0197	LED (Night Only) Replacing HID Fixture	E	16	Watts Removed	\$0.80	55,000	55,000	4.0	-
RME0223	Bonus-Limited Time Bonus-Electric	E	1	Units	\$0.01	23,095,643	19,214,539	-	-
RME0229	NC-Low-Flow Bath Aerator-1.5gpm-Electric DHW	E	10	Units	\$2.00	897	897	38.2	-
RME0230	NC-Low-Flow Kitchen Aerator-1.5gpm-Electric DHW	E	10	Units	\$5.00	215	215	181.4	-
RME0231	NC-Low-Flow Showerhead-1.5gpm-Electric DHW	E	10	Units	\$15.00	435	435	290.6	-
RME0246	Bonus-NC-Limited Time Bonus-Electric	E	1	Units	\$0.01	552,268	552,268	-	-
RME0255	Bonus-Program Incentive Match-Electric	E	1	Units	\$0.01	6,148,239	10,148,239	-	-
RME0277	DI-Pipe Wrap-DHW-Common Area (Electric)	E	20	Linear Feet	\$0.00	250	250	41.2	-
RME0285	DI-LED Candelabra	E	3	Units	\$0.00	409	409	21.8	-
RME0286	DI-LED A-Series Lamp-60W Replacement	E	2	Units	\$0.00	6,566	6,566	24.7	-
RME0288	DI-LED Lamp-Globe	E	3	Units	\$0.00	1,824	1,824	24.8	-
RME0291	DI-LED A-Series Lamp-50-79W Replacement	E	2	Units	\$0.00	49	49	87.1	-
RME0297	LED Fixture replacing Fluorescent Tube Fixture	E	18	Watts Removed	\$0.30	5,000	5,000	2.5	-
RME0309	DI-Low-Flow Bath Aerator-Electric DHW	E	10	Units	\$0.00	720	720	62.9	-
RME0310	DI-Low-Flow Kitchen Aerator-1.5gpm-Electric DHW	E	10	Units	\$0.00	395	395	181.4	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RME0311	DI-Low-Flow Showerhead-1.5gpm-Electric DHW	E	10	Units	\$0.00	571	571	290.6	-
RME0312	DI-Low-Flow Handheld Showerhead-1.5gpm-Electric DHW	E	10	Units	\$0.00	120	120	307.5	-
RME0432	DI - Window Insulation Kits (Electric)	E	1	Units	\$0.00	1,000	1,000	518.7	-
RME0435	DI-Door weatherstripping-Sweep Only (Electric)	E	5	Units	\$0.00	15	15	5.1	-
RME0438	DI-Pipe Wrap R3-DHW-In-Unit (Electric)	E	15	Linear Feet	\$0.00	2,000	2,000	46.9	-
RME0448	NC-Split System Air Conditioner-SEER 14-In-Unit	E	15	Tons	\$10.00	58	58	41.9	-
RME0449	NC-Split System Air Conditioner-SEER 14.5-In-Unit	E	15	Tons	\$10.00	93	93	82.7	-
RME0451	NC-Split System Air Conditioner-SEER 16-In-Unit	E	15	Tons	\$27.50	277	277	106.6	-
RME0469	NC-Split System Air Conditioner-SEER 16-Common Area	E	15	Tons	\$25.00	2	2	76.7	-
RME0565	DI-Duct Sealing (Electric)	E	18	Square Feet	\$0.00	250,000	250,000	0.0	-
RME0566	DI-Advanced Power Strips Tier 1	E	5	Units	\$0.00	750	750	59.1	-
RME0567	DI - Energy Star Air Purifier CADR Over 250	E	9	Units	\$0.00	2,000	2,000	814.2	-
RMG0011	Space Heating Boiler Tune-Up	G	2	kBtu/h	\$0.60	200,000	200,000	-	0.0
RMG0019	Instant Hot Water Heater-Common Area	G	20	Units	\$200.00	10	10	-	11.3
RMG0020	Furnace Tune-Up (40-80 MBH)	G	2	MBH	\$0.60	400,000	400,000	-	0.1
RMG0137	Furnace Replacement >= 95 AFUE	G	15	Units	\$2.70	60,000	60,000	-	0.1
RMG0149	Low-Flow Showerhead-1.5gpm-Natural Gas DHW	G	10	Units	\$15.00	1,798	1,798	-	1.2

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RMG0155	Low-Flow Bath Aerator-1.0gpm-Natural Gas DHW	G	10	Units	\$3.00	1,529	1,529	-	0.3
RMG0172	NC-Low-Flow Bath Aerator-1.5gpm-Natural Gas DHW	G	10	Units	\$2.00	1,086	1,086	-	0.2
RMG0173	NC-Low-Flow Kitchen Aerator-1.5gpm-Natural Gas DHW	G	10	Units	\$5.00	250	200	-	0.8
RMG0174	NC-Low-Flow Showerhead-1.5gpm-Natural Gas DHW	G	10	Units	\$15.00	390	390	-	1.2
RMG0175	NC-Low-Flow Showerhead-1.75gpm-Natural Gas DHW	G	10	Units	\$10.00	388	388	-	0.9
RMG0178	NC-Furnace Replacement >= 95 AFUE	G	15	Units	\$2.70	1,900	2,100	-	6.0
RMG0180	NC-Furnace Replacement e 92 AFUE	G	15	Units	\$100.00	40	40	-	6.4
RMG0184	NC-ENERGY STAR Door (Gas)	G	20	Units	\$15.00	400	450	-	1.1
RMG0185	NC-Instant Hot Water Heater-Common Area	G	20	Units	\$200.00	9	10	-	11.3
RMG0187	Bonus-NC-Limited Time Bonus-Natural Gas	G	1	Units	\$0.01	2,938,549	2,938,549	-	-
RMG0188	NC-Indirect Water Heater (High Efficiency, 90 percent TE)	G	15	MBH	\$3.00	2,500	2,500	-	0.2
RMG0195	DI-Pipe Wrap-Space Heat-Common Area	G	20	Linear Feet	\$0.00	10,927	10,927	-	0.4
RMG0196	DI-Pipe Wrap-DHW-Common Area (Gas)	G	20	Linear Feet	\$0.00	8,000	7,500	-	0.2
RMG0202	Wi-Fi Programmable T-stat-In-Unit (Gas)	G	9	Units	\$20.00	331	331	-	1.6
RMG0204	NC-Low-Flow Bath Aerator-1.0gpm-Natural Gas DHW	G	10	Units	\$3.00	250	200	-	0.3
RMG0205	DI-Low-Flow Bath Aerator-Natural Gas DHW	G	10	Units	\$0.00	3,450	3,450	-	0.3

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RMG0206	DI-Low-Flow Kitchen Aerator-1.5gpm-Natural Gas DHW	G	10	Units	\$0.00	2,354	2,354	-	0.8
RMG0207	DI-Low-Flow Showerhead-1.5gpm-Natural Gas DHW	G	10	Units	\$0.00	1,287	1,287	-	1.2
RMG0208	DI-Low-Flow Handheld Showerhead-1.5gpm-Natural Gas DHW	G	10	Units	\$0.00	994	994	-	1.3
RMG0209	NC-Large High Efficiency Tank-Style DHW Unit (94 percent TE)	G	13	Units	\$300.00	10	10	-	27.6
RMG0220	NC-Airtight Can Light (Gas)	G	15	Units	\$5.00	434	434	-	0.9
RMG0247	Boiler 95% plus AFUE 82 AFUE BASE	G	20	MBH	\$6.00	2,500	2,500	-	0.3
RMG0251	Boiler 300 - 2500 kBtuh 90 Et	G	20	MBH	\$2.50	3,000	3,500	-	0.2
RMG0260	NC - ENERGY STAR High Efficiency Medium Draw Gas Storage Water Heater 0.64 UEF, <= 55 gallons	G	13	Units	\$25.00	48	48	-	1.6
RMG0262	NC - ENERGY STAR High Efficiency High Draw Gas Storage Water Heater 0.68 UEF, <= 55 gallons Replacing Medium Draw	G	13	Units	\$25.00	174	174	-	1.7
RMG0265	DI - Window Insulation Kits (Gas)	G	1	Units	\$0.00	8,000	8,200	-	2.6
RMG0268	DI-Door weatherstripping-Sweep Only (Gas)	G	5	Units	\$0.00	21	21	-	0.1
RMG0269	DI-Door weatherstripping-Strip Only (Gas)	G	5	Units	\$0.00	5	5	-	0.1
RMG0276	DI-Duct Sealing (Gas)	G	18	Square Feet	\$0.00	1,700,000	1,500,000	-	0.0
New Home Construction Program									
RNE0025	Connected Housing ENERGY STAR OR HERS 56 or Less - NO BONUS	E	20	Units	\$150.00	35	24	764.9	-
RNG0020	Connected Housing ENERGY STAR OR HERS 56 or Less - NO BONUS	G	20	Units	\$700.00	3	3	-	25.2

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RNE0028	Connected Housing ENERGY STAR OR HERS 56 or Less - Geothermal ASHP - Electric BO	E	20	Units	\$300.00	5	5	4,408.1	-
RNE0017	ENERGY STAR - Single Family - Electric	E	20	Units	\$600.00	8	5	1,673.1	-
RNE0022	ENERGY STAR - Single Family - Electric	E	20	Units	\$1,000.00	1	1	2,768.9	-
RNE0023	ENERGY STAR - Single Family - Electric	E	20	Units	\$2,000.00	3	3	2,768.9	-
RNG0016	ENERGY STAR - Single Family - Gas	G	20	Units	\$1,400.00	70	52	-	58.7
RNG0019	ENERGY STAR - Single Family - Gas	G	20	Units	\$700.00	40	30	-	44.2
RNE0018	ENERGY STAR - Townhouse - Electric	E	20	Units	\$300.00	2	2	34.1	-
RNE0029	ENERGY STAR Single Family HERS 40 or Less All Electric	E	20	Units	\$4,000.00	2	2	2,539.2	-
RNG0022	ENERGY STAR Single Family HERS 40 or Less Gas	G	20	Units	\$2,800.00	2	2	-	8.5
RNE0030	ENERGY STAR Single Family HERS 41-45 All Electric	E	20	Units	\$3,000.00	4	4	2,539.2	-
RNG0023	ENERGY STAR Single Family HERS 41-45 Gas	G	20	Units	\$2,100.00	6	6	-	50.8
RNE0031	ENERGY STAR Single Family HERS 46-50 All Electric	E	20	Units	\$2,000.00	20	20	1,692.8	-
RNG0024	ENERGY STAR Single Family HERS 46-50 Gas	G	20	Units	\$1,400.00	15	15	-	50.8
RNE0019	Home Energy Rating - HERs Rebate - Electric	E	20	Units	\$300.00	550	400	1,361.8	-
RNE0024	Home Energy Rating - HERs Rebate - Electric	E	20	Units	\$1,000.00	6	6	12,608.6	-
RNG0018	Home Energy Rating - HERs Rebate - Gas	G	20	Units	\$700.00	350	225	-	56.5

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RNC0017	Connected Housing ENERGY STAR OR HERS 56 or Less - Combo BONUS	C	20	Units	\$850.00	1	1	602.4	-
RNC0019	Connected Housing ENERGY STAR OR HERS 56 or Less - Combo BONUS	C	20	Units	\$1,000.00	1	1	1,784.8	-
RNC0026	ACH50 2.25 or less	C	20	Units	\$250.00	200	250	296.2	-
RNC0025	ACH50 2.75-2.26	C	20	Units	\$150.00	400	450	203.1	-
RNC0024	ACH50 3.25-2.76	C	20	Units	\$50.00	150	100	101.6	-
RNC0015	Connected Housing ENERGY STAR OR HERS 56 or Less	C	20	Units	\$700.00	100	75	674.4	-
RNC0007	ENERGY STAR - Single Family - Combination	C	20	Units	\$2,000.00	110	82	1,354.0	-
RNC0010	ENERGY STAR - Single Family - Combination	C	20	Units	\$1,000.00	6	5	628.3	-
RNC0014	ENERGY STAR - Single Family - Combination	C	20	Units	\$700.00	3	3	-	87.2
RNC0008	ENERGY STAR - Townhouse - Combination	C	20	Units	\$1,000.00	2	2	694.0	-
RNC0021	ENERGY STAR Single Family HERS 40 or Less Combination	C	20	Units	\$3,500.00	2	2	2,539.2	-
RNC0022	ENERGY STAR Single Family HERS 41-45 Combination	C	20	Units	\$2,750.00	6	6	2,539.2	-
RNC0023	ENERGY STAR Single Family HERS 46-50 Combination	C	20	Units	\$2,000.00	30	30	1,692.8	-
RNC0009	Home Energy Rating - HERs Rebate - Combination	C	20	Units	\$1,000.00	400	300	1,389.1	-
Retail Rebates Program									
RAE0325	Clothes Washer ENERGY STAR, Electric Water heater, Electric Dryer - Combination Customers	E	11	Units	\$50.00	147	147	151.5	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RAE0324	Clothes Washer ENERGY STAR, Electric Water heater, Electric Dryer - Electric Customers	E	11	Units	\$25.00	290	290	151.5	-
RAE0321	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer - Electric Customers	E	11	Units	\$25.00	89	89	74.9	-
RAG0320	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer - Gas Customers	G	11	Units	\$25.00	48	48	-	0.3
RAE0318	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer - Electric Customers	E	11	Units	\$25.00	346	346	95.4	-
RAG0317	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer - Gas Customers	G	11	Units	\$25.00	257	257	-	0.2
RAE0315	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer - Electric Customers	E	11	Units	\$25.00	515	515	18.7	-
RAG0314	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer - Gas Customers	G	11	Units	\$25.00	940	940	-	0.5
RAE0344	ENERGY STAR 8.0 TV (>60")	E	6	Units	\$75.00	5	5	286.2	-
RAE0341	ENERGY STAR 8.0 TV (31-40")	E	6	Units	\$25.00	5	5	89.0	-
RAE0342	ENERGY STAR 8.0 TV (41-50")	E	6	Units	\$50.00	5	5	137.9	-
RAE0343	ENERGY STAR 8.0 TV (51-60")	E	6	Units	\$50.00	35	35	198.9	-
RAE0337	ENERGY STAR Air Purifier CADR 101-150	E	9	Units	\$65.00	1,905	1,905	398.4	-
RAE0338	ENERGY STAR Air Purifier CADR 151-200	E	9	Units	\$65.00	150	150	476.1	-
RAE0339	ENERGY STAR Air Purifier CADR 201-250	E	9	Units	\$65.00	680	680	611.3	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RAE0336	ENERGY STAR Air Purifier CADR 51-100	E	9	Units	\$65.00	300	300	274.6	-
RAE0340	ENERGY STAR Air Purifier CADR Over 250	E	9	Units	\$65.00	865	865	814.2	-
RAE0303	ENERGY STAR Dehumidifier	E	12	Units	\$20.00	1,356	1,356	211.8	-
RAE0346	ENERGY STAR Electric Clothes Dryer	E	12	Units	\$25.00	689	689	131.7	-
RAG0337	ENERGY STAR Gas Clothes Dryer	G	12	Units	\$25.00	934	934	-	0.4
RAE0347	ENERGY STAR Heat Pump Clothes Dryer	E	12	Units	\$75.00	7	7	400.2	-
RAG0335	Low Flow Showerheads 1.75 gpm gas water heater instant markdown	G	10	Units	\$8.00	15,000	15,000	-	0.7
RAE5002	ENERGY STAR Air Purifier CADR 101-150	E	9	Units	\$50.00	200	200	398.4	-
RAE5007	ENERGY STAR Dehumidifier	E	12	Units	\$20.00	200	200	211.8	-
RAE5010	ENERGY STAR Room Air Conditioner	E	9	Units	\$20.00	15	15	52.8	-
RAG0338	Window Insulation Film Kit (3 window) - Instant	G	1	Units	\$10.00	3,000	3,000	-	5.5
RWE2000.1	Customer Amends (Electric Customer)	E	1	Units	\$50.00	1	1	-	-
RWG2000.1	Customer Amends (Gas Customer)	G	1	Units	\$205.00	1	1	-	-
RWE0003.1	Basement Wall Insulation-Electric	E	25	Units	\$50.00	2	2	44.3	-
RWG0003.1	Basement Wall Insulation-Gas	G	25	Units	\$50.00	3	3	-	4.8
RWE0004.1	Crawlspace Insulation-Electric	E	25	Units	\$10.00	2	2	11.3	-
RWG0004.1	Crawlspace Insulation-Gas	G	25	Units	\$50.00	6	6	-	2.8
RWE0009.1	Door Replacement (Per Unit) - Electric	E	25	Units	\$40.00	22	22	26.9	-
RWG0009.1	Door Replacement (Per Unit) - Gas	G	25	Units	\$40.00	110	111	-	0.9

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RWG0018.1	MIM - Roof (attic) Insulation R-38-Gas	G	20	Units	\$225.00	0	0	-	4.2
RWE0019.1	MIM - Roof (attic) Insulation R-49-Electric	E	20	Units	\$160.00	2	2	99.8	-
RWG0019.1	MIM - Roof (attic) Insulation R-49-Gas	G	20	Units	\$275.00	23	23	-	4.6
RWE0023.1	MIM - Roof (attic) Insulation R-60-Electric	E	20	Units	\$170.00	2	2	90.9	-
RWG0023.1	MIM - Roof (attic) Insulation R-60-Gas	G	20	Units	\$300.00	9	9	-	5.5
RWE0011.1	MIM - Wall Insulation - Electric	E	25	Units	\$100.00	1	1	171.6	-
RWG0011.1	MIM - Wall Insulation - Gas	G	25	Units	\$175.00	5	5	-	9.4
RWE0006.1	Rim Joist Insulation - Electric	E	25	Units	\$20.00	8	8	41.1	-
RWG0006.1	Rim Joist Insulation - Gas	G	25	Units	\$50.00	21	21	-	2.7
RWE0020.1	Roof (attic) Insulation R-30-Electric	E	20	Units	\$50.00	2	2	80.8	-
RWG0020.1	Roof (attic) Insulation R-30-Gas	G	20	Units	\$125.00	7	7	-	4.0
RWE0001.1	Roof (attic) Insulation R-38-Electric	E	20	Units	\$50.00	2	2	57.8	-
RWG0001.1	Roof (attic) Insulation R-38-Gas	G	20	Units	\$125.00	9	9	-	3.7
RWE0017.1	Roof (attic) Insulation R-49 -Electric	E	20	Units	\$60.00	11	11	84.6	-
RWG0017.1	Roof (attic) Insulation R-49 -Gas	G	20	Units	\$175.00	60	61	-	4.8
RWE0021.1	Roof (attic) Insulation R-60-Electric	E	20	Units	\$70.00	5	5	96.3	-
RWG0021.1	Roof (attic) Insulation R-60-Gas	G	20	Units	\$200.00	45	46	-	5.5
RWE0002.1	Wall Insulation-Electric	E	25	Units	\$50.00	11	11	187.4	-
RWG0002.1	Wall Insulation-Gas	G	25	Units	\$125.00	36	37	-	10.4
RWE0008.1	Window Replacement (Per Unit) - Electric	E	25	Units	\$15.00	626	635	10.1	-
RWG0008.1	Window Replacement (Per Unit) - Gas	G	25	Units	\$15.00	2,166	2,197	-	0.4

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RAE5015	Tier 1 Advanced Power Strips	E	5	Units	\$10.00	1,000	1,000	59.1	-
RAE0304	ENERGY STAR Room A C	E	9	Units	\$20.00	1,032	1,032	52.8	-
RAE0310	Wi-Fi Enabled Thermostat - Electric Customers	E	9	Units	\$75.00	330	330	112.6	-
RAG0311	Wi-Fi Enabled Thermostat - Gas Customers	G	9	Units	\$75.00	500	500	-	4.4
RAE0329	Wi-Fi Enabled Thermostat - Tier 3 - Electric Customers	E	9	Units	\$75.00	800	800	114.5	-
RAG0330	Wi-Fi Enabled Thermostat - Tier 3 - Gas Customers	G	9	Units	\$75.00	2,000	2,000	-	4.0
RAE5008	Wi-Fi Enabled Thermostat - Electric Customers	E	9	Units	\$75.00	1,250	1,250	116.2	-
RAG5002	Wi-Fi Enabled Thermostat - Gas Customers	G	9	Units	\$75.00	1,750	1,750	-	4.3
RAE5009	Wi-Fi Enabled Thermostat - Tier 3 - Electric Customers	E	9	Units	\$75.00	6,000	6,000	114.0	-
RAG5003	Wi-Fi Enabled Thermostat - Tier 3 - Gas Customers	G	9	Units	\$75.00	5,500	5,500	-	3.5
RAG5007	Window Insulation Film (5 window kit)	G	1	Units	\$11.00	4,000	4,000	-	3.5
RAE0354	ENERGY STAR Pool Pump (Above ground)	E	7	Units	\$125.00	25	25	251.2	-
RAE0353	ENERGY STAR Pool Pump (In-ground)	E	7	Units	\$125.00	175	175	1,361.6	-
RAE0345	ENERGY STAR Continuous Bathroom Exhaust Fan	E	15	Units	\$40.00	3,141	3,141	49.9	-
RAE0351	Freezers ENERGY STAR - Chest Freezer	E	21	Units	\$25.00	119	119	27.8	-
RAE0350	Refrigerators Freezers ENERGY STAR - Bottom Freezer	E	16	Units	\$25.00	1,313	1,313	55.1	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RAE0348	Refrigerators Freezers ENERGY STAR - Side by Side	E	16	Units	\$25.00	202	202	51.9	-
RAE0349	Refrigerators Freezers ENERGY STAR - Top Freezer	E	16	Units	\$25.00	269	269	37.5	-
RAE0352	Tier 1 Advanced Power Strips	E	5	Units	\$12.00	12,923	12,923	59.1	-
RWG0022.1	MIM - Roof (attic) Insulation R-30- Gas	G	20	Units	\$225.00	1	1	-	2.7
RWE0018.1	MIM - Roof (attic) Insulation R-38- Electric	E	20	Units	\$150.00	1	1	69.1	-
RWE0024.1	Triple Pane Window - Electric	E	25	Units	\$15.00	35	4	10.2	-
RWG0024.1	Triple Pane Window - Gas	G	25	Units	\$15.00	426	432	-	0.3
RAE5017	Low Flow Bathroom Faucet Aerators - 1.5 gpm electric water heater	E	10	Units	\$5.00	34	34	36.8	-
RAG5004	Low Flow Bathroom Faucet Aerators - 1.5 gpm gas water heater	G	10	Units	\$5.00	175	175	-	0.2
RAE5018	Low Flow Kitchen Faucet Aerators - 1.5 gpm electric water heater	E	10	Units	\$5.00	55	55	256.7	-
RAG5005	Low Flow Kitchen Faucet Aerators - 1.5 gpm gas water heater	G	10	Units	\$5.00	280	280	-	1.1
RAE5019	Low Flow Showerheads 1.5 gpm electric water heater	E	10	Units	\$10.00	122	122	307.3	-
RAG5006	Low Flow Showerheads 1.5 gpm gas water heater	G	10	Units	\$10.00	561	561	-	1.3
RAE0322	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer - Combination Customers	C	11	Units	\$50.00	55	55	74.9	-
RAG0319	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer - Combination Customers	C	11	Units	\$50.00	461	461	95.4	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RAG0316	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer - Combination Customers	C	11	Units	\$50.00	450	450	18.7	-
RWC2000.1	Customer Amends (Combination Customer)	C	1	Units	\$190.00	1	1	-	-
RWC0003.1	Basement Wall Insulation-Combo	C	25	Units	\$50.00	2	2	26.8	-
RWC0004.1	Crawlspace Insulation-Combo	C	25	Units	\$50.00	5	5	(7.0)	-
RWC0009.1	Door Replacement (Per Unit) - Combo	C	25	Units	\$40.00	32	32	18.8	-
RWC0018.1	MIM - Roof (attic) Insulation R-38-Combo	C	20	Units	\$225.00	0	0	76.0	-
RWC0019.1	MIM - Roof (attic) Insulation R-49-Combo	C	20	Units	\$275.00	4	4	81.9	-
RWC0023.1	MIM - Roof (attic) Insulation R-60-Combo	C	20	Units	\$300.00	5	5	80.2	-
RWC0011.1	MIM - Wall Insulation - Combo	C	25	Units	\$175.00	1	1	154.6	-
RWC0006.1	Rim Joist Insulation - Combo	C	25	Units	\$50.00	13	13	36.7	-
RWC0020.1	Roof (attic) Insulation R-30-Combo	C	20	Units	\$125.00	6	6	68.2	-
RWC0001.1	Roof (attic) Insulation R-38-Combo	C	20	Units	\$125.00	6	6	63.2	-
RWC0017.1	Roof (attic) Insulation R-49-Combo	C	20	Units	\$175.00	18	19	78.5	-
RWC0021.1	Roof (attic) Insulation R-60-Combo	C	20	Units	\$200.00	14	14	78.1	-
RWC0002.1	Wall Insulation-Combo	C	25	Units	\$125.00	26	26	136.4	-
RWC0008.1	Window Replacement (Per Unit) - Combo	C	25	Units	\$15.00	912	926	9.8	-
RAC0309	Wi-Fi Enabled Thermostat - Combination Customers	C	9	Units	\$75.00	450	450	112.1	-
RAC0328	Wi-Fi Enabled Thermostat - Tier 3 - Combination Customers	C	9	Units	\$75.00	1,500	1,500	132.8	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RAC5002	Wi-Fi Enabled Thermostat - Combination Customers	C	9	Units	\$75.00	1,000	1,000	112.2	-
RAC5003	Wi-Fi Enabled Thermostat - Tier 3 - Combination Customers	C	9	Units	\$75.00	9,000	9,000	105.1	-
RWC0024.1	Triple Pane Window - Combo	C	25	Units	\$15.00	45	45	9.6	-
Think! Energy Program									
REE0007	Tier 1 Advanced Power Strip	E	5	Units	\$0.00	6,000	6,000	43.4	-
REE0000	Elementary Education Kits - Materials, Bag, Shower Timer, Flow Bag, Pipe Tape, shipping	E	1	Units	\$0.00	28,825	28,825	-	-
REG0000	Elementary Education Kits - Materials, Bag, Shower Timer, Flow Bag, Pipe Tape, shipping	G	1	Units	\$0.00	25,456	25,456	-	-
EENEW11	Outreach Kits - materials, packaging, flow bag, pipe tape, shipping	E	1	Units	\$0.00	1,577	1,577	-	-
EENEW12	Outreach Kits - materials, packaging, flow bag, pipe tape, shipping	G	1	Units	\$0.00	1,897	1,897	-	-
EENEW10	Primary Education Kits - Materials, Packaging, flow bag, shipping	G	1	Units	\$0.00	6,000	6,000	-	-
EENEW9	Primary Education Kits - Materials, Packaging, flow bag, shipping	E	1	Units	\$0.00	6,000	6,000	-	-
EENEW7	Secondary Education Kits - Materials, packaging, Flow Bag, Pipe Tape, shipping	E	1	Units	\$0.00	5,300	5,300	-	-
EENEW8	Secondary Education Kits - Materials, packaging, Flow Bag, Pipe Tape, shipping	G	1	Units	\$0.00	5,000	5,000	-	-
REE0016	LED Task Light	E	12	Units	\$0.00	25,027	25,027	28.7	-
REE0011	Door Weatherstripping	E	5	Units	\$0.00	58,654	58,654	1.6	-
REG0012	Door Weatherstripping	G	5	Units	\$0.00	65,606	65,606	-	0.1

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
REE0005	LED Night Light	E	12	Units	\$0.00	74,154	74,154	16.8	-
REE0010	Window Insulation Kit	E	1	Units	\$0.00	15,027	15,027	40.3	-
REG0011	Window Insulation Kit	G	1	Units	\$0.00	20,028	20,028	-	3.4
REE0012	Low Flow Bath Faucet Aerators - Education (1.0 GPM) - Electric	E	10	Units	\$0.00	12,242	12,242	39.7	-
REG0009	Low Flow Bath Faucet Aerators - Education (1.0 GPM) - Gas	G	10	Units	\$0.00	57,015	57,015	-	0.1
REE0013	Low Flow Kitchen Faucet Aerators (1.5 GPM) - Electric	E	10	Units	\$0.00	5,158	5,158	87.8	-
REG0005	Low Flow Kitchen Faucet Aerators (1.5 GPM) - Gas	G	10	Units	\$0.00	24,031	24,031	-	0.4
REE0014	Low Flow Showerheads - Education (1.5 GPM) - Electric	E	10	Units	\$0.00	6,068	6,068	170.8	-
REG0008	Low Flow Showerheads - Education (1.5 GPM) - Gas	G	10	Units	\$0.00	28,181	28,181	-	0.7
REE0015	Pipe Insulation R-3 (Electric)	E	15	Units	\$0.00	36,409	36,409	22.4	-
REG0002	Pipe Insulation R-3 (Gas)	G	15	Linear Feet	\$0.00	169,090	169,090	-	0.1
Prescriptive Program									
CSG0054	Gas Dishwasher	G	10	Units	\$250.00	3	3	-	9.3
CBE0405	Farm Energy Audit as Defined By USDA (Tier 2) (EO)	E	1	Units	\$1,500.00	1	1	-	-
CAE0007	Compressed Air Energy Audit	E	1	HP	\$15.00	23	22	63,876.9	-
RAI0019	Farm Energy Audit as Defined By USDA (Tier 2) (EO)	E	1	Units	\$1,500.00	2	2	-	-
CBE0401	Buy Michigan (Incentives Only) (EO)	E	1	Units	\$1.00	88,724	84,288	-	-
CBG0400	Buy Michigan (Incentives Only) (GO)	G	1	Units	\$1.00	31,815	31,815	-	-
CBE0406	Rollover Bonus (Electric Incentives)	E	1	Units	\$1.00	41,371	39,302	-	-
CBG0404	Rollover Bonus (Gas Incentives)	G	1	Units	\$1.00	859	859	-	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CBE0411	Year-End Bonus (Incentives Only)	E	1	Units	\$1.00	441,719	419,633	-	-
CBG0409	Year-End Bonus (Incentives Only) (GO)	G	1	Units	\$1.00	150,427	150,427	-	-
RAI0017	Buy Michigan (Incentives Only) (EO)	E	1	Units	\$1.00	270	257	-	-
CBE0003	Cool (White) Roof (EO)	E	20	Square Feet	\$0.02	563,092	534,937	0.1	-
CSE0132	High Performance Glazing in Windows (EO)	E	20	Square Feet	\$0.25	13,910	13,214	4.2	-
CSG0012	Roof Insulation - Attic Roof	G	30	Square Feet	\$0.30	4,508	4,508	-	0.0
CSG0033	Roof Insulation R10 to R18 (GO)	G	30	Square Feet	\$0.16	350,000	350,000	-	0.0
CSG0035	Roof Insulation R12 to R18 (GO)	G	30	Square Feet	\$0.12	79,248	79,248	-	0.0
CSG0037	Roof Insulation R14 to R18 (GO)	G	30	Square Feet	\$0.08	140,000	140,000	-	0.0
CSG0039	Roof Insulation R16 to R18 (GO)	G	30	Square Feet	\$0.02	151,540	151,540	-	0.0
CSG0041	Roof Insulation R18 to R20 (GO)	G	30	Square Feet	\$0.02	601,485	601,485	-	0.0
CSG0043	Roof Insulation R20 to R22 (GO)	G	30	Square Feet	\$0.02	581,775	581,775	-	0.0
CSG0045	Roof Insulation R22 to R24 (GO)	G	30	Square Feet	\$0.02	533,280	533,280	-	0.0
CSG0006	Wall Insulation - Gas Customer	G	30	Square Feet	\$0.60	1,105	1,105	-	0.1
CHE0148	ECM Fan Motor For Cold Storage Evaporator (Agriculture)	E	15	HP	\$100.00	3	3	458.1	-
CSE0001	Beverage Vending Machine Controller	E	10	Units	\$65.00	8	8	682.3	-
CSE0178	Snack machine vending miser	E	5	Units	\$25.00	2	2	292.1	-
CSE0011	AntiSweat Heater Controls	E	12	Units	\$75.00	60	57	1,547.2	-
CSE0020	Case EC Motor	E	15	Units	\$90.00	40	38	702.7	-
CSE0166	Cooler or Freezer Defrost Control	E	10	Tons	\$20.00	28	27	138.4	-
CSE0099	Door Gasket Seals	E	4	Linear Feet	\$5.00	422	401	83.6	-
CHE0164	ENERGY STAR® Commercial Solid Door Refrigerators (15 - 30 cu ft)	E	12	Units	\$75.00	4	4	212.4	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CHE0165	ENERGY STAR® Commercial Solid Door Refrigerators (30 - 50 cu ft)	E	12	Units	\$75.00	4	4	208.9	-
CHE0167	ENERGY STAR® Commercial Solid Door Refrigerators (LT 15 cu ft)	E	12	Units	\$50.00	4	4	208.9	-
CSE0026	Evaporator Fan Control (EC motor)	E	5	Units	\$35.00	42	40	281.4	-
CSE0184	Evaporator Fan Controls with Demand Defrost for Walk-in Cooler	E	10	Tons	\$5.50	63	60	37.0	-
CSE0183	Evaporator Fan Controls with Demand Defrost for Walk-in Freezer	E	10	Tons	\$45.00	2	2	321.2	-
CSE0088	Floating Suction Pressure Control	E	15	Units	\$125.00	958	910	1,078.0	-
CSE0007	Night Covers	E	5	Linear Feet	\$20.00	724	688	14.4	-
CSE0027	Reach-In Refrigerated Case Door; Medium Temp - Electric Customers	E	12	Linear Feet	\$45.00	108	103	489.5	-
CSE0168	Scroll Refrigeration Compressor	E	15	Tons	\$40.00	25	24	330.0	-
CBC0003	Strip Curtains (Cooler 40F)	E	4	Square Feet	\$8.00	37	35	72.5	-
CBC0004	Strip Curtains (Freezer 0F)	E	4	Square Feet	\$25.00	18	17	387.2	-
CSE0114	Walk-In Cooler Evaporator Motor Reduction	E	15	Units	\$250.00	2	2	1,246.9	-
CSE0089	Walk-in EC Motor replacing non-EC Motor	E	15	Units	\$150.00	2,274	2,160	1,164.1	-
CHE0070	Hydronic HVAC Pump Control (EO)	E	15	HP	\$80.00	30	29	1,835.8	-
CSE0016	Network Power Management Software	E	4	PCs Controlled	\$12.00	109	104	115.1	-
CAE0068	Compressed Air Energy Audit with Metered Flow with VSD	E	1	HP	\$30.00	46	44	63,266.1	-
CAE0067	Compressed Air Energy Audit with VSD	E	1	HP	\$25.00	29	28	66,031.3	-
CAE0024	Correct Sizing Compressed Air Systems - Electric	E	25	Participant	\$3,166.67	10	10	61,268.4	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CLE0085	Tier 1 ALC (Manufacturing, Warehousing, Industrial, and Parking Lots)	E	16	kWh	\$72,592.14	30	29	242,651.6	-
CLE0086	Tier 2 ALC (Commercial, Offices, Schools, and Hospitals)	E	16	kWh	\$67,703.22	45	43	357,070.4	-
CHG0271	Steam Traps (Custom)	G	6	Units	\$1,779.84	5	5	-	952.1
CRE0012	Air-Cooled Condenser - Electric DWH - HVAC or Process Applications	E	15	Tons	\$500.00	20	19	3,261.3	-
CME0022	Constant Volume AHU to VAV with Hydronic Reheat (Electric)	E	20	Square Feet	\$0.60	13,345	12,678	7.4	-
CRC0011	Enthalpy Wheels ERUs	G	15	CFM	\$0.40	50,000	50,000	-	0.1
CSG0024	Fixed-Plate Energy Recovery Unit (GO)	G	15	CFM	\$0.35	5,705	5,705	-	0.1
CHG0235	Process Boiler Stack Economizers (80-199 degrees)	G	15	Units	\$0.75	250,000	250,000	-	0.0
CSG0060	Refrigeration Waste Heat Recovery Decreasing HVAC Heating Load (GO)	G	15	Tons	\$125.00	1,000	1,000	-	17.3
CRG0015	Water-Cooled Condenser - Gas DWH - HVAC or Process Applications	G	15	Tons	\$150.00	34	34	-	11.3
CSE0104	Ag Circulation, Exhaust, or Vent Fans (24 inch to 35 inch Fan blade diam)	E	7	Units	\$30.00	232	220	317.4	-
CSE0105	Ag Circulation, Exhaust, or Vent Fans (36 inch to 47 inch Fan blade diam)	E	7	Units	\$50.00	28	27	533.2	-
CSE0106	Ag Circulation, Exhaust, or Vent Fans (48 inch to 71 inch Fan blade diam)	E	7	Units	\$100.00	786	747	957.2	-
CHG0116	Boiler Reset Control	G	15	MBH	\$0.70	15,571	15,571	-	0.1
CHE0065	Chilled Water Reset Retrofit (10 degrees) - Electric	E	5	Tons	\$30.00	9,000	8,550	103.0	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CHE0066	Chilled Water Reset Retrofit (5 degrees) - Electric	E	5	Tons	\$15.00	500	475	35.9	-
CHG0232	Combination Boiler Oxygen Trim Control and Linkageless Boiler Controls (HVAC)	G	5	MBH	\$0.60	68,991	68,991	-	0.0
CHG0233	Combination Boiler Oxygen Trim Control and Linkageless Boiler Controls (Process)	G	15	MBH	\$1.00	600,000	600,000	-	0.1
CHE0069	Critical Zone Supply Air Reset Control (EO)	E	15	Tons	\$25.00	250	238	201.2	-
CHG0013	Demand Control Ventilation	G	15	Square Feet	\$0.10	914,466	914,466	-	0.0
CHE0141	Demand Control Ventilation and Occupancy Sensors for HVAC - Air Conditioning (Electric-Only)	E	15	Square Feet	\$0.04	318,965	303,017	0.0	-
CHG0236	Demand Control Ventilation and Occupancy Sensors for HVAC - Natural Gas Heat (Gas-Only)	G	15	Square Feet	\$0.30	5,216	5,216	-	0.1
CHE0144	Enhanced Ventilation Control - Air Conditioning (Consumers Energy Electric)	E	10	Tons	\$50.00	3	3	319.1	-
CHG0237	Enhanced Ventilation Control - Natural Gas Heat (Consumers Energy Natural Gas)	G	10	Tons	\$75.00	1	1	-	6.8
CHG0230	GO Programmable Thermostat	G	9	Units	\$40.00	77	77	-	0.0
CHG0012	Guestroom Energy Management Control - Gas Customer	G	8	Units	\$80.00	399	399	-	5.3
CSE0002	Guestroom Energy Management Control (electric heat)	E	8	Units	\$80.00	186	177	950.1	-
CHG0210	Linkageless Boiler Control (Process)	G	15	MBH	\$0.75	5,000	5,000	-	0.1
CHG0208	Modulating Burner Control (Process)	G	15	MBH	\$1.25	400,000	400,000	-	0.1

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CHE0063	Occupancy Sensor Controls on HVAC Units (Electric)	E	15	Square Feet	\$0.04	117,307	111,442	0.1	-
CHG0059	Occupancy Sensor Controls on HVAC Units (Gas)	G	15	Square Feet	\$0.04	100,000	100,000	-	0.0
CHE0067	Optimal Start Stop on Air Handling Units (EO)	E	20	Square Feet	\$0.07	1,275,312	1,211,546	1.3	-
CHG0055	Optimal Start Stop on Air Handling Units (Gas)	G	20	Square Feet	\$0.05	3,000,000	3,000,000	-	0.0
CHG0053	Optimized Boiler Plant Sequencing	G	15	MBH	\$0.40	500,000	500,000	-	0.1
CHG0207	Optimized Boiler Plant Sequencing (Process)	G	15	MBH	\$1.00	250,000	250,000	-	0.1
CHE0135	Optimized Chiller Plant Sequencing	E	15	Tons	\$4.00	4,337	4,120	28.0	-
CHE0118	Web Based Building Automatic Systems (BAS) EO	E	15	Square Feet	\$0.15	924,238	878,026	0.2	-
CHG0227	Web Based Building Automatic Systems (BAS) GO	G	15	Square Feet	\$0.40	35	35	-	659.9
CHE0003	AC GT 240,000 Btuh (20 tons) and LT or EQ 760,000 Btuh (63.3 tons)	E	15	Tons	\$30.00	68	65	25.6	-
CHE0004	AC GT 760,000 Btuh (63.3 tons)	E	15	Tons	\$30.00	18	17	38.1	-
CHE0001	AC LT 65,000 Btuh (5.4 tons)	E	15	Tons	\$30.00	370	352	83.3	-
CHE0029	AC Units GT 120,000 Btuh (10 tons) and LT or EQ 240,000 Btuh (20 tons)	E	15	Tons	\$40.00	75	71	16.2	-
CHE0028	AC Units GT 65,000 Btuh (5.4 tons) and LT =120,000 Btuh (10 tons)	E	15	Tons	\$40.00	140	133	31.4	-
CHE0156	Air-Cooled Chillers < 150 ton - PATH A	E	20	Tons	\$7.00	8	8	10.1	-
CHE0157	Air-Cooled Chillers < 150 ton - PATH B	E	20	Tons	\$7.00	1	1	6.6	-
CHE0158	Air-Cooled Chillers >= 150 ton - PATH A	E	20	Tons	\$7.00	2	2	5.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CHE0159	Air-Cooled Chillers >= 150 ton - PATH B	E	20	Tons	\$7.00	163	155	9.0	-
CHG0266	Condensing Rooftop Unit	G	15	kBtu/h	\$20.00	10	10	-	0.2
CHG0216	Destratification Fans	G	15	Square Feet	\$0.20	3,000	3,000	-	0.0
CHG0211	Direct Fired Makeup	G	15	MBH	\$1.50	150,000	150,000	-	0.2
CHG0014	High Efficiency Boiler with AFUE GT or EQ 86% and LT 90%	G	20	MBH	\$1.50	2,354	2,354	-	0.1
CHG0016	High Efficiency Boiler with AFUE GT or EQ 90%	G	20	MBH	\$2.00	350,000	350,000	-	0.1
CHG0265	High Efficiency Furnace >120 MBH, 95% AFU	G	15	Units	\$350.00	200	200	-	29.4
CHG0260	High Efficiency Furnace d120 MBH, 95% AFUE	G	15	Units	\$270.00	900	900	-	15.3
CHG0058	High Efficiency Furnace or Unit Heater (92-94% AFUE)	G	15	MBH	\$2.50	25	25	-	0.2
CHG0061	High Efficiency Furnace or Unit Heater (GT 94% AFUE)	G	15	MBH	\$3.00	10	10	-	0.3
CSE0098	High Volume, Low Speed Fans	E	10	Units	\$400.00	5	5	5,609.0	-
CHG0212	HVAC Steam Boilers	G	20	MBH	\$2.00	100,968	100,968	-	0.0
CHG0010	Infrared Heaters - Gas Customer Only	G	15	MBH	\$5.00	40,000	40,000	-	0.3
CHE0168	Water-Cooled Centrifugal Chiller < 150 ton Path A Baseline	E	20	Tons	\$10.00	12	11	7.4	-
CHE0172	Water-Cooled Centrifugal Chiller >= 300 ton and < 400 ton Path A - 0.01 kW/ton FLV Reduction	E	20	Tons	\$10.00	150	143	24.8	-
CHE0183	Water-Cooled Screw Chiller >= 300 ton and < 600 ton Path B - 0.01 kW/ton IPLV Reduction	E	20	Tons	\$10.00	3	3	16.3	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CHE0184	Water-Cooled Screw Chiller >= 600 ton Path A - 0.01 kW/ton FLV Reduction	E	20	Tons	\$10.00	71	67	17.2	-
CHE0185	Water-Cooled Screw Chiller >= 600 ton Path B - 0.01 kW/ton IPLV Reduction	E	20	Tons	\$10.00	417	396	6.3	-
CHE0186	Water-Cooled Screw Chiller >= 75 ton and < 150 ton Path A - 0.01 kW/ton FLV Reduction	E	20	Tons	\$10.00	1	1	8.7	-
CHE0187	Water-Cooled Screw Chiller >= 75 ton and < 150 ton Path B - 0.01 kW/ton IPLV Reduction	E	20	Tons	\$10.00	3	3	6.9	-
CRE0002	Process Fan Ventilation Reduction	E	15	CFM	\$0.15	2,616	2,485	1.9	-
CPG0013	High Efficiency Furnace (GT or EQ 95% AFUE) d 120	G	15	kBtu/h	\$6.35	10	10	-	0.2
CPG0009	Steam Traps	G	6	Units	\$75.00	100	100	-	13.4
CME0029	Cogged V-Belt Drives (1-hp to 25-hp)	E	14	HP	\$5.00	95	90	66.0	-
CME0030	Cogged V-Belt Drives (30-hp to 500-hp)	E	14	HP	\$2.50	191	181	60.0	-
CWG0013	Pipe Wrap - Steam Space Heating	G	20	Linear Feet	\$6.00	122	122	-	1.3
CSG0065	Supply Air Ductwork Insulation (Exterior Space)	G	25	Square Feet	\$3.00	20,000	20,000	-	0.3
CSE0148	No Heat Reach-In Case Doors - Without Anti-Sweat Heater Control	E	15	Units	\$200.00	70	67	1,669.9	-
RAI0021	Ag Circulation, Exhaust, or Vent Fans (36 inch to 47 inch Fan blade diam)	E	7	Units	\$50.00	3	3	539.0	-
RAI0022	Ag Circulation, Exhaust, or Vent Fans (48 inch to 71 inch Fan blade diam)	E	7	Units	\$100.00	24	23	967.5	-
CHG0257	Steam Traps (Express Application)	G	6	Units	\$175.00	500	500	-	26.0

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CWE0029	Air and Water-Cooled Chiller Tune-up (1000+ Tons)	E	5	Project	\$7,500.00	23	22	153,678.0	-
CHE0146	Air and Water-Cooled Chiller Tune-up (150+ Tons)	E	5	Units	\$1,250.00	130	124	60,772.3	-
CHE0145	Air and Water-Cooled Chiller Tune-up (20-149 Tons)	E	5	Units	\$500.00	70	67	6,623.8	-
CHG0023	Boiler Tune-up Level 1 (GT or EQ 110 and 500 kbtu h)	G	2	Units	\$150.00	45	45	-	16.5
CHG0024	Boiler Tune-up Level 2 (GT or EQ 500 and	G	2	Units	\$250.00	105	105	-	22.8
CHG0025	Boiler Tune-up Level 3 (GT or EQ 1200 kbtu h)	G	2	Units	\$350.00	250	250	-	71.1
CHG0021	Gas Furnace or RTU Tune-up (GT or EQ 300 MBH)	G	2	Units	\$125.00	6	6	-	11.0
CHG0019	Gas Furnace or RTU Tune-up (GT or EQ 40 and	G	2	Units	\$100.00	37	37	-	84.3
CHG0270	Steam Trap Monitoring System - Process	G	10	Units	\$80.00	8	8	-	9.7
CHE0136	Ductless Air Conditioning Unit or Heat Pump System	E	15	Tons	\$50.00	30	29	242.8	-
CME0063	2 Speed RTU Supply Fan	E	10	Tons	\$20.00	28	27	232.8	-
CME0014	EC Motors	E	20	HP	\$100.00	1,721	1,635	1,149.6	-
CME0074	Integrated Variable Speed Motor (ECM) for Exterior Condenser Fans	E	15	HP	\$30.00	208	198	171.7	-
CME0064	VFD on Condenser Fan - HVAC	E	15	Tons	\$50.00	450	428	425.7	-
CME0062	VFD on Cooling Tower Fan	E	15	HP	\$40.00	5	5	108.0	-
CME0057	VFD on HVAC Hydronic Heating Water Pump up to 100 HP	E	15	Units	\$100.00	82	78	15,336.5	-
CME0055	VFD on HVAC Return Fan up to 100 HP	E	15	Units	\$70.00	29	28	2,692.2	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CME0054	VFD on HVAC Supply Fan up to 100 HP	E	15	Units	\$70.00	138	131	4,775.4	-
CHE0233	Data Room Hot/Cold Aisle Configuration - Glycol Cooled - Class1 - 10degrees	E	15	Mbh	\$20.00	139	132	104.6	-
CLE0069	LED Grow Lights	E	11	Watts Removed	\$0.70	1,879,980	1,785,981	4.6	-
CLE0056	2-Foot T12 to 2-Foot LED Tube Light	E	18	Units	\$2.50	80	76	35.0	-
CLE0057	2-Foot T8 to 2-Foot LED Tube Light	E	18	Units	\$1.00	448	426	19.1	-
CLE0099	3-Foot T12 to 3-Foot LED Tube Light	E	18	Lamps Removed	\$3.50	1	1	62.4	-
CLE0100	3-Foot T8 to 3-Foot LED Tube Light	E	18	Lamps Removed	\$2.00	266	253	40.7	-
CLE0058	4-Foot T12 to 4-Foot LED Tube Lights	E	18	Units	\$5.00	20,000	19,000	57.0	-
CLE0083	4-Foot T5 to One (1) 4-Foot LED Tube Light	E	18	Units	\$3.00	3,032	2,880	41.3	-
CLE0088	4-Foot T5 to One (1) 4-Foot LED Tube Light (High Bay GT or EQ 15 ft)	E	16	Units	\$4.00	98	93	117.4	-
CLE0059	4-Foot T8 to 4-Foot LED Tube Lights	E	18	Units	\$3.00	50,000	47,500	42.2	-
CLE0087	4-Foot T8 to One (1) 4-Foot LED Tube Light (High Bay GT or EQ 15 ft)	E	18	Units	\$4.00	10,797	10,257	44.3	-
CLE0097	8-Foot T12 to One (1) 8-Foot LED Tube Light	E	18	Lamps Removed	\$10.00	2,053	1,950	76.4	-
CLE0060	8-Foot T12 to Two 4-Foot LED Tube Lights	E	18	Units	\$10.00	430	409	106.7	-
CLE0098	8-Foot T8 to One (1) 8-Foot LED Tube Light	E	18	Lamps Removed	\$7.00	747	710	44.9	-
CLE0062	8-Foot T8 to Two 4-Foot LED Tube Lights	E	18	Units	\$7.00	388	369	75.2	-
CLE0030	Lamp Removal - Remove 4-foot T12 fluorescent lamp (with T8 ballast retrofit)	E	15	Lamps Removed	\$5.00	9,749	9,262	60.4	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CLE0031	Lamp Removal - Remove 8-foot T12 fluorescent lamp (with T8 ballast retrofit)	E	15	Lamps Removed	\$12.00	553	525	93.0	-
CSE0017	Lighting Power Density	E	15	Watts Removed	\$0.30	3,232,963	3,071,315	2.8	-
CSE0049	Lighting Power Density (Exterior)	E	12	Watts Removed	\$0.45	387,350	367,983	3.7	-
CSE0067	Lighting Power Density (Parking Garage)	E	12	Watts Removed	\$0.80	56,856	54,013	7.5	-
CFE0009	Neon to LED Sign Lighting Retrofit (Commercial Hours)	E	13	Watts Removed	\$0.25	41,907	39,812	2.3	-
CFE0006	Neon to LED Sign Lighting Retrofit (Continuous Operation)	E	6	Watts Removed	\$0.50	1,558	1,480	7.5	-
CLE0072	Parking Garage LED Lighting Retrofit	E	16	Watts Removed	\$0.60	77,380	73,511	7.5	-
CLE0082	T8 or T12 2 or 3-Foot Lamp Removal	E	15	Lamps Removed	\$1.50	11	10	54.8	-
CLE0033	Central Lighting Control	E	12	Square Feet	\$0.06	276,639	262,807	0.7	-
CSE0112	Daylight Sensor Controls (Watts)	E	12	Watts Controlled	\$0.09	1,421,249	1,350,187	0.7	-
CLE0095	Exterior Lighting Occupancy Sensors	E	10	Watts Controlled	\$0.25	22,600	21,470	3.0	-
CLE0066	Exterior Multi-Step Dimming Controls	E	8	Watts Controlled	\$0.15	141	134	1.5	-
CLE0050	Exterior Multi-Step Dimming Occ Sensor	E	8	Watts Controlled	\$0.15	36,410	34,590	1.5	-
CSE0171	Interior Lighting Occupancy Sensors (< 150 Sq. Ft.)	E	10	Units	\$12.00	5,151	4,893	81.9	-
CSE0172	Interior Lighting Occupancy Sensors (>= 150 and <= 500 Sq. Ft.)	E	10	Units	\$35.00	5,917	5,621	245.8	-
CSE0173	Interior Lighting Occupancy Sensors (>= 500 Sq. Ft.)	E	10	Units	\$85.00	237	225	614.6	-
CLE0017	Lighting Occupancy Sensors	E	10	Watts Controlled	\$0.08	63,479	60,305	0.7	-
CLE0065	Stairwell Lighting Controls	E	9	Watts Controlled	\$0.40	3,677	3,493	4.1	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CSE0094	Interior Lighting Occupancy and Daylight Sensors Controls	E	10	Watts Controlled	\$0.12	38,658	36,725	0.9	-
CSE0013	LED Lighting for Refrigeration Cases	E	16	Linear Feet	\$10.00	3,131	2,974	143.3	-
CSE0021	LED Lighting Occupancy Sensor for Refrigeration Cases	E	16	Units	\$20.00	40	38	75.9	-
RAI0050	4-Foot T12 to 4-Foot LED Tube Lights	E	18	Units	\$5.00	62	59	57.6	-
RAI0059	4-Foot T8 to 4-Foot LED Tube Lights	E	18	Units	\$3.00	24	23	42.6	-
RAI0051	8-Foot T12 to Two 4-Foot LED Tube Lights	E	18	Units	\$10.00	12	11	107.9	-
RAI0027	Exterior LED Lighting Retrofit	E	16	Watts Removed	\$0.65	30,407	28,887	3.7	-
RAI0026	Interior LED Lighting (High Bay GT OR EQ 18 ft)	E	16	Watts Removed	\$0.40	77,559	73,681	3.6	-
RAI0034	Interior LED Lighting (Low Bay LT 18 ft)	E	18	Watts Removed	\$0.35	6,504	6,179	2.3	-
RAI0072	Lamp Removal - Remove 4-foot T12 fluorescent lamp (with T8 ballast retrofit)	E	15	Lamps Removed	\$5.00	4	4	61.0	-
RAI0011	Lighting Power Density	E	15	Watts Removed	\$0.30	14,524	13,798	2.3	-
RAI0031	Lighting Power Density (Exterior)	E	12	Watts Removed	\$0.45	2,937	2,790	3.7	-
RAI0060	New Linear LED Tube Fixture (High Bay GT OR EQ 15 ft)	E	16	Watts Removed	\$0.55	19,120	18,164	3.6	-
CHE0142	Computer Room Air Conditioning - Glycol Economizer	E	15	MBH	\$60.00	150	143	282.3	-
CSE0092	Dairy Refrigeration Tune-up	E	5	Units	\$0.04	1,473,467	1,399,794	0.1	-
CHG0222	Fan Thermostat Controller	E	15	Units	\$190.00	4,000	3,800	1,677.2	-
CSE0101	Grain Storage Temperature Moisture Controller	E	15	HP	\$50.00	20	19	297.6	-
CSG0004	Greenhouse Heat Curtains	G	5	Square Feet	\$0.25	400,000	400,000	-	0.0

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CSG0051	Greenhouse Infrared Film replacing double layer with double layer	G	5	Square Feet	\$0.15	3,500,500	3,500,500	-	0.0
CSG0050	Greenhouse Infrared Film replacing single layer with double layer	G	4	Square Feet	\$0.50	75,000	75,000	-	0.0
CSE0110	Low-Energy Livestock Waterer	E	10	Units	\$125.00	70	67	1,361.1	-
CSE0121	Milk Pre-Cooler (Heat Exchanger, Chiller Savings)	E	15	Units	\$0.20	396,430	376,609	1.0	-
CSE0157	Scroll Compressor for Dairy Refrigeration (With Heat Exchange)	E	15	Units	\$0.08	7,929	7,533	0.4	-
CSE0102	Sprinkler to Drip Irrigation	E	15	Units	\$50.00	68	64	157.8	-
CAE0021	Variable Speed Controller for Vacuum Pump	E	10	HP	\$100.00	40	38	509.8	-
CAE0022	Variable Speed Controller on Milk Pump with Existing Milk Pre-Cooler	E	15	Units	\$0.10	9,768	9,280	0.5	-
CAE0023	Variable Speed Controller on Milk Pump with New Milk Pre-Cooler	E	15	Units	\$0.14	216,064	205,260	1.0	-
CME0033	VFD on Ag Fans (GT 2,000) - Electric	E	15	HP	\$80.00	214	203	665.2	-
CME0034	VFD on Ag Pumps (750 - 2,000) - Electric	E	15	HP	\$40.00	1	1	123.7	-
CME0035	VFD on Ag Pumps (GT 2,000) - Electric	E	15	HP	\$50.00	3	3	370.1	-
CAE0034	VSD on Ag Irrigation	E	10	HP	\$40.00	205	195	166.3	-
CSG0071	Modulating Burner on Makeup Air Handling Unit (Continuous Operation)	G	20	MBH	\$5.00	8,000	8,000	-	0.3
CSG0072	Modulating Burner on Makeup Air Handling Unit (GT 100 hrs week Operation)	G	20	MBH	\$5.00	9,000	9,000	-	0.3

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CSG0073	Modulating Burner on Makeup Air Handling Unit (GT 50 hrs week Operation)	G	20	MBH	\$1.00	1,000	1,000	-	0.1
CAG0006	Air Compressor Waste Heat Recovery	G	15	HP	\$50.00	551	551	-	3.6
CAE0037	Air Dryer Desiccant to Refrigerated Air Dryers	E	10	SCFM	\$4.00	2,200	2,090	45.5	-
CAE0003	CA123b - Compressed Air Storage Tank (3-5 gal/CFM)	E	25	HP	\$50.00	230	219	283.1	-
CAE0036	Compressed Air Applications Replaced with Air Blowers	E	15	HP	\$450.00	4	4	4,765.4	-
CAE0086	Compressed Air Audits & Leak Repair -Non VSD	E	1	HP	\$10.00	60	57	68,907.1	-
CAE0085	Compressed Air Audits & Leak Repair-VSD	E	1	HP	\$7.50	23	22	62,888.8	-
CAE0017	Compressed Air Dryer, Dewpoint Sensor Control	E	15	HP	\$8.00	7,000	6,650	56.5	-
CAE0009	Compressed Air Pressure Flow Controller	E	10	HP	\$10.00	80	76	63.1	-
CAE0065	Compressed Air Storage Tank (1-3 gal/CFM)	E	25	HP	\$70.00	385	366	565.2	-
CAE0073	DI Compressed Air Nozzles, 1,000 hrs, 1/4" Dia.	E	15	Units	\$451.00	34	32	3,846.3	-
CAE0069	DI Compressed Air Nozzles, 1,000 hrs, 1/8" Dia.	E	15	Units	\$112.80	8	8	962.0	-
CAE0074	DI Compressed Air Nozzles, 2,000 hrs, 1/4" Dia.	E	15	Units	\$902.10	51	48	7,693.5	-
CAE0070	DI Compressed Air Nozzles, 2,000 hrs, 1/8" Dia.	E	15	Units	\$225.50	8	8	1,923.2	-
CAE0075	DI Compressed Air Nozzles, 3,000 hrs, 1/4" Dia.	E	15	Units	\$1,353.10	36	34	11,539.8	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CAE0076	DI Compressed Air Nozzles, 4,000+ hrs, 1/4" Dia.	E	15	Units	\$1,804.20	3,000	2,850	19,079.8	-
CAE0054	Engineered Nozzles Compressed Air, 2,000 hrs, 1/4" Dia.	E	15	Units	\$150.00	5	5	7,693.5	-
CAE0055	Engineered Nozzles Compressed Air, 3,000 hrs, 1/4" Dia.	E	15	Units	\$150.00	2	2	11,539.8	-
CAE0056	Engineered Nozzles Compressed Air, 4,000+ hrs, 1/4" Dia.	E	15	Units	\$150.00	1	1	15,386.9	-
CAE0052	Engineered Nozzles Compressed Air, 4,000+ hrs, 1/8" Dia.	E	15	Units	\$150.00	1	1	3,846.3	-
CAE0018	Heat of Compression Air Dryer	E	15	HP	\$6.50	1,363	1,295	45.2	-
CAE0016	Heated Blower Purge Desiccant CA Dryer	E	15	HP	\$4.00	450	428	27.7	-
CAE0004	Low-Pressure Drop Air Filter	E	10	HP	\$7.50	220	209	55.2	-
CAE0011	Refrigerated Cycling - Digital Scroll	E	10	SCFM	\$3.00	5,980	5,681	13.8	-
CAE0012	Refrigerated Cycling - Variable Speed	E	10	SCFM	\$3.50	4,683	4,449	14.5	-
CAE0002	Refrigerated Cycling Thermal Mass Air Dryer	E	10	SCFM	\$1.00	8,315	7,899	4.5	-
CAE0032	Two Stage Rotary Screw Air Compressor (VSD VD LNL Type)	E	15	HP	\$20.00	965	917	229.8	-
CAE0015	Variable Displacement (VD) Air Compressor	E	13	HP	\$35.00	400	380	377.0	-
CAE0001	VSD Air Compressor	E	15	HP	\$170.00	1,438	1,366	1,185.4	-
CAE0039	VSD Air Compressor (50 HP to 300 HP) (Multiple Air Compressor System)	E	15	HP	\$200.00	3,000	2,850	1,304.0	-
CAE0042	VSD Air Compressor (50 HP to 300 HP) (Multiple Air Compressor System) (GT 4,000hr yr)	E	15	HP	\$150.00	160	152	925.3	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CAE0041	VSD Air Compressor (50 HP to 300 HP) (Single Air Compressor) (GT 2,000 hr yr)	E	15	HP	\$170.00	670	637	759.9	-
CAE0029	VSD Air Compressor (Less than 50 HP)	E	15	HP	\$150.00	80	76	910.5	-
CAE0046	VSD Air Compressor (Less than 50 HP) (Single Air Compressor System) (GT 2,000 hr yr)	E	15	HP	\$75.00	15	14	759.9	-
CAE0005	Zero Loss Condensate Drain	E	5	Units	\$300.00	50	48	1,788.4	-
CAE0031	Zero Loss Condensate Drain, Float Style	E	5	Units	\$300.00	50	48	1,788.4	-
CHE0114	Computer Room Air Conditioning (GT 240 MBH)	E	15	MBH	\$20.00	1	1	150.1	-
CHG0060	High Efficiency Process Boiler Replacement (Steam)	G	20	MBH	\$1.25	100,968	100,968	-	0.1
CHG0026	High Efficiency Process Boiler Replacement (Water)	G	20	MBH	\$1.20	10,000	10,000	-	0.1
CSE0144	LEED Certified Silver - Electric	E	20	Units	\$13,705.44	12	11	137,054.4	-
CSG0078	LEED Certified Silver - Natural Gas	G	22	Units	\$16,631.06	10	10	-	1,713.8
CSE0129	All-Electric Injection Mold Machines	E	20	Tons	\$25.00	8,863	8,420	202.1	-
CSE0045	Battery Charger - Continuous	E	20	Units	\$600.00	20	19	3,102.6	-
CSE0155	Dewpoint Sensor Control For Desiccant Plastic Dryer	E	15	Units	\$50.00	6	6	481.9	-
CSE0133	Fiber Laser Cutting Replacing Carbon Dioxide Laser Cutting	E	20	Units	\$4,000.00	152	144	27,770.2	-
CSE0130	Hybrid Injection Mold Machines	E	20	Tons	\$25.00	18,632	17,700	178.2	-
CSG0076	RTO (Recuperative Regenerative Thermal Oxidizers) New Construction 2 Shift	G	20	CFM	\$20.00	15,000	15,000	-	1.2

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CSG0077	RTO (Recuperative Regenerative Thermal Oxidizers) New Construction 3 Shift	G	20	CFM	\$25.00	10,000	10,000	-	1.6
CME0072	VSD Injection Mold Machines	E	20	Tons	\$18.00	4,548	4,321	109.4	-
CME0075	VSD or Servo Hydraulic Plastic Injection Molder Machines >= 600 < 1000 lb/yr/ton	E	20	Tons	\$15.00	9,860	9,367	70.7	-
CSE0161	Welder, Inverter Style	E	15	Units	\$500.00	20	19	1,281.8	-
CSE0131	High-Efficiency Hand Dryer	E	10	Units	\$100.00	18	17	823.0	-
CSE0090	BOC (Electric Customer)	E	5	Units	\$750.00	2	2	20,071.2	-
CSG0029	Automatic High Speed Doors (Between Cooler to Dock)	E	12	Square Feet	\$15.00	160	152	164.6	-
CSG0028	Automatic High Speed Doors (Between Freezer to Cooler)	E	12	Square Feet	\$70.00	36	34	763.3	-
CSG0030	Automatic High Speed Doors (Between Freezer to Dock)	E	12	Square Feet	\$150.00	55	52	1,549.6	-
CSG0001	Ozone Generation System	G	10	Pounds	\$40.00	7,000	7,000	-	3.7
RAI0013	Dairy Refrigeration Tune-up	E	5	Units	\$0.04	114,019	108,318	0.1	-
RAI0039	Fan Thermostat Controller	E	15	HP	\$190.00	46	44	1,367.2	-
RAI0069	Greenhouse Infrared Film replacing single layer with double layer	G	4	Square Feet	\$0.50	5,096	5,096	-	0.0
RAI0036	Low-Energy Livestock Waterer	E	10	Units	\$125.00	3	3	1,375.8	-
RAI0042	Milk Pre-Cooler (Heat Exchanger, Chiller Savings)	E	15	Units	\$0.20	90,183	85,674	1.0	-
RAI0038	Sprinkler to Drip Irrigation	E	15	Units	\$50.00	44	42	159.5	-
RAI0001	Variable Speed Controller for Vacuum Pump	E	10	HP	\$100.00	20	19	515.3	-
RAI0002	Variable Speed Controller on Milk Pump with Existing Milk Pre-Cooler	E	15	Units	\$0.10	45,970	43,672	0.5	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CHG0251	Level 11 - Pool and Spa Boiler Tune-Up (500-1,999 MBH)	G	2	Units	\$200.00	1	1	-	110.4
CHG0028	Level 6 - Process Boiler Tune-up (GT or EQ 1,200 MBH)	G	2	Units	\$500.00	50	50	-	659.8
CHG0226	Level 9 - Process Burner Tune-up (GT or EQ 1,200 MBH)	G	2	Units	\$500.00	3	3	-	202.0
CHG0030	Process Boiler Tune-up Level 4 (GT or EQ 300 and	G	2	Units	\$150.00	15	15	-	141.3
CHG0029	Process Boiler Tune-up Level 5 (GT or EQ 500 and	G	2	Units	\$350.00	4	4	-	161.0
CME0052	VFD on Well Pumps	E	10	HP	\$40.00	8	8	166.3	-
CME0073	VSD for Industrial Vacuum Pump Systems	E	10	HP	\$20.00	1	1	176.7	-
CWE0026	Domestic Hot Water Recirculation (500w to 1000w)	E	15	Units	\$250.00	1	1	4,271.0	-
CHE0122	Hydronic Heating (500w to 1000w)	E	15	Units	\$150.00	17	16	1,946.2	-
CHE0123	Hydronic Heating (GT 1000w)	E	15	Units	\$450.00	5	5	7,785.6	-
CHE0121	Hydronic Heating (LT 500w)	E	15	Units	\$50.00	16	15	388.9	-
CME0058	VFD for CW HVAC Pumps - Fixed Speed, (54 hz or less)-Bypass	E	15	Units	\$40.00	2	2	407.7	-
CME0059	VFD for CW HVAC Pumps - Fixed Speed, (54 hz or less)-Throttled	E	15	Units	\$25.00	14	13	284.8	-
CME0069	VFD for Process Fan - Fixed Speed, (54 hz or less)	E	15	Units	\$75.00	60	57	567.8	-
CME0006	VFD for Process Pumping, LT or EQ 50 HP	E	15	HP	\$125.00	47	45	922.9	-
CME0066	VFD on Condenser Fan - Low Temp Refrigeration (Below 32 Degrees F)	E	15	HP	\$120.00	1	1	1,252.8	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CME0065	VFD on Condenser Fan - Med Temp Refrigeration (33 Degrees F to 50 Degrees F)	E	15	HP	\$100.00	1	1	1,181.2	-
CME0071	VFD on Cooling Tower Fan	E	15	HP	\$40.00	6	6	378.7	-
CME0020	VFD on Process Fans (50-250 HP)	E	6	Units	\$3,000.00	15	14	59,137.1	-
CME0015	VFD on Process Fans (LT 50 HP)	E	15	HP	\$100.00	20	19	453.7	-
CME0013	VFD on Process Pumps (50-250 HP)	E	15	HP	\$9,000.00	27	26	24,939.4	-
CME0070	VFDs for Process Pump - Fixed Speed, (54 hz or less)	E	15	Units	\$100.00	24	23	467.4	-
CAE0999	Energy Science - Project	E	1	Project	\$1,047.01	1	1	2,053,440.0	-
CHG0250	Level 10 - Pool and Spa Boiler Tune-Up (300-499 MBH)	G	2	Units	\$100.00	2	2	-	42.7
CHG0284	Process Boiler Tune-up Level 5 (3,000 to 9,999 MBH)	G	2	Units	\$1,250.00	20	20	-	44.8
CHG0283	Process Boiler Tune-up Level 6 (GT or EQ 10,000 MBH)	G	2	Units	\$2,000.00	20	20	-	486.5
CRG0014	Air-Cooled Condenser - Gas DWH - HVAC or Process Applications CRG0014	G	15	Tons	\$200.00	100	100	-	13.3
CRG0006	Boiler Stack Economizer (200F) - Process CRG0006	G	15	MBH	\$1.50	250,000	250,000	-	0.0
CMG0002	Constant Volume AHU to VAV with Hydronic Reheat (Gas) CMG0002	G	20	Square Feet	\$0.25	11,008	11,008	-	0.0
CRG0019	Dust Collector Air Exhaust Recovery Unit (GO) CRG0019	G	10	CFM	\$1.50	8,288	8,288	-	0.0
CSG0025	Enthalpy Wheel Energy Recovery Unit (GO) CSG0025	G	15	CFM	\$0.40	6,100	6,100	-	0.1
CHG0234	HVAC Boiler Stack Economizers (80-199 degrees) CHG0234	G	15	Units	\$0.50	70,000	70,000	-	0.0

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CSG0048	Refrigeration Waste Heat Recovery Decreasing Domestic Water Heating CSG0048	G	15	Tons	\$200.00	9	9	-	8.3
CHE0132	Water-side Economizer - Air-cooled Chiller CHE0132	E	15	Tons	\$150.00	70	67	1,350.0	-
CHE0131	Water-side Economizer - Water-cooled Chiller CHE0131	E	15	Tons	\$60.00	1,348	1,281	664.4	-
CSG0098	Greenhouse Environmental Controls - Gas CSG0098	G	15	Square Feet	\$0.30	222,306	222,306	-	0.0
CSG0059	Greenhouse In-Floor Heating System (With Heat Curtains) CSG0059	G	20	Square Feet	\$0.25	41,620	41,620	-	0.0
CSG0058	Greenhouse In-Floor Heating System (Without Heat Curtains) CSG0058	G	20	Square Feet	\$0.50	17,280	17,280	-	0.0
CSE0187	HVAC Reduction in Indoor Agriculture Grow Rooms CSE0187	E	11	Watts Removed	\$0.15	11,891,349	11,296,782	1.2	-
CSE0186	Indoor Agriculture Dehumidification Units (> 155 pints/day capacity) CSE0186	E	10	Units	\$3.50	487,747	463,360	23.5	-
CLE0182	LED Grow Light - Tier 2 - New Construction CLE0182	E	7.6	Units	\$1.00	2,412,600	2,291,970	5.7	-
CSE0188	LED Grow Light - Tier 2 CSE0188	E	7.6	Watts Removed	\$1.00	306,417	291,096	5.6	-
CLE0181	LED Grow Lights - New Construction CLE0181	E	11	Units	\$0.67	10,090,649	9,586,117	3.8	-
CFE0019	Poultry LED Lighting Systems CFE0019	E	9	Watts Removed	\$0.70	6,894	6,549	5.0	-
CSE0162	Retrofit Grain Dryers CSE0162	G	10	Units	\$0.03	1,000,000	1,000,000	-	0.0
CSE0091	Scroll Compressor for Dairy Refrigeration CSE0091	E	15	Units	\$0.04	7,261	6,898	0.2	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CME0032	VFD on Ag Fans (750 - 2,000) - Electric CME0032	E	15	HP	\$60.00	40	38	221.7	-
CME0053	VSD on Golf Course Irrigation Systems CME0053	E	10	HP	\$40.00	11	10	166.3	-
CSE0122	Water Pre-Heat Heat Exchanger Electric water heater CSE0122	E	15	Units	\$0.30	1,375	1,306	1.5	-
CHE0061	Air Side Economizer CHE0061	E	15	Tons	\$15.00	158	150	392.3	-
CHG0209	Boiler Oxygen Trim Control (Process) CHG0209	G	15	MBH	\$0.75	7,000	7,000	-	0.1
CHG0017	Boiler Oxygen Trim Control CHG0017	G	15	MBH	\$0.20	45,000	45,000	-	0.0
CEE0003	EMS for Manufacturing HVAC Fans CEE0003	E	15	HP	\$150.00	16	15	1,873.7	-
CEE0006	Light Commercial Building Automation Systems (EO) (EOY Incentive) CEE0006	E	15	Square Feet	\$0.15	182,866	173,723	0.8	-
CHG0063	Linkageless Boiler Controls CHG0063	G	5	MBH	\$0.50	1,309	1,309	-	0.0
CHE0150	Occupancy Sensor Controlled Restroom Exhaust Fan CHE0150	E	10	Units	\$10.00	19	18	76.5	-
CEE0004	Parking Garage Exhaust Fan Carbon Monoxide (CO) Control On Off Control (Electric Customers) CEE0004	E	15	HP	\$300.00	5	5	1,414.9	-
CSG0031	Snow Melt Controls CSG0031 - GAS	G	15	Square Feet	\$0.60	32,240	32,240	-	0.1
CEE0005	Web Based Building Automatic Systems (BAS) Non-A C Schools EO (EOY Incentive) CEE0005	E	9	Square Feet	\$0.15	122,818	116,677	0.8	-
CBG0002	Automatic High Speed Doors - exterior doors CBG0002	G	12	Square Feet	\$0.50	2,864	2,864	-	0.1
CSE0100	Window High Performance Film (EO) CSE0100	E	10	Square Feet	\$0.40	107	102	2.0	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CBC0002	Window Reduction (Gas) CBC0002	G	30	Square Feet	\$0.75	5,000	5,000	-	0.0
CWG0033	High-Efficiency Tank-Style Domestic Water Heater < 55 Gallons (<=75 MBH, >=0.64 UEF) CWG0033	G	13	Units	\$60.00	1	1	-	9.3
CWG0034	High-Efficiency Tank-Style Domestic Water Heater < 55 Gallons (<=75 MBH, >=0.68 UEF) CWG0034	G	13	Units	\$150.00	24	24	-	10.2
CWE0028	Tankless Water Heater (Electric) CWE0028	E	20	Units	\$50.00	1	1	545.0	-
CWG0006	High Efficiency Clothes Washer (Gas Water Heat, Gas Dryer) CWG0006	G	7	Units	\$20.00	2	2	-	4.5
CAE0087	Air Compressor Outdoor Air Intake (EOY Incentive) CAE0087	E	20	HP	\$14.51	250	238	93.6	-
CAE0038	Compressed Air Energy Audit with Metered Flow - Electric	E	1	Units	\$20.00	10	10	57,197.4	-
CAE0066	Compressed Air Storage Tank (5-10 gal/CFM) CAE0066	E	25	HP	\$30.00	44	42	565.2	-
CAE0081	DI Compressed Air Nozzles, 1,000 hrs, 1/2" Dia. CAE0081	E	15	Units	\$1,804.20	8	8	15,386.9	-
CAE0077	DI Compressed Air Nozzles, 1,000 hrs, 3/8" Dia. CAE0077	E	15	Units	\$1,014.80	3	3	8,654.6	-
CAE0082	DI Compressed Air Nozzles, 2,000 hrs, 1/2" Dia. CAE0082	E	15	Units	\$3,608.30	12	11	30,773.0	-
CAE0078	DI Compressed Air Nozzles, 2,000 hrs, 3/8" Dia. CAE0078	E	15	Units	\$2,029.70	8	8	17,310.1	-
CAE0083	DI Compressed Air Nozzles, 3,000 hrs, 1/2" Dia. CAE0083	E	15	Units	\$5,412.50	12	11	46,160.0	-
CAE0071	DI Compressed Air Nozzles, 3,000 hrs, 1/8" Dia. CAE0071	E	15	Units	\$338.30	23	22	2,885.2	-
CAE0079	DI Compressed Air Nozzles, 3,000 hrs, 3/8" Dia. CAE0079	E	15	Units	\$3,044.50	3	3	25,964.7	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CAE0084	DI Compressed Air Nozzles, 4,000+ hrs, 1/2" Dia. CAE0084	E	15	Units	\$7,216.70	12	11	61,546.9	-
CAE0072	DI Compressed Air Nozzles, 4,000+ hrs, 1/8" Dia. CAE0072	E	15	Units	\$451.00	17	16	3,846.3	-
CAE0080	DI Compressed Air Nozzles, 4,000+ hrs, 3/8" Dia. CAE0080	E	15	Units	\$4,059.40	36	34	34,620.2	-
CME0051	Electric Motors Replacing Pneumatic Motors CME0051	E	10	HP	\$100.00	10	10	1,134.7	-
CAE0061	Engineered Nozzles Compressed Air, 1,000 hrs, 1/2" Dia. CAE0061	E	15	Units	\$150.00	10	10	15,386.9	-
CAE0053	Engineered Nozzles Compressed Air, 1,000 hrs, 1/4" Dia. CAE0053	E	15	Units	\$150.00	1	1	3,846.3	-
CAE0050	Engineered Nozzles Compressed Air, 1,000 hrs, 1/8" Dia. CAE0050	E	15	Units	\$150.00	10	10	962.0	-
CAE0057	Engineered Nozzles Compressed Air, 1,000 hrs, 3/8" Dia. CAE0057	E	15	Units	\$150.00	10	10	8,654.6	-
CAE0062	Engineered Nozzles Compressed Air, 2,000 hrs, 1/2" Dia. CAE0062	E	15	Units	\$150.00	15	14	30,773.0	-
CAE0014	Engineered Nozzles Compressed Air, 2,000 hrs, 1/8" Dia. CAE0014	E	15	Units	\$150.00	10	10	962.0	-
CAE0058	Engineered Nozzles Compressed Air, 2,000 hrs, 3/8" Dia. CAE0058	E	15	Units	\$150.00	10	10	17,310.1	-
CAE0063	Engineered Nozzles Compressed Air, 3,000 hrs, 1/2" Dia. CAE0063	E	15	Units	\$150.00	15	14	46,160.0	-
CAE0051	Engineered Nozzles Compressed Air, 3,000 hrs, 1/8" Dia. CAE0051	E	15	Units	\$150.00	10	10	2,885.2	-
CAE0059	Engineered Nozzles Compressed Air, 3,000 hrs, 3/8" Dia. CAE0059	E	15	Units	\$150.00	15	14	25,964.7	-
CAE0064	Engineered Nozzles Compressed Air, 4,000+ hrs, 1/2" Dia. CAE0064	E	15	Units	\$150.00	15	14	61,546.9	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CAE0060	Engineered Nozzles Compressed Air, 4,000+ hrs, 3/8" Dia. CAE0060	E	15	Units	\$150.00	15	14	34,620.2	-
CAE0095	Handheld DI Nozzle - 1/4" Nozzle, 500 Hours CAE0095	E	10	Units	\$225.52	60	57	1,923.3	-
CAE0096	Handheld DI Nozzle - 1/4" Nozzle, 600 Hours CAE0096	E	10	Units	\$270.62	30	29	2,308.0	-
CAE0097	Handheld DI Nozzle - 1/4" Nozzle, 700 Hours CAE0097	E	10	Units	\$315.73	10	10	2,692.7	-
CAE0098	Handheld DI Nozzle - 1/4" Nozzle, 800 Hours CAE0098	E	10	Units	\$360.83	912	866	3,077.3	-
CAE0091	Handheld DI Nozzle - 1/8" Nozzle, 500 Hours CAE0091	E	10	Units	\$56.38	2	2	480.8	-
CAE0092	Handheld DI Nozzle - 1/8" Nozzle, 600 Hours CAE0092	E	10	Units	\$67.66	2	2	577.0	-
CAE0093	Handheld DI Nozzle - 1/8" Nozzle, 700 Hours CAE0093	E	10	Units	\$78.93	2	2	673.2	-
CAE0094	Handheld DI Nozzle - 1/8" Nozzle, 800 Hours CAE0094	E	10	Units	\$90.21	2	2	769.3	-
CAE0099	Handheld DI Nozzle - 3/8" Nozzle, 500 Hours CAE0099	E	10	Units	\$507.42	2	2	4,327.5	-
CAE0101	Handheld DI Nozzle - 3/8" Nozzle, 700 Hours CAE0101	E	10	Units	\$710.39	2	2	6,058.5	-
CAE0102	Handheld DI Nozzle - 3/8" Nozzle, 800 Hours CAE0102	E	10	Units	\$811.87	2	2	6,924.0	-
CAE0040	Pneumatic Air Tools Replaced with Electric Cordless Tools CAE0040	E	10	Units	\$70.00	3	3	618.3	-
CAE0089	VSD Air Compressor Replacement (< 50-HP) 2 shifts (4,160 hrs/yr) CAE0089	E	15	HP	\$100.00	135	128	607.2	-
CAE0090	VSD Air Compressor Replacement (< 50-HP) 24/7 CAE0090	E	15	HP	\$200.00	85	81	1,213.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CAE0088	VSD Air Compressor Replacement (< 50-HP), 1 shift (2,080 hrs/yr) CAE0088	E	15	HP	\$50.00	50	48	303.6	-
CHE0010	Ground Source Heat Pump EER =17 replacing a GSHP CHE0010	E	15	Tons	\$30.00	3	3	259.4	-
CHE0113	Computer Room Air Conditioning (LT or EQ 240 MBH) CHE0113	E	15	MBH	\$20.00	4	4	135.6	-
CHG0258	High Efficiency Furnace d120 MBH, 92% AFUE CHG0258	G	15	Units	\$225.00	50	50	-	20.9
CHG0282	High Efficiency Furnace or Unit Heater (92-94% AFUE) (EOY Incentive) CHG0282	G	15	MBH	\$3.99	7,620	7,620	-	0.1
CHE0170	Water-Cooled Centrifugal Chiller >= 150 ton and < 300 ton Path A - 0.01 kW/ton FLV Reduction CHE0170	E	20	Tons	\$10.00	2	2	12.3	-
CHE0175	Water-Cooled Centrifugal Chiller >= 400 ton and < 600 ton Path B - 0.01 kW/ton IPLV Reduction CHE0175	E	20	Tons	\$10.00	90	86	13.3	-
CHE0180	Water-Cooled Screw Chiller >= 150 ton and < 300 ton Path A - 0.01 kW/ton FLV Reduction CHE0180	E	20	Tons	\$10.00	50	48	17.2	-
CLE0105	Exterior LED Lighting Retrofit (EOY Incentive) CLE0105	E	16	Watts Removed	\$0.65	3,691,174	3,506,615	4.6	-
CLE0104	Interior LED Lighting (High Bay GT OR EQ 18 ft) (EOY Incentive) CLE0104	E	16	Watts Removed	\$0.40	3,393,914	3,224,218	4.4	-
CLE0110	Interior LED Lighting (Low Bay LT 15 ft) (Continuous Operation) (EOY Incentive) CLE0110	E	6	Watts Removed	\$1.00	590,000	560,500	6.8	-
CLE0107	Interior LED Lighting (Low Bay LT 18 ft) (EOY Incentive) CLE0107	E	18	Watts Removed	\$0.35	4,696,408	4,461,588	2.8	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CLE0108	LED High Bay (per kW reduced) - 24 7 operation (EOY Incentive) CLE0108	E	6	Watts Removed	\$1.00	2,410,616	2,290,085	9.3	-
CLE0103	LED Screw-in Replacing HID (EOY Incentive) CLE0103	E	16	Watts Removed	\$0.25	451,489	428,915	3.5	-
CLE0109	New Linear LED Tube Fixture (High Bay GT OR EQ 15 ft) (Continuous Operation) (EOY Incentive) CLE0109	E	6	Watts Removed	\$1.00	500,000	475,000	7.5	-
CLE0102	New Linear LED Tube Fixture (High Bay GT OR EQ 15 ft) (EOY Incentive) CLE0102	E	16	Watts Removed	\$0.55	40,969	38,921	3.5	-
CLE0106	New Linear LED Tube Fixture (Low Bay LT 15 ft) (EOY Incentive) CLE0106	E	18	Watts Removed	\$0.30	26,722	25,386	2.3	-
CSE0179	Trim Kits CSE0179	E	3	Units	\$8.00	1,299	1,234	73.0	-
CSE0113	Barrel Wraps - Injection Molding and Extruders CSE0113	E	5	Square Feet	\$100.00	6,500	6,175	1,279.6	-
CSE0046	Battery Charger - 1 Shift Day CSE0046	E	20	Units	\$200.00	20	19	1,245.1	-
CSE0047	Battery Charger - 2 Shift Day CSE0047	E	20	Units	\$400.00	5	5	2,292.4	-
CSE0189	Fiber Laser Cutting Replacing Carbon Dioxide Laser Cutting - Two Shift CSE0189	E	20	Units	\$2,500.00	15	14	18,513.5	-
CRG0008	Process Heating Ventilation Reduction (GO) CRG0008	G	15	CFM	\$1.50	60,000	60,000	-	0.2
CSE0190	VSD or Servo Hydraulic Plastic Injection Molder Machines >= 400 < 600 lb/yr/ton CSE0190	E	20	Tons	\$7.50	1,020	969	47.2	-
CPG0066	Boiler 300 - 2500 kBtuh CPG0066	G	20	MBH	\$2.00	25	25	-	0.2

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CPG0014	High Efficiency Furnace or Unit Heater (GT or EQ 95% AFUE) GT 120 CPG0014	G	15	kBtu/h	\$7.81	50	50	-	0.2
CHG0217	Engine Block Heater Controls CHG0217	E	5	Units	\$100.00	19	18	491.2	-
CSE0012	Intelligent Surge Protector CSE0012	E	5	Units	\$4.00	1	1	54.7	-
CSG0027	BOC (Gas Customer) CSG0027	G	5	Units	\$750.00	2	2	-	136.5
CSE0010	High Efficiency Clothes Washer (Electric Water Heat, Gas Dryer) CSE0010	E	7	Units	\$70.00	15	14	646.5	-
CWG0025	Natural Gas Domestic Hot Water - Conditioned Space (120F) (GO) CWG0025	G	20	Linear Feet	\$1.00	38	38	-	0.1
CWG0023	Pipe Wrap - Domestic Hot Water - unconditioned space (120F) CWG0023	G	20	Linear Feet	\$2.00	96	96	-	0.2
CWG0001	Pipe Wrap - Hydronic Space Heating CWG0001	G	20	Linear Feet	\$4.00	613	613	-	0.3
CHG0054	Process Steam Pipe Condensate Insulation - Conditioned CHG0054	G	20	Linear Feet	\$1.00	10	10	-	0.1
CHG0056	Process Steam Pipe Condensate Insulation - Unconditioned CHG0056	G	20	Linear Feet	\$3.00	215	215	-	0.4
CHG0052	Process Steam Pipe Insulation - Conditioned (Gas) CHG0052	G	20	Linear Feet	\$2.00	133	133	-	0.1
CHG0051	Process Steam Pipe Insulation - Unconditioned CHG0051	G	20	Linear Feet	\$3.00	10	10	-	0.6
CSE0024	A C Reduction From Lighting Reduction (20F to 40F) CSE0024	E	12	Watts Removed	\$0.08	532	505	0.6	-
CSG0087	Commercial Kitchen Ventilation Control (GO) CSG0087	G	20	CFM	\$0.50	22,250	22,250	-	0.0

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CSE0167	Discus Refrigeration Compressors CSE0167	E	15	Tons	\$20.00	4	4	179.8	-
CSG0109	Engineered Commercial Kitchen Ventilation Control (GO) CSG0109	G	15	CFM	\$1.00	100	100	-	0.2
CSE0087	Evaporator Fan Control (SP motor) CSE0087	E	5	Units	\$130.00	3	3	985.0	-
CSE0163	Floating Suction Pressure Control (Grocery Store) CSE0163	E	15	Tons	\$150.00	3	3	1,078.0	-
CSE0149	No Heat Reach-In Case Doors - With Anti-Sweat Heater Control CSE0149	E	15	Units	\$30.00	40	38	352.2	-
CSE0029	Reach-In Refrigerated Case Door; Low Temp - Electric Customers CSE0029	E	12	Linear Feet	\$100.00	13	12	1,240.0	-
RAI0089	4-Foot T5 to One (1) 4-Foot LED Tube Light (High Bay GT or EQ 15 ft)	E	18	Units	\$4.00	90	86	118.7	-
RAI0032	8-Foot T12 to One 8-Foot LED Tube Light	E	18	Units	\$10.00	80	76	107.9	-
RAI0035	Greenhouse Infrared Film replacing double layer with double layer	G	5	Square Feet	\$0.15	3,456	3,456	-	0.0
RAI0101	HVAC Reduction in Indoor Agriculture Grow Rooms	E	11	Watts Removed	\$0.15	56,520	53,694	0.9	-
RAI0100	Indoor Agriculture Dehumidification Units (> 155 pints/day capacity)	E	10	Units	\$3.50	1,600	1,520	19.2	-
RAI0116	LED Grow Lights < 6,570 Annual Hours	E	11	Watts Removed	\$0.70	67,280	63,916	3.8	-
RAI0117	LED Grow Lights e 6,570 Annual Hours	E	7.6	Watts Removed	\$1.00	7,400	7,030	5.7	-
RAI0108	Res Ag - 4-Foot T8 to One (1) 4-Foot LED Tube Light (High Bay >= 15 ft)	E	18	Units	\$4.00	550	523	42.6	-
RAI0113	Res Ag - LED Screw-in Replacing HID	E	16	Watts Removed	\$0.25	1,169	1,111	3.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
RAI0112	Res Ag - New Linear LED Tube Fixture (Low Bay < 15 ft)	E	18	Watts Removed	\$0.30	1,104	1,049	2.3	-
RAI0114	Res Ag - Trim Kits	E	3	Units	\$8.00	9	9	73.8	-
RAI0102	Wall Insulation (GO)	G	30	Square Feet	\$0.60	5,440	5,440	-	0.1
RAI0057	Water Pre-Heat Heat Exchanger Electric water heater	E	15	Units	\$0.30	8,780	8,341	1.6	-
CHG0102	Leaking Steam Trap Repair or Replacement -- Special Incentive CHG0102	G	6	Units	\$100.00	100	100	-	26.0
CHG0238	Steam Traps CHG0238	G	6	Units	\$150.00	100	100	-	26.0
CWG0030	New Outdoor Air Damper Assembly CWG0030	G	7.5	CFM	\$0.03	35,788	35,788	-	0.0
CHE0189	Packaged Terminal Air Conditioning (PTAC) 7kBtu/hr - 15kBtu/hr CHE0189	E	15	Tons	\$60.00	32	30	63.7	-
CHE0202	Packaged Terminal Heat Pump (PTHP) 7kBtu/hr - 15kBtu/hr (EOY Incentive) CHE0202	E	15	Tons	\$35.00	2	2	200.8	-
CWE0025	Domestic Hot Water Recirculation (LT 500w) CWE0025	E	15	Units	\$100.00	12	11	854.5	-
CME0068	VFD for HVAC Fans - Fixed Speed, (54 hz or less) CME0068	E	15	Units	\$50.00	13	12	956.9	-
CME0060	VFD for HW HVAC Pumps - Fixed Speed, (54 hz or less)-Bypass CME0060	E	15	Units	\$70.00	2	2	803.4	-
CME0061	VFD for HW HVAC Pumps - Fixed Speed, (54 hz or less)-Throttled CME0061	E	15	Units	\$40.00	8	8	561.2	-
CME0044	VFD on Computer Room Air Condition (CRAC) Units CME0044	E	15	HP	\$150.00	5	5	1,943.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CME0067	VFD on Pool Circulation Pump CME0067	E	12	HP	\$200.00	1	1	1,215.3	-
CWG0002	Gas Water Heater GT 80 gal	G	13	Units	\$275.00	20	20	-	26.9
CWG0029	Gas Water Heater GT 80 gal	G	13	MBH	\$1.50	27,329	27,329	-	0.1
CWG0007	High Efficiency Pool Heater .84+ EF	G	15	mBtu	\$2.00	999	999	-	0.2
CWG0016	Level 10 - Domestic Water Heater Tune-up (199-499 MBH)	G	2	Units	\$100.00	24	24	-	0.1
CWG0017	Level 11 - Domestic Water Heater Tune-up (500-1,999 MBH)	G	2	Units	\$250.00	36	36	-	37.0
CWG0019	Level 12 - Domestic Water Heater Tune-up (GT or EQ 1,200 MBH)	G	2	Units	\$350.00	6	6	-	0.1
CBE0404	Farm Energy Audit as Defined By USDA (Tier 2) (EG)	C	1	Units	\$1,500.00	1	1	-	-
CBE0400	Buy Michigan (Incentives Only) (EG)	C	1	Units	\$1.00	14,753	14,016	-	-
CBE0002	Cool (White) Roof (EG)	E	20	Square Feet	\$0.02	67,715	64,329	0.1	-
CSC0039	Roof Insulation - Attic Roof (Combo)	C	30	Square Feet	\$0.30	3,600	3,420	0.2	-
CSG0032	Roof Insulation R10 to R18 (EG)	C	30	Square Feet	\$0.16	127,749	121,362	0.0	-
CSG0034	Roof Insulation R12 to R18 (EG)	C	30	Square Feet	\$0.12	21,378	20,309	0.1	-
CSG0036	Roof Insulation R14 to R18 (EG)	C	30	Square Feet	\$0.08	40,272	38,258	0.1	-
CSG0038	Roof Insulation R16 to R18 (EG)	C	30	Square Feet	\$0.02	8,168	7,760	0.0	-
CSG0040	Roof Insulation R18 to R20 (EG)	C	30	Square Feet	\$0.02	29,418	27,947	0.0	-
CSG0042	Roof Insulation R20 to R22 (EG)	C	30	Square Feet	\$0.02	29,418	27,947	0.0	-
CSG0044	Roof Insulation R22 to R24 (EG)	C	30	Square Feet	\$0.02	29,418	27,947	0.0	-
CSC0106	Wall Insulation - Combination Customer	C	30	Square Feet	\$0.60	4,100	3,895	0.9	-
CSC0028	Reach-In Refrigerated Case Door; Medium Temp - Combination Customers	C	12	Linear Feet	\$100.00	26	25	489.5	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CMC0002	Constant Volume AHU to VAV with Hydronic Reheat (Combo)	C	20	Square Feet	\$1.25	590,452	560,929	7.0	-
CHC0014	Critical Zone Supply Air Reset Control (Combo)	C	15	Tons	\$25.00	653	621	219.5	-
CHC0074	Demand Control Ventilation and Occupancy Sensors for HVAC - Air Conditioning and Natural Gas Heat (Combination)	C	15	Square Feet	\$0.20	198,616	188,685	0.0	-
CHC0072	EG Programmable Thermostat	C	9	Units	\$48.00	5	5	359.6	-
CHC0018	Occupancy Sensor Controls on HVAC Units (Combo)	C	15	Square Feet	\$0.08	138,294	131,379	0.1	-
CHC0017	Optimal Start Stop on Air Handling Units (Combo)	C	20	Square Feet	\$0.30	2,235,641	2,123,859	1.8	-
CSC0042	BOC (Combo Customer)	C	5	Units	\$1,100.00	4	4	20,071.2	-
CSG0049	Refrigeration Waste Heat Recovery Decreasing HVAC Heating Load CSG0049 - Electric	C	15	Tons	\$125.00	43	41	(234.5)	-
CSC0051	Greenhouse Environmental Controls (EOY Incentive) CSC0051 - Electric	C	15	Square Feet	\$0.30	84,456	80,233	0.1	-
CEB0004	Demand Control Ventilation - Combination Customers (EOY Incentive) CEB0004 - GAS	C	15	Square Feet	\$0.50	1,608,349	1,527,932	0.2	-
CEB0007	Enhanced Ventilation Control - Air Conditioning and Natural Gas Heat (EG) (EOY Incentive) CEB0007 - GAS	C	10	Tons	\$100.00	4,564	4,336	317.5	-
CHG0221	Hydronic HVAC Pump Control (EG) CHG0221 - Electric	C	15	HP	\$80.00	20	19	1,830.3	-
CHC0071	Occupancy Sensor Control for Smart Thermostats (EG) CHC0071 - Electric	C	15	Square Feet	\$0.04	3,460	3,287	0.3	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CHC0082	Infrared Heaters - Combination Customers (EOY Incentive) CHC0082 - Electric	C	15	MBH	\$9.00	12,915	12,269	17.1	-
CHC0010	Infrared Heaters - Combination Customers CHC0010 - GAS	C	15	MBH	\$7.00	35,000	33,250	13.8	-
CRE0006	Reduced Optimized Air Change per hour (EG) CRE0006 - Electric	C	15	CFM	\$2.75	1,692	1,607	8.6	-
CHC0020	Process Steam Pipe Insulation - Conditioned (Combo) CHC0020 - Electric	C	20	Linear Feet	\$3.00	31	29	4.2	-
CSC0047	Commercial Kitchen Ventilation Control (EG) CSC0047 - Electric	C	20	CFM	\$0.50	1,184	1,125	1.0	-
RAI0105	Infrared Heaters (EG)	C	15	MBH	\$9.00	300	285	22.4	-
Custom Solutions Program									
CBE0302	Smart Buildings (EO) Tier 1 Payment (10% of Project Cost)	E	5	Units	\$0.10	44,429	44,429	-	-
CBE0303	Smart Buildings (EO) Tier 2 Payment (40% of Project Cost)	E	5	Units	\$0.40	65,143	65,143	-	-
CBE0304	Smart Buildings (EO) Tier 3 Payment (50% of Project Cost and savings)	E	5	Units	\$0.50	1	1	11,546.2	-
CBE0001	Custom Electric Program	E	15	Units	\$66,797.66	67	67	667,976.6	-
CBG0001	Custom Gas Program	G	15	Units	\$198,929.76	18	18	-	16,577.5
CBE0301	Smart Building Defined Actions - Electric	E	5	kWh	\$0.05	3	3	-	-
CBG0301	Smart Building Defined Actions - Gas	G	5	Units	\$5.00	2	2	-	-
CJE0002	Energy Conservation Improvement per Year	E	1	kWh	\$1,642.28	1	1	18,435.3	-
CJE0001	Lumens per Watt Improvement per Year	E	1	kWh	\$1,631.61	39	39	15,932.9	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CBC0300	Smart Buildings (EG) Tier 1 Payment (10% of Project Cost)	C	5	Units	\$0.10	79,652	79,652	-	-
CBC0301	Smart Buildings (EG) Tier 2 Payment (40% of Project Cost)	C	5	Units	\$0.40	42,177	42,177	-	-
CBC0302	Smart Buildings (EG) Tier 3 Payment (50% of Project Cost and savings)	C	5	Units	\$0.50	30,427	30,427	-	-
Energy Assessments Program									
CDE0285	Tier 1 Advanced Power Strip	E	5	Units	\$0.00	2,102	2,102	58.8	-
CDE0091	SBA - Field Assessment and Report - Electric Customers	E	1	Units	\$0.00	3,357	3,357	-	-
CDG0091	SBA - Field Assessment and Report - Gas Customers	G	1	Units	\$0.00	476	476	-	9.1
CDE0006	Pre-Rinse Sprayers - LT 1.6 gpm	E	5	Units	\$0.00	61	61	144.9	-
CDE0211	SB Hosp - Beverage Vending Machine Controllers	E	10	Units	\$0.00	44	44	733.8	-
CDE0090	3.5 W LED Candelabra	E	3	Units	\$0.00	1,262	1,262	71.1	-
CDE0213	LED Globe	E	3	Units	\$0.00	979	979	81.2	-
CDE0045	LED Lighting - 11 W LED Flood Lamp	E	3	Units	\$0.00	3,047	3,047	137.5	-
CDE0103	LED Lighting - 6 W LED Lamps Replacing Incandescent Lights	E	2	Units	\$0.00	103	103	92.1	-
CDE0102	LED Lighting - 9.5 W LED Lamps Replacing Incandescent Lights	E	2	Units	\$0.00	5,629	5,629	92.1	-
CDG0028	SB Hosp - Gas Low-Flow Faucet Aerators LT 1.5gpm (Kitchen)	G	10	Units	\$0.00	226	226	-	0.6
CDG1006	Consumers Energy Workpaper Measure - Audit CDG1006	G	1	Units	\$0.00	5,443	5,443	-	9.1
CDG1005	Consumers Energy Workpaper Measure - Tier 2 Wi-Fi Programmable Thermostat CDG1005	G	10	Units	\$0.00	1,591	1,591	-	15.5

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CDG1002	Low Flow Faucet Aerator - Private Restroom - 1 gpm - Gas CDG1002	G	10	Units	\$0.00	5,338	5,338	-	0.6
CDG1001	Low Flow Faucet Aerator - Public Restroom - .5 gpm - Gas CDG1001	G	10	Units	\$0.00	16,438	16,438	-	4.5
CDG1003	Low Flow Showerhead - 1.5 gpm - Gas CDG1003	G	10	Units	\$0.00	5,231	5,231	-	2.6
CDG1008	Pipe Wrap - DWH 140F - Conditioned - Gas Water Heater CDG1008	G	20	Linear Feet	\$0.00	762	762	-	0.1
CDG1004	Pipe Wrap - DWH 140F - Unconditioned - Gas Water Heater CDG1004	G	20	Linear Feet	\$0.00	2,885	2,885	-	0.3
CDG1000	Pre-Rinse Sprayers - Gas CDG1000	G	5	Units	\$0.00	1,328	1,328	-	5.6
CDG1007	Programmable Thermostat - Gas Only CDG1007	G	9	Units	\$0.00	38	38	-	9.8
CDE0287	EcoBee Smart Thermostat (EO)	E	10	Units	\$0.00	25	25	450.8	-
CDG0058	Programmable Thermostat - Gas Customers	G	9	Units	\$0.00	102	102	-	31.4
CDE0058	Programmable Thermostats	E	9	Units	\$0.00	150	150	282.1	-
CDE0347	SB Hosp - Wired GREM (EO)	E	8	Units	\$0.00	91	91	1,021.8	-
CDE0418	SBEA - 0.5 gpm Private Bath Aerator - Electric CDE0418	E	10	Units	\$0.00	141	141	214.6	-
CDG0163	SBEA - 0.5 gpm Private Bath Aerator - Gas CDG0163	G	10	Units	\$0.00	65	65	-	0.8
CDE0419	SBEA - 0.5 gpm Public Bath Aerator - Electric CDE0419	E	10	Units	\$0.00	1,235	1,235	1,108.0	-
CDG0164	SBEA - 0.5 gpm Public Bath Aerator - Gas CDG0164	G	10	Units	\$0.00	1,234	1,234	-	4.3
CDE0387	SBEA - Field Assessment and Report with Direct Install - Electric CDE0387	E	1	Units	\$0.00	1,372	1,372	-	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CDG0157	SBEA - Field Assessment and Report with Direct Install - Gas CDG0157	G	1	Units	\$0.00	71	71	-	9.1
CDE0400	SBEA - Hot Water Heater Blankets Tier 1 (20-40 gal) - Electric CDE0400	E	15	Units	\$0.00	48	48	6,982.0	-
CDG0160	SBEA - Hot Water Heater Blankets Tier 1 (20-40 gal) - Gas CDG0160	G	15	Units	\$0.00	20	20	-	26.8
CDE0401	SBEA - Hot Water Heater Blankets Tier 2 (41-60 gal) - Electric CDE0401	E	15	Units	\$0.00	54	54	9,626.7	-
CDG0161	SBEA - Hot Water Heater Blankets Tier 2 (41-60 gal) - Gas CDG0161	G	15	Units	\$0.00	26	26	-	36.9
CDE0286	SBEA - Nest Tier 2 Thermostat - Electric CDE0286	E	10	Units	\$0.00	2	2	450.8	-
CDE0399	SBEA - Smart Thermostat Tier 2 (Sensi) EO CDE0399	E	10	Units	\$0.00	31	31	450.8	-
CDG0159	SBEA - Smart Thermostat Tier 2 (Sensi) GO CDG0159	G	10	Units	\$0.00	13	13	-	15.5
CDE0379	Ecobee Tier 3 Smarter Wi-Fi Thermostat (EO)	E	10	Units	\$0.00	8	8	962.4	-
CDE0101	LED Exit Sign	E	15	Units	\$0.00	651	651	184.4	-
CDE0210	SB Hosp - 1L 4' LED Tube Replacing T8 1L 4' Lamp	E	18	Units	\$0.00	5,347	5,347	45.3	-
CDE0386	Small & Midsize EE Kit	E	3	Units	\$0.00	4,146	4,146	363.7	-
CDE0111	SB Hosp - Electric Low-Flow Faucet Aerators LT 1.5 pgm (Kitchen)	E	10	Units	\$0.00	437	437	155.6	-
CDE0113	SB Hosp - Electric Pipe Wrap - 140F DHW (conditioned space)	E	20	Linear Feet	\$0.00	528	528	12.9	-
CDE0250	SB Hosp - Electric Pipe Wrap - 140F DHW (unconditioned space)	E	20	Linear Feet	\$0.00	189	189	82.9	-
CDE0450	Direct Mailed Kits 2023 - 15 LED & 1 Power Strip	E	3	Units	\$0.00	1,800	1,800	1,712.5	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CDE0449	SBEA - 1.25 gpm Showerhead - Electric	E	10	Units	\$0.00	90	90	828.7	-
CDG0170	SBEA - 1.25 gpm Showerhead - Gas	G	10	Units	\$0.00	213	213	-	3.3
CDE0441	SBEA - LED T8 1L 4' Tube Replacement (1300 Annual/25 Weekly Hours)	E	18	Units	\$0.00	5,716	5,716	22.2	-
CDE0442	SBEA - LED T8 1L 4' Tube Replacement (2080 Annual/40 Weekly Hours)	E	18	Units	\$0.00	3,479	3,479	35.4	-
CDE0443	SBEA - LED T8 1L 4' Tube Replacement (2340 Annual/45 Weekly Hours)	E	18	Units	\$0.00	4,229	4,229	39.9	-
CDE0444	SBEA - LED T8 1L 4' Tube Replacement (2860 Annual/55 Weekly Hours)	E	18	Units	\$0.00	1,722	1,722	48.7	-
CDE0445	SBEA - LED T8 1L 4' Tube Replacement (3640 Annual/70 Weekly Hours)	E	18	Units	\$0.00	855	855	62.0	-
CDE0446	SBEA - LED T8 1L 4' Tube Replacement (4420 Annual/85 Weekly Hours)	E	18	Units	\$0.00	586	586	75.3	-
CDC0059	SBA - Field Assessment and Report - Combination Customers	C	1	Units	\$0.00	753	753	-	-
CDC0074	EcoBee Smart Thermostat (EG)	C	10	Units	\$0.00	6	6	450.8	-
CDC0073	Nest Smart Thermostat (EG)	C	10	Units	\$0.00	4	4	450.8	-
CDC0058	Programmable Thermostats -- Combination Customers	C	9	Units	\$0.00	22	22	232.8	-
CDC0090	SBEA - Field Assessment and Report with Direct Install - Combo CDC0090 - Electric	C	1	Units	\$0.00	308	308	-	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CDC0092	SBEA - Smart Thermostat Tier 2 (Sensi) Combo CDC0092 - Electric	C	10	Units	\$0.00	33	33	450.8	-
CDC0075	SBEA - Wired GREM (EG) CDC0075 - Electric	C	8	Units	\$0.00	51	51	217.4	-
CDC0076	SBEA - Wireless GREM (EG) CDC0076 - Electric	C	8	Units	\$0.00	3	3	217.4	-
CDC0064	SB Hosp - Gas Pipe Wrap - 140F DHW (conditioned space)	C	20	Linear Feet	\$0.00	226	226	3.9	-
Small Business Store Program									
CDG5001	Online Marketplace - Evolve Multifunction Showerhead 1.5 GPM - Gas	G	10	Units	\$10.00	302	311	-	2.1
CDE5036	Online Marketplace - Honeywell HEPA Air Purifier	E	9	Units	\$65.00	38	39	203.3	-
CDE5034	Online Marketplace - Niagara Earth Massage Handheld Showerhead 1.5 GPM - Electric	E	10	Units	\$10.00	302	311	492.7	-
CDG5004	Online Marketplace - Niagara Earth Massage Handheld Showerhead 1.5 GPM - Gas	G	10	Units	\$10.00	302	311	-	2.1
CDE5033	Online Marketplace - Niagara Earth Showerhead 1.5 GPM - Electric	E	10	Units	\$10.00	302	311	492.7	-
CDG5003	Online Marketplace - Niagara Earth Showerhead 1.5 GPM - Gas	G	10	Units	\$10.00	302	311	-	2.1
CDE5032	Online Marketplace - Niagara Sava Spa Showerhead 1.5 GPM - Electric	E	10	Units	\$10.00	302	311	492.7	-
CDG5002	Online Marketplace - Niagara Sava Spa Showerhead 1.5 GPM - Gas	G	10	Units	\$10.00	302	311	-	2.1
CDE5035	Online Marketplace - Pre-Rinse Spray Valve - Electric	E	5	Units	\$30.00	302	311	107.6	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CDG5005	Online Marketplace - Pre-Rinse Spray Valve - Gas	G	5	Units	\$30.00	302	311	-	0.5
CDE5002	Online Marketplace - Simply Conserve 14 watt T8 Hybrid A/B LED 10-Pack	E	18	Units	\$30.00	543	559	39.6	-
CDE5003	Online Marketplace - Simply Conserve 14 watt T8 Hybrid A/B LED 25-Pack	E	18	Units	\$75.00	543	559	39.6	-
CDE5000	Online Marketplace - Tier 1 Advanced Power Strip	E	5	Units	\$15.00	2,379	2,450	43.7	-
CDE5001	Online Marketplace - Tier 2 Advanced Power Strip	E	5	Units	\$34.71	793	817	43.7	-
CDG5006	Online Marketplace - Niagara Dual Thread Needle Spray Aerator - Gas	G	5	Units	\$3.00	302	311	-	4.6
CDE5005	Online Marketplace - Simply Conserve 40 watt 2x2 Flat Panel LED	E	18	Units	\$16.00	543	559	58.3	-
CDE5004	Online Marketplace - Simply Conserve 50 watt 2x4 Flat Panel LED	E	18	Units	\$20.00	543	559	75.9	-
CDE5027	Online Marketplace - Simply Conserve 50W Traditional Wall Pack with Photocell (5000K)	E	12	Units	\$25.00	543	559	314.2	-
CDE5028	Online Marketplace - Simply Conserve 80 watt Traditional Wall Pack with Photocell (5000K)	E	12	Units	\$80.00	543	559	541.8	-
CDE5029	Online Marketplace - TCP Red Exit Sign LED	E	15	Units	\$14.75	543	559	136.9	-
CDE0369	Online Marketplace - Simply Conserve 36W LED Corn Bulb	E	12	Units	\$12.60	543	559	296.1	-
CDE0370	Online Marketplace - Simply Conserve 54W LED Corn Bulb	E	12	Units	\$21.90	543	559	502.0	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CDE9991	Online Marketplace - Niagara Shower Rail Kit Showerhead 1.75 GPM - Electric	E	10	Units	\$7.50	302	311	449.0	-
CDE9990	Online Marketplace - Niagara Shower Rail Kit Showerhead 1.75 GPM - Gas	G	10	Units	\$7.50	302	311	-	1.8
CDE9995	Online Marketplace - Philips Discover Outdoor Floodlight	E	3	Units	\$15.00	543	559	124.1	-
CDE9989	Online Marketplace - Simply Conserve 25 watt T5 Tube Light LED 25-Pack	E	18	Units	\$121.80	543	559	77.6	-
CDE9994	Online Marketplace - Simply Conserve Adjustable Full Cut-off Wall Pack	E	12	Units	\$75.00	543	559	623.5	-
CDE9988	Online Marketplace - Simply Conserve LED Night Light - 2 Pack	E	8	Units	\$2.30	543	559	18.1	-
CDE9992	Online Marketplace - Simply Conserve, 20-25-30W, 2x2 LED Troffer, 3500K-4000K-5000K, 2-pack	E	18	Units	\$16.00	543	559	70.9	-
CDE9993	Online Marketplace - Simply Conserve, 34-38-45W, 2x4 LED Troffer, 3500K-4000K-5000K, 2-pack	E	18	Units	\$40.00	543	559	92.3	-
CDE9996	Online Marketplace - VendingMiser	E	10	Units	\$80.00	302	311	662.4	-
CDE9987	Online Marketplace - Honeywell 50-Pint Energy Star Dehumidifier	E	1	Units	\$35.00	38	39	196.1	-
CDE9986	Online Marketplace - Honeywell 70-Pint Energy Star Dehumidifier	E	12	Units	\$40.00	38	39	196.1	-
CDE9985	Online Marketplace - Honeywell Energy Star Dehumidifier with Wi-Fi Connectivity	E	12	Units	\$40.00	38	39	196.1	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CDE9997	Online Marketplace - Simply Conserve 5 in./6 in.13 watt LED Downlight Retrofit Recessed, warm	E	3	Units	\$3.01	543	559	117.2	-
CDE5037	Online Marketplace - Niagara Dual Thread Needle Spray Aerator - Electric	E	5	Units	\$3.00	302	311	1,180.8	-
CDE9999	Online Marketplace - Niagara Bubble Spray Faucet Aerator - Electric	E	2.5	Units	\$2.00	302	311	998.8	-
CDE9998	Online Marketplace - Niagara Bubble Spray Faucet Aerator - Gas	G	2.5	Units	\$2.00	302	311	-	4.0
SMB Contractor Rebates Program									
CDE0098	\$100 Permit	E	1	Units	\$0.00	3	3	-	-
CDE0099	\$150 Permit	E	1	Units	\$0.00	30	30	-	-
CDE0151	Project Completion Bonus	E	1	Units	\$0.20	103	103	-	-
CDE0085	Evaporator Fan Motor Controls on ECM motors	E	5	Units	\$75.00	229	229	290.5	-
CDE0283	Strip Curtains (0 Degrees)	E	4	Square Feet	\$30.00	650	650	399.7	-
CDE0282	Strip Curtains (40 Degrees)	E	4	Square Feet	\$1.00	4,062	4,062	74.8	-
CDE0235	Custom Exterior LED	E	12	Units	\$0.20	188	188	258.0	-
CDE0234	Custom Interior LED	E	15	Units	\$0.20	3,014	3,014	439.3	-
CDE0236	Custom Interior T8 T5	E	16	Units	\$0.15	18	18	84.5	-
CDE0340	Custom Signs Tier 1	E	12	Units	\$0.17	34	34	161.1	-
CDE0082	Custom Occupancy Sensor	E	10	Watts Controlled	\$0.20	44	44	256.2	-
CDE0376	Wireless GREM Material Only (EO)	E	8	Units	\$150.00	50	50	980.8	-
CDE0105	Daylight Controls	E	12	Watts Controlled	\$0.00	1,065	1,065	367.1	-
CDE0201	Fixture Removal	E	15	Units	\$0.00	21	21	2,840.3	-
CDE0224	Fixture Removal	E	18	Units	\$0.10	21	21	2,840.3	-

APPENDIX A: DETAILED PROGRAM MEASURES

Measure Code	Measure Name	Fuel	Measure Life, 2024 (Years)	Units	Incentive, 2024 (\$)	Units Installed		Unit Energy Savings	
						2024	2025	Electricity, Net (kWh)	Natural Gas, Net (Mcf)
CDE0275	LED Lighting for Refrigeration Cases	E	16	Linear Feet	\$0.15	2,296	2,296	147.9	-
CDE0108	LEDs	E	3	Units	\$0.20	5,000	5,000	2,699.4	-
CDE0222	LEDs	E	12	Units	\$0.20	1,500	1,500	4,093.2	-
CDE0200	Miscellaneous Lighting	E	15	Units	\$250.00	4,944	4,944	-	-
CDE0106	Occ Sensors	E	10	Watts Controlled	\$0.20	737	737	326.6	-
CDE0059	Anti-sweat Heater Control	E	12	Units	\$105.00	396	396	1,609.4	-
CDE0080	ECM Case Motor	E	15	Units	\$170.00	308	308	725.5	-
CDE0081	ECM Walk-in Cooler and Freezer Motor	E	15	Units	\$275.00	806	806	511.5	-

Consumers Energy - Energy Waste Reduction Program								
Recommended Financial Incentive Structure for Electric								
Legislative First Year Savings Tiers			Metric 1: Lifetime Savings (MWh)			Metric 2: Low Income Investment (\$1,000)		
			Minimum Basis (100%) Year 2024 = 3,745,317 Year 2025 = 3,710,939			Minimum Basis (100%) Year 2024 = \$14,926,667 Year 2025 = \$15,726,667		
			Savings weighted at 80%			Weighted at 25%		
	% Savings	%		Weight	%		Weight	%
Tier 1	1.00%	15.00%	Tier 1	100%	12.00%	Tier 1	100%	3.00%
	1.01%	15.10%		101%	12.08%		101%	3.04%
	1.02%	15.20%		102%	12.16%		102%	3.08%
	1.03%	15.30%		103%	12.24%		103%	3.12%
	1.04%	15.40%		104%	12.32%		104%	3.16%
	1.05%	15.50%		105%	12.40%		105%	3.20%
	1.06%	15.60%		106%	12.48%		106%	3.24%
	1.07%	15.70%		107%	12.56%		107%	3.28%
	1.08%	15.80%		108%	12.64%		108%	3.32%
	1.09%	15.90%		109%	12.72%		109%	3.36%
	1.10%	16.00%		110%	12.80%		110%	3.40%
	1.11%	16.10%		111%	12.88%		111%	3.44%
	1.12%	16.20%		112%	12.96%		112%	3.48%
	1.13%	16.30%		113%	13.04%		113%	3.52%
	1.14%	16.40%		114%	13.12%		114%	3.56%
	1.15%	16.50%		115%	13.20%		115%	3.60%
	1.16%	16.60%		116%	13.28%		116%	3.64%
	1.17%	16.70%		117%	13.36%		117%	3.68%
	1.18%	16.80%		118%	13.44%		118%	3.72%
	1.19%	16.90%		119%	13.52%		119%	3.76%
	1.20%	17.00%		120%	13.60%		120%	3.80%
	1.21%	17.10%		121%	13.68%		121%	3.84%
	1.22%	17.20%		122%	13.76%		122%	3.88%
	1.23%	17.30%		123%	13.84%		123%	3.92%
	1.24%	17.40%		124%	13.92%		124%	3.96%
Tier 2	1.25%	17.50%	Tier 2	125%	14.00%	Tier 2	125%	4.00%
	1.26%	17.60%		126%	14.08%		126%	4.04%
	1.27%	17.70%		127%	14.16%		127%	4.08%
	1.28%	17.80%		128%	14.24%		128%	4.12%
	1.29%	17.90%		129%	14.32%		129%	4.16%
	1.30%	18.00%		130%	14.40%		130%	4.20%
	1.31%	18.10%		131%	14.48%		131%	4.24%
	1.32%	18.20%		132%	14.56%		132%	4.28%
	1.33%	18.30%		133%	14.64%		133%	4.32%
	1.34%	18.40%		134%	14.72%		134%	4.36%
	1.35%	18.50%		135%	14.80%		135%	4.40%
	1.36%	18.60%		136%	14.88%		136%	4.44%
	1.37%	18.70%		137%	14.96%		137%	4.48%
	1.38%	18.80%		138%	15.04%		138%	4.52%
	1.39%	18.90%		139%	15.12%		139%	4.56%
	1.40%	19.00%		140%	15.20%		140%	4.60%
	1.41%	19.10%		141%	15.28%		141%	4.64%
	1.42%	19.20%		142%	15.36%		142%	4.68%
	1.43%	19.30%		143%	15.44%		143%	4.72%
	1.44%	19.40%		144%	15.52%		144%	4.76%
	1.45%	19.50%		145%	15.60%		145%	4.80%
	1.46%	19.60%		146%	15.68%		146%	4.84%
	1.47%	19.70%		147%	15.76%		147%	4.88%
	1.48%	19.80%		148%	15.84%		148%	4.92%
	1.49%	19.90%		149%	15.92%		149%	4.96%
Tier 3	1.50%	20.00%	Tier 3	150%	16.00%	Tier 3	150%	5.00%

Note: The financial incentive is the minimum of the first year savings incentive or total metric incentive calculated by adding up the percentages earned in each of the 2 metrics. The total incentive award can not exceed the award based on the Company's 1st year energy savings achieved. (Financial incentive payment can not exceed 20% of program spend, or 30% of net benefits).

Consumers Energy - Energy Waste Reduction Program								
Recommended Financial Incentive Structure for Gas								
Legislative First Year Savings Tiers			Metric 1: Lifetime Savings (MCF)			Metric 2: Low Income Investment - (\$1,000)		
			Minimum Basis (100%) Year 2024 = 23,139,995 Year 2025 = 22,726,789			Minimum (100%) Year 2024 = \$23,625,006 Year 2025 = \$24,073,506		
			Savings weighted at 80%			Weighted at 25%		
	% Savings	Incentive Cap		Weight	Incentive Cap		Weight	Incentive Cap
Tier 1	0.750%	15.00%	Tier 1	100.0%	12.00%	Tier 1	100.0%	3.00%
	0.755%	15.10%		100.7%	12.08%		100.7%	3.04%
	0.760%	15.20%		101.3%	12.16%		101.3%	3.08%
	0.765%	15.30%		102.0%	12.24%		102.0%	3.12%
	0.770%	15.40%		102.7%	12.32%		102.7%	3.16%
	0.775%	15.50%		103.3%	12.40%		103.3%	3.20%
	0.780%	15.60%		104.0%	12.48%		104.0%	3.24%
	0.785%	15.70%		104.7%	12.56%		104.7%	3.28%
	0.790%	15.80%		105.3%	12.64%		105.3%	3.32%
	0.795%	15.90%		106.0%	12.72%		106.0%	3.36%
	0.800%	16.00%		106.7%	12.80%		106.7%	3.40%
	0.805%	16.10%		107.3%	12.88%		107.3%	3.44%
	0.810%	16.20%		108.0%	12.96%		108.0%	3.48%
	0.815%	16.30%		108.7%	13.04%		108.7%	3.52%
	0.820%	16.40%		109.3%	13.12%		109.3%	3.56%
	0.825%	16.50%		110.0%	13.20%		110.0%	3.60%
	0.830%	16.60%		110.7%	13.28%		110.7%	3.64%
	0.835%	16.70%		111.3%	13.36%		111.3%	3.68%
	0.840%	16.80%		112.0%	13.44%		112.0%	3.72%
	0.845%	16.90%		112.7%	13.52%		112.7%	3.76%
	0.850%	17.00%		113.3%	13.60%		113.3%	3.80%
	0.855%	17.10%		114.0%	13.68%		114.0%	3.84%
	0.860%	17.20%		114.7%	13.76%		114.7%	3.88%
	0.865%	17.30%		115.3%	13.84%		115.3%	3.92%
	0.870%	17.40%		116.0%	13.92%		116.0%	3.96%
Tier 2	0.875%	17.50%	Tier 2	116.7%	14.00%	Tier 2	116.7%	4.00%
	0.880%	17.60%		117.3%	14.08%		117.3%	4.04%
	0.885%	17.70%		118.0%	14.16%		118.0%	4.08%
	0.890%	17.80%		118.7%	14.24%		118.7%	4.12%
	0.895%	17.90%		119.3%	14.32%		119.3%	4.16%
	0.900%	18.00%		120.0%	14.40%		120.0%	4.20%
	0.905%	18.10%		120.7%	14.48%		120.7%	4.24%
	0.910%	18.20%		121.3%	14.56%		121.3%	4.28%
	0.915%	18.30%		122.0%	14.64%		122.0%	4.32%
	0.920%	18.40%		122.7%	14.72%		122.7%	4.36%
	0.925%	18.50%		123.3%	14.80%		123.3%	4.40%
	0.930%	18.60%		124.0%	14.88%		124.0%	4.44%
	0.935%	18.70%		124.7%	14.96%		124.7%	4.48%
	0.940%	18.80%		125.3%	15.04%		125.3%	4.52%
	0.945%	18.90%		126.0%	15.12%		126.0%	4.56%
	0.950%	19.00%		126.7%	15.20%		126.7%	4.60%
	0.955%	19.10%		127.3%	15.28%		127.3%	4.64%
	0.960%	19.20%		128.0%	15.36%		128.0%	4.68%
	0.965%	19.30%		128.7%	15.44%		128.7%	4.72%
	0.970%	19.40%		129.3%	15.52%		129.3%	4.76%
	0.975%	19.50%		130.0%	15.60%		130.0%	4.80%
	0.980%	19.60%		130.7%	15.68%		130.7%	4.84%
	0.985%	19.70%		131.3%	15.76%		131.3%	4.88%
	0.990%	19.80%		132.0%	15.84%		132.0%	4.92%
	0.995%	19.90%		132.7%	15.92%		132.7%	4.96%
Tier 3	1.000%	20.00%	Tier 3	133.3%	16.00%	Tier 3	133.3%	5.00%

Note: The financial incentive is the minimum of the first year savings incentive or total metric incentive calculated by adding up the percentages earned in each of the 2 metrics. The total incentive award can not exceed the award based on the Company's 1st year energy savings achieved. (Financial incentive payment can not exceed 20% of program spend, or 30% of net benefits).

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

DIRECT TESTIMONY

OF

LISA M. BIERING

ON BEHALF OF

CONSUMERS ENERGY COMPANY

August 2023

LISA M. BIERING
DIRECT TESTIMONY

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

2 A. My name is Lisa M. Biering and I use she/her pronouns. My business address is 530 W
3 Willow St., Lansing, MI 48906.

4 **Q. Please describe your current position and responsibilities.**

5 A. I am the Manager of Product Innovation for Consumers Energy Company (“Consumers
6 Energy” or the “Company”), and I am responsible for the development and implementation
7 of Consumers Energy’s Demand Side Management (“DSM”) pilots including electric and
8 gas Energy Waste Reduction (“EWR”) pilots.

9 **Q. Please describe your education and professional experience.**

10 A. I hold a Master of Arts degree in Strategic Communications from Michigan State
11 University and a Bachelor of Arts degree in English Literature from Alma College.

12 From 2012 to 2018, I was employed by Michigan State University Federal Credit
13 Union, holding a variety of roles with increasing responsibility in Customer Experience
14 and Internal and Corporate Communications. During my tenure there, I led the Company’s
15 media relations efforts, managed product development for employee- and customer-facing
16 technologies, and designed customer experiences within financial processes, among other
17 responsibilities.

18 From 2018 to 2019, I served as the Director of Marketing and Communications for
19 the Capital Region Community Foundation, leading all external communications on behalf
20 of the organization and product development on charitable funds held by the Foundation.

21 In 2019, I began work for Consumers Energy as Chief of Staff for the Senior Vice President
22 of Transformation, Engineering and Operations Support. In 2020, I transitioned to the Gas
23 Regulatory Assurance team to lead the implementation of stakeholder engagement efforts

LISA M. BIERING
DIRECT TESTIMONY

1 and regulatory recommendations under the Company's Pipeline Safety Management
2 System. In 2022, I was promoted to my current role as Manager of Demand Side
3 Management Product Innovation.

4 **Q. Have you previously filed testimony with the Michigan Public Service Commission**
5 **("MPSC" or the "Commission")?**

6 A. Yes, I provided testimony in the Company's 2022 DR Reconciliation, Case No. U-21410.

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

8 A. The purpose of my direct testimony is to provide an overview of the EWR Pilot Program
9 contained in the Company's 2024-2025 EWR Plan.

10 **Q. Are you sponsoring any exhibits with your direct testimony?**

11 A. No.

12 **Q. Is the Company proposing a pilot program as part of its 2024-2025 EWR Plan?**

13 A. Yes, the Company has included a mix of pilots across customer segments (business and
14 residential) and fuels (natural gas and electric) as part of its proposed EWR Plan, and will
15 manage its pilot portfolio, exercising flexibility and adjusting its mix of pilot projects,
16 through the 2024-2025 EWR Plan period.

17 **Q. Why is investment in an EWR pilot program important?**

18 A. Pilots provide a critical role and opportunity for the Company to design and test innovative
19 approaches and new technologies to determine if cost-effective energy savings can be
20 realized. Given the market changes, particularly in regard to lighting, investment in pilots

LISA M. BIERING
DIRECT TESTIMONY

1 is of critical importance to identifying new energy saving opportunities to support the EWR
2 portfolio and the Company's aggressive savings goals.

3 Agility, adaptability, and flexibility in pilot program management is more critical than
4 ever given the market transformation of highly cost-effective and high energy-saving
5 measures, reduced potential/market saturation, anticipated efficiency standard and building
6 code changes, the Company's aggressive Clean Energy Plan goals, and the ambitious
7 targets set in the Michigan Department of Environment, Great Lakes, and Energy MI
8 Healthy Climate Plan. The importance of a fluid and flexible EWR pilot program cannot
9 be understated in regard to ensuring a cost-effective EWR portfolio. Technologies are
10 evolving faster than ever, as are customer dynamics and expectations. From new rebate
11 and customer acquisition processes to new measures and programs, the EWR Program is
12 reliant upon an agile, flexible, and robust pilot programs. The EWR Pilot Program provides
13 the ability to test energy savings opportunities while assessing adoption potential, customer
14 satisfaction, and ancillary benefits (e.g., health impacts, reduced emissions, energy equity
15 opportunities, and more) to determine and advise if adoption as part of the broader EWR
16 portfolio and broader investment is beneficial and prudent.

17 **Q. What are the primary objectives of the EWR Pilot Program?**

18 A. The primary objectives of the Company's EWR Pilot Program are to (i) explore and
19 evaluate technologies, measures, processes, and programs that do not currently exist in the
20 Company's EWR customer offerings to ensure continued energy savings opportunities as
21 EWR policies and measures change through market transformation and other impacts; (ii)
22 understand business and residential customer needs and how those needs can be met with
23 EWR solutions to provide additional value to customers; and (iii) use customer feedback

LISA M. BIERING
DIRECT TESTIMONY

and research to identify, test, and evaluate opportunities to promote, encourage, and support customer participation in EWR across all customer segments.

Q. Is the Company making any proposed changes to its EWR Pilot Programs?

A. Yes. As discussed in the testimony of Company witness Emily A. McGraw, the Company is proposing increased investment in the Income Qualified Health and Safety Pilot to allow for further pilot expansion. Additional pilot program changes include (i) expansion of the Workforce Development Pilot, (ii) development of an Induction Cooktops Pilot, and (iii) and development of a Combined Heat and Power Pilot. Description of these and other pilot efforts is provided in the pilot program section of the Company's 2024-2025 EWR Plan Report ("Plan Report") sponsored by Company witness McGraw (see Exhibit A-2 (EAM-2)).

Q. Please identify the residential and business pilots included in the proposed 2024-2025 EWR Plan.

A. The Company will invest, or is evaluating investment, in residential and business EWR pilots including but not limited to the following:

Residential	Business
<ul style="list-style-type: none">Income Qualified Health and SafetySuper-Efficient All-Electric New HomesMy Energy AnalyzerInduction CooktopsWorkforce Development	<ul style="list-style-type: none">On-Bill Payments (joint with residential)Local Government BenchmarkingRefrigeration Optimization and Peak ShiftingRefrigerant SwapCombined Heat and Power

LISA M. BIERING
DIRECT TESTIMONY

1 **Q. Is the Company considering pilot initiatives other than those listed in the table above?**

2 A. Yes. The Company is always considering ideas for potential pilots and research, on a
3 continuous basis, for business and residential customers. For example, the Company is
4 currently looking for additional workforce development initiatives to consider pursuing.
5 Potential ideas are considered in collaboration with stakeholders, Commission Staff,
6 evaluation teams, other utilities and research and development partners, including the
7 Consortium for Energy Efficiency and GTI Energy, to ensure achievement of the pilot
8 program objectives stated above.

9 **Q. For each of the residential and business pilot programs identified above, is there more**
10 **detailed information available in this filing?**

11 A. Yes. The EWR Plan Report, Exhibit A-2 (EAM-2), sponsored by Company witness
12 McGraw, provides pilot descriptions and information available at the time of filing.

13 **Q. What is the projected total pilot program investment over the 2024-2025 EWR Plan**
14 **period?**

15 A. The Company is projecting \$39.3 million of pilot program investment, comprising \$26.0
16 million electric and \$13.3 million gas investment for the 2024-2025 EWR Plan period.
17 Annual and sector (i.e. business and residential) investment detail over this period can be
18 found in the Company's EWR Plan Report, Exhibit A-2 (EAM-2).

19 **Q. How is investment for pilot programs determined?**

20 A. In Case Nos. U-20372 and U-20875, the MPSC approved an increase of the pilot program
21 spending cap from 5% to 6% of total EWR portfolio investment to support 1% dedicated
22 investment in the Company's Income Qualified Health and Safety Pilot. In response to
23 stakeholder interest in further expansion of the Company's Income Qualified Health and

LISA M. BIERING
DIRECT TESTIMONY

1 Safety Pilot, for its 2024-2025 EWR Plan, the Company modeled and is proposing to invest
2 7% of its total gas and electric portfolio investments in its pilot programs with 2% directed
3 to the Income Health and Safety pilot investment. The remaining pilot investment (5% of
4 total EWR portfolio investment) will be used to support all other residential and business
5 pilot program activities. More information regarding the Company's proposal to increase
6 the pilot spending cap to 7% is provided in the testimony of Company witness McGraw.

7 **Q. How is energy savings calculated for pilot programs?**

8 A. The deemed energy savings for pilots are calculated based on the percent of pilot funding
9 and the energy savings delivered. As shown in Exhibit A-2 (EAM-2), the Company's 7%
10 investment in pilots results in projected deemed pilot savings of 87,011 MWh and 411,498
11 Mcf.

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

13 A. Yes.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016)
_____)

Case No. U-21321

DIRECT TESTIMONY
OF
EUGÈNE M. BREURING
ON BEHALF OF
CONSUMERS ENERGY COMPANY

August 2023

EUGÈNE M. BREURING
DIRECT TESTIMONY

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

2 A. My name is Eugène M. Breuring, and my business address is One Energy Plaza, Jackson,
3 Michigan.

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 a Senior Rate Analyst III in the Planning, Budgeting & Analysis Section of the Rates &
7 Regulation and Quality Department.

8 **Q. Please describe your qualifications.**

9 A. In 1992, I graduated from Grand Valley State University with a Bachelor of Business
10 Administration degree in Accounting. In 1996, I graduated from Thunderbird School of
11 Global Management with a Master of Business Administration degree in International
12 Management. I have also attended trade-specific conferences and seminars related to
13 Michigan and United States economies, Michigan economic forecasts, as well as regression
14 modeling.

15 Prior to joining Consumers Energy in 2013, I worked at the Kellogg Company,
16 Tecumseh Products Company, and Stryker Corporation, mostly in a financial planning,
17 budgeting, and forecasting capacity. In January of 2013, I accepted the position of Senior
18 Rate Analyst II at Consumers Energy. In 2020, I was promoted to Senior Analyst III,
19 which is my current position at Consumers Energy. In this capacity, I am responsible for
20 preparing the Company’s official electric sales and customer forecasts, sponsoring the sales
21 and customer forecast testimony and exhibits, industry research, and various economic
22 studies. Also, I am responsible for creating the Company’s revenue forecast related to the
23 electric business.

EUGÈNE M. BREURING
DIRECT TESTIMONY

1 **Q. Have you sponsored testimony in any previous cases before the Michigan Public**
2 **Service Commission (“MPSC” or the “Commission”)?**

3 A. Yes, I have presented the Company’s electric and gas sales forecasts in the following cases:

4	U-17771	2016 – 2017 Energy Optimization Plan;
5	U-17990	General Electric Rate Case;
6	U-18142	2017 Power Supply Cost Recovery Plan;
7	U-18231	2017 Biennial Renewable Energy Plan;
8	U-18261	Amended Energy Optimization Plan;
9	U-18322	General Electric Rate Case;
10	U-18402	2018 Power Supply Cost Recovery Plan;
11	U-20134	General Electric Rate Case;
12	U-20165	2018 Integrated Resource Plan (“IRP”);
13	U-20219	2019 Power Supply Cost Recovery Plan;
14	U-20372	2019 Energy Waste Reduction (“EWR”) Electric and Gas Plan;
15	U-20525	2020 Power Supply Cost Recovery Plan;
16	U-20697	General Electric Rate Case;
17	U-20802	2021 Power Supply Cost Recovery Plan;
18	U-20875	2022-2025 EWR Plan;
19	U-20963	General Electric Rate Case;
20	U-21048	2022 Power Supply Cost Recovery Plan;
21	U-21090	2021 IRP;
22	U-21257	2023 Power Supply Cost Recovery Plan; and
23	U-21389	General Electric Rate Case.

EUGÈNE M. BREURING
DIRECT TESTIMONY

PART I - INTRODUCTION

Q. Please explain the purpose of your direct testimony in this proceeding.

A. I am presenting the historical and forecasted sales and revenues used in developing the Company's 2024-2025 EWR Plan.

Q. Are you sponsoring any exhibits in this case?

A. Yes. I am providing the following exhibits:

Exhibits	Description
A-4 (EMB-1)	Electric Retail Weather-Normal Calendar Deliveries Forecast;
A-5 (EMB-2)	Gas Retail Weather-Normal Deliveries Forecast;
A-6 (EMB-3)	Billing Determinants Used for Developing the Electric EWR Surcharges;
A-7(EMB-4)	Billing Determinants Used for Developing the Electric Self-Direct EWR Surcharges; and
A-8 (EMB-5)	Billing Determinants Used for Developing The Gas EWR Surcharges.

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

A. Yes.

PART II – ELECTRIC & GAS RETAIL DELIVERIES

Q. Please describe Exhibit A-4 (EMB-1).

A. This exhibit details the weather-normal electric deliveries currently approved for use in calculating the electric statutory savings targets. Exhibit A-4 (EMB-1) is a single-page exhibit that shows the electric retail weather-normal deliveries forecast by customer class, as well as the previous year's weather-normal deliveries for each of the forecasted years.

EUGÈNE M. BREURING
DIRECT TESTIMONY

1 **Q. How has the Commission defined electric retail deliveries for purposes of the**
2 **Company's EWR Plan?**

3 A. The Commission defined electric retail deliveries in its December 4, 2008 Temporary
4 Order in Case U-15800. In that Order, the Commission defined retail deliveries to include
5 residential, commercial, industrial, street lighting, and interdepartmental electric
6 deliveries.

7 **Q. Please describe Exhibit A-5 (EMB-2).**

8 A. This exhibit provides the currently approved weather-normal gas deliveries for use in
9 calculating the natural gas statutory savings targets. Exhibit A-5 (EMB-2) is a single-page
10 exhibit that shows the gas retail weather-normal deliveries forecast by customer class, as
11 well as the previous year's weather-normal deliveries for each of the forecasted years.

12 **Q. How has the Commission defined gas retail deliveries for purposes of the Company's**
13 **EWR Plan?**

14 A. The Commission defined gas retail deliveries in its December 4, 2008 Temporary Order in
15 Case No. U-15800. In that Order, the Commission defined gas retail deliveries as gas
16 deliveries including customer choice and transportation volumes.

17 **PART III – FORECASTED BILLING DETERMINANT FORECASTS**

18 **Q. Please describe Exhibits A-6 (EMB-3) and A-7 (EMB-4).**

19 A. Exhibits A-6 (EMB-3) and A-7 (EMB-4) contain the electric forecasted billing
20 determinants used in developing the proposed electric EWR Plan surcharges. Exhibit A-6
21 (EMB-3) provides the forecasted billing determinants for customers participating in the
22 Company's EWR programs. Exhibit A-7 (EMB-4) provides the forecasted billing
23 determinants for those customers electing instead to self-direct.

EUGÈNE M. BREURING
DIRECT TESTIMONY

1 **Q. Please describe Exhibit A-8 (EMB-5).**

2 A. Exhibit A-8 (EMB-5) is a two-page exhibit providing the forecasted gas billing
3 determinants used in developing the proposed gas EWR Plan surcharges.

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

5 A. Yes.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016)
_____)

Case No. U-21321

EXHIBITS
OF
EUGÈNE M. BREURING
ON BEHALF OF
CONSUMERS ENERGY COMPANY

August 2023

**MICHIGAN PUBLIC SERVICE COMMISSION
CONSUMERS ENERGY COMPANY**

Electric Retail Weather-Normal Calendar Deliveries Forecast
2023 - 2025 Forecast
Megawatt-hours (MWh)

Case No.: U-21321
Exhibit No.: A-4 (EMB-1)
Page: Page 1 of 1
Witness: EMBreuring
Date: August 2023

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
Line No.	Year	Residential	Commercial	Industrial	Street Lighting	Inter- departmental	Total	Previous Year W/N Deliveries	EV Sales (MWh)			EV Sales (%)		
									Res	Com	Total	Res	Com	Total
1	2022 Hist	12,619,463	11,528,105	8,448,109	108,686	32,849	32,737,213							
2	2023 Fcst	12,536,234	11,557,366	8,632,944	122,064	33,890	32,882,498	32,737,213	44,786	22,874	67,660	0.4%	0.2%	0.3%
3	2024 Fcst	12,572,328	11,295,237	8,646,115	120,219	32,814	32,666,713	32,882,498	82,102	43,274	125,376	0.7%	0.4%	0.5%
4	2025 Fcst	12,585,161	11,070,162	8,983,746	119,219	32,762	32,791,051	32,666,713	144,087	78,348	222,435	1.1%	0.7%	0.9%

Notes:

- (1) Retail electric deliveries are defined as total utility deliveries less wholesale deliveries, intersystem deliveries, and retail open access deliveries.
(2) Forecasted sales are all on a calendar, weather-normal basis.

**MICHIGAN PUBLIC SERVICE COMMISSION
CONSUMERS ENERGY COMPANY**

Gas Retail Weather-Normal Deliveries Forecast
2023 - 2025 Forecast
Million Cubic Feet (MMcf)

Case No.: U-21321
Exhibit No.: A-5 (EMB-2)
Page: Page 1 of 1
Witness: EMBreuring
Date: August 2023

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Line No.	Year	Residential	Commercial	Industrial	Inter- departmental	Transportation	Total	Electric Generators	Previous Year W/N Deliveries
1	2022 Hist	158,566	56,078	8,120	294	85,665	308,722	19,253.256	287,955
2	2023 Fcst	157,647.849	53,996	8,751	94	90,861	311,350	23,807.351	289,469
3	2024 Fcst	157,506.443	53,829	8,615	94	90,330	310,374	23,962.036	287,543
4	2025 Fcst	157,253.747	53,623	8,492	92	89,933	309,394	23,942.230	286,412

Notes:

- (1) Retail gas deliveries are defined as total utility deliveries, including Gas Customer Choice and Transportation deliveries.
(2) Forecasted calendar deliveries are all on a weather-normal basis.

Billing Determinants Used for
Developing the Electric Energy Waste Reduction Surcharges

Line No.	Year	(a) Month	(b)	(c) Residential MWh	(d) GUL fixtures	(e)	(f)	(g)	(h)	(i) Secondary & Primary		(k)	(l)	(m)	(n)	Total	Check:
						Tier 1 0 - 2,000 kWh/mo.	Tier 2 2,001 - 5,000 kWh/mo.	Tier 3 5,001 - 10,000 kWh/mo.	Tier 4 10,001 - 30,000 kWh/mo.	Tier 5 30,001 - 50,000 kWh/mo.	Tier 6 50,001 - 75,000 kWh/mo.	Tier 7 75,001 - 100,000 kWh/mo.	Tier 8 100,001 - 150,000 kWh/mo.	Tier 9 150,001 - 250,000 kWh/mo.	Tier 10 > 250,000 kWh/mo.		
						Cust.	Cust.	Cust.	Cust.	Cust.	Cust.	Cust.	Cust.	Cust.	Cust.		
1	2023	1		1,143,187	172,676	171,201	25,406	12,192	9,695	2,018	927	445	467	407	616	223,374	-
2	2023	2		1,107,650	172,676	171,132	25,396	12,187	9,691	2,017	927	445	467	407	616	223,285	-
3	2023	3		1,044,262	172,676	171,059	25,385	12,182	9,687	2,016	927	445	466	407	616	223,189	-
4	2023	4		978,772	172,676	170,996	25,376	12,177	9,683	2,016	926	444	466	406	616	223,107	-
5	2023	5		875,630	172,676	170,938	25,367	12,173	9,680	2,015	926	444	466	406	615	223,032	-
6	2023	6		975,196	172,676	170,878	25,358	12,169	9,677	2,014	926	444	466	406	615	222,953	-
7	2023	7		1,223,336	172,676	170,834	25,352	12,166	9,674	2,014	925	444	466	406	615	222,896	-
8	2023	8		1,256,628	172,677	170,783	25,344	12,162	9,671	2,013	925	444	466	406	615	222,828	-
9	2023	9		1,064,446	172,677	170,723	25,335	12,158	9,668	2,012	925	444	466	406	615	222,751	-
10	2023	10		919,390	172,677	170,683	25,329	12,155	9,666	2,012	925	444	465	406	614	222,698	-
11	2023	11		910,637	172,677	170,635	25,322	12,151	9,663	2,011	924	443	465	406	614	222,635	-
12	2023	12		1,057,857	172,677	170,610	25,318	12,150	9,662	2,011	924	443	465	405	614	222,603	-
13	2024	1		1,129,481	172,675	170,574	25,313	12,147	9,660	2,011	924	443	465	405	614	222,556	-
14	2024	2		1,088,313	172,675	170,545	25,309	12,145	9,658	2,010	924	443	465	405	614	222,518	-
15	2024	3		1,049,983	172,675	170,509	25,303	12,142	9,656	2,010	924	443	465	405	614	222,471	-
16	2024	4		991,010	172,675	170,482	25,299	12,140	9,654	2,010	924	443	465	405	614	222,436	-
17	2024	5		881,660	172,675	170,459	25,296	12,139	9,653	2,009	923	443	465	405	613	222,406	-
18	2024	6		969,417	172,675	170,432	25,292	12,137	9,651	2,009	923	443	465	405	613	222,371	-
19	2024	7		1,225,746	172,675	170,421	25,290	12,136	9,651	2,009	923	443	465	405	613	222,356	-
20	2024	8		1,253,348	172,676	170,400	25,287	12,135	9,650	2,009	923	443	465	405	613	222,328	-
21	2024	9		1,062,767	172,676	170,370	25,283	12,133	9,648	2,008	923	443	465	405	613	222,290	-
22	2024	10		924,648	172,676	170,358	25,281	12,132	9,647	2,008	923	443	465	405	613	222,274	-
23	2024	11		911,738	172,676	170,338	25,278	12,130	9,646	2,008	923	443	464	405	613	222,248	-
24	2024	12		1,065,018	172,676	170,340	25,278	12,130	9,646	2,008	923	443	464	405	613	222,250	-
25	2025	1		1,122,985	172,676	170,329	25,277	12,130	9,646	2,008	923	443	464	405	613	222,236	-
26	2025	2		1,100,828	172,676	170,324	25,276	12,129	9,645	2,008	923	443	464	405	613	222,230	-
27	2025	3		1,047,543	172,676	170,311	25,274	12,128	9,645	2,008	923	443	464	405	613	222,213	-
28	2025	4		990,410	172,676	170,307	25,273	12,128	9,644	2,008	923	443	464	405	613	222,207	-
29	2025	5		901,284	172,676	170,305	25,273	12,128	9,644	2,008	923	443	464	405	613	222,205	-
30	2025	6		984,598	172,676	170,299	25,272	12,127	9,644	2,007	923	443	464	405	613	222,196	-
31	2025	7		1,236,005	172,676	170,307	25,273	12,128	9,644	2,008	923	443	464	405	613	222,207	-
32	2025	8		1,252,799	172,676	170,304	25,273	12,128	9,644	2,008	923	443	464	405	613	222,204	-
33	2025	9		1,063,167	172,676	170,292	25,271	12,127	9,644	2,007	923	443	464	405	613	222,188	-
34	2025	10		920,701	172,676	170,297	25,272	12,127	9,644	2,007	923	443	464	405	613	222,195	-
35	2025	11		907,687	172,676	170,293	25,271	12,127	9,644	2,007	923	443	464	405	613	222,189	-
36	2025	12		1,065,281	172,676	170,310	25,274	12,128	9,645	2,008	923	443	464	405	613	222,212	-

**MICHIGAN PUBLIC SERVICE COMMISSION
CONSUMERS ENERGY COMPANY**

Billing Determinants Used For
Developing The Electric Self-Direct Energy Waste Reduction Surcharges

Case No.: U-21321
Exhibit No.: A-7 (EMB-4)
Page: Page 1 of 1
Witness: EMBreuring
Date: August 2023

Line No.	(a) Year	(b) Month	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	total
			Tier 1	Tier 2	Tier 3	Tier 4	Secondary & Primary		Tier 7	Tier 8	Tier 9	Tier 10	
			0 - 2,000	2,001 - 5,000	5,001 - 10,000	10,001 - 30,000	Tier 5	Tier 6	75,001 - 100,000	100,001 - 150,000	150,001 - 250,000	> 250,000	
			kWh/mo. Cust.	kWh/mo. Cust.	kWh/mo. Cust.	kWh/mo. Cust.	kWh/mo. Cust.	kWh/mo. Cust.	kWh/mo. Cust.	kWh/mo. Cust.	kWh/mo. Cust.	kWh/mo. Cust.	
1	2023	1	7	17	2	22	-	2	1	8	11	39	109
2	2023	2	7	17	2	22	-	2	1	8	11	39	109
3	2023	3	7	17	2	22	-	2	1	8	11	39	109
4	2023	4	7	17	2	22	-	2	1	8	11	39	109
5	2023	5	7	17	2	22	-	2	1	8	11	39	109
6	2023	6	7	17	2	22	-	2	1	8	11	39	109
7	2023	7	7	17	2	22	-	2	1	8	11	39	109
8	2023	8	7	17	2	22	-	2	1	8	11	39	109
9	2023	9	7	17	2	22	-	2	1	8	11	39	109
10	2023	10	7	17	2	22	-	2	1	8	11	39	109
11	2023	11	7	17	2	22	-	2	1	8	11	39	109
12	2023	12	7	17	2	22	-	2	1	8	11	39	109
13	2024	1	7	17	2	22	-	2	1	8	11	39	109
14	2024	2	7	17	2	22	-	2	1	8	11	39	109
15	2024	3	7	17	2	22	-	2	1	8	11	39	109
16	2024	4	7	17	2	22	-	2	1	8	11	39	109
17	2024	5	7	17	2	22	-	2	1	8	11	39	109
18	2024	6	7	17	2	22	-	2	1	8	11	39	109
19	2024	7	7	17	2	22	-	2	1	8	11	39	109
20	2024	8	7	17	2	22	-	2	1	8	11	39	109
21	2024	9	7	17	2	22	-	2	1	8	11	39	109
22	2024	10	7	17	2	22	-	2	1	8	11	39	109
23	2024	11	7	17	2	22	-	2	1	8	11	39	109
24	2024	12	7	17	2	22	-	2	1	8	11	39	109
25	2025	1	7	17	2	22	-	2	1	8	11	39	109
26	2025	2	7	17	2	22	-	2	1	8	11	39	109
27	2025	3	7	17	2	22	-	2	1	8	11	39	109
28	2025	4	7	17	2	22	-	2	1	8	11	39	109
29	2025	5	7	17	2	22	-	2	1	8	11	39	109
30	2025	6	7	17	2	22	-	2	1	8	11	39	109
31	2025	7	7	17	2	22	-	2	1	8	11	39	109
32	2025	8	7	17	2	22	-	2	1	8	11	39	109
33	2025	9	7	17	2	22	-	2	1	8	11	39	109
34	2025	10	7	17	2	22	-	2	1	8	11	39	109
35	2025	11	7	17	2	22	-	2	1	8	11	39	109
36	2025	12	7	17	2	22	-	2	1	8	11	39	109

**MICHIGAN PUBLIC SERVICE COMMISSION
CONSUMERS ENERGY COMPANY**

Billing Determinants Used For
Developing The Gas Energy Waste Reduction Surcharges

Case No.: U-21321
Exhibit No.: A-8 (EMB-5)
Page: 1 of 2
Witness: EMBreuring
Date: August 2023

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
				0 - 49,999	50,000 - 99,999	> 100,000	Electric	
<u>Line</u>	<u>Year</u>	<u>Month</u>	<u>Residential</u>	<u>Mcf / Yr</u>	<u>Mcf / Yr</u>	<u>Mcf / Yr</u>	<u>Generation</u>	<u>Total</u>
			<u>Mcf</u>	<u>Mcf</u>	<u>Mcf</u>	<u>Mcf</u>	<u>Mcf</u>	<u>Mcf</u>
1	2023	1	28,593,447	11,933,893	1,442,976	7,118,367	2,406,257	51,494,940
2	2023	2	26,096,143	10,725,371	1,296,849	6,404,159	2,155,925	46,678,447
3	2023	3	19,480,354	9,312,312	1,125,990	5,576,158	1,856,141	37,350,955
4	2023	4	12,352,537	6,223,843	752,550	3,230,079	1,737,265	24,296,274
5	2023	5	6,036,114	4,032,859	487,630	1,538,717	1,679,970	13,775,289
6	2023	6	3,321,625	3,564,482	430,996	872,226	1,972,641	10,161,970
7	2023	7	3,246,083	3,469,924	419,563	815,594	1,953,806	9,904,970
8	2023	8	3,063,362	3,495,833	422,696	1,026,012	1,764,067	9,771,970
9	2023	9	4,024,954	3,792,302	458,543	1,018,056	2,008,638	11,302,492
10	2023	10	10,207,141	5,249,085	634,689	2,537,568	1,651,807	20,280,289
11	2023	11	17,958,323	7,169,056	866,840	3,522,204	2,199,531	31,715,955
12	2023	12	24,857,766	10,296,184	1,244,954	5,796,240	2,421,303	44,616,447
13	2024	1	28,591,923	11,874,112	1,435,748	7,111,550	2,358,607	51,371,940
14	2024	2	26,055,189	10,661,286	1,289,100	6,404,529	2,098,343	46,508,447
15	2024	3	19,430,570	9,256,579	1,119,251	5,453,337	1,929,217	37,188,955
16	2024	4	12,331,273	6,191,944	748,694	3,134,596	1,803,768	24,210,274
17	2024	5	6,015,282	4,011,032	484,990	1,391,322	1,807,663	13,710,289
18	2024	6	3,308,938	3,548,695	429,087	854,853	1,975,397	10,116,970
19	2024	7	3,242,466	3,454,073	417,646	801,034	1,953,750	9,868,970
20	2024	8	3,056,545	3,482,702	421,108	1,005,089	1,772,527	9,737,970
21	2024	9	4,024,827	3,774,727	456,418	964,943	2,045,578	11,266,492
22	2024	10	10,211,496	5,230,648	632,459	2,476,044	1,695,642	20,246,289
23	2024	11	17,968,798	7,131,841	862,340	3,553,797	2,134,178	31,650,955
24	2024	12	24,851,136	10,240,142	1,238,178	5,779,625	2,387,366	44,496,447
25	2025	1	28,565,562	11,800,349	1,426,829	7,156,841	2,260,359	51,209,940
26	2025	2	25,998,919	10,590,917	1,280,591	6,357,593	2,094,427	46,322,447
27	2025	3	19,377,077	9,196,071	1,111,935	5,354,476	1,984,396	37,023,955
28	2025	4	12,289,498	6,158,433	744,642	3,087,523	1,827,179	24,107,274
29	2025	5	5,992,808	3,992,521	482,752	1,359,712	1,826,496	13,654,289
30	2025	6	3,295,925	3,536,318	427,591	869,378	1,952,759	10,081,970

**MICHIGAN PUBLIC SERVICE COMMISSION
CONSUMERS ENERGY COMPANY**

Billing Determinants Used For
Developing The Gas Energy Waste Reduction Surcharges

Case No.: U-21321
Exhibit No.: A-8 (EMB-5)
Page: 2 of 2
Witness: EMBreuring
Date: August 2023

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
				0 - 49,999	50,000 - 99,999	> 100,000	Electric	
<u>Line</u>	<u>Year</u>	<u>Month</u>	<u>Residential</u>	<u>Mcf / Yr</u>	<u>Mcf / Yr</u>	<u>Mcf / Yr</u>	<u>Generation</u>	<u>Total</u>
			Mcf	Mcf	Mcf	Mcf	Mcf	Mcf
1	2025	7	3,236,078	3,446,606	416,743	817,291	1,933,252	9,849,970
2	2025	8	3,051,459	3,474,026	420,059	988,209	1,784,217	9,717,970
3	2025	9	4,016,655	3,767,585	455,554	992,437	2,014,262	11,246,492
4	2025	10	10,210,116	5,211,772	630,177	2,432,676	1,726,549	20,211,289
5	2025	11	17,965,585	7,097,794	858,224	3,593,428	2,070,925	31,585,955
6	2025	12	24,822,066	10,193,229	1,232,505	5,667,239	2,467,408	44,382,447

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

DIRECT TESTIMONY

OF

JESSICA R. BYROM

ON BEHALF OF

CONSUMERS ENERGY COMPANY

August 2023

JESSICA R. BYROM
DIRECT TESTIMONY

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

2 A. My name is Jessica Byrom, and my business address is One Energy Plaza, Jackson,
3 Michigan 49201.

4 **Q. By whom are you employed and what is your present position?**

5 A. I am employed by Consumers Energy Company (“Consumers Energy” or the
6 “Company”) as Director of Residential Demand Side Management Products.

7 **Q. Please review your educational background.**

8 A. I graduated from Michigan State University in 2008 with a Bachelor of Arts in
9 International Relations and in 2015 with a Master of Business Administration.

10 **Q. Please describe your business and professional experience.**

11 A. In 2009, I began full-time employment with Michigan State University, working primarily
12 in a human resources role during my tenure with the university. My role centered around
13 process optimization and management of our hiring, firing, and compliance investigation
14 processes for the department’s 4,000 part-time and nearly 500 full-time employees. In
15 2017, I began my career at Consumers Energy as a member of the Customer Operations
16 Strategy team. I was promoted to manager, and eventual director, of this team in March of
17 2018. During my time with that team, I had the responsibility of working with the
18 Company’s business partners within the Customer Operations and Customer Experience
19 teams related to goal creation, data organization, process optimization, testimony creation
20 for rate cases, and the implementation of the Company’s lean operating system framework.
21 In September 2021, I took on the role of Director of Residential Demand Side
22 Management, leading the team that owns and manages the products within the Residential
23 sector for Energy Waste Reduction (“EWR”) and Demand Response (“DR”).

JESSICA R. BYROM
DIRECT TESTIMONY

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

3 A. Yes, I have provided testimony in the following cases:

<u>Case No.</u>	<u>Description</u>
U-21205	2021 EWR Reconciliation
U-21410	2022 DR Reconciliation

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

8 A. I am providing an overview of the residential EWR programs, energy savings, and
9 investments contained in the Company’s 2024-2025 EWR Plan.

10 **Q. Are you sponsoring any exhibits with your direct testimony?**

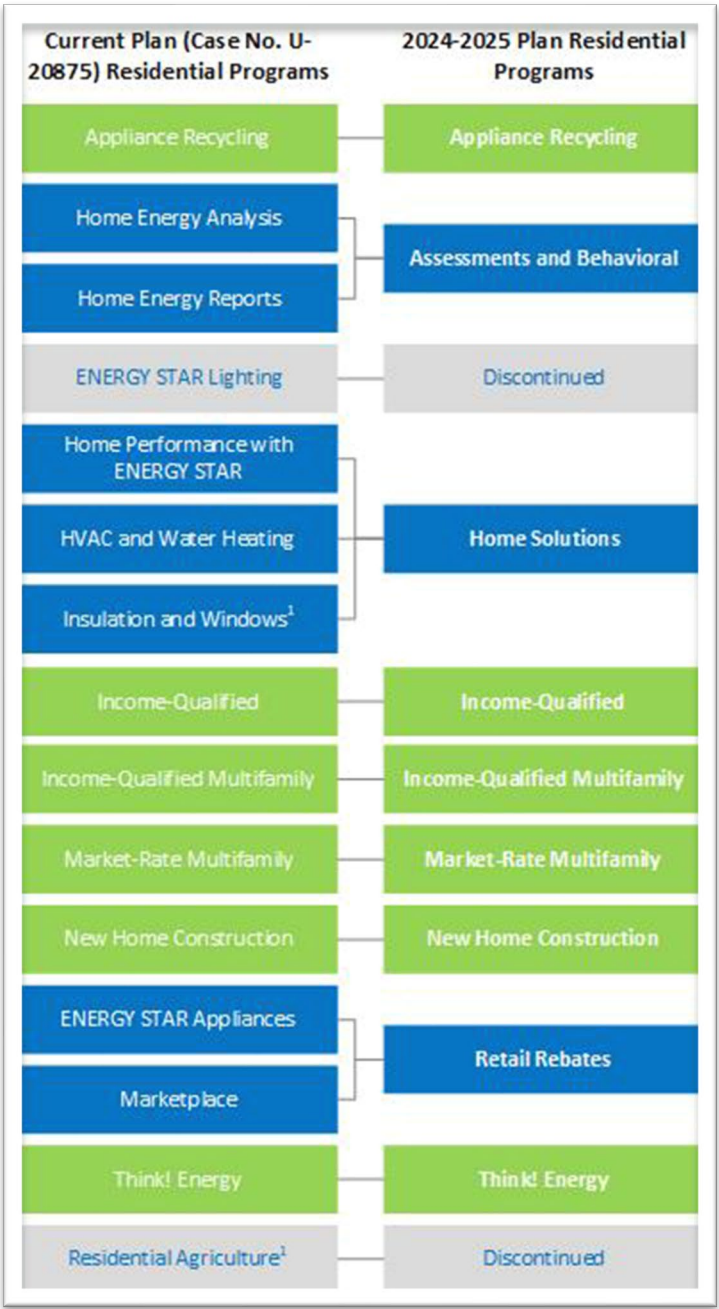
11 A. No.

12 **Q. Please describe the most significant proposed changes to the residential programs**
13 **associated with the 2024-2025 EWR Plan.**

14 A. The Company is proposing changes to the residential programs that (1) are consistent with
15 the savings goals set forth in its approved 2021 Integrated Resource Plan (Case No. U-
16 21090) (“2021 IRP”) and natural gas delivery plan, 2) take into consideration new
17 technology standards and evolving market conditions, and 3) create more comprehensive
18 offerings that give customers more opportunity to save energy based on a logical journey
19 through a residential portfolio redesign. The Residential portfolio redesign does not
20 eliminate any current residential program offerings except residential lighting, which will
21 sunset due to lighting market transformation, but rather organizes and consolidates
22 programs for administrative efficiency, customer engagement, and to maximize energy
23 savings potential. The revised residential program structure is provided below with

JESSICA R. BYROM
DIRECT TESTIMONY

additional detail provided in Exhibit A-2 (EAM-2) sponsored by Company witness Emily
A. McGraw.



¹ The contractor-facing measures for the Insulation and Windows program were absorbed into Home Solutions and the do-it-yourself measures were absorbed into Retail Rebates. The measures offered through the Residential Agriculture program will continue to be offered through appropriate business programs.

JESSICA R. BYROM
DIRECT TESTIMONY

1 **Q. Please describe why these changes are necessary for the success of the 2024–2025**
2 **EWI Plan.**

3 A. Consumers Energy and the utility industry are facing numerous market disruptions and
4 other challenges that have the potential to impact savings forecasts and the overall
5 2024-2025 EWI Plan results. For example, market transformation of standard LED
6 lighting has erased the benefit of continuing the Company's ENERGY STAR Lighting
7 Program, and changing equipment standards that largely affect the Company's residential
8 electric HVAC Program continues to significantly erode residential electric savings
9 potential. At the same time, evolving market characteristics (e.g., increasing saturation of
10 energy efficient technologies and higher cost of emergent technologies), changing
11 customer needs (e.g., more personalized services and intelligent, digital solutions),
12 growing engagement challenges (e.g., myriad media platforms and entities vying for
13 customers' attention), and fluctuating costs, continue to increase the Company's overall
14 acquisition costs, and present challenges to Consumers Energy's continued ability to
15 cost-effectively achieve its residential programs' savings goals. Further, the Company's
16 Clean Energy Plan, as approved in its 2021 IRP, Case No. U-21090, includes aggressive
17 EWI electric savings targets of over 1.5% of retail electric sales, a target made even more
18 challenging by the changing EWI landscape of available products and diminishing electric
19 savings potential. To address these residential programs, the Company is proposing the
20 changes described above.

JESSICA R. BYROM
DIRECT TESTIMONY

1 **Q. What residential programs does the Company propose to provide as part of its 2022–**
2 **2025 EWR Plan?**

3 A. The following nine residential programs will be offered:

- 4 • Appliance Recycling Program
- 5 • Assessments and Behavioral
- 6 • Home Solutions
- 7 • Retail Rebates
- 8 • Income Qualified Energy Assistance
- 9 • Market Rate Multifamily
- 10 • Income Qualified Multifamily
- 11 • New Home Construction
- 12 • Think! Energy® - Energy Education

13 **Q. Please describe the Company's Appliance Recycling Program.**

14 A. The Appliance Recycling Program targets customers with older, energy-guzzling “second”
15 refrigerators and freezers that often end up in garages, basements, or sold in the used
16 appliance market after purchase of a new primary appliance. The program will provide the
17 benefits of cutting energy consumption and keeping used appliances out of the secondary
18 market by disposing of them in an environmentally safe manner. Incentives will be offered
19 for working full-size and compact refrigerators and freezers, along with dehumidifiers, and
20 room air conditioners. The program will continue expanding collaborations in the retail
21 space providing awareness and convenience for residential customers. An appliance
22 recycling implementation contractor will provide turnkey implementation services that
23 include verification of customer eligibility, scheduling of pickup appointments, appliance

JESSICA R. BYROM
DIRECT TESTIMONY

1 pick-up, retail partner management, rebate processing, and environmentally safe recycling
2 services.

3 **Q. Please describe the Company's Assessments and Behavioral program.**

4 A. The Assessments and Behavioral program is a bundled customer offering combining the
5 Home Energy Analysis ("HEA") and Home Energy Report ("HER") programs and
6 delivery mechanisms to educate customers on specific findings unique to their residences
7 and steps that customers can take to reduce their overall energy usage. The program utilizes
8 historical customer energy use and home attributes to educate customers on ways to
9 manage their specific energy usage more effectively and, where applicable, promote
10 additional EWR portfolio offerings. Customers participating the in the HEA portion of the
11 program receive direct installation of energy saving measures, a walkthrough energy
12 inspection of their home by a trained specialist, and a customer summary report with energy
13 saving tips and recommendations. The energy savings measures include power strips,
14 water heater pipe insulations, bath and kitchen water saving aerators and showerheads, and
15 programmable and Wi-Fi-enabled thermostats, all installed free of charge for residential
16 customers. The HER component provides customers with personalized energy information
17 through direct mail and email to encourage behavioral changes in consumption behavior
18 and the promotion of additional EWR residential portfolio offerings.

19 **Q. Please describe the Company's residential Home Solutions Program.**

20 A. The residential Home Solutions program is a bundled customer program combining all
21 contractor rebates that were previously offered through the separate HVAC and Water
22 Heating, Home Performance with ENERGY STAR®, and Insulation and Windows
23 programs. The Home Solutions program offers customer rebates for installing qualified

JESSICA R. BYROM
DIRECT TESTIMONY

1 energy saving windows, home insulation, and HVAC and water-heating equipment
2 installed through a contractor either independently or as a result of performing a
3 Comprehensive Home Assessment with Building Performance Institute (“BPI”)-certified
4 contractors.

5 **Q. Please describe the Company’s residential Retail Rebates Program.**

6 A. The residential Retail Rebates Program combines all in-store and online marketplace
7 customer rebates previously offered through various residential programs. The program
8 provides rebates for qualified higher efficiency appliances such as clothes washers, room
9 air conditioners, dehumidifiers, variable speed pool pumps, air purifiers, televisions, power
10 strips, Wi-Fi thermostats, DIY high-efficiency windows, and insulation. In addition,
11 beginning in 2024, the online marketplace expects to include non-rebated products (e.g.,
12 caulk) that compliment EWR products, to promote increased awareness and utilization of
13 the online store for rebate eligible EWR product purposes. The Retail Rebates Program
14 will continue to offer both instant rebates through the online store and in-store rebates
15 through post-purchase mail or online application, and validated instant markdown
16 depending on the measure type and store location.

17 **Q. Please describe the Company’s Income Qualified Energy Assistance Program.**

18 A. The Income Qualified Energy Assistance Program will identify specific opportunities for
19 low-income customers to lower their energy use by providing in-home energy analyses that
20 increase awareness of the benefits of EWR as well as installation of EWR measures.
21 Consumers Energy will provide financial assistance to cover the full cost of installation for
22 customers with limited income. For each participant, Consumers Energy will either fund
23 100% of the service and measure costs provided through the program (non-leveraged

JESSICA R. BYROM
DIRECT TESTIMONY

1 measures) or share the cost with nonprofit organizations (leveraged measures) that provide
2 weatherization and retrofit services. A tiered incentive allows the program to customize
3 nonprofit contribution to maximize program reach. The non-leveraged initiative will offer
4 an in-home assessment and direct installation of lighting, water-saving devices, pipe wrap,
5 thermostats, and carbon monoxide detection. This assessment is generally the entry point
6 for single-family customers to participate in the Non-Leveraged Premium Measures
7 initiative which provides single-family customers with several premium measures such as
8 air conditioning, furnace, boiler, water heater, or refrigerator replacement; air conditioning
9 or furnace tune-up; insulation; and air or duct sealing. The Company will continue to offer
10 a virtual assessment component to provide customers with this “no-touch” participation
11 option.

12 The Company continues to recognize the need for weatherization assistance for
13 customers. To this aim, Consumers Energy will (1) continue to expand partnerships with
14 nonprofit organizations to provide weatherization services to income-qualifying customers
15 through collaborations with Habitat for Humanity and other community organizations;
16 (2) continue efforts to drive more participation with the low-income Manufactured
17 Housing market to address the relatively high energy consumption of mobile home
18 customers through direct install measures and envelope efficiency upgrades; and (3)
19 continue to engage in collaborative efforts to support full utilization of the expanded state
20 Weatherization Assistance Program and other weatherization funding authorized in the
21 2021 Infrastructure Investment and Jobs Act and the 2022 Inflation Reduction Act.

22 The Company also recognizes the role of EWR as a mechanism to assist customers
23 facing high-energy burden/high bills and the importance of coordination with the

JESSICA R. BYROM
DIRECT TESTIMONY

1 Company's broader energy affordability and low-income assistance efforts. The Company
2 will continue to utilize its internal referral process through the Consumers Affordable
3 Resource for Energy ("CARE") Program to ensure financially challenged customers are
4 directed to EWR income-qualified initiatives. Income Qualified Program staff will also
5 continue active engagement in the EWR collaboratives and workgroups focused on
6 increasing Income Qualified Program participation, impact, accessibility, and
7 coordination.

8 Further, in accordance with the Company's Commission-approved EWR Plan
9 Settlement Agreement (Case No. U-20875), the Income Qualified and Multifamily Income
10 Qualified programs will continue the Flint Initiative, launched in 2023, in which the
11 Company will invest up to \$1 million from 2023 through 2024 to support EWR
12 improvements through a geographically targeted approach to Flint zip codes 48502 through
13 48507. The Flint initiative incorporated the 2022 Low Income Needs Assessment
14 ("LINA") prioritization scenarios and utilizes a coordinated community approach with
15 partners including Flint elementary schools, the City of Flint Lead Remediation Program,
16 medical providers, neighborhood organizations, and the Company's Think! Energy EWR
17 and energy assistance programs. EWR efforts are targeted to CARE, Low-Income Heating
18 Assistance Program ("LIHEAP"), Michigan Energy Assistance Program ("MEAP") and
19 arrearage customers. The Flint Initiative supports a holistic approach to EWR for both
20 single family and multifamily income-qualified customers that includes assessments, direct
21 install measures, premium appliance installations, as well as health and safety pilot
22 assessment to improve indoor air quality and living conditions, reduce environmental

JESSICA R. BYROM
DIRECT TESTIMONY

triggers in the home, and allow for further EWR upgrades. The Company will utilize Flint Initiative evaluation and project learnings to develop a second geotargeted effort in 2025.

Q. Please describe the Company's Market Rate Multifamily and Income Qualified Multifamily programs.

A. The residential Multifamily Market-Rate Program will produce electric and natural gas energy savings in multifamily buildings through the direct installation of energy-saving measures in individual living units and common areas. Since this is traditionally a hard-to-reach market, the low-cost energy saving measures will be installed in targeted buildings free of charge to the property owner and tenants, and program technicians will leave educational materials in the individual units that explain the energy- and money-saving benefits associated with the energy-efficient measures. The program is also designed to achieve deeper energy savings through the promotion of high-efficiency equipment for prescriptive and custom retrofit projects.

The Income Qualified Multifamily Program will serve income-qualified multifamily buildings, offering the same free direct installation and education materials as the Market Rate Multifamily Program while providing higher incentives for high-efficiency equipment measures to retrofit individual units and common areas of the income-qualified properties.

Q. Will the Company continue to administer the Income Qualified Health and Safety Pilot through the Income Qualified and Income Qualified Multifamily programs?

A. Yes. The Health & Safety Pilot will continue to be a component of the Company's EWR Income Qualified programs for single family and multifamily customers. The pilot aims to provide assistance to customers to help them overcome health and safety deferrals

JESSICA R. BYROM
DIRECT TESTIMONY

1 preventing them from making energy efficiency improvements, up to and including
2 covering 100% of the costs associated with these projects. These include mold
3 remediation; asbestos abatement; leaking roof repair or replacement; structural, electrical,
4 or plumbing repair; addressing inadequate electric panel issues; addressing egress and
5 accessibility issues, among others.

6 As part of this pilot, the Company will work with agencies and contractors to
7 identify customers who have deferred an EWR project due to a health or safety concern,
8 remedy the concern, and proceed with installation of EWR upgrades. The pilot includes
9 three main components:

- 10 • Holistic Homes focuses on working with community agencies to leverage home
11 repair fund to provide home safety repairs and upgrades needed to ready the
12 home for EWR intervention.
- 13 • Healthier Homes provides core EWR measures coupled with expanded
14 remediation actions to customers with asthma, COPD, and other respiratory
15 issues with the aim to improve indoor air quality and reduce environmental
16 triggers in the home.
- 17 • Multifamily engages trade allies and community agencies to identify and
18 address energy efficiency deferrals where present health and safety issues
19 prevent the installation of EWR in multifamily settings.

20 **Q. Please describe the Company's residential New Home Construction Program.**

21 A. The New Home Construction Program will create long-term electric and natural gas
22 savings by encouraging the construction of single-family homes and duplexes that meet
23 the current ENERGY STAR Version 3.1 standards or a minimum Home Energy Rating
24 System (HERS®) score. Homes built to higher EWR standards create multiple benefits for
25 homeowners including lower long-term operating costs, better quality construction, greater
26 comfort, and potentially higher housing value. The program will identify, encourage, and
27 recruit residential builders that are not consistently (or seldom) building homes to

JESSICA R. BYROM
DIRECT TESTIMONY

1 ENERGY STAR Version 3.1 standards. Participating builders will be eligible for
2 incentives based on the home type, level of efficiency achieved above the Michigan
3 Uniform Energy Code, and fuel(s) delivered by Consumers Energy, and will receive
4 training on building practices designed to achieve ENERGY STAR Version 3.1 standards.
5 Builders and HERS Raters will also be trained on how to promote the value of energy
6 efficient homes to their customers.

7 **Q. Please describe the Company's Think! Energy® – Energy Education Program.**

8 A. The Think! Energy Program provides education on energy use in the home and will
9 influence students and their household to take actions that can reduce their home energy
10 use. The program provides a virtual or in-class EWR presentation along with a “take-
11 home” kit that raises awareness on how individual actions and low-cost measures can
12 provide reductions in consumption of electricity, natural gas, and water. While the
13 program has historically targeted elementary and middle school students in grades 4-6, in
14 fall 2021 the Company expanded the Think! Energy program to target additional students
15 (early elementary and high school) and senior citizens by way of community or senior
16 citizen centers.

17 **Q. For each of the residential programs described above, is there more detailed**
18 **information available in this filing?**

19 A. Yes. The 2024-2025 EWR Plan Report, Exhibit A-2 (EAM-2), sponsored by Company
20 witness McGraw, provides additional program details.

JESSICA R. BYROM
DIRECT TESTIMONY

1 **Q. From the residential programs that the Company plans to implement as part of this**
2 **filing, what are the projected total annualized MWh, MW, and Mcf savings expected**
3 **to be delivered for the EWR Plan period 2024-2025?**

4 A. From residential programs, the Company projects to deliver the sum of first year energy
5 savings of 234,853 MWh, 23.8 MW, and 2,730,457 Mcf from 2024 to 2025. Annual
6 energy saving amounts over this time period can be found in the Company's Plan Report,
7 Exhibit A-2 (EAM-2).

8 **Q. How is energy savings calculated in each of the residential programs?**

9 A. The base energy savings values for various measures are contained in the Michigan Energy
10 Measures Database ("MEMD"). For any measures that do not have energy savings
11 included in the MEMD, supporting documentation and engineering calculations must be
12 provided to support claimed energy savings. These are then reviewed by third-party
13 evaluation contractors.

14 **Q. What is the projected total residential electric and total natural gas program**
15 **investment to deliver these energy savings over the 2024-2025 EWR Plan period?**

16 A. To deliver the energy savings targets over the 2024-2025 EWR Plan period, the Company
17 projects it will need \$102.15 million residential program electric investment and
18 \$114.17 million residential program gas investment, of which \$45.98 million and \$63.60
19 million is directed to income qualified electric and gas programs, respectively. Annual
20 program investment detail over this time period can be found in the Company's Plan
21 Report, Exhibit A-2 (EAM-2).

JESSICA R. BYROM
DIRECT TESTIMONY

1 **Q. How did the Company determine the investment level for the residential portfolio?**

2 A. Investment for the residential portfolio is based on a number of variables that include
3 historical investment and participation levels, IRP targets, projected incentives, number of
4 measures installed, industry trends, market performance, market potential, and new
5 initiatives offered by the Company.

6 **Q. Will the Company's residential programs, excluding low-income residential**
7 **customers, collectively be cost-effective?**

8 A. Yes. Cost-effectiveness is measured by the results of the Utility Cost Test ("UCT") as
9 established in 2008 PA 2095 with a score greater than 1.0 considered cost-effective. The
10 collective residential portfolio, excluding income-qualified programs, is cost-effective as
11 described in the direct testimony of Company witness R. Kenneth Skinner. The residential
12 EWR portfolio and individual residential program UCT scores can be found in Exhibit A-2
13 (EAM-2), Table ES-4.

14 **Q. How will the Company demonstrate that its investment in the residential programs is**
15 **achieving the desired results?**

16 A. Consistent with the approach used since 2009, the Company will file annual reconciliation
17 reports with the Commission after the end of each plan year detailing how much was
18 invested for each program and energy saved for each program by customer class
19 (residential, non-residential) in the previous year. Such reports will provide sufficient
20 detail to allow the Commission to determine that the Company is complying with the
21 Commission's orders and statutory requirements.

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

23 A. Yes.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

DIRECT TESTIMONY
OF
NATHANIEL S. CARVER
ON BEHALF OF
CONSUMERS ENERGY COMPANY

August 2023

NATHANIEL S. CARVER
DIRECT TESTIMONY

INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Nathaniel S. Carver. My business address is 4000 Clay Avenue SW, Grand Rapids, Michigan 49548.

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

A. I am employed by Consumers Energy Company (“Consumers Energy” or the “Company”) as Demand Side Management (“DSM”) Executive Director of Product Management responsible for business Energy Waste Reduction (“EWR”) and Demand Response (“DR”) programs.

Q. Please describe your education and professional experience.

A. In 2001, I earned a Bachelor of Science Degree with specialization in Business Administration from Hillsdale College. In 2002, I began my career at Consumers Energy as a Customer Energy Specialist responsible for supporting residential and small business customer energy requests and new service installations. In 2004, I joined Operations Support as an Electric Zonal Planner, working collaboratively with engineering, operational, and scheduling teams to develop monthly and annual workplans for zonal operational headquarters. In 2005, I was promoted to Electric Statewide Planner responsible for coordinating zonal plans across the state with key internal stakeholders, and in 2012 I was promoted to Electric Statewide Planning lead. In 2016, I accepted the position of Principle Corporate Account Management lead. In this role I managed the Corporate Account Management team responsible for fostering and managing the Company’s relationship with medium and large energy use business customers, including informing customers of opportunities and issues related to their accounts, communicating

NATHANIEL S. CARVER
DIRECT TESTIMONY

1 detailed engineering and financial energy analyses to customers, and assisting customers
2 with enrollment into programs, primarily EWR and DR offerings. In 2021, I began my
3 current role as DSM Director of Commercial and Industrial (“C&I”) Products. In this
4 role, I oversee the development, administration, and management of the Company’s C&I
5 EWR and DR products including development of product strategies, optimizing product
6 performance, and implementing solutions to achieve C&I DSM energy and capacity
7 savings targets.

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

10 A. I previously submitted testimony in the Company’s 2022 DR Reconciliation, Case No.
11 U-21410.

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

13 A. The purpose of my direct testimony is to describe the Company’s business EWR
14 programs, program costs, energy savings, and capacity savings in the Company’s
15 proposed 2024-2025 EWR Plan.

16 **Q. Are you sponsoring any exhibits with your direct testimony?**

17 A. No.

18 **CONSUMERS ENERGY’S PROPOSED LARGE BUSINESS EWR PROGRAMS**

19 **Q. Please describe the Company’s EWR C&I Program.**

20 A. The C&I EWR Program will generate energy savings for business customers through the
21 promotion of high-efficiency electric and natural gas equipment. The primary objectives
22 of the program are to increase the market share of commercial-grade high-efficiency
23 technologies sold through existing market channels, increase the installation rate of

NATHANIEL S. CARVER
DIRECT TESTIMONY

high-efficiency technologies in facilities that would not have done so in the absence of the program, and improve the operating efficiency of existing long-life equipment. The C&I business programs included in the EWR Plan provide an achievable approach to meeting the needs of large business customers, expanding interest and participation in business EWR programs, and cost-effectively delivering increased gas and electric savings targets in line with the Company's approved Clean Energy Plan. While the C&I program is targeted to large business customers, small and medium-sized businesses ("SMB") customers eligible for the SMB EWR programs described in the testimony of Company witness Gregory E. Stevenson are eligible to participate in the C&I program as well.

Q. Please describe the significant proposed changes to the C&I program from the Company's EWR Plan approved in Case No. U-20875.

A. The Company is proposing changes to the business programs, consistent with the increased electric savings goals in both its approved Clean Energy Plan (Integrated Resource Plan, Case No. U-21090), and in consideration of new technology standards, evolving market conditions, new federal and state initiatives anticipated as Inflation Reduction Act and Infrastructure and Investment Jobs Act efforts are rolled out in Michigan, and increases in cost of acquisition. To increase visibility into the large business EWR portfolio, the Company separated the Comprehensive Business Solutions Program into its two programs reflective of its largest components: Prescriptive and Custom Solutions programs.

NATHANIEL S. CARVER
DIRECT TESTIMONY

1 **Q. What are the EWR programs the Company plans to offer to its C&I customers in**
2 **2024 and 2025?**

3 A. Consumers Energy is proposing to offer the following EWR programs to its C&I
4 business electric and business natural gas customers:

- 5 • Prescriptive Program; and
- 6 • Custom Solutions Program

7 **Q. Please describe the Company's Prescriptive Program.**

8 A. The Prescriptive Program will offer cash-back incentives to customers when they
9 purchase qualifying equipment or services. The program is designed to offer incentives
10 for technologies that address a variety of market sectors and industries by using targeted,
11 proactive outreach efforts to influence specific market sectors including:

- 12 • Trade allies (wholesalers, distributors, contractors, and retailers that market
13 qualifying technologies);
- 14 • High-impact/high-need customer sectors (such as schools, municipal
15 buildings, and hospitals); and
- 16 • Industrial business customers.

17 The program targets measures where the unit energy savings can be reliably predicted.
18 As such, standard per-measure savings and incentive levels will be utilized to simplify
19 the application process and reduce administrative costs.

20 Business customers' capital investment decisions are financially driven and often
21 considered on a first-cost option basis. That is, their focus on project payback related to
22 capital equipment often overlooks long-term operating costs when making choices to
23 replace equipment. Traditionally, EWR equipment is not directly related to the capital
24 investment strategies of business customers. Therefore, it is essential to educate and
25 provide financial incentives to overcome barriers to implementing EWR improvements.

NATHANIEL S. CARVER
DIRECT TESTIMONY

This program will provide cash-back mail-in or online application incentives equal to 25% to 40% of the incremental cost to purchase EWR products along with tiered incentive approaches to promote investment in high-efficiency equipment and multi-measure projects.

Q. Please highlight targeted efforts within the Prescriptive Program.

A. There are several targeted approaches within the Prescriptive Program directed to various customer segments or EWR processes to support increased EWR program participation.

The mid-stream component works through local suppliers offering energy-efficient equipment to provide instant discounts for qualified products at the time of purchase, simplifying EWR customer engagement by eliminating the need for a customer rebate application process. This mid-stream instant rebate will be offered on selected products that include lighting; Heating, Ventilation, and Air-Conditioning (“HVAC”); and food service equipment. Furthermore, the Company will examine the potential of an upstream initiative in 2024 to recruit and incentivize HVAC and food service equipment manufacturers to increase the sale of energy efficient equipment.

The New Construction component will work with the design community to influence business owners to capture immediate and long-term EWR opportunities that are available during the design and construction phases of new buildings, additions, and renovations in the non-residential market. Owners are often reluctant to adopt new EWR practices and expend the increased upfront costs. To combat these challenges and encourage energy-efficient integration during design and construction, the New Construction component offers value engineering processes to reduce costs and promote an integrated system over the range of expected operating conditions.

NATHANIEL S. CARVER
DIRECT TESTIMONY

1 The Network Lighting Controls component allows the customer to set lighting
2 schedules throughout the building, utilizing existing windows and ambient lighting for
3 daylight harvesting, and control lighting from a remote location. Program staff will guide
4 the customer, identifying a customized solution by incorporating best-practice lighting
5 design for visual appeal and acuity while maximizing energy savings.

6 The Smart Buildings (Retro-Commissioning) component is a systematic facility
7 investigation that identifies low-cost and no-cost facility improvement measures. The
8 program will utilize operations and maintenance reviews in combination with enhanced
9 energy audits that draw upon existing building commissioning techniques to assist
10 customers in EWR optimization of their facilities. The program will provide customers
11 with value-added services, such as energy-saving estimates, and will incentivize
12 engineering studies to help customers develop an energy-saving strategy and realize
13 immediate savings through identified low-cost/no-cost measure implementations.

14 The Agriculture component will focus on providing technical assistance as well as
15 incentives for participating agricultural customers through both prescriptive and custom
16 rebates. Program staff will work directly with agricultural customers to assist in finding
17 opportunities for energy improvement as well as associated incentives for project
18 completion. In addition, the program collaborates with Michigan State University's Farm
19 Audit program to offer incentives to customers who have an audit completed at their
20 facility.

21 The Industrial or Strategic Energy Management ("SEM") segment within the
22 business EWR portfolio is a focused initiative to create persistent energy savings through
23 integration of energy management into business practices (similar to integrated quality

NATHANIEL S. CARVER
DIRECT TESTIMONY

1 assurance or safety programs) and utilization of an internal energy team, instead of
2 managing energy savings projects one by one. SEM comprises a range and combination
3 of tools including technical assistance, energy audit and/or building assessment,
4 benchmark services, energy performance target setting, project identification,
5 implementation and management support, energy coaching, training, and certification
6 (where applicable), and development of a customer-managed internal energy team, with
7 the ultimate design catered to the individual customer.

8 The Company intends to promote SEM but also recognizes that not all customers
9 are in a position to implement full-scale SEM efforts and therefore will continue to
10 provide its Energy Concierge Service (“ECS”) that was transitioned into the prescriptive
11 program after proving its value in pilot testing. ECS provides a designated single point of
12 contact and customized assistance to achieve the customer’s unique energy savings goals.
13 ECS advisors work directly with the customer to identify energy savings projects,
14 develop energy savings business cases to support and encourage customer organization
15 investment in EWR, and work with the customer to maximize EWR incentives through
16 the rebate process. The hallmark and cornerstone of ECS is the collaboration between
17 the ECS advisor and the customer, going beyond identification of EWR program and
18 energy savings opportunities to working side-by-side with the customer to address
19 customer challenges to EWR investment, and developing an actionable and achievable
20 energy savings plan that meets the customer’s energy savings needs and encourages
21 continued and increasing participation in EWR.

NATHANIEL S. CARVER
DIRECT TESTIMONY

1 The Building Performance with Energy Star component will help commercial
2 buildings such as schools and hospitals become more energy efficient through behavioral
3 assessments, benchmarking, energy committees, and energy audits.

4 The Builder Operators Certification (“BOC”) component is a competency-based
5 training and certification program for operations and maintenance staff working in
6 commercial, institutional, or industrial buildings. BOC achieves energy savings by
7 training individuals directly responsible for the maintenance of energy-building
8 equipment and day-to-day building operations and maintenance professionals. Classes
9 are designed to improve job skills and lead to improved comfort and energy efficiency in
10 the participant’s facility.

11 **Q. Please describe the Company’s Custom Solutions Program.**

12 The Custom Solutions Program will assist larger business customers with the analysis
13 and selection of high-efficiency equipment or processes not covered through the
14 Prescriptive program. Large business customers typically have more complex
15 mechanical equipment supporting facility operations and manufacturing processes. As a
16 result, many barriers prevent projects from being implemented.

17 In particular, the Custom Solutions Program identifies complex energy savings
18 projects, provides economic analysis, and aids in the completion of the incentive
19 application. Incentives are based on energy savings on a per kWh or Mcf basis for
20 installed measures. The program targets large customers better served by a custom
21 approach than Prescriptive incentives. Targeted markets include large manufacturing
22 facilities, hospitals, schools, and the lodging/hospitality industry. This program will also
23 offer technical support to help customers evaluate comprehensive EWR opportunities,
24 including walk through energy assessments to identify energy savings and to assist in

NATHANIEL S. CARVER
DIRECT TESTIMONY

specifying projects. Further, targeted audits by seasoned contractors and engagement in SEM or ECS processes will be utilized to assist large customers in identifying and implementing process improvements in manufacturing facilities.

Q. For the C&I programs described above, is there more detailed information available in this filing?

A. Yes. The EWR Plan Report, Exhibit A-2 (EAM-2), sponsored by Company witness Emily A. McGraw, provides additional program details.

**CONSUMERS ENERGY'S EXPECTED PERFORMANCE OF
BUSINESS EWR PROGRAMS**

Q. What is the expected energy savings from Consumers Energy's 2024-2025 EWR C&I programs?

A. The expected first year electric and gas energy savings from the Company's 2024-2025 EWR business programs is 810,019 MWh and 2,146,735 Mcf.

Q. What is the basis for the expected energy savings?

A. The basis for expected energy savings is historical performance of past programs, industry trends, market performance, and new initiatives and incentives offered by the Company. The various business programs being proposed in this case are expected to deliver the first-year savings shown in Exhibit A-2 (EAM-2), Table ES-4.

Q. What is the expected capacity savings from the Company's C&I business programs for 2024 through 2025?

A. From 2024 through 2025, Consumers Energy expects to produce net capacity savings of 114.8 MW from its business programs, as shown in Exhibit A-2 (EAM-2), Table ES-4.

NATHANIEL S. CARVER
DIRECT TESTIMONY

1 **Q. How does the Company propose to verify these savings?**

2 A. Evaluation, measurement, and verification activities are implemented through a
3 third-party contractor selected through a competitive bid process. The third-party
4 evaluator's role is to verify program savings impacts and monitor program performance.
5 These activities serve as a way to determine the actual program level savings being
6 delivered and to maximize energy optimization investments.

7 **Q. How much does Consumers Energy propose to invest in the C&I business electric
8 and natural gas programs to deliver the aforementioned energy and capacity
9 savings?**

10 A. From 2024 through 2025, Consumers Energy proposes to invest approximately \$142.61
11 and \$36.47 million in its electric and gas business programs, respectively, as shown in
12 Exhibit A-2 (EAM-2), Table ES-4.

13 **Q. How did Consumers Energy determine this spending level?**

14 A. Investment in the Company's C&I programs was based on the Company's commitment
15 to cost effectively reduce total electric and gas savings by 1.9% and 1%, respectively,
16 through its comprehensive EWR portfolio.

17 **Q. Is this investment level reasonable?**

18 A. Yes. This level of electric and gas investment in the business programs is reasonable,
19 prudent, and cost-effective as described in the direct testimony of Company witness R.
20 Kenneth Skinner. Cost-effectiveness is measured by the results of the Utility Cost Test
21 ("UCT") as established in 2008 PA 295, with a score greater than 1.0 considered cost-
22 effective. The Company's comprehensive business EWR portfolio and individual
23 program UCT scores can be found in Exhibit A-2 (EAM-2), Table ES-4.

NATHANIEL S. CARVER
DIRECT TESTIMONY

1 **Q. How will the Company demonstrate that its large business investments are**
2 **achieving the desired results?**

3 A. The Company will file annual reconciliation reports with the Commission after the end of
4 each plan year detailing program investment and energy savings achieved for each
5 program and by customer class in the previous year. Such reports will be in sufficient
6 detail to allow the Commission to determine that the Company is complying with the
7 Commission's orders and statutory requirements.

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

9 A. Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016)
_____)

Case No. U-21321

DIRECT TESTIMONY

OF

LAURA M. CONNOLLY

ON BEHALF OF

CONSUMERS ENERGY COMPANY

August 2023

LAURA M. CONNOLLY
DIRECT TESTIMONY

Q. Please state your name and business address.

A. My name is Laura M. Connolly, and my business address is One Energy Plaza, Jackson, Michigan 49201.

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

A. I am employed by Consumers Energy Company (“Consumers Energy” or the “Company”) as Director of Regulated Pricing in the Rates and Regulation Department.

Q. Please describe your educational background and business experience.

A. I received a Bachelor of Business Administration degree in Finance in December 2000 from the University of Michigan – Flint. In January 2001, I joined Consumers Energy as a Rate Analyst in the Revenue Requirements section of the Rates Department, where I held positions of increasing responsibility. I joined the Cost Analysis, Pricing and Tariff section of the Rates Department in 2012 and was promoted to Director of Regulated Pricing in July 2021.

Q. What are your responsibilities as Director of Regulated Pricing for Consumers Energy?

A. In my current role I oversee the development of the Company’s cost of service study, load research, rate design, and other rate-related analyses.

Q. Have you previously filed testimony with the Michigan Public Service Commission (“MPSC” or the “Commission”)?

A. Yes. I have filed testimony in the following cases:

Case No. U-12575-R	Gas Cost Recovery Reconciliation;
--------------------	-----------------------------------

Case No. U-13220	Gas Cost Recovery Plan;
------------------	-------------------------

Case No. U-13570	Gas Cost Recovery Plan;
------------------	-------------------------

Case No. U-13570-R	Gas Cost Recovery Reconciliation;
--------------------	-----------------------------------

LAURA M. CONNOLLY
DIRECT TESTIMONY

1	Case No. U-13730	Gas General Rate Case;
2	Case No. U-13916	Gas Cost Recovery Plan;
3	Case No. U-13917-R	Power Supply Cost Recovery Reconciliation;
4	Case No. U-14274-R	Power Supply Cost Recovery Reconciliation;
5	Case No. U-14347	Electric General Rate Case;
6	Case No. U-14403	Gas Cost Recovery Plan;
7	Case No. U-14403-R	Gas Cost Recovery Reconciliation;
8	Case No. U-14701-R	Power Supply Cost Recovery Reconciliation;
9	Case No. U-14716	Gas Cost Recovery Plan;
10	Case No. U-14716-R	Gas Cost Recovery Reconciliation;
11	Case No. U-15001-R	Power Supply Cost Recovery Reconciliation;
12	Case No. U-15415-R	Power Supply Cost Recovery Reconciliation;
13	Case No. U-15454	Gas Cost Recovery Plan;
14	Case No. U-15675-R	Power Supply Cost Recovery Reconciliation;
15	Case No. U-16045	Power Supply Cost Recovery Plan;
16	Case No. U-16045-R	Power Supply Cost Recovery Reconciliation;
17	Case No. U-16736	Energy Optimization Reconciliation;
18	Case No. U-16432	Power Supply Cost Recovery Plan;
19	Case No. U-16432-R	Power Supply Cost Recovery Reconciliation;
20	Case No. U-16890	Power Supply Cost Recovery Plan;
21	Case No. U-17197	Gas General Rate Case;
22	Case No. U-17281	Energy Optimization Reconciliation;
23	Case No. U-17601	Energy Optimization Reconciliation;
24	Case No. U-17688	Public Act 169 of 2014;
25	Case No. U-17735	Electric General Rate Case;

LAURA M. CONNOLLY
DIRECT TESTIMONY

Case No. U-17990	Electric General Rate Case;
Case No. U-18322	Electric General Rate Case;
Case No. U-20134	Electric General Rate Case;
Case No. U-20102	Electric Tax Credit A;
Case No. U-20286	Electric Tax Credit B;
Case No. U-20563	Demand Response Reconciliation;
Case No. U-20889	Securitization of Karn Units 1 and 2;
Case No. U-20803	Power Supply Cost Recovery Reconciliation;
Case No. U-21308	Gas General Rate Case; and
Case No. U-21049	Power Supply Cost Recovery Reconciliation.

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

A. I am presenting the Company's proposals for (i) the allocation of the 2024-2025 Energy Waste Reduction ("EWR") Plan ("2024-2025 Plan") investments between customer groups, (ii) the utilization of the monthly billing determinants for surcharge design, and (iii) the calculation of the proposed surcharges necessary to recover the proposed investments.

Q. Are you sponsoring any exhibits?

A. Yes, I am sponsoring the following exhibits:

Exhibit A-9 (LMC-1)	Allocation of the 2024-2025 Energy Waste Reduction Program Costs - Electric & Gas; and
Exhibit A-10 (LMC-2)	Calculation of Energy Waste Reduction Plan Component Surcharges.

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

A. Yes.

LAURA M. CONNOLLY
DIRECT TESTIMONY

1 **Q. Please describe Exhibit A-9 (LMC-1).**

2 A. Exhibit A-9 (LMC-1), shows the proposed allocation of the Company's investment to help
3 its customers reduce energy waste among the various customer groups for both the electric
4 and natural gas plans.

5 **Q. What was the basis for the investment allocations?**

6 A. The electric and gas EWR investments were provided by Company witness Emily A.
7 McGraw. The investments are allocated to the various customer groups based on the level
8 of investment in each class, consistent with prior cases. This is represented on Exhibit A-9
9 (LMC-1).

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

11 A. Exhibit A-10 (LMC-2) provides an overview of the calculation of the monthly EWR plan
12 component surcharges by customer group, which will recover the Company's annual
13 investments. The derivation of the surcharges will be discussed in more detail later in my
14 direct testimony.

15 **Q. What is the basis for the development of the Company's proposed 2024-2025 Plan**
16 **investment recovery mechanism?**

17 A. The monthly surcharges were designed to recover the Company's investments in EWR in
18 accordance with Public Act 295 of 2008 ("Act 295"), as amended.

19 **Q. Please elaborate on how the Company intends to recover its investment in EWR.**

20 A. The Company proposes to assess monthly levelized surcharges to recover its proposed
21 investments for the 2024-2025 Plan. The Company is proposing to replace its existing
22 EWR surcharges, beginning with the first billing cycle of the January 2024 billing month.
23 The surcharges have been designed to recover the investments for each respective customer

LAURA M. CONNOLLY
DIRECT TESTIMONY

1 class (residential and business) as required by Act 295, as amended. The surcharges for
2 each customer group calculated on Exhibit A-10 (LMC-2) represent the recovery of the
3 residual 2023 investments, plus the \$371.0 million and \$190.6 million of 2024 through
4 2025 electric and gas investments, respectively. The Company's combined surcharges
5 (current plus incentive) are displayed on Exhibit A-11 (KDH-1) and Exhibit A-12
6 (KDH-2).

7 **Q. How did you calculate the proposed 2024-2025 Plan surcharges?**

8 A. The annual investments to be collected for each rate category on a 100% expensed basis
9 for the period January 2024 through December 2025 were calculated based on the levelized
10 net present value of incremental plan expenditures provided by Company witness McGraw.

11 **Q. How will the monthly surcharges be assessed?**

12 A. The electric and gas surcharges will be assessed to each customer group as specified in Act
13 295, as amended. Residential electric customers will be charged on a per-kilowatt-hour
14 basis on their monthly bill. Secondary and Primary electric customers will be assessed the
15 surcharge on a per meter basis on their monthly bill. All gas customer groups will be
16 charged each month on a per Mcf basis.

17 **Q. How are the surcharges for a typical residential customer impacted?**

18 A. Under the Company's proposed allocation, a residential electric customer using 688 kWh
19 per month would see a decrease of \$0.86 per month, while a residential gas customer using
20 8 Mcf per month would see a decrease of \$0.56 per month.

LAURA M. CONNOLLY
DIRECT TESTIMONY

1 **Q. How will the Company determine the appropriate surcharge category for each**
2 **customer?**

3 A. A new customer with no usage history will initially be assigned to the lowest usage
4 surcharge level for their rate class. Existing customers will be placed in their demarcated
5 subclass based on their 12-month historic usage. An annual review of customers' average
6 annual consumption levels will be performed each January to determine which usage
7 segment the customers will be assigned to during the next year.

8 **Q. How does the Company propose to recover its plan costs from the low-income**
9 **residential program?**

10 A. The EWR investments for the low-income residential program have been allocated to all
11 customer groups based on the weighting of the customer group's respective investments to
12 the total investments for a given year. Customers who self-direct their own programs are
13 still responsible for paying their share for these low-income program investments through
14 the appropriate surcharge assigned to their respective customer group in compliance with
15 the statutory requirements.

16 **Q. Does this conclude your direct testimony in this proceeding?**

17 A. Yes, it does.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016)
_____)

Case No. U-21321

EXHIBITS
OF
LAURA M. CONNOLLY
ON BEHALF OF
CONSUMERS ENERGY COMPANY

August 2023

ENERGY WASTE REDUCTION PROGRAM

Allocation of the 2024-2025 Energy Waste Reduction Program Costs - Electric & Gas

Line No.	Description	2024 (a)	2025 (b)	Total (c)
Program Costs - Electric				
1	Residential	\$ 46,203,552	\$ 44,346,501	\$ 90,550,053
2	Low Income	22,392,227	23,589,370	45,981,597
3	Business	122,330,065	112,095,695	234,425,760
4	Total	\$ 190,925,844	\$ 180,031,566	\$ 370,957,410
Program Cost Responsibility <u>By Customer Group - Electric</u>				
5	Residential	\$ 46,203,552	\$ 44,346,501	\$ 90,550,053
6	Low Income	\$ 22,392,227	\$ 23,589,370	\$ 45,981,597
7	Business Tier 1 (0 to 2,000 kWh per month)	12,092,024	11,080,382	23,172,406
8	Business Tier 2 (2,001 to 5,000 kWh per month)	12,721,093	11,656,822	24,377,915
9	Business Tier 3 (5,001 to 10,000 kWh per month)	13,306,618	12,193,360	25,499,978
10	Business Tier 4 (10,001 to 30,000 kWh per month)	25,261,876	23,148,418	48,410,294
11	Business Tier 5 (30,001 to 50,000 kWh per month)	13,255,775	12,146,771	25,402,547
12	Business Tier 6 (50,001 to 75,000 kWh per month)	9,561,514	8,761,579	18,323,093
13	Business Tier 7 (75,001 to 100,000 kWh per month)	6,530,638	5,984,272	12,514,910
14	Business Tier 8 (100,001 to 150,000 kWh per month)	8,011,200	7,340,968	15,352,168
15	Business Tier 9 (150,001 to 250,000 kWh per month)	8,109,686	7,431,214	15,540,900
16	Business Tier 10 (above 250,000 kWh per month)	13,479,641	12,351,909	25,831,550
17	Total Primary	\$ 122,330,065	\$ 112,095,695	\$ 234,425,760
18	Total	\$ 190,925,844	\$ 180,031,566	\$ 370,957,410
Program Costs - Gas				
19	Residential	67,179,764	67,637,099	134,816,863
20	Business	28,307,876	27,429,308	55,737,184
21	Total	\$ 95,487,640	\$ 95,066,407	\$ 190,554,047
Program Cost Responsibility <u>By Customer Group - Gas</u>				
22	Residential	67,179,764	67,637,099	134,816,863
23	Small Business (< 100,000 Mcf)	27,733,226	26,872,493	54,605,719
24	Large Business (> 100,000 Mcf)	574,650	556,815	1,131,465
25	Total	\$ 95,487,640	\$ 95,066,407	\$ 190,554,047

ENERGY WASTE REDUCTION PROGRAM

Calculation of Energy Waste Reduction ("EWR") Plan Component Surcharges

Line No.	Consumers Plan Electric EWR Surcharge <u>Customer Group</u>	(a)	(b) Charge Basis	(c) U-21321 Monthly EWR Plan Component Surcharge
1	Residential		(\$/kWh)	\$0.003718
2	Business Tier 1 (0 to 2,000 kWh per month)		(\$/mo)	6.27
3	Business Tier 2 (2,001 to 5,000 kWh per month)		(\$/mo)	46.24
4	Business Tier 3 (5,001 to 10,000 kWh per month)		(\$/mo)	100.27
5	Business Tier 4 (10,001 to 30,000 kWh per month)		(\$/mo)	240.32
6	Business Tier 5 (30,001 to 50,000 kWh per month)		(\$/mo)	618.47
7	Business Tier 6 (50,001 to 75,000 kWh per month)		(\$/mo)	993.33
8	Business Tier 7 (75,001 to 100,000 kWh per month)		(\$/mo)	1,436.03
9	Business Tier 8 (100,001 to 150,000 kWh per month)		(\$/mo)	1,716.02
10	Business Tier 9 (150,001 to 250,000 kWh per month)		(\$/mo)	1,990.18
11	Business Tier 10 (above 250,000 kWh per month)		(\$/mo)	2,189.32
12	Lighting (Opt-In)		Fixt	0.27
 Self-Direct Plan Electric EWR Surcharge				
	<u>Customer Group</u>			Monthly EWR Plan Component Surcharge
13	Residential			N/A
14	Business Tier 1 (0 to 2,000 kWh per month)		(\$/mo)	\$0.78
15	Business Tier 2 (2,001 to 5,000 kWh per month)		(\$/mo)	5.70
16	Business Tier 3 (5,001 to 10,000 kWh per month)		(\$/mo)	12.37
17	Business Tier 4 (10,001 to 30,000 kWh per month)		(\$/mo)	29.64
18	Business Tier 5 (30,001 to 50,000 kWh per month)		(\$/mo)	76.09
19	Business Tier 6 (50,001 to 75,000 kWh per month)		(\$/mo)	121.97
20	Business Tier 7 (75,001 to 100,000 kWh per month)		(\$/mo)	176.11
21	Business Tier 8 (100,001 to 150,000 kWh per month)		(\$/mo)	210.07
22	Business Tier 9 (150,001 to 250,000 kWh per month)		(\$/mo)	243.66
23	Business Tier 10 (above 250,000 kWh per month)		(\$/mo)	275.34
 Consumers Plan Gas EWR Surcharge				
	<u>Customer Group</u>			Monthly EWR Plan Component Surcharge
24	Residential		(\$/Mcf)	\$0.2969
25	Small Business (0 to 100,000 Mcf)		(\$/Mcf)	0.5528
26	Large Business (> 100,000 Mcf)		(\$/Mcf)	0.0289

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)	
regarding the regulatory reviews, revisions,)	
determinations, and/or approvals necessary for)	Case No. U-21321
CONSUMERS ENERGY COMPANY to fully)	
comply with Public Act 295 of 2008, as amended by)	
Public Act 342 of 2016.)	
_____)	

DIRECT TESTIMONY
OF
KIRKLAND D. HARRINGTON
ON BEHALF OF
CONSUMERS ENERGY COMPANY

August 2023

KIRKLAND D. HARRINGTON
DIRECT TESTIMONY

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

2 A. My name is Kirkland D. Harrington, and my business address is One Energy Plaza,
3 Jackson, 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 a Tariff Analyst in the Rates and Regulation Department.

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

8 A. I received a Dual BBA in Marketing and Management in June 2010 from Northwood
9 University.

10 **Q. Please describe your work experience at Consumers Energy.**

11 A. In March 2013, I was hired by Consumers Energy as a Customer Service Representative
12 within the Company’s call center. In May 2017, I accepted a role as a Customer Service
13 Revenue Recovery Assistant within the Energy Assistance Department. In November
14 2018, I accepted a role as a Technical Assistant within Gas Distribution Scheduling where
15 my duties included ensuring proper permitting and safe access to work sites by facilitating
16 coordination between local municipalities and governmental departments. In December
17 2022, I joined the Rates and Regulation department as a General Rate Analyst in the Rate
18 Administration Section. In June 2023, my position title was updated to Tariff Analyst.

19 **Q. Please describe your responsibilities as a Tariff Analyst.**

20 A. My responsibilities include development and implementation of the Company’s tariffs. I
21 also perform regulatory research, prepare rate comparisons, and review Commission orders
22 and legislation.

KIRKLAND D. HARRINGTON
DIRECT TESTIMONY

1 Q. **Have you previously provided testimony before the Commission?**

2 A. Yes. I have filed direct testimony in Case No. U-21387 supporting the tariff exhibit of the
3 Company's proposed voluntary Renewable Natural Gas Program.

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

5 A. I am sponsoring all proposed changes to the Company's electric and gas rate schedules
6 pertaining to the Energy Waste Reduction ("EWR") surcharges for the Company's
7 2024-2025 EWR Plan.

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

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

10	Exhibit A-11 (KDH-1)	Proposed Electric Energy Waste Reduction
11		Surcharge Tariff Sheets and proposed tariff language
12		for General Service Self Generation Rate GSG-2
13		customers selecting the Opt-In Option under Rule
14		C12.1 Energy Efficiency Program – Electric; and

15	Exhibit A-12 (KDH-2)	Proposed Gas Energy Waste Reduction Surcharge
16		Tariff Sheets.

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

18 A. Yes.

19 **ELECTRIC RATE BOOK**

20 Q. **Please describe the proposed tariff changes to Tariff Sheet Nos. D-2.10 as set forth**
21 **in Exhibit A-11 (KDH-1)?**

22 A. Tariff Sheet No. D-2.10 shows the total EWR surcharge by Rate Schedule and the EWR
23 surcharge for eligible customers who file and implement a self-directed EWR plan in the
24 same manner. All surcharges on the tariff sheet were calculated by Company witness Laura
25 M. Connolly.

KIRKLAND D. HARRINGTON
DIRECT TESTIMONY

1 **Q. Please explain the proposed changes to Rule C12.1 Energy Efficiency Program –**
2 **Electric located on Sheet No. C-65.00 from Exhibit A-11 (KDH-1).**

3 A. In Case No. U-20875, the Commission approved a ten tier EWR Surcharge structure
4 effective for bills rendered on and after the Company's January 2023 bill month.
5 Customers taking service on General Service Self Generation Rate GSG-2 (GSG-2) have
6 the option to participate in the EWR Program by electing to Opt-In to the Program. The
7 opt-in language for GSG-2 customers on Tariff Sheet No. C-65.00 was not updated to
8 reflect approval of the ten tier EWR structure and currently states "*These customers shall*
9 *be charged the Large General Service Primary Demand Rate GPD Tier 5:>50,000*
10 *kWh/mo rate per billing meter per month.*" The Company is proposing tariff language to
11 place participating GSG-2 customers into the appropriate EWR Surcharge tier using the
12 customer's average monthly consumption from the previous year.

13 **GAS RATE BOOK**

14 **Q. Please describe the proposed tariff changes shown on Sheet Nos. D-2.00 and D-2.10**
15 **from Exhibit A-12 (KDH-2)?**

16 A. Sheet No. D-2.00 shows the proposed EWR surcharge, by customer Rate Schedule, and
17 Sheet No. D-2.10 shows the Energy Efficiency Large Gas Opt-Out Program
18 Surcharge. All surcharges on both tariff sheets were calculated by Company witness
19 Connolly.

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

21 A. Yes.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)	
regarding the regulatory reviews, revisions,)	
determinations, and/or approvals necessary for)	Case No. U-21321
CONSUMERS ENERGY COMPANY to fully)	
comply with Public Act 295 of 2008, as amended by)	
Public Act 342 of 2016.)	
<hr/>		

EXHIBITS
OF
KIRKLAND D. HARRINGTON
ON BEHALF OF
CONSUMERS ENERGY COMPANY

August 2023

M.P.S.C. No. 14 – Electric
Consumers Energy Company

Sheet No. C-65.00

(Continued From Sheet No. C-64.00)

C12. ENERGY EFFICIENCY (EE)

C12.1 Energy Efficiency Program – Electric

This rule implements the energy waste reduction (EWR) requirements of 2008 PA 295 and as amended in 2016 PA 342 in accordance with Orders issued by the Commission in Case No. U-15805. The monthly Energy Efficiency surcharges to be applied to each Rate Schedule are shown on Sheet No. D-2.10 of this Rate Book and shall be added with an existing fixed or volumetric charge on each eligible Rate Schedule as described below:

- (1) For all customers on Residential Rate Schedules, the Energy Efficiency Program Surcharge will show on the bill as Other Surcharges for both Full Service and ROA customers each month.
- (2) For all eligible ~~Nonresidential~~ Non-Residential customers, the Energy Efficiency Program Surcharge will show on the bill as Other Surcharges for both Full Service and ROA customers each month.
- (3) For all Company-Owned lighting fixture customers served on General Service Unmetered Lighting Rate GUL, the Energy Efficiency Program Surcharge will show on the bill as Other Surcharges per Luminaire each month.

The customer's consumption will be reviewed annually in the January bill month. Following the annual review, the customer may be subsequently moved to the Surcharge level for their applicable rate for the next billing period based on the customer's average consumption for the previous year. In situations where no historical consumption is available, the monthly Surcharge level will be based on the lowest consumption category for the secondary rate schedules or the lowest consumption category for primary rate schedules. No retroactive adjustment will be made due to the application of the Energy Efficiency Program Surcharge associated with increases or decreases in consumption.

A. Opt-In Option

- (1) Customer-Owned lighting fixture customers served on General Service Unmetered Lighting Rate GUL and customers served on General Service Metered Lighting Rate GML are eligible to participate in the Energy Efficiency Program. The Energy Efficiency Program Surcharge will be billed monthly as follows:
 - a. Customers on Rate GUL shall have the per fixture surcharge multiplied by the number of fixtures for the customer's account per Luminaire and will show on the bill as Other Surcharges each month.
 - b. Customers on Rate GML shall have the per fixture surcharge multiplied by the number of fixtures for the customer's account per billing meter and will show on the bill as Other Surcharges each month.
- (2) Customers served on General Service Self Generation Rate GSG-2 are eligible to participate in the Energy Efficiency Program. These customers shall be charged the Surcharge level for their applicable rate based on the customer's average consumption for the previous year ~~Large General Service Primary Demand Rate GPD Tier 5: > 50,000 kWh/mo. rate~~ per billing meter per month as shown on Sheet No. D-2.10. The Energy Efficiency Program Surcharge ~~is calculated per billing meter per month and~~ will show on the bill as Other Surcharges.

C12.2 Self-Directed Customer Plans

An eligible primary or secondary electric customer is exempt from the mandatory energy efficiency surcharge(s), with the exception of the surcharge funding low-income programs as well as review and evaluation costs, if the customer files and implements a self-directed energy efficiency plan.

A. Eligibility

- (1) Customers must have had an annual peak demand in the preceding year of at least 1 megawatt in the aggregate at all sites to be covered by the self-directed plan.
- (2) The customer and sites covered by an implemented self-directed plan are not eligible to participate in any energy efficiency program of the Company.

B. Requirements

- (1) A customer with a self-directed plan is required to pay the self-directed customer program surcharge. It will show on the bill as Other Surcharges for both Full Service and ROA customers that qualify.

(Continued on Sheet No. C-66.00)

Issued XXXXXX XX, 2023 by
Garrick J. Rochow,
President and Chief Executive Officer,
Jackson, Michigan

Effective for bills rendered on and after
the Company's January 2024 Billing Month

Issued under authority of the
Michigan Public Service Commission
dated XXXXXX XX, 2023
in Case No. U-21321

M.P.S.C. No. 14 – Electric
Consumers Energy Company

Sheet No. D-2.10

SURCHARGES

<u>Rate Schedule</u>	Energy Efficiency Program Surcharge (Case No. U- 21205 <u>21321</u>) Effective beginning the January 2023 <u>2024</u> <u>Billing Month</u> ⁽¹⁾⁽⁶⁾	Energy Efficiency Self-Directed Customer Surcharge (Case No. U- 21205 <u>21321</u>) Effective beginning the January 2023 <u>2024</u> <u>Billing Month</u> ⁽⁶⁾⁽⁷⁾
Residential Rates	\$ 0.005613 <u>0.004362</u> /kWh	NA
Non-Residential Rates ⁽²⁾		
Tier 1: 0 – 2,000 kWh/mo.	\$ 7.91 <u>7.47</u> /billing meter	\$ 0.78/month
Tier 2: 2,000 – 5,000 kWh/mo.	52.11 <u>54.15</u> /billing meter	5.15 <u>5.70</u> /month
Tier 3: 5,001 – 10,000 kWh/mo.	114.76 <u>117.69</u> /billing meter	11.34 <u>12.37</u> /month
Tier 4: 10,001 – 30,000 kWh/mo.	271.86 <u>281.58</u> /billing meter	26.85 <u>29.64</u> /month
Tier 5: 30,001 – 50,000 kWh/mo.	657.28 <u>718.23</u> /billing meter	65.01 <u>76.09</u> /month
Tier 6: 50,001 – 75,000 kWh/mo.	981.66 <u>1142.32</u> /billing meter	97.09 <u>121.97</u> /month
Tier 7: 75,001 – 100,000 kWh/mo.	1371.92 <u>1640.87</u> /billing meter	133.48 <u>176.11</u> /month
Tier 8: 100,001 – 150,000 kWh/mo.	1549.09 <u>1943.01</u> /billing meter	147.92 <u>210.07</u> /month
Tier 9: 150,001 – 250,000 kWh/mo.	1912.12 <u>2254.80</u> /billing meter	172.44 <u>243.66</u> /month
Tier 10: >250,000 kWh/mo.	2301.37 <u>2478.06</u> /billing meter	173.84 <u>275.34</u> /month
Rate GSG-2 ⁽⁴⁾	NA	NA
Rate GML ⁽³⁾⁽⁵⁾	NA	NA
Rate GUL ⁽³⁾⁽⁵⁾	\$ 0.27/fixture per month ⁽³⁾	NA
Rate GU-LED	NA	NA
Rate GU	NA	NA
Rate PA	NA	NA
Rate ROA-R, ROA-S, ROA-P	Same as Full Service Delivery Rate Schedule	Same as Full Service Delivery Rate Schedule

The customer's consumption will be reviewed annually in the January bill month. Following the annual review, the customer may be subsequently moved to the Surcharge level for their applicable rate for the next billing period based on the customer's average consumption for the previous year. In situations where no historical consumption is available, the monthly Surcharge level will be based on the lowest consumption category for the secondary rate schedules, or the lowest consumption category for primary rate schedules. No retroactive adjustment will be made due to the application of the Energy Efficiency Program Surcharge associated with the increases or decreases in consumption.

- ⁽¹⁾ This is subject to all general terms and conditions as shown in Rule C12, Energy Efficiency. The Energy Efficiency Program Surcharge amount may vary during specific months as authorized by the Michigan Public Service Commission. The Company will file a new tariff sheet to reflect any change in surcharges once the financial incentive recovery period has been completed.
- ⁽²⁾ Non-Residential Rates include GS, GSTU, GSD, GP, GPTU, GPD, EIP, LTILRR and LED.
- ⁽³⁾ Company-Owned lighting fixture customers served on General Service Unmetered Lighting Rate GUL shall pay this surcharge. Rate codes 1455 and 1460 will not be charged this surcharge.
- ⁽⁴⁾ Additional Rate Schedules can opt-in to the Energy Efficiency Program as described in Rule C12., Energy Efficiency.
- ⁽⁵⁾ Lighting rates that choose to opt-in to the Energy Efficiency Program shall be assessed \$0.27 per fixture per month.
- ⁽⁶⁾ This charge will be shown on the monthly utility bill using the methodology as described in Rule C12, Energy Efficiency.
- ⁽⁷⁾ An eligible customer who files and implements a self-directed plan in compliance with Rule C12 is required to pay the Energy Efficiency Self-Directed Program Surcharge.

Issued XXXXXX XX, 2023 by
Garrick J. Rochow,
President and Chief Executive Officer,
Jackson, Michigan

Effective for bills rendered on and after
the Company's January 2024 Billing Month

Issued under authority of the
Michigan Public Service Commission
dated XXXXXX XX, 2023
in Case No. U-21321

M.P.S.C. No. 3 - Gas
Consumers Energy Company

Sheet No. D-2.00

SURCHARGES

Each Rate Schedule may be subject to Rule No. C8., Customer Attachment Program.

<u>Rate Schedule</u>	Energy Efficiency ⁽¹⁾ Program Surcharge (Case No. U-21205 <u>21321</u>) Effective beginning the January 2023 <u>2024</u> <u>Billing Month</u> ^{(2) (3)}	
Rate A	\$0.4164	<u>0.3440</u> /Mcf
Rate A-1	0.4164	<u>0.3440</u> /Mcf
Rate GS-1	0.4938	<u>0.6289</u> /Mcf
Rate GS-2	0.4938	<u>0.6289</u> /Mcf
Rate GS-3		
0 – 100,000 / Year	0.4938	<u>0.6289</u> /Mcf
> 100,000 / Year	0.0163	<u>0.0314</u> /Mcf
Rate GL		NA
Rate ST		
0 – 100,000 / Year	0.4938	<u>0.6289</u> /Mcf
> 100,000 / Year	0.0163	<u>0.0314</u> /Mcf
Rate LT		
0 – 100,000 / Year	0.4938	<u>0.6289</u> /Mcf
> 100,000 / Year	0.0163	<u>0.0314</u> /Mcf
Rate XLT		
0 – 100,000 / Year	0.4938	<u>0.6289</u> /Mcf
> 100,000 / Year	0.0163	<u>0.0314</u> /Mcf
Rate XXL		
0 – 100,000 / Year		NA
> 100,000 / Year	0.0163	<u>0.0314</u> /Mcf
Rate CC	Per applicable distribution Rate Schedule	

- (1) All surcharges shall be applied on a monthly basis. The customer's consumption will be reviewed annually in the January bill month. Following the annual review, the customer may be subsequently moved to the surcharge level for their applicable rate for the next billing period based on the customer's average consumption for the previous year. No retroactive adjustment will be made due to the application of EE surcharges associated with increases or decreases in consumption.
- (2) An Energy Efficiency Program Surcharge amount may vary during specific months as authorized by the Michigan Public Service Commission. The Company will file a new tariff sheet to reflect any change in surcharges once the financial incentive recovery period has been completed.
- (3) The Energy Efficiency Program Surcharge for each rate will be shown as above on the monthly utility bill under Other Surcharges for all customers.

Issued XXXXXX XX, 2023 by
Garrick J. Rochow,
President and Chief Executive Officer,
Jackson, Michigan

Effective for bills rendered on and after
the Company's January 2024 Billing Month

Issued under authority of the
Michigan Public Service Commission
dated XXXXXX XX, 2023
in Case No. U-21321

M.P.S.C. No. 3 - Gas
Consumers Energy Company

Sheet No. D-2.10

SURCHARGES

Each Rate Schedule may be subject to Rule No. C8., Customer Attachment Program.

Energy Efficiency Large Gas Transportation Opt-Out Program Surcharge ⁽¹⁾ (Case No. U-21205 <u>21321</u>) Effective beginning the January 2023 <u>2024</u> <u>Billing Month</u>	
Rate Schedule	
Rate A	NA
Rate A-1	NA
Rate GS-1	NA
Rate GS-2	NA
Rate GS-3	NA
Rate GL	NA
Rate ST	
> 100,000 / Year	\$0.0038 <u>0.0115</u> /Mcf
Rate LT	
> 100,000 / Year	0.0038 <u>0.0115</u> /Mcf
Rate XLT	
> 100,000 / Year	0.0038 <u>0.0115</u> /Mcf
Rate XXL	
> 100,000 / Year	0.0038 <u>0.0115</u> /Mcf
Rate CC	N/A

- ⁽¹⁾ Gas Transportation customers on Rate ST, LT, XLT, or XXL using more than 100,000 Mcf per year may be eligible to opt-out of the Energy Efficiency program. Eligible customers who elect to opt-out of the Energy Efficiency program will pay the Energy Efficiency Large Gas Transportation Opt-Out Program surcharge per Mcf on a monthly basis. Eligibility is determined solely by the Company and is dependent upon terms and conditions of the Energy Efficiency Large Gas Transportation Customer Opt-Out Program as authorized in the April 17, 2012 order in Case No. U-16670.
- ⁽²⁾ The Energy Efficiency Large Gas Transportation Opt-Out Program Surcharge will be shown on the monthly utility bill under Other Surcharges for all customers.

Issued XXXXXX XX, 2023 by
Garrick J. Rochow,
President and Chief Executive Officer,
Jackson, Michigan

Effective for bills rendered on and after
the Company's January 2024 Billing Month

Issued under authority of the
Michigan Public Service Commission
dated XXXXXX XX, 2023
in Case No. U-21321

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

DIRECT TESTIMONY

OF

SVITLANA LYKHITSKA

ON BEHALF OF

CONSUMERS ENERGY COMPANY

August 2023

SVITLANA LYKHITSKA
DIRECT TESTIMONY

Q. Please state your name and business address.

A. My name is Svitlana Lykhytska. My business address is One Energy Plaza, Jackson, Michigan 49201.

Q. Please describe your position and responsibilities.

A. I am employed by Consumers Energy Company (“Consumers Energy” or the “Company”) as a Principal Accounting Analyst in the General Accounting Department. I am responsible for analyzing financial results for the Company.

Q. Please describe your education and professional experience.

A. I received a bachelor’s degree and a qualification of Engineer - Economist (with a specialization in Economics and Organization of Consumer Goods Industry) from the Technologic Institute of Light Industry of Kiev, Ukraine in 1988. In 2002, I received a Bachelor of Science in Business Administration in Accounting from Michigan State University. In 2002, I started my career at Consumers Energy in the General Accounting Department where I progressed from Accounting Analyst in 2002 to Senior Accounting Analyst Lead in 2014 and Principal Accounting Analyst in 2016. I obtained my Certified Management Accountant and Certified Financial Manager certifications in 2007.

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

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

<u>Case No.</u>	<u>Description</u>
U-17831	2014 Energy Optimization Plan Reconciliation;
U-18025	2015 Energy Optimization Plan Reconciliation;
U-18261	2018-2021 Energy Waste Reduction (“EWR”) Plan;
U-18331	2016 Energy Optimization Plan Reconciliation;

SVITLANA LYKHITSKA
DIRECT TESTIMONY

1	U-20028	2017 EWR Plan Reconciliation;
2	U-20365	2018 EWR Plan Reconciliation;
3	U-20563	2018 Demand Response Program Cost Reconciliation;
4	U-20372	2020-2023 EWR Plan;
5	U-20702	2019 EWR Plan Reconciliation;
6	U-20766	2019 Demand Response Program Cost Reconciliation;
7	U-20865	2020 EWR Plan Reconciliation;
8	U-20875	2022-2025 EWR Plan;
9	U-21080	2020 Demand Response Program Cost Reconciliation;
10	U-21205	2021 EWR Plan Reconciliation;
11	U-21080	2021 Demand Response Program Cost Reconciliation;
12	U-21410	2022 Demand Response Program Cost Reconciliation; and
13	U-21312	2022 EWR Plan Reconciliation.

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to provide the methodology and calculation of the Company's accounting process associated with its Electric and Gas EWR programs.

Q. Are you sponsoring any exhibits with your direct testimony?

A. Yes, I am sponsoring two exhibits.

Exhibit A-13 (SL-1)	2022 EWR Electric Cumulative Over/Under Recovery (By Class and Total); and
---------------------	--

Exhibit A-14 (SL-2)	2022 EWR Gas Cumulative Over/Under Recovery (By Class and Total).
---------------------	---

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

A. Yes.

SVITLANA LYKHITSKA
DIRECT TESTIMONY

1 **Q. What information is provided in these exhibits?**

2 A. Exhibits A-13 (SL-1) and A-14 (SL-2) provide accounting data (by month and customer
3 class) for the Electric and Gas EWR programs including surcharges billed, costs incurred,
4 and over/under recovery balances with carrying costs.

5 **Q. What surcharge amounts were billed to customers in 2022?**

6 A. In accordance with the tariff sheets on file with the Commission, the Company began
7 billing customers in June 2009 for EWR surcharges. In 2022, the Company billed
8 \$194,355,459 in total to electric customers (Exhibit A-13 (SL-1), page 1, line 1). These
9 surcharges are split between Residential class customers and Commercial and Industrial
10 (“C&I”) class customers in the amounts of \$51,258,537 and \$143,096,922, respectively.
11 In 2022, the Company billed \$85,002,272 in total to gas customers (Exhibit A-14 (SL-2),
12 page 1, line 1). These surcharges are split between Residential and C&I customer classes
13 in the amounts of \$44,112,295 and \$40,889,977, respectively.

14 **Q. What program costs were booked in 2022?**

15 A. In 2022, the Company booked \$190,037,932 of program costs for the Electric EWR
16 program (Exhibit A-13 (SL-1), page 1, line 2). These costs are split between Residential
17 and C&I customer classes in the amounts of \$66,989,613 and \$123,048,319, respectively.
18 In 2022, the Company booked \$83,290,996 of program costs for the Gas EWR Program
19 (Exhibit A-14 (SL-2), page 1, line 2). These costs are split between Residential and C&I
20 customer classes in the amounts of \$53,960,987 and \$29,330,009, respectively.

21 **Q. What is the annual transfer of low-income funding?**

22 A. The annual transfer of low-income funding shown on line 3 of Exhibits A-13 (SL-1) and
23 A-14 (SL-2) shows collections from business customers on behalf of low-income

SVITLANA LYKHITSKA
DIRECT TESTIMONY

1 residential programs. To accurately match monthly surcharges to approved recovery
2 amounts by customer class, the funding amount is added to residential and subtracted from
3 business customer surcharge revenue.

4 **Q. How are over/under-recovery amounts calculated?**

5 A. The incremental over/under-recovery amount is a total of lines 1 and 3 less line 2. Exhibits
6 A-13 (SL-1) and A-14 (SL-2), page 1, line 4. This total is added to the prior year-end
7 over/under-recovery amount calculated in the same manner plus the prior year interest
8 recorded on the over/under recovery-balance. If, since program inception, the Company
9 has collected more in total surcharges than costs incurred, the Company has over recovered.
10 In that case, excess revenues are deferred and a regulatory liability is recorded. Conversely,
11 if, since program inception, the Company has incurred more costs than surcharges
12 collected, the Company has under recovered its costs. In that case, excess costs are
13 deferred, and a regulatory asset is recorded.

14 **Q. What are the over/under-recovery balances in the regulatory asset and/or regulatory**
15 **liability accounts associated with the EWR program as of December 31, 2022?**

16 A. In the electric EWR program, for the 2022 reconciliation period, total revenue exceeded
17 total booked costs resulting in an over recovery in all customer classes in the amount of
18 \$4,317,527 (Exhibit A-13 (SL-1), page 1, line 4). The Residential program resulted in an
19 under recovery in the amount of \$199,701, and the C&I program resulted in an over
20 recovery in the amount of \$4,517,228. The prior year over-recovery balance and interest
21 carried forward into 2022 were \$945,941 and \$701, respectively (Exhibit A-13 (SL-1),
22 page 1, lines 5 and 6). As a result, the total over-recovery balance as of the end of
23 December 2022 is \$5,264,169 (Exhibit A-13 (SL-1), page 1, line 8). The total includes

SVITLANA LYKHITSKA
DIRECT TESTIMONY

1 \$2,812,800 under recovery for Residential and \$8,076,969 over recovery for C&I class of
2 customers.

3 In the Gas EWR Program, 2022 total surcharges exceeded booked cost resulting in
4 an over recovery in the amount of \$1,711,276 (Exhibit A-14 (SL-2), page 1, line 4) split
5 between \$2,092,945 over recovery for Residential and \$381,669 under recovery for C&I
6 class of customers. The prior year under-recovery balance and over recovered interest
7 carried forward into 2022 were \$12,126,096 and \$21 (Exhibit A-14 (SL-2), page 1, lines 5
8 and 6). As a result, the total under-recovery balance as of the end of December 2022 is
9 \$10,414,799 (Exhibit A-14 (SL-2), page 1, line 8) split between \$58,378 over recovery for
10 Residential and \$10,473,177 under recovery for C&I customer classes, respectively.

11 **Q. Have carrying costs on over/under-recovery balances been recorded and at what**
12 **interest rate?**

13 A. Yes, the Company records carrying costs on over/under-recovery balances per the
14 Commission's Order in Case No. U-15805. The carrying cost rate used for both over and
15 under-recovery balances is the Company's short-term borrowing rate. In 2022, carrying
16 costs were recorded for the Electric EWR program in the amount of \$650,556 (Exhibit
17 A-13 (SL-1), page 1, line 9). For the same period of 2022, carrying costs were recorded
18 for the Gas EWR program in the amount of \$100,419 (Exhibit A-14 (SL-2), page 1, line 9).

19 **Q. Please explain why the 2022 EWR surcharge regulatory balance presented in this**
20 **instant case differs from that filed in the Company's 2022 EWR Reconciliation, Case**
21 **No. U-21312.**

22 A. As described in the testimony of Company witness McGraw, the 2022 surcharge regulatory
23 balance presented in the Company's 2022 EWR Reconciliation, Case No. U-21312, did

SVITLANA LYKHITSKA
DIRECT TESTIMONY

1 not account for allocation of low-program investment expense to business customers for
2 the 2019-2022 period. Instead, for this period, while the Company's EWR surcharge was
3 calculated appropriately to recover low-income program costs from all customers, all low-
4 income program expenses were allocated to residential customers only, resulting in what
5 appeared to be a large overrecovery from business customers and corresponding
6 underrecovery from residential customers. Exhibits A-13 (SL-1) and A-14 (SL-2) in this
7 instant case have been updated to correctly reflect the allocation of low-income program
8 costs to all customer classes.

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

10 A. Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

EXHIBITS

OF

SVITLANA LYKHITSKA

ON BEHALF OF

CONSUMERS ENERGY COMPANY

August 2023

2022 EWR Electric Cumulative Over (Under) Recovery (Residential by Month)

2022 EWR Electric Cumulative Over (Under) Recovery (By Class and Total)

	(a)	(b)	(c)	(d)
<u>Line</u>	<u>Description</u>	<u>Residential</u>	<u>C&I</u>	<u>Total</u>
<u>Annual Summary</u>				
1	Surcharge Revenue	\$ 51,258,537	\$ 143,096,922	\$ 194,355,459
2	Program Expenses	\$ 66,989,613	\$ 123,048,319	\$ 190,037,932
3	Annual Transfer of Low-Income Funding	15,531,375	(15,531,375)	-
4	Change in Over (Under) Recovery	\$ (199,701)	\$ 4,517,228	\$ 4,317,527
<u>Program Over/(Under) Recovery</u>				
5	Over (Under) Recovery Beginning Balance	\$ (2,613,373)	\$ 3,559,314	\$ 945,941
6	Prior Year Carrying Charges	274	427	701
7	Change in Balance	(199,701)	4,517,228	4,317,527
8	Over (Under) Recovery Ending Balance	\$ (2,812,800)	\$ 8,076,969	\$ 5,264,169
<u>Carrying Charges</u>				
9	Carrying Charges, Cumulative	\$ 60,547	\$ 590,009	\$ 650,556
10	Cumulative Over (Under) Recovery	\$ (2,752,253)	\$ 8,666,978	\$ 5,914,725
11	Annual Interest Rate	1.57%	1.57%	1.57%

2022 EWR Electric Cumulative Over (Under) Recovery (Residential by Month)

2022 EWR Electric Cumulative Over (Under) Recovery (By Class and Total)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Line	Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Source
Residential															
1	Surcharge Revenue	\$3,406,649	\$3,383,688	\$3,298,956	\$4,187,344	\$3,968,790	\$4,254,607	\$5,456,777	\$5,668,330	\$5,056,711	\$4,151,649	\$3,886,766	\$4,538,270	\$ 51,258,537	Per Books
2	Program Expenses	\$3,476,048	\$1,869,889	\$4,259,532	\$3,527,818	\$3,201,483	\$4,370,056	\$5,333,396	\$3,707,620	\$4,729,937	\$5,995,666	\$5,293,981	\$21,224,187	\$ 66,989,613	Per Books
3	Annual Transfer of Low-Income Funding	<u>\$585,920</u>	<u>(\$217,097)</u>	<u>\$816,948</u>	<u>\$395,723</u>	<u>\$531,549</u>	<u>\$560,470</u>	<u>\$1,021,004</u>	<u>\$518,264</u>	<u>\$818,853</u>	<u>\$843,143</u>	<u>\$966,152</u>	<u>\$8,690,446</u>	<u>\$ 15,531,375</u>	
4	Change in Over (Under) Recovery	\$ 516,521	\$ 1,296,702	\$ (143,628)	\$ 1,055,249	\$ 1,298,856	\$ 445,021	\$ 1,144,385	\$ 2,478,974	\$ 1,145,627	\$ (1,000,874)	\$ (441,063)	\$ (7,995,471)	\$ (199,701)	Line 1 - Line 2
Program Over/(Under) Recovery															
5	Over (Under) Recovery Beg. Bal.	\$ (2,613,373)	\$ (2,096,578)	\$ (799,876)	\$ (943,504)	\$ 111,745	\$ 1,410,601	\$ 1,855,622	\$ 3,000,007	\$ 5,478,981	\$ 6,624,608	\$ 5,623,734	\$ 5,182,671		Line 7 Prior Month/Year
6	Prior Year Carrying Charges	274	-	-	-	-	-	-	-	-	-	-	-		Prior Year Ending
7	Change in Balance	<u>516,521</u>	<u>1,296,702</u>	<u>(143,628)</u>	<u>1,055,249</u>	<u>1,298,856</u>	<u>445,021</u>	<u>1,144,385</u>	<u>2,478,974</u>	<u>1,145,627</u>	<u>(1,000,874)</u>	<u>(441,063)</u>	<u>(7,995,471)</u>		Line 3
8	Over (Under) Recovery Ending Bal.	\$ (2,096,578)	\$ (799,876)	\$ (943,504)	\$ 111,745	\$ 1,410,601	\$ 1,855,622	\$ 3,000,007	\$ 5,478,981	\$ 6,624,608	\$ 5,623,734	\$ 5,182,671	\$ (2,812,800)		Line 4 + Line 5 + Line 6
9	Over (Under) Recovery Average Bal.	\$ (2,354,839)	\$ (1,448,227)	\$ (871,690)	\$ (415,880)	\$ 761,173	\$ 1,633,112	\$ 2,427,815	\$ 4,239,494	\$ 6,051,795	\$ 6,124,171	\$ 5,403,203	\$ 1,184,936		Line 4 + Line 5 + (Line 6 / 2)
Carrying Charges															
10	Carrying Charges, Monthly	\$ (8)	\$ (7)	\$ (35)	\$ (102)	\$ 318	\$ 1,210	\$ 3,460	\$ 7,724	\$ 11,956	\$ 15,299	\$ 16,648	\$ 4,084		Line 8 x Line 13
11	Carrying Charges, Cumulative	\$ (8)	\$ (15)	\$ (50)	\$ (152)	\$ 166	\$ 1,376	\$ 4,836	\$ 12,560	\$ 24,516	\$ 39,815	\$ 56,463	\$ 60,547	\$ 60,547	Cumulative Line 9
12	Cumulative Over (Under) Recovery	\$ (2,096,586)	\$ (799,891)	\$ (943,554)	\$ 111,593	\$ 1,410,767	\$ 1,856,998	\$ 3,004,843	\$ 5,491,541	\$ 6,649,124	\$ 5,663,549	\$ 5,239,134	\$ (2,752,253)	\$ (2,752,253)	Line 7 + Line 10
13	Annual Interest Rate	0.00400000%	0.00610000%	0.04810000%	0.29470000%	0.50170000%	0.88890000%	1.71020000%	2.18620000%	2.37070000%	2.99770000%	3.69740000%	4.13630000%	1.5702%	Treasury
14	Monthly Interest Rate	0.00033333%	0.00050833%	0.00400833%	0.02455833%	0.04180833%	0.07407500%	0.1425167%	0.1821833%	0.1975583%	0.2498083%	0.3081167%	0.3446917%		Line 12/ 12

2022 EWR Electric Cumulative Over (Under) Recovery (C&I by Month)

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
<u>C&I</u>															
1	Surcharge Revenue	\$10,996,252	\$10,958,252	\$10,926,854	\$12,405,539	\$12,363,202	\$12,380,421	\$12,260,039	\$12,285,516	\$12,240,677	\$12,139,148	\$12,089,957	\$12,051,065	\$ 143,096,922	Per Books
2	Program Expenses	\$4,166,499	\$3,522,011	\$6,638,838	\$5,237,515	\$7,362,523	\$8,661,870	\$7,617,149	\$8,294,999	\$8,965,940	\$11,873,120	\$12,892,528	\$37,815,327	\$ 123,048,319	Per Books
3	Annual Transfer of Low-Income Funding	(\$585,920)	\$217,097	(\$816,948)	(\$395,723)	(\$531,549)	(\$560,470)	(\$1,021,004)	(\$518,264)	(\$818,853)	(\$843,143)	(\$966,152)	(\$8,690,446)	(\$15,531,375)	
4	Change in Over (Under) Recovery	\$ 6,243,833	\$ 7,653,338	\$ 3,471,068	\$ 6,772,301	\$ 4,469,130	\$ 3,158,081	\$ 3,621,886	\$ 3,472,253	\$ 2,455,884	\$ (577,115)	\$ (1,768,723)	\$ (34,454,708)	\$ 4,517,228	Line 1 - Line 2
<u>Program Over/(Under) Recovery</u>															
5	Over (Under) Recovery Beg. Bal.	\$3,559,314	\$ 9,803,574	\$ 17,456,912	\$ 20,927,980	\$ 27,700,281	\$ 32,169,411	\$ 35,327,492	\$ 38,949,378	\$ 42,421,631	\$ 44,877,515	\$ 44,300,400	\$ 42,531,677		Line 8 Prior Month/Year
6	Prior Year Carrying Charges	427	-	-	-	-	-	-	-	-	-	-	-	-	Prior Year Ending
7	Change in Balance	6,243,833	7,653,338	3,471,068	6,772,301	4,469,130	3,158,081	3,621,886	3,472,253	2,455,884	(577,115)	(1,768,723)	(34,454,708)		Line 3
8	Over (Under) Recovery Ending Bal.	\$ 9,803,574	\$ 17,456,912	\$ 20,927,980	\$ 27,700,281	\$ 32,169,411	\$ 35,327,492	\$ 38,949,378	\$ 42,421,631	\$ 44,877,515	\$ 44,300,400	\$ 42,531,677	\$ 8,076,969		Line 4 + Line 5 + Line 6
9	Over (Under) Recovery Average Bal.	\$ 6,681,658	\$ 13,630,243	\$ 19,192,446	\$ 24,314,131	\$ 29,934,846	\$ 33,748,452	\$ 37,138,435	\$ 40,685,505	\$ 43,649,573	\$ 44,588,958	\$ 43,416,039	\$ 25,304,323		Line 4 + Line 5 + (Line 6 / 2)
<u>Carrying Charges</u>															
10	Carrying Charges, Monthly	\$ 22	\$ 69	\$ 769	\$ 5,971	\$ 12,515	\$ 24,999	\$ 52,928	\$ 74,122	\$ 86,233	\$ 111,387	\$ 133,772	\$ 87,222		Line 8 x Line 13
11	Carrying Charges, Cumulative	\$ 22	\$ 91	\$ 860	\$ 6,831	\$ 19,346	\$ 44,345	\$ 97,273	\$ 171,395	\$ 257,628	\$ 369,015	\$ 502,787	\$ 590,009	\$ 590,009	Cumulative Line 9
12	Cumulative Over (Under) Recovery	\$ 9,803,596	\$ 17,457,003	\$ 20,928,840	\$ 27,707,112	\$ 32,188,757	\$ 35,371,837	\$ 39,046,651	\$ 42,593,026	\$ 45,135,143	\$ 44,669,415	\$ 43,034,464	\$ 8,666,978	\$ 8,666,978	Line 7 + Line 10
13	Annual Interest Rate	0.0040000%	0.0061000%	0.0481000%	0.2947000%	0.5017000%	0.8889000%	1.7102000%	2.1862000%	2.3707000%	2.9977000%	3.6974000%	4.1363000%	1.5702%	Treasury
14	Monthly Interest Rate	0.0003333%	0.0005083%	0.0040083%	0.0245583%	0.0418083%	0.0740750%	0.1425167%	0.1821833%	0.1975583%	0.2498083%	0.3081167%	0.3446917%		Line 12/ 12

2022 EWR Electric Cumulative Over (Under) Recovery (Total by Month)

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
	Grand Total													
1	Surcharge Revenue	\$ 14,402,901	\$ 14,341,940	\$ 14,225,810	\$ 16,592,883	\$ 16,331,992	\$ 16,635,028	\$ 17,716,816	\$ 17,953,846	\$ 17,297,388	\$ 16,290,797	\$ 15,976,723	\$ 16,589,335	\$ 194,355,459
2	Program Expenses	\$ 7,642,547	\$ 5,391,900	\$ 10,898,370	\$ 8,765,333	\$ 10,564,006	\$ 13,031,926	\$ 12,950,545	\$ 12,002,619	\$ 13,695,877	\$ 17,868,786	\$ 18,186,509	\$ 59,039,514	\$ 190,037,932
3	Annual Transfer of Low-Income Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Change in Over (Under) Recovery	\$ 6,760,354	\$ 8,950,040	\$ 3,327,440	\$ 7,827,550	\$ 5,767,986	\$ 3,603,102	\$ 4,766,271	\$ 5,951,227	\$ 3,601,511	\$ (1,577,989)	\$ (2,209,786)	\$ (42,450,179)	\$ 4,317,527
	<u>Program Over/(Under) Recovery</u>													
5	Over (Under) Recovery Beg.Bal.	\$ 945,941	\$ 7,706,996	\$ 16,657,036	\$ 19,984,476	\$ 27,812,026	\$ 33,580,012	\$ 37,183,114	\$ 41,949,385	\$ 47,900,612	\$ 51,502,123	\$ 49,924,134	\$ 47,714,348	
6	Prior Year Carrying Charges	701	-	-	-	-	-	-	-	-	-	-	-	
7	Change in Balance	6,760,354	8,950,040	3,327,440	7,827,550	5,767,986	3,603,102	4,766,271	5,951,227	3,601,511	(1,577,989)	(2,209,786)	(42,450,179)	
8	Over (Under) Recovery Ending Bal.	\$ 7,706,996	\$ 16,657,036	\$ 19,984,476	\$ 27,812,026	\$ 33,580,012	\$ 37,183,114	\$ 41,949,385	\$ 47,900,612	\$ 51,502,123	\$ 49,924,134	\$ 47,714,348	\$ 5,264,169	
9	Over (Under) Recovery Average Bal.	\$ 4,326,819	\$ 12,182,016	\$ 18,320,756	\$ 23,898,251	\$ 30,696,019	\$ 35,381,563	\$ 39,566,250	\$ 44,924,999	\$ 49,701,368	\$ 50,713,129	\$ 48,819,241	\$ 26,489,259	
	<u>Carrying Charges</u>													
10	Carrying Charges, Monthly	\$ 14	\$ 62	\$ 734	\$ 5,869	\$ 12,833	\$ 26,209	\$ 56,388	\$ 81,846	\$ 98,189	\$ 126,686	\$ 150,420	\$ 91,306	
11	Carrying Charges, Cumulative	\$ 14	\$ 76	\$ 810	\$ 6,679	\$ 19,512	\$ 45,721	\$ 102,109	\$ 183,955	\$ 282,144	\$ 408,830	\$ 559,250	\$ 650,556	\$ 650,556
12	Cumulative Over (Under) Recovery	\$ 7,707,010	\$ 16,657,112	\$ 19,985,286	\$ 27,818,705	\$ 33,599,524	\$ 37,228,835	\$ 42,051,494	\$ 48,084,567	\$ 51,784,267	\$ 50,332,964	\$ 48,273,598	\$ 5,914,725	\$ 5,914,725
13	Annual Interest Rate	0.0040%	0.0061%	0.0481%	0.2947%	0.5017%	0.8889%	1.7102%	2.1862%	2.3707%	2.9977%	3.6974%	4.1363%	1.5702%
14	Monthly Interest Rate	0.0003%	0.0005%	0.0040%	0.0246%	0.0418%	0.0741%	0.1425%	0.1822%	0.1976%	0.2498%	0.3081%	0.3447%	

2022 EWR Gas Cumulative Over (Under) Recovery (By Class and Total)

	(a)	(b)	(c)	(d)
<u>Line</u>	<u>Description</u>	<u>Residential</u>	<u>C&I</u>	<u>Total</u>
<u>Annual Summary</u>				
1	Surcharge Revenue	\$ 44,112,295	\$ 40,889,977	\$ 85,002,272
2	Program Expenses	\$ 53,960,987	\$ 29,330,009	\$ 83,290,996
3	Annual Transfer of Low-Income Funding	11,941,637	(11,941,637)	-
4	Change in Over (Under) Recovery	\$ 2,092,945	\$ (381,669)	\$ 1,711,276
<u>Program Over/(Under) Recovery</u>				
5	Over (Under) Recovery Beginning Balance	\$ (2,034,905)	\$ (10,091,191)	\$ (12,126,096)
6	Prior Year Carrying Charges	338	(317)	21
7	Change in Balance	2,092,945	(381,669)	1,711,276
8	Over (Under) Recovery Ending Balance	\$ 58,378	\$ (10,473,177)	\$ (10,414,799)
<u>Carrying Charges</u>				
9	Carrying Charges, Cumulative	\$ 94,529	\$ 5,890	\$ 100,419
10	Cumulative Over (Under) Recovery	\$ 152,907	\$ (10,467,287)	\$ (10,314,380)
11	Annual Interest Rate	1.57%	1.57%	1.57%

2022 EWR Gas Cumulative Over (Under) Recovery (Residential by Month)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Line	Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Source
Residential															
1	Surcharge Revenue	\$5,421,509	\$6,727,314	\$5,924,613	\$6,307,764	\$4,181,733	\$1,592,854	\$982,297	\$883,457	\$911,335	\$1,551,152	\$3,341,642	\$6,286,625	\$ 44,112,295	Per Books
2	Program Expenses	\$4,341,521	\$1,026,701	\$3,110,394	\$3,044,690	\$2,820,908	\$3,667,641	\$3,781,752	\$3,529,601	\$4,191,403	\$5,026,430	\$6,272,945	\$13,147,001	\$ 53,960,987	Per Books
3	Annual Transfer of Low-Income Funding	<u>\$1,178,064</u>	<u>(\$527,392)</u>	<u>\$466,334</u>	<u>\$506,180</u>	<u>\$402,357</u>	<u>\$769,458</u>	<u>\$617,941</u>	<u>\$614,377</u>	<u>\$827,098</u>	<u>\$1,001,194</u>	<u>\$1,731,040</u>	<u>\$4,354,986</u>	<u>\$ 11,941,637</u>	
4	Change in Over (Under) Recovery	\$ 2,258,052	\$ 5,173,221	\$ 3,280,553	\$ 3,769,254	\$ 1,763,182	\$ (1,305,329)	\$ (2,181,514)	\$ (2,031,767)	\$ (2,452,970)	\$ (2,474,084)	\$ (1,200,263)	\$ (2,505,390)	\$ 2,092,945	Line 1 - Line 2
Program Over/(Under) Recovery															
5	Over (Under) Recovery Beg Bal.	\$ (2,034,905)	\$ 223,485	\$ 5,396,706	\$ 8,677,259	\$ 12,446,513	\$ 14,209,695	\$ 12,904,366	\$ 10,722,852	\$ 8,691,085	\$ 6,238,115	\$ 3,764,031	\$ 2,563,768		Line 7 Prior Month/Year
6	Prior Year Carrying Charges	338	-	-	-	-	-	-	-	-	-	-	-	-	Prior Year Ending
7	Change in Balance	<u>2,258,052</u>	<u>5,173,221</u>	<u>3,280,553</u>	<u>3,769,254</u>	<u>1,763,182</u>	<u>(1,305,329)</u>	<u>(2,181,514)</u>	<u>(2,031,767)</u>	<u>(2,452,970)</u>	<u>(2,474,084)</u>	<u>(1,200,263)</u>	<u>(2,505,390)</u>		Line 3
8	Over (Under) Recovery Ending Bal.	\$ 223,485	\$ 5,396,706	\$ 8,677,259	\$ 12,446,513	\$ 14,209,695	\$ 12,904,366	\$ 10,722,852	\$ 8,691,085	\$ 6,238,115	\$ 3,764,031	\$ 2,563,768	\$ 58,378		Line 4 + Line 5 + Line 6
9	Over (Under) Recovery Average Bal.	\$ (905,541)	\$ 2,810,096	\$ 7,036,983	\$ 10,561,886	\$ 13,328,104	\$ 13,557,031	\$ 11,813,609	\$ 9,706,969	\$ 7,464,600	\$ 5,001,073	\$ 3,163,900	\$ 1,311,073		Line 4 + Line 5 + (Line 6 / 2)
Carrying Charges															
10	Carrying Charges, Monthly	\$ (3)	\$ 14	\$ 282	\$ 2,594	\$ 5,572	\$ 10,042	\$ 16,836	\$ 17,684	\$ 14,747	\$ 12,493	\$ 9,749	\$ 4,519		Line 8 x Line 13
11	Carrying Charges, Cumulative	\$ (3)	\$ 11	\$ 293	\$ 2,887	\$ 8,459	\$ 18,501	\$ 35,337	\$ 53,021	\$ 67,768	\$ 80,261	\$ 90,010	\$ 94,529	\$ 94,529	Cumulative Line 9
12	Cumulative Over (Under) Recovery	\$ 223,482	\$ 5,396,717	\$ 8,677,552	\$ 12,449,400	\$ 14,218,154	\$ 12,922,867	\$ 10,758,189	\$ 8,744,106	\$ 6,305,883	\$ 3,844,292	\$ 2,653,778	\$ 152,907	\$ 152,907	Line 7 + Line 10
13	Annual Interest Rate	0.0040%	0.0060%	0.0480%	0.2950%	0.5020%	0.8890%	1.7100%	2.1860%	2.3710%	2.9980%	3.6970%	4.1360%	1.5702%	Treasury
14	Monthly Interest Rate	0.0003%	0.0005%	0.0040%	0.0246%	0.0418%	0.0741%	0.1425%	0.1822%	0.1976%	0.2498%	0.3081%	0.3447%		Line 12/ 12

2022 EWR Gas Cumulative Over (Under) Recovery (C&I by Month)

	(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>
<u>C&I</u>															
1	Surcharge Revenue	\$5,200,527	\$6,620,801	\$5,923,526	\$5,178,098	\$3,510,147	\$1,682,756	\$1,191,614	\$1,089,892	\$1,168,559	\$1,448,433	\$2,868,630	\$5,006,994	\$ 40,889,977	Per Books
2	Program Expenses	\$741,680	\$1,712,936	\$1,760,343	\$5,089,862	(\$1,618,049)	\$1,657,597	\$2,106,077	\$1,242,589	\$2,409,223	\$2,015,408	\$2,402,334	\$9,810,009	\$ 29,330,009	Per Books
3	Annual Transfer of Low-Income Funding	(\$1,178,064)	\$527,392	(\$466,334)	(\$506,180)	(\$402,357)	(\$769,458)	(\$617,941)	(\$614,377)	(\$827,098)	(\$1,001,194)	(\$1,731,040)	(\$4,354,986)	(\$11,941,637)	
4	Change in Over (Under) Recovery	\$ 3,280,783	\$ 5,435,257	\$ 3,696,849	\$ (417,944)	\$ 4,725,839	\$ (744,299)	\$ (1,532,404)	\$ (767,074)	\$ (2,067,762)	\$ (1,568,169)	\$ (1,264,744)	\$ (9,158,001)	\$ (381,669)	Line 1 - Line 2
<u>Program Over/(Under) Recovery</u>															
5	Over (Under) Recovery Beg. Bal.	(\$10,091,191)	\$ (6,810,725)	\$ (1,375,468)	\$ 2,321,381	\$ 1,903,437	\$ 6,629,276	\$ 5,884,977	\$ 4,352,573	\$ 3,585,499	\$ 1,517,737	\$ (50,432)	\$ (1,315,176)		Line 7 Prior Month/Year
6	Prior Year Carrying Charges	(\$317)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Prior Year Ending
7	Change in Balance	\$ 3,280,783	\$ 5,435,257	\$ 3,696,849	\$ (417,944)	\$ 4,725,839	\$ (744,299)	\$ (1,532,404)	\$ (767,074)	\$ (2,067,762)	\$ (1,568,169)	\$ (1,264,744)	\$ (9,158,001)		Line 3
8	Over (Under) Recovery Ending Bal.	\$ (6,810,725)	\$ (1,375,468)	\$ 2,321,381	\$ 1,903,437	\$ 6,629,276	\$ 5,884,977	\$ 4,352,573	\$ 3,585,499	\$ 1,517,737	\$ (50,432)	\$ (1,315,176)	\$ (10,473,177)		Line 4 + Line 5 + Line 6
9	Over (Under) Recovery Average Bal.	\$ (8,451,117)	\$ (4,093,097)	\$ 472,957	\$ 2,112,409	\$ 4,266,357	\$ 6,257,127	\$ 5,118,775	\$ 3,969,036	\$ 2,551,618	\$ 733,653	\$ (682,804)	\$ (5,894,177)		Line 4 + Line 5 + (Line 6 / 2)
<u>Carrying Charges</u>															
10	Carrying Charges, Monthly	\$ (28)	\$ (20)	\$ 19	\$ 519	\$ 1,785	\$ 4,635	\$ 7,294	\$ 7,230	\$ 5,042	\$ 1,833	\$ (2,104)	\$ (20,315)		Line 8 x Line 13
11	Carrying Charges, Cumulative	\$ (28)	\$ (48)	\$ (29)	\$ 490	\$ 2,275	\$ 6,910	\$ 14,204	\$ 21,434	\$ 26,476	\$ 28,309	\$ 26,205	\$ 5,890	\$ 5,890	Cumulative Line 9
12	Cumulative Over (Under) Recovery	\$ (6,810,753)	\$ (1,375,516)	\$ 2,321,352	\$ 1,903,927	\$ 6,631,551	\$ 5,891,887	\$ 4,366,777	\$ 3,606,933	\$ 1,544,213	\$ (22,123)	\$ (1,288,971)	\$ (10,467,287)	\$ (10,467,287)	Line 7 + Line 10
13	Annual Interest Rate	0.00400000%	0.00600000%	0.04800000%	0.29500000%	0.50200000%	0.88900000%	1.71000000%	2.18600000%	2.37100000%	2.99800000%	3.69700000%	4.13600000%	1.5702%	Treasury
14	Monthly Interest Rate	0.00033333%	0.00050000%	0.00400000%	0.02458333%	0.04183333%	0.07408333%	0.14250000%	0.1821667%	0.19758333%	0.24983333%	0.30808333%	0.3446667%		Line 12/ 12

2022 EWR Gas Cumulative Over (Under) Recovery (Total by Month)

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
Grand Total														
1	Surcharge Revenue	\$ 10,622,036	\$ 13,348,115	\$ 11,848,139	\$ 11,485,862	\$ 7,691,880	\$ 3,275,610	\$ 2,173,911	\$ 1,973,349	\$ 2,079,894	\$ 2,999,585	\$ 6,210,272	\$ 11,293,619	\$ 85,002,272
2	Program Expenses	\$ 5,083,201	\$ 2,739,637	\$ 4,870,737	\$ 8,134,552	\$ 1,202,859	\$ 5,325,238	\$ 5,887,829	\$ 4,772,190	\$ 6,600,626	\$ 7,041,838	\$ 8,675,279	\$ 22,957,010	\$ 83,290,996
3	Annual Transfer of Low-Income Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Change in Over (Under) Recovery	\$ 5,538,835	\$ 10,608,478	\$ 6,977,402	\$ 3,351,310	\$ 6,489,021	\$ (2,049,628)	\$ (3,713,918)	\$ (2,798,841)	\$ (4,520,732)	\$ (4,042,253)	\$ (2,465,007)	\$ (11,663,391)	\$ 1,711,276
Program Over/(Under) Recovery														
5	Over (Under) Recovery Beg. Bal.	\$ (12,126,096)	\$ (6,587,240)	\$ 4,021,238	\$ 10,998,640	\$ 14,349,950	\$ 20,838,971	\$ 18,789,343	\$ 15,075,425	\$ 12,276,584	\$ 7,755,852	\$ 3,713,599	\$ 1,248,592	
6	Prior Year Carrying Charges	21												
7	Change in Balance	5,538,835	10,608,478	6,977,402	3,351,310	6,489,021	(2,049,628)	(3,713,918)	(2,798,841)	(4,520,732)	(4,042,253)	(2,465,007)	(11,663,391)	
8	Over (Under) Recovery Ending Bal.	\$ (6,587,240)	\$ 4,021,238	\$ 10,998,640	\$ 14,349,950	\$ 20,838,971	\$ 18,789,343	\$ 15,075,425	\$ 12,276,584	\$ 7,755,852	\$ 3,713,599	\$ 1,248,592	\$ (10,414,799)	
9	Over (Under) Recovery Average Bal.	\$ (9,356,658)	\$ (1,283,001)	\$ 7,509,939	\$ 12,674,295	\$ 17,594,461	\$ 19,814,157	\$ 16,932,384	\$ 13,676,005	\$ 10,016,218	\$ 5,734,726	\$ 2,481,096	\$ (4,583,104)	
Carrying Charges														
10	Carrying Charges, Monthly	\$ (31)	\$ (6)	\$ 301	\$ 3,113	\$ 7,357	\$ 14,677	\$ 24,130	\$ 24,914	\$ 19,789	\$ 14,326	\$ 7,645	\$ (15,796)	
11	Carrying Charges, Cumulative	\$ (31)	\$ (37)	\$ 264	\$ 3,377	\$ 10,734	\$ 25,411	\$ 49,541	\$ 74,455	\$ 94,244	\$ 108,570	\$ 116,215	\$ 100,419	\$ 100,419
12	Cumulative Over (Under) Recovery	\$ (6,587,271)	\$ 4,021,201	\$ 10,998,904	\$ 14,353,327	\$ 20,849,705	\$ 18,814,754	\$ 15,124,966	\$ 12,351,039	\$ 7,850,096	\$ 3,822,169	\$ 1,364,807	\$ (10,314,380)	\$ (10,314,380)
13	Annual Interest Rate	0.0040%	0.0060%	0.0480%	0.2950%	0.5020%	0.8890%	1.7100%	2.1860%	2.3710%	2.9980%	3.6970%	4.1360%	1.5702%
14	Monthly Interest Rate	0.0003%	0.0005%	0.0040%	0.0246%	0.0418%	0.0741%	0.1425%	0.1822%	0.1976%	0.2498%	0.3081%	0.3447%	

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

DIRECT TESTIMONY

OF

R. KENNETH SKINNER

ON BEHALF OF

CONSUMERS ENERGY COMPANY

August 2023

R. KENNETH SKINNER
DIRECT TESTIMONY

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

2 A. My name is Dr. R. Kenneth Skinner. I am Vice President of Integral Analytics, Inc.,
3 ("IA"). My business address is One Riverfront Place, 300 Dave Cowens Dr. #1010,
4 Newport, KY 41071.

5 **Q. Who is IA?**

6 A. With dozens of utility clients, IA (based in Cincinnati Ohio) is the nation's foremost
7 supplier of demand side management ("DSM") cost effectiveness analysis software. For
8 over 20 years, IA has supplied cost-effectiveness software, analytics, testimony and
9 program planning, reconciliation, and evaluation support for many leading U.S. utilities.
10 As part of its set of software tools, IA developed the DSMore model which is used for
11 valuing the cost-effectiveness of energy efficiency and demand response programs across
12 30 states. IA develops accurate valuations by capturing all avoided costs and the
13 covariance between prices and loads, and values these impacts across 30 years of actual
14 hourly weather patterns, which ensures accuracy in quantifying avoided costs. Focused on
15 operational, planning and market research solutions for the energy industry, IA's team of
16 experts have extensive experience conducting technically defensible cost-effectiveness
17 evaluations of distributed energy resources, including energy efficiency and demand
18 response programs, while concurrently supporting program potential, impact evaluations,
19 conjoint analysis, market segmentation research, and market opportunity assessments.
20 IA's analytical, programming, and statistical methods offer clients more robust evaluation,
21 faster and more affordably. By providing customers with analytical tools and consulting
22 services that are integral to their success, IA can quickly identify whether programs are on
23 track for reaching savings goals rather than waiting a full year to discover if programs are

R. KENNETH SKINNER
DIRECT TESTIMONY

1 effective. In support of this goal, IA depends on a core staff that includes some of the best
2 and brightest engineering, statistical, and operations research talent in the country. Our
3 subject matter experts have testified in over 50 regulatory proceedings and our software
4 has evaluated over \$50 billion in energy savings nationally for numerous utilities, public
5 utility commission proceedings, and stakeholder filings over the last 20 years.

6 **Q. Can you summarize your educational background and professional qualifications?**

7 A. I earned a Ph.D. in Energy Economics from the Colorado School of Mines. I have
8 published hundreds of energy related papers and served as the technology columnist for
9 Wiley Natural Gas and Electricity Journal. I am a noted speaker on energy related topics
10 for organizations such as the Association of Energy Services Professionals, International
11 Association for Energy Economics, The American Council for an Energy-Efficient
12 Economy, Peak Load Management Alliance, INFORMS, Infocast, EUCI, and SNL
13 Energy. I currently instruct for PGS Energy Training, SNL Energy, Euro-Money and
14 Utility Workshops and have developed several energy related courses.

15 **Q. Can you describe your professional background and experience?**

16 A. I have over thirty years of energy industry experience including conservation, energy
17 efficiency, demand response, and integrated demand side management program design,
18 potential assessment, measurement and verification, risk assessment, and cost-
19 effectiveness analysis. Prior to beginning work with IA in 2006, I worked as an energy
20 consultant leading the economic analysis and modeling of demand side energy projects
21 including energy price forecasting, measurement and verification of energy savings,
22 econometric analysis, optimization, and project risk assessment.

R. KENNETH SKINNER
DIRECT TESTIMONY

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

3 A. Yes, I testified on behalf of Consumers Energy Company (“Consumers Energy” or the
4 “Company”) in its 2022 Energy Waste Reduction (“EWR”) Plan Reconciliation, Case
5 U-21312. In addition, I have filed testimony for Xcel Energy in Colorado, Duke Energy
6 in North Carolina, Pacific Gas and Electric and San Diego Gas and Electric in California,
7 and CMS Energy in Texas.

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

9 A. The purpose of my direct testimony is to (i) describe how IA helped Consumers Energy
10 model the cost-effectiveness of its 2024-2025 EWR program plan, (ii) describe the
11 cost-effectiveness modeling for the EWR programs, and (iii) provide the results
12 demonstrating that the EWR portfolio included in the Plan is cost effective using the Utility
13 System Resource Cost Test (“UCT” or “USRCT”) (excluding the low-income customers).

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

15 A. No.

16 **Q. Will you describe the services your firm has provided for Consumers Energy?**

17 A. IA provided cost-effectiveness modeling services utilizing the DSMore modeling tool to
18 calculate and report cost-effectiveness of the Company’s proposed EWR programs. In
19 addition, IA worked with Morgan Marketing Partners (“MMP”) during the creation of the
20 Michigan Energy Measures Database (“MEMD”) and is currently the lead contractor
21 responsible for its maintenance. The MEMD serves as the basis for development of initial
22 energy efficiency savings calculations and potential savings for energy efficiency programs
23 for use by all Michigan utilities in their cost-effectiveness modeling.

R. KENNETH SKINNER
DIRECT TESTIMONY

1 **Q. How was cost-effectiveness of the Company's EWR programs determined?**

2 A. The DSMore cost analysis tool was used to calculate and report cost-effectiveness for the
3 Company's EWR programs using the UCT, as defined by 2008 PA 295, as amended.
4 Consumers Energy's programs must be cost effective utilizing the UCT, but several other
5 cost-effectiveness tests were performed and their results along with the UCT are tabulated
6 in Exhibit A-2 (EAM-2).

7 **Q. Please describe the DSMore modeling tool.**

8 A. Developed and licensed by IA, the DSMore tool is an award-winning modeling software
9 that is nationally recognized and used in many states across the country to determine cost-
10 effectiveness of energy efficiency programs. The DSMore cost-effectiveness modeling
11 tool takes hourly prices and hourly energy savings from the specific measures/technologies
12 being considered for each energy efficiency program and then correlates both to weather.
13 The algorithm used by the modeling software looks at over 30 years of historic weather
14 variability to fully capture the weather variances. In turn, this allows the model to capture
15 the low probability but high consequence weather events and apply appropriate value to
16 them. Thus, a more accurate view of the value of the efficiency measure can be captured
17 in comparison to alternative supply options.

R. KENNETH SKINNER
DIRECT TESTIMONY

1 **Q. Can you please describe the various tests run in the DSMore modeling?**

2 A. Tables 3-10 and 3-11 in Exhibit A-2 (EAM-2) show the cost-effectiveness test results for
3 the Company's planned electric and natural gas EWR programs in total, by residential and
4 business classes, and for each program. The various test results shown are for the following
5 tests:

- 6 • UCT/USRCT: This is the ratio of the net benefits of the programs to the
7 program costs incurred by the utility for the programs. For a program to be
8 cost-effective, this ratio needs to exceed one (a score of 1.0 or higher indicates
9 a program that is cost-effective).
- 10 • Total Resource Cost Test: This is the total avoided cost divided by the program
11 costs plus the participant's costs. Incentives paid to the customer are in both
12 the cost and benefit sides of the equation, and so cancel each other out.
- 13 • Rate Impact Measure: This is the avoided cost benefits divided by the program
14 costs and lost revenues.
- 15 • Participant Test: This is the participant's benefits in energy savings from their
16 bill plus their incentives divided by their costs to participate.

17 **Q. What EWR program costs and savings were used for the cost-effectiveness**
18 **calculation?**

19 A. Energy savings and participation amounts were provided, by measure, from the Company's
20 planning team. Participation estimates multiplied by the MEMD savings number over the
21 life of the measure yields the lifetime savings results used in the DSMore model. Program
22 costs and savings are based on the 2024-2025 EWR Plan model developed by the
23 Consumers Energy Planning Team. Additional information such as measure life and
24 incremental cost was taken from the 2023 MEMD.

R. KENNETH SKINNER
DIRECT TESTIMONY

1 **Q. What type of utility information is used in the DSMore modeling tool to determine**
2 **cost-effectiveness of EWR programs?**

3 A. For utility information, DSMore utilizes utility rates; escalation rates; discount rates for the
4 utility, society, and the participant tests; and avoided costs.

5 **Q. What is the source of the utility information used for Consumers Energy's DSMore**
6 **modeling inputs?**

7 A. The utility inputs were provided to me by Consumers Energy.

8 **Q. Within the DSMore model, how are the avoided electric benefits computed?**

9 A. The avoided electric benefits in the Company's analysis are derived using historic hourly
10 price data from the Midcontinent Independent System Operator, Inc. ("MISO") market and
11 hourly weather data to determine the value of the saved electricity. The electric savings,
12 by measure, are applied at specific hours over the year since prices vary by hour. These
13 prices are weighted based on the probability of weather variations over 33 years of weather
14 history so that the full range of weather and prices are properly captured. Each hour has a
15 unique price which is then escalated over time. This assures that the savings reflect the
16 value you would expect to see in the market over time from the avoided energy sales.

17 **Q. Within the DSMore model, how are the avoided gas benefits calculated?**

18 A. The avoided benefits for natural gas are calculated using weather adjusted prices, similar
19 to the electric, but are based on gas prices from the Henry Hub sales market. Gas prices
20 are based on daily gas prices, versus hourly prices for electric. Again, the purpose is to
21 best represent the expected value of the energy savings in the marketplace.

R. KENNETH SKINNER
DIRECT TESTIMONY

1 **Q. What are net benefits?**

2 A. Net benefits are the computed avoided cost benefits, which I described previously, minus
3 the program costs to acquire those benefits. The net lifetime benefits (not including
4 low-income programs) for Electric are \$421,506,285 and Gas \$171,114,067 for a total net
5 benefit of \$592,620,351.

6 **Q. What type of program information is used as inputs into the DSMore model?**

7 A. Inputs into the model include participation rates, incentives paid, energy savings of the
8 measure, life of the measure, implementation costs, administrative costs, and any
9 incremental costs incurred by participants when installing an efficiency measure.

10 **Q. Please provide the detailed information on the UCT calculation.**

11 A. As described earlier, the UCT is the ratio of the net benefits of the EWR programs to the
12 program costs incurred by the utility. For an EWR program to be cost-effective, this ratio
13 needs to exceed one. The formula for the UCT is:

$$\text{UCT} = \text{Program Benefits} / \text{Program Costs}$$

14
15 Program Benefits (net of free riders) were calculated by DSMore based on the avoided cost
16 of energy and demand for electric, and the avoided cost of gas. The electric energy savings
17 (including pilots and education energy savings and line losses and excluding Income
18 Qualified savings) for the two years are equal to 12,815,601 net Lifetime MWh for business
19 customers, and 1,504,977 net Lifetime MWh for residential customers. Electric coincident
20 demand savings for the two years total 138,831 net kW for business customers and 28,853
21 net kW for residential customers. The avoided costs were calculated using the DSMore
22 model by looking at the time of savings for each measure and the historic weather-weighted
23 value during that time. Gas energy savings were 37,967,652 net Lifetime Mcf for business

R. KENNETH SKINNER
DIRECT TESTIMONY

1 customers and 28,783,343 net Lifetime Mcf for residential customers with calculated
2 avoided costs based on the time of savings and the historic daily weather weighted value.
3 Also included in the avoided value calculation were transmission and distribution avoided
4 costs as well as line losses. Total Avoided Cost Benefits for the total Portfolio is
5 \$1,097,254,597 (present valued) including low income and \$1,032,800,304 excluding low
6 income.

7 Program costs are split into four categories for each program: Incentives,
8 Implementation, Direct Install Costs, and Support Services. In addition, other costs such
9 as education and awareness, pilots, and performance incentives are added at the portfolio
10 levels. The total expected 2024-2025 EWR program investment is \$528,215,943 (present
11 valued including the utility performance incentive and excluding low income).

12 To complete the equation:

13 \$1,032,800,304 in benefits divided by \$528,215,943 in program costs = 1.96 UCT

14 **Q. Please describe the cost-effectiveness results for Consumers Energy's EWR**
15 **programs.**

16 A. All Consumers Energy EWR programs are collectively cost-effective with the Gas
17 Program Portfolio UCT score of 1.99 and the Electric Program Portfolio UCT score of
18 1.94. The Combined Fuel Portfolio UCT score is 1.96. This means that the energy savings
19 benefits are 99% greater than the program costs for gas, 94% greater than the program cost
20 for electric, and 96% greater than the program cost for the combination of gas and electric
21 savings.

R. KENNETH SKINNER
DIRECT TESTIMONY

1 **Q. Based on the results of your work, do Consumers Energy's EWR programs meet**
2 **statutory and MPSC cost-effectiveness requirements?**

3 A. Yes. Based on the analysis I performed using the DSMore model, the Company's
4 2024-2025 EWR Program plan passes the cost-effectiveness test in accordance with the
5 guidelines outlined by the MPSC and the legislative requirements of 2008 PA 295, as
6 amended in 2016 PA 342. This analysis was performed in accordance with MPSC
7 guidelines and did not include low-income programs. The results of my analysis are
8 provided in Exhibit A-2 (EAM-2), Tables 3-9, 3-10, and 3-11.

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, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully)
comply with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

DIRECT TESTIMONY
OF
GREGORY E. STEVENSON
ON BEHALF OF
CONSUMERS ENERGY COMPANY

August 2023

GREGORY E. STEVENSON
DIRECT TESTIMONY

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

2 A. My name is Gregory E. Stevenson. 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
6 “Company”) as the Demand Side Management (“DSM”) Director of Product
7 Management for Small and Medium Businesses (“SMB”).

8 **Q. Please describe your education and professional experience.**

9 A. I received a Bachelor of Telecommunications and Information Management in 2009 from
10 Western Michigan University and a Masters of Strategy and Management in 2018 from
11 Michigan State University. I have been employed at Consumers Energy since 2010,
12 where I began my career as an Information Technology Technical Analyst. Since that
13 time, I have held various positions in strategy, customer experience, pricing, and DSM.
14 In my current role, I am responsible for the Company’s Energy Waste Reduction
15 (“EWR”) and Demand Response programs for SMB customers, which includes leading a
16 team of SMB product managers, development of product strategies, execution of product
17 plans, and overall management of SMB portfolio performance.

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

19 A. The purpose of my direct testimony is to describe the Company’s SMB EWR programs,
20 program costs, energy savings, and capacity savings in the Company’s proposed
21 2024-2025 EWR Plan.

22 **Q. Are you sponsoring any exhibits with your direct testimony?**

23 A. No.

GREGORY E. STEVENSON
DIRECT TESTIMONY

1 **Q. Please describe proposed changes to the Company's SMB program.**

2 A. Historically, the Company's SMB program has been a component of its large business
3 EWR program. To achieve its targeted and comprehensive SMB customer engagement
4 goals, the Company is expanding SMB offerings into three distinct EWR programs
5 within the Company's business EWR portfolio specifically designed for its SMB electric
6 and natural gas customers.

7 **Q. Please provide an overview of the Company's proposed SMB EWR program.**

8 A. The Company's proposed 2024-2025 EWR Plan includes three EWR programs within
9 the business portfolio targeted specifically toward hard-to-reach small businesses who
10 often have limited resources to participate in standard business EWR programs. These
11 three SMB programs are Energy Assessments, SMB Contractor Rebates, and the Small
12 Business Store.

13 SMBs, either owner-occupied or tenant facilities with owner permission, with up
14 to 12-month individual facility utility usage of 1,200 MWh or 15,000 Mcf, are eligible to
15 participate in SMB EWR programs. Eligible participants include small retail businesses
16 such as convenience and grocery stores, small offices, service stations, restaurants,
17 hotels/motels, nonprofit organizations, and small manufacturers. Market providers of
18 EWR products and services seldom target these small customers due to higher costs
19 relative to larger customers and increased difficulty in contacting the decision-maker of
20 the business. These small businesses also typically lack the technical and financial
21 resources necessary to participate in larger EWR programs and often are sole
22 proprietorships where the owner or manager cannot commit time and effort to reducing
23 energy use. To overcome these barriers and support SMB participation in EWR and the

GREGORY E. STEVENSON
DIRECT TESTIMONY

1 Company's clean energy efforts, the Company is proposing comprehensive EWR
2 offerings targeted to SMB customers.

3 **Q. Please describe the Company's SMB Energy Assessments Program.**

4 A. The SMB Energy Assessments Program promotes energy saving opportunities to small
5 businesses through complimentary, on-site energy assessments and the direct installation
6 of energy saving products. Experienced technicians (known as energy assessors) conduct
7 the assessment, discuss EWR opportunities with the business owner, and install high
8 efficiency measures including lighting, showerheads, pipe wrap, pre-rinse sprayers,
9 faucet aerators, and more where applicable. Participants receive a report via mail and
10 email indicating the measures installed as well as tips and recommendations to continue
11 saving energy.

12 **Q. Please describe the SMB Contractor Rebates Program.**

13 A. The Contractor Rebates Program engages and utilizes trade allies to promote and install
14 energy-saving opportunities such as lighting and refrigeration measures. Consumers
15 Energy provides incentives that cover up to 100% of the cost for efficiency upgrades and
16 often can yield an average payback of approximately one year. As SMBs often struggle
17 with a lack of available capital to complete energy saving projects, incentives are paid
18 directly to the Trade Ally performing the installation with the customer only responsible
19 for a small co-pay. Eligible measures include but are not limited to lighting, lighting
20 controls, anti-sweat heater controls, electronically commutated motors and controls, and
21 strip curtains.

GREGORY E. STEVENSON
DIRECT TESTIMONY

1 **Q. Please describe the Small Business Store.**

2 A. The Small Business Store is a scalable, self-service online store that gives SMB
3 customers an opportunity to purchase discounted energy-efficient products such as pre-
4 rinse sprayers, low-flow showerheads, lighting, and faucet aerators through a convenient
5 self-serve retail platform.

6 **Q. For each of the SMB programs described above, is there more detailed information**
7 **available in this filing?**

8 A. Yes. The EWR Plan Report, Exhibit A-2 (EAM-2), sponsored by Company witness
9 Emily A. McGraw, provides detailed information on the SMB programs.

10 **Q. What are the projected total annualized MWh and Mcf savings expected to be**
11 **delivered by the proposed SMB programs for the 2024-2025 EWR Plan period?**

12 A. For the 2024 to 2025 EWR Plan period, the Company projects the SMB EWR programs
13 to deliver the sum of first-year energy savings of 73,837 MWh and 413,492 Mcf.
14 Annual energy savings is provided in the Company's EWR Plan Report, Exhibit A-2
15 (EAM-2).

16 **Q. What is the basis for the expected energy savings?**

17 A. The basis for expected energy savings is historical performance of past programs,
18 industry trends, market performance, and new initiatives and incentives offered by the
19 Company. The base energy savings values for various measures are contained in the
20 Michigan Energy Measures Database ("MEMD").

GREGORY E. STEVENSON
DIRECT TESTIMONY

1 **Q. What is the expected capacity savings from the Company's SMB programs for 2024**
2 **through 2025?**

3 A. From 2024 through 2025, Consumers Energy expects to produce net capacity savings of
4 4.1 MW from its SMB programs, as shown in Exhibit A-2 (EAM-2).

5 **Q. How much does Consumers Energy propose to invest in the SMB electric and gas**
6 **programs to deliver the aforementioned energy and capacity savings?**

7 A. From 2024 through 2025, Consumers Energy proposes to invest approximately
8 \$30.91 million and \$9.11 million in its electric and gas SMB programs, respectively, as
9 shown in Exhibit A-2 (EAM-2), Table ES-4.

10 **Q. Are these SMB program investments prudent and necessary to achieve the**
11 **Company's EWR energy savings targets?**

12 A. Yes. There are over 300,000 SMB customer accounts in the Company's service territory,
13 warranting a directed effort to drive participation in energy reduction. SMB customers
14 face resource, operational, and fiscal challenges in today's fast-moving economic
15 environment, with many still recovering from COVID-19 Pandemic impacts, particularly
16 in regard to staffing. Further, as noted earlier, SMBs often lack access to capital
17 investment for upgrades, restricting them from investing in clean energy options. SMBs
18 also lack the time and resources that larger commercial and industrial customers have to
19 invest in understanding energy saving options and how those investments benefit their
20 business and the environment. The SMB investment and programs included in the
21 Company's proposed EWR Plan serve to directly engage SMB customers, increase their
22 participation in EWR offerings to support the Company's EWR energy savings goals,
23 and provide beneficial solutions for this hard-to-reach customer segment.

GREGORY E. STEVENSON
DIRECT TESTIMONY

1 **Q. How will the Company demonstrate that its SMB investments are achieving the**
2 **desired results?**

3 A. The Company will file annual reconciliation reports with the Commission after the end of
4 each plan year detailing program investment and energy savings achieved for each
5 program. Such reports will be in sufficient detail to allow the Commission to determine
6 that the Company is complying with the Commission's orders and statutory requirements.

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

8 A. Yes.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
CONSUMERS ENERGY COMPANY to fully comply)
with Public Act 295 of 2008, as amended by)
Public Act 342 of 2016.)
_____)

Case No. U-21321

PROOF OF SERVICE

STATE OF MICHIGAN)
) SS
COUNTY OF JACKSON)

Jennifer Joy Yocum, being first duly sworn, deposes and says that she is employed in the Legal Department of Consumers Energy Company; that on August 1, 2023, she served an electronic copy of **Consumers Energy Company's Application and Testimony and Exhibits of Company Witnesses Emily A. McGraw, Lisa M. Biering, Jessica R. Byrom, Eugene M. Breuring, Nathaniel S. Carver, Laura M. Connolly, Kirkland D. Harrington, Svitlana Lykhytska, R. Kenneth Skinner, and Gregory E. Stevenson** upon the persons listed in Attachment 1 hereto, at the e-mail addresses listed therein.



Jennifer Joy Yocum

Subscribed and sworn to before me this 1st day of August 2023.



Crystal L. Chacon, Notary Public
State of Michigan, County of Ingham
My Commission Expires: 05/25/24
Acting in the County of Jackson

ATTACHMENT 1 TO CASE NO. U-21321
(Including Parties to Case No. U-20875)

Party	Mailing Address	Email Address
Counsel for Consumers Energy Company		
Theresa A.G. Staley, Esq. Anne M. Uitvlugt, Esq. Gary A. Gensch, Jr., Esq.	One Energy Plaza Jackson, MI 49201	theresa.staley@cmsenergy.com anne.uitvlugt@cmsenergy.com gary.genschjr@cmsenergy.com mpsc.filings@cmsenergy.com
Counsel for the Michigan Public Service Commission Staff		
Heather M.S. Durian, Esq. Nicholas Q. Taylor, Esq.	7109 West Saginaw Highway Post Office Box 30221 Lansing, MI 48909	durianh@michigan.gov taylorn10@michigan.gov
Counsel for Attorney General Dana Nessel		
Michael E. Moody, Esq.	Michigan Dept. of Attorney General, Special Litigation Division Post Office Box 30755 Lansing, MI 48909	moodym2@michigan.gov
Counsel for the Association of Businesses Advocating Tariff Equity		
Michael J. Pattwell, Esq.	Clark Hill PLC 212 César Chávez Avenue Lansing, MI 48906	mpattwell@clarkhill.com
Stephen A. Campbell, Esq.	Clark Hill PLC 500 Woodward, Suite 3500 Detroit, MI 48226	scampbell@clarkhill.com
Counsel for Sierra Club, the Ecology Center, the National Housing Trust, and the Natural Resources Defense Council		
Christopher M. Bzdok, Esq. Holly H. Hillyer, Esq. Kimberly Flynn, Legal Asst. Karla Gerds, Legal Asst. Breanna Thomas, Legal Asst. Jill Smigielski, Legal Asst.	Olson, Bzdok & Howard, P.C. 420 East Front Street Traverse City, MI 49686	chris@envlaw.com holly@envlaw.com kimberly@envlaw.com karla@envlaw.com breanna@envlaw.com jill@envlaw.com