



# ANNUAL REPORT JUNE 2024

# Rhode Island Energy Efficiency Council

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# RI EEC 2024 Annual Report EXECUTIVE SUMMARY

## **ENERGY EFFICIENCY IS PAYING OFF FOR RHODE ISLANDERS**



In 2023, energy efficiency programs in Rhode Island created... **749 jobs** (full-time equivalent)



626 companies delivered energy efficiency services in 2023



In 2023, energy efficiency programs resulted in...

**\$495 million** in total benefits to Rhode Islanders



Over their lifetime, energy efficiency measures installed in 2023 will prevent more than...

609,000 metric tons of greenhouse gas emissions



Equivalent to taking over... **145,000 cars** off the road for one year

## POLICY RECOMMENDATIONS



The **Rhode Island Energy Efficiency Council (EEC)** is a group of Governor-appointed stakeholders that work to ensure all Rhode Islanders receive the maximum benefits of energy efficiency. Learn more at <u>eec.ri.gov</u>.

#### LETTER FROM THE CHAIR



Harry Oakley Chair, RI EEC

# To Governor Daniel McKee, Leaders and Members of the General Assembly, and all Rhode Island energy consumers:

I'm pleased to present this 2023 Annual Report, which highlights collective efforts to create a more sustainable energy future and ensure the full benefits of energy efficiency are reaching all Rhode Islanders.

In 2023, the Council undertook a comprehensive rebranding initiative to help fulfill one of our core legislated mandates – to promote public awareness of energy efficiency and its benefits. We streamlined our name to "Energy Efficiency Council" for clarity and impact, refreshed our website for seamless access to energy efficiency programs, and designed a new logo symbolizing reduced energy use and the shift away from fossil fuels.

Our new look enhances the Council's relatability and recognition, paving the way for broader outreach. As climate change becomes increasingly urgent, the Council has a responsibility to educate and empower Rhode

Islanders to make informed choices that reduce energy use and greenhouse gas emissions. Establishing the Council as a trusted source of information is vital for conveying these important messages.

In 2024, the Council is launching its first-ever public awareness campaign to increase participation in the state's energy efficiency programs. Efficiency plays an essential role in supporting vulnerable communities disproportionately affected by the costs and impacts of a fossil fuel-based economy. Our targeted social marketing strategies will reach energy users who stand to benefit the most from energy efficiency measures but have not yet fully participated in available programs. We will also continue to partner with community-based organizations to engage underserved households and small businesses.

While expanding our public outreach efforts, we maintain a focus on the careful oversight of Rhode Island Energy's portfolio of energy efficiency programs. Over the past few years, the Council has advocated for greater investment in income-eligible programs. Though progress has been made, there is still much work to be done to improve accessibility and increase program participation.

Rhode Island remains a leader in energy efficiency across North America, and the Council plays a crucial role in this success. Through technical expertise and informed stakeholder input, we help to guide energy strategy, planning, and implementation in Rhode Island. As Council Chair, I'm committed to working collectively to advance the state's energy and climate goals, and I look forward to another year of service representing Rhode Island energy consumers.

-arry Oakley

Harry Oakley Chair, Rhode Island Energy Efficiency Council

Sincerely,

#### LETTER FROM THE EXECUTIVE DIRECTOR



Christopher Kearns Executive Director, RI EEC

#### To Governor Daniel McKee and Members of the General Assembly:

The Rhode Island Energy Efficiency Council (EEC) and the Office of Energy Resources (OER) are pleased to present the 2024 EEC Annual Report.

In 2023, energy efficiency programming prevented 609,389 metric tons of greenhouse gas emissions. Our state's energy efficiency programming will continue to serve as a foundation for achieving the State of Rhode Island's decarbonization goals. By encouraging our neighbors, local businesses, and community organizations to take advantage of these opportunities offered by the utilities in our state and through OER, we can help all customers benefit, reducing their emissions and energy costs, contributing to our Act on Climate goals.

To complement the work of our utility-led efficiency programs, OER launched the Clean Heat Rhode Island program which provides heat pump incentives for residents, small businesses, and nonprofits in

Rhode Island to help decarbonize our buildings and make heating and cooling more efficient. The Clean Heat Rhode Island program is just a start as the State is developing plans to implement additional energy efficiency programs created by the Bipartisan Infrastructure Law and the Inflation Reduction Act. As these new funds and programs become available, OER will be strategic with program design to ensure that new offerings are complementary to existing program offerings. We are excited about this historic opportunity to accelerate the adoption of energy efficient technology in Rhode Island, driving down our building emissions, improving our air quality, and creating well-paying jobs in this industry.

Energy efficiency creates jobs in our communities as it is work that must be done on-site within our buildings and facilities. Rhode Island's 2023 Clean Energy Jobs Report has shown that this is a growing field, with over 100 new jobs added over the past year within the efficient heating and cooling sector alone. On top of the growth we have already seen, 40 percent of energy efficiency businesses have stated that they intend to further expand their capacity by hiring additional workers in the near future. We are looking forward to supporting and building out this talent pipeline to fulfill our state's energy efficiency needs.

The OER and the EEC looks forward to building on the progress to date and collaborating with partners to advance the State's energy, economic, and environmental goals.

Sincerely,

ris Kearns\_

Christopher Kearns Acting Energy Commissioner Executive Director, Rhode Island Energy Efficiency Council

## **ABOUT THE EEC**

#### **COUNCIL MEMBERSHIP**

The Rhode Island Energy Efficiency Council (EEC)<sup>1</sup> was established by statute in 2006 to provide oversight of the state's ratepayer-funded energy efficiency programs through stakeholder representation and expert technical evaluation. The Council supports the State's climate mandates and works to empower all Rhode Islanders to receive the full benefits of energy efficiency.

#### **COUNCIL MEMBERS** (as of June 2024)

The EEC consists of fifteen members that represent the interests of key stakeholder groups and interests including homeowners, renters, workers, businesses, municipalities, and the environment. Council members are appointed by the Governor with the advice and consent of the Senate and serve voluntarily. All members of the public are encouraged to attend the Council's publicly noticed monthly meetings held year-round. For more information, visit <u>eec.ri.gov</u>.

#### **Voting Members**

Harry Oakley, Chair

Representing Small Commercial and Industrial Users Director of Energy, Sustainability, Procurement, & Corporate Facilities, Ocean State Job Lot

#### Peter Gill Case, Vice Chair

*Representing Expertise in Energy Design and Code* Principal, Truth Box, Inc.

#### Sue AnderBois

Representing Expertise in Environmental Issues Director of Climate & Government Relations, The Nature Conservancy

#### **Dave Caldwell**

Representing Energy Efficiency Education and Employment Tracking Vice President, Caldwell & Johnson, Inc.

#### Jordan Day

Representing Municipalities Deputy Director of Senate Policy, Rhode Island State Senate

#### Priscilla De La Cruz

Representing Expertise in Residential Users Director of Sustainability, City of Providence

#### Joe Garlick

Representing Small Non-Profit Institutions Executive Director, NeighborWorks Blackstone River Valley

#### Bob Izzo

*Representing Large Commercial and Industrial Users* Director, Energy & Utility Management, CVS Health

**Thomas Magliocchetti** *Representing Large Non-Profit Users* Consultant, Joint Commission Resources, Inc.

#### **Kurt Teichert**

Representing Energy Regulation and Law Senior Lecturer in Environmental Studies, Brown University

#### **Non-Voting Members**

**Brett Feldman** *Representing Utilities* Manager, Customer Energy Management, Rhode Island Energy

#### **Christopher Kearns**

*Executive Director, EEC* Acting Commissioner, RI Office of Energy Resources

#### John Santoro

*Representing Expertise in Delivered Fuels* CEO/Owner Santoro Family of Companies

#### **Appointments Pending**

Voting Member Low Income Users Non-voting Member Representing Utilities

<sup>1</sup> Per its enabling legislation, the Council's legal name is the RI Energy Efficiency and Resource Management Council (EERMC).

### **COUNCIL PURPOSE**

Rhode Island is a leader in energy efficiency in North America. The Energy Efficiency Council (EEC) is a key driver of that success, providing technical expertise and informed stakeholder input that shapes energy strategy, planning, and implementation in Rhode Island. Cost-effective energy efficiency is the foundation of a sustainable energy future. The Council is committed to helping Rhode Island achieve its climate mandates and work toward a clean, reliable, and affordable energy economy. This is achievable when all Rhode Islanders have access to the full benefits of energy efficiency.

#### **Maximizing Program Benefits for All Rhode Islanders**

The EEC has been providing an integrated, comprehensive, public, stakeholder-driven organizational structure to secure for Rhode Island's energy consumers the economic and environmental benefits of energy efficiency since the Council's formation in 2006 under amendments to R.I.G.L. § 42-140.1. This law is known as Least Cost Procurement, because it requires the state to procure all energy efficiency that is less than the cost of other energy supply.

In representing small and large businesses, non-profit organizations, homeowners and renters, and municipalities and government, the EEC oversees highly successful programs that allow Rhode Islanders to access energy efficiency instead of having to purchase more costly energy supply. A valuable additional outcome of these programs is to also support a growing industry of Rhode Island energy efficiency service and product suppliers, which support local job growth and in-state financial investments.

The effects of energy efficiency in the last decade now cumulatively account for approximately 20% of Rhode Island's electricity needs. The state's consistent investments in energy efficiency have resulted in Rhode Islanders paying half as much for its energy supply than they otherwise would have (see Figure 1).

Rhode Island consumers are the focus of Least Cost Procurement, so ensuring the consumer voice in energy efficiency procurement decisions is critically important. The EEC, assisted by its expert consultant team, provides meaningful input into Rhode Island Energy's efficiency procurement plans, and adds significant stability to investment decisions. The EEC's model for structured stakeholder participation has been successfully deployed annually in a nationally-recognized process to set appropriate energy saving targets and then establish implementation plans that are equitable, cost-efficient, and cost-effective to maximize benefits for all Rhode Islanders.

#### **How Energy Efficiency is Funded**

Energy efficiency is the most cost-effective way to reduce energy use and address climate change in Rhode Island. The funds that enable the implementation of the state's efficiency programs are collected from ratepayers via the System Benefits Charge (SBC) on electric and gas bills<sup>2</sup>. Thorough and careful evaluation, planning, and oversight ensure the funds support cost-effective energy efficiency that is less than the cost of supply, as required by the Least Cost Procurement law. Sustained and robust efficiency funding is important to ensuring Rhode Islanders continue to benefit from strong efficiency programs for years to come.

#### **Energy Savings Targets**

Every three years, the EEC is required to develop targets for annual electric and natural gas reductions as a result of energy efficiency programs administered by Rhode Island Energy. The targets support the development of Rhode Island Energy's triennial and annual energy efficiency program plans by providing guidance on potentially available cost-effective efficiency resources in the state. The EEC works with its consultant team to conduct indepth analysis, research, and stakeholder engagement to establish achievable, cost-effective levels of energy efficiency, which are then used to inform proposed energy savings targets. Once approved by the Council, the targets are submitted to the PUC for final review and approval. Once established, the targets are used to guide the development of the ensuing triennial and annual energy efficiency program plans.

<sup>2</sup> Delivered fuels customers do not pay into the Systems Benefit Charge.

## **2023 ACHIEVEMENTS AND HIGHLIGHTS**



## 2023 ENERGY EFFICIENCY PROGRAM RESULTS



#### NATION LEADING RESULTS

Rhode Island remains a nationally recognized leader in implementing high-quality energy efficiency programs. Since 2009, Rhode Island has consistently ranked among the top 10 states according to the American Council for an Energy Efficient Economy's (ACEEE) State Energy Efficiency Scorecard, which is now published bi-annually. In the most recent report, published in 2022, Rhode Island ranked #7 overall, #1 in state-led initiatives, and #4 in utility programs. The state received recognition for its established policy framework, incentives, and standards that drive savings through utility programs. The report also calls out Rhode Island's efficient new construction program and improved sustainability in the transportation sector. The next Scorecard is expected to be published in 2024. The full report can be accessed at https://www.aceee.org/statepolicy/scorecard.



THE 2022 STATE ENERGY EFFICIENCY SCORECARD

#### Table 1. Summary of State Scores in the 2022 ACEEE State Energy Scorecard.

Rank	State	Utility and public benefits (15 pts.)	Transportation policies (13 pts.)	Building energy efficiency policies (12 pts.)	State government initiatives (4.5 pts.)	Industrial policies (2.5 pts.)	Appliance efficiency standards (3 pts.)	Total score (50 pts.)	Change in rank from 2020
1	California	15	12	10	4.5	2.5	3	47	0
2	Massachusetts	14	11.5	10.5	4.5	2.5	1.5	44.5	0
3	New York	11.5	11.5	8.5	4.5	2.5	0.5	39	2
4	Vermont	11	9	9	4	1	2.5	36.5	-1
5	Maine	10	8.5	8.5	4.5	2.5	1.5	35.5	11
6	District of Columbia	8	11	8.5	3	2.5	2	35	2
7	Rhode Island	12.5	7.5	6	4.5	1.5	1	33	-3
7	Maryland	9.5	10	8	4	0.5	1	33	-1
9	Connecticut	9	10	7	4	2.5	0	32.5	-2
10	Minnesota	12	8	6.5	3	2.5	0	32	-1
11	Oregon	7	10	6	4.5	2	2	31.5	-2
11	Washington	6.5	9.5	7.5	3	2.5	2.5	31.5	0
13	Colorado	9	6.5	8	3	2	2	30.5	-2
14	New Jersey	9.5	7	6.5	3	1	1.5	28.5	3
15	Michigan	13	5	4	2.5	1.5	0	26	-2
16	Illinois	11	6	5	3	-0.5	0	24.5	-1
17	Hawaii	8.5	5	4.5	2	1.5	1.5	23	-3
18	Delaware	4.5	7.5	5	3	1.5	0	21.5	2

## **2023 ACHIEVEMENTS & HIGHLIGHTS**

### **ENERGY EFFICIENCY AS A RESOURCE**

In general, there are two options for meeting the energy needs of consumers, businesses, and institutions: producing energy supply or reducing energy demand. In other words, energy efficiency is capable of displacing energy supply. Because efficiency programs are generally significantly cheaper to implement than acquiring conventional supply (e.g. buying electricity), efficiency is widely considered to be not only a resource, but often the "first fuel" of choice. Efficiency programs can also defer expensive upgrades to utility infrastructure, improve system reliability, reduce peak demand, and increase energy security.



#### **Cumulative Impact of Energy Efficiency on RI Electric Use**

Figure 1. Cumulative Impact of Efficiency Investments on RI Electric Supply Requirements (2005-2023).

Since 2005, Rhode Island consumers in Rhode Island Energy's service territory have purchased over 128,000 GWhs of electricity. In that same period of time, ratepayer funded energy efficiency programs have saved Rhode Island consumers about 18,700 GWhs of electricity.

The impact of these savings means that instead of Rhode Island's electric load being 13% higher than it was in 2005, it is actually 8% lower. Additionally, because savings persist over the lifetime of the measures installed, the cumulative savings realized in 2023 account for 18.5% of what the electric load would have been absent the energy efficiency programs.

#### THE VALUE OF ENERGY EFFICIENCY

Energy efficiency can directly lower energy bills for consumers who participate in programs, but it also has much broader benefits. Energy efficiency is one of the easiest and most cost-effective ways to reduce energy costs for all consumers, support the local economy, and combat climate change.

When we use less energy, we actually lower energy costs for everyone. By reducing the state's demand for power, for example, we reduce the impact of increasing energy prices, and those savings are passed on to all electric customers. Additionally, using less energy results in less strain on energy generation and distribution infrastructure, which lowers the costs of maintaining and expanding it – costs that the utility passes on to ratepayers. This effect also increases the energy system's reliability and security.



#### Value of Energy Efficiency Program Benefits Compared to Costs

Figure 2. Cumulative Value of Energy Efficiency Program Benefits Compared to Program Costs Over Time (2009-2024).

Due to the nature of the work, energy efficiency programs are implemented by local workforces, which means these programs support jobs and the economy. Just as importantly, efficiency is a critical tool for addressing climate change and the resulting economic, health, and environmental impacts.

Figure 2 illustrates how over time the cumulative benefits of energy efficiency programs far outweigh the costs of implementation. Since 2009, Rhode Island's ratepayer funded energy efficiency programs have provided over \$5.7 billion in realized benefits. This compares to total program costs of about \$1.9 billion, meaning that every \$1 invested in energy efficiency has resulted in \$3 of benefits to Rhode Islanders. Achievement of the energy savings goals set in the 2023 Energy Efficiency Program Plan will push the total realized benefits to nearly \$6 billion.

# **POLICY RECOMMENDATIONS**

R.I.G.L. § 42-140.1-5 requires that the EEC "(s)ubmit to the joint committee on energy an annual report... regarding the activities of the Council, its assessment of energy issues, the status of system reliability, energy efficiency and conservation procurement, and its recommendations regarding any improvements which might be necessary or desirable." The EEC submits the following recommendations that will support energy and utility cost reductions for Ocean State residents and businesses; support industry and employment across the state's clean energy sector; and further Rhode Island's position as a national leader in energy efficiency and resource conservation.

#### PROMOTE ENERGY EFFICIENCY AS A PRIMARY TOOL TO MEET ACT ON CLIMATE MANDATES

Energy efficiency is a key, foundational strategy to achieving the Act on Climate mandates and every effort must be made to coordinate the delivery and expand the programming of our energy efficiency portfolio. The energy efficiency programs that the EEC oversees should be integrated with Act on Climate initiatives to help achieve these Act on Climate mandates.

### SUPPORT WORKFORCE DEVELOPMENT FOR ENERGY EFFICIENCY AND CLEAN ENERGY

A well-trained workforce to install robust energy efficiency measures and modernize heating and transportation equipment will be necessary to achieve the statewide decarbonization goals. Therefore, current efforts by the RI Department of Labor & Training, the Governor's Workforce Board, and others should be ramped up and focused on training for this work. Where possible, federal funding should be pursued in coordination with existing clean energy programs. Historically marginalized communities may offer unique opportunities to both train new workers in fields ripe for employment growth and also to better serve these marginalized communities moving forward. Supporting businesses in disadvantaged communities can create virtuous cycles as these businesses provide services to their neighbors and colleagues.

Furthermore, principles that informed high quality jobs recommendations in Climate Jobs Rhode Island's comprehensive policy platform and climate action plan<sup>3</sup> should be broadly applied to energy efficiency jobs. This would help to ensure that the energy efficiency workforce is focused not only on growth, but also on the quality of high-paying jobs.

#### PRIORITIZE EQUITABLE ACCESS IN ENERGY EFFICIENCY PROGRAMS

Rhode Island energy efficiency programs should constantly work to ensure that all customers and segments of the market have access to the benefits of energy efficiency savings<sup>4</sup>. There should be a concerted effort to reach those who are economically vulnerable and those who are currently above poverty guidelines but need significant assistance to make efficiency investments. Specifically, continued focus and resources should be placed on implementing strategies and providing new and different customer support mechanisms to realize increased participation in energy efficiency offerings from the Income Eligible and Multifamily sectors. Efficiency improvements in these sectors can have significant impacts on household living expenses and improve quality of life for all Rhode Islanders. Increased engagement with underserved small businesses will also help drive emissions and energy reductions in the state.

The passing of the historic Bipartisan Infrastructure Law and the Inflation Reduction Act has resulted in once-ina-generation investment in energy efficiency, decarbonization, and workforce development. These funding opportunities should be maximized for Rhode Islanders to provide a significant boost to the clean energy economy and expand upon the existing programming in the state.

Finally, President Biden's Executive Order 14008 set a goal that a minimum of 40% of the overall benefits of federal investments flow to disadvantaged communities overburdened by pollution. Aligning state energy

<sup>3</sup> Available online at: https://www.cinrc.org/wp-content/uploads/2022/02/Rhode-Island-Report-Final-2.3-Compressed.pdf

<sup>&</sup>lt;sup>4</sup> Please see the Equity Working Group's Final Report for 2023 for additional information, available online at: <u>https://ripuc.ri.gov/sites/g/files/xkgbur841/files/2023-</u> 10/2335-RIE-Attachment11 Bates.pdf

programming with this goal can provide a framework for ensuring that disadvantaged and historically marginalized communities are able to access and benefit from state energy programs.

# COORDINATE AND SUPPLEMENT STATEWIDE ENERGY EFFICIENCY PROGRAMMING WITH FEDERAL FUNDING OPPORTUNITIES

The passing of the historic Bipartisan Infrastructure Law and the Inflation Reduction Act has resulted in once-in-a-generation investment in energy efficiency, decarbonization, and workforce development. These funding opportunities should be maximized for Rhode Islanders to provide a significant boost to the clean energy economy and expand upon the existing programming in the state. These funding streams should be treated as additional and complementary, not as a replacement or reason to reduce the current energy efficiency programs.

#### MAXIMIZE OPPORTUNITIES FOR WEATHERIZATION AND FOR ADDRESSING PRE-WEATHERIZATION BARRIERS

Weatherization, including improving insulation and air sealing, is an essential component for improving energy efficiency in Rhode Island. Weatherization reduces burden on the energy grid, improves the comfort of homes and buildings for occupants, and saves money for residents and building owners. Pre-weatherization barriers such as health and safety concerns, including asbestos, vermiculite insulation (which may contain asbestos), and knob-and-tube wiring, can all prevent weatherization projects from moving forward. These issues are particularly prominent in Rhode Island, which has one of the oldest housing stocks in the nation. Identifying funding and supporting a workforce to address these barriers will be essential for weatherizing homes and buildings in Rhode Island and to help decarbonize the building sector.

#### ENSURE THE STATE'S ENERGY FUTURE THROUGH COORDINATED PLANNING

With the current State Energy Plan nearing its ten-year mark, Rhode Island is in need of an updated, comprehensive strategy to advance electrification and meet its climate mandates. At the writing of this report, the Public Utilities Commission is hosting an ongoing conversation among key stakeholders to explore the future of the natural gas distribution system. The EEC looks forward to reviewing the results of this analysis. The Executive Climate Change Coordinating Council is also developing plans for decarbonizing the statewide economy by 2050. These economywide analyses will be critical for guiding the future of the energy systems in Rhode Island. Evaluation and alignment of the delivered fuels sector will also be essential for achieving the mandates of the 2021 Act on Climate.

# EEC PRIORITIES FOR THE 2025 ENERGY EFFICIENCY AND SYSTEM RELIABILITY PROCUREMENT ANNUAL PLANS

As part of its fulfillment of the roles and responsibilities legislated in R.I.G.L. §42-140.1, the Energy Efficiency Council (EEC or Council) provides the following input and direction in the form of Priorities<sup>5</sup> to support development of the 2025 Annual Energy Efficiency Program Plan (EE Plan) for submittal to the RI Public Utilities Commission (PUC) by October 1, 2024 by Rhode Island Energy. The EEC also has clearly defined responsibilities in the PUC-issued Least Cost Procurement Standards (LCP Standards) to both support the development of the EE Plan and to vote on whether to endorse the EE Plan to the PUC. Should the EEC vote not to endorse the EE Plan, the EEC is then directed to document reasons for that decision and submit them to the PUC for its consideration.

#### **Comply with Least Cost Procurement Standards**

- The 2025 EE Plan will comply with the LCP Standards, including any updates to the LCP Standards as may be approved by the PUC, which lay out a clear structure and process for achieving the goals of least cost procurement and define the roles and responsibilities for the different program administration and oversight entities, including clear direction for strategy and planning of annual EE plans.
- Given the clear, outcome-oriented direction provided in the LCP Standards, the 2025 EE Plan should clearly indicate how each Standard is applied.

### **Comply with the Act on Climate**

- 2025 EE Plan savings goals will be set consistently with the Act on Climate to ensure EE programs contribute an appropriate share of carbon emissions reductions.
- Rhode Island Energy will reduce investment in fossil fuel heating equipment and increase investment in weatherization.
- Rhode Island Energy will set specific goals for replacing electric resistance heating and hot water equipment with heat pump technologies.
- Rhode Island Energy will design and implement programs that take into full consideration the insights and outcomes from the Future of Gas Docket at the PUC.

#### **Incorporate Stakeholder Input**

- The Priorities indicated by the members of the EE Technical Working Group and Equity Working Group will be appropriately reflected throughout the 2025 EE Plan, and that Rhode Island Energy's documentation and response to the proposed Priorities will be presented in a transparent and comprehensive format.
- Rhode Island Energy's proposed customer feedback activities will be sufficiently robust and capture actionable customer-driven input, and it will be appropriately reflected in the 2025 EE Plan, and that Rhode Island Energy's documentation of the activities and their responses to customer input will be presented in a transparent and comprehensive format as a Plan Appendix.

#### **Ensure an Effective and Efficient Development and Review Process**

- The 2025 Plan Development Calendar, developed in collaboration by the EEC Consultant Team, Rhode Island Energy, and OER, and discussed by the EEC, will be followed by all relevant parties to assure necessary time is afforded to the EEC and stakeholders reviewing and reaching a clear understanding of the content of the 2025 EE Plan, sufficient to make informed decisions on whether to endorse the Plan.
- The 2025 EE Plan should include key metrics that will be documented and reported to the EEC and stakeholders at minimum as part of the standard Quarterly Program Performance Reports. Metrics will be identified through a collaborative process between the EEC, RI Energy, and other stakeholders. Metrics identified through this process will be defined in the Plans and included in Quarterly Reports.

<sup>&</sup>lt;sup>5</sup> Available online at: <u>https://rieermc.ri.gov/wp-content/uploads/2024/03/2025-plan-priorities-memo\_second-draft\_2024.03.13.pdf</u>

### **Set Ambitious Energy Savings Goals**

- Rhode Island Energy will set ambitious Annual Plan goals for 2025 that meet EEC-recommended targets or explain any gaps between the goals and targets, and signal to the industry the intent to grow energy efficiency programs and participation.
- Rhode Island Energy will increase emphasis on improving designs for programs with a pattern of recent underperformance.
- Rhode Island Energy will demonstrate a clear growth trajectory for successful programs that are highly costeffective, lower than the cost of supply, and provide net utility system benefits.

#### **Increase Program Participation in Underserved Communities**

Rhode Island Energy will...

- Work with relevant parties to discuss, vet, and if deemed appropriate, propose a performance incentive mechanism that includes a discrete equity component in the performance incentive mechanism, such as a service quality adjustment tied to equity goals.
- Implement recommendations of the Equity Working Group (see page 41).
- Identify clear and objective determinations of success, and regularly report progress in achieving EWG recommendations and other strategies to increase participation by historically underserved customers.
- Increase financial investments in serving historically underserved populations, including enhanced financial incentives to those customers across efficiency offerings.
- Identify and implement program improvements that will facilitate ease of participation, including through streamlining of participation steps, documentation requirements, and income verification processes.
- Enhance marketing and outreach to underserved populations.
- Develop and implement a targeting framework that focuses on all communities with high proportions of underserved and environmental justice populations and historical participation lower than average statewide participation levels.
- Enhance and increase municipal and other community-based partnerships, particularly to include partnerships with underserved communities.
- Use findings from the 2023 Small Business Process Evaluation in order to increase participation by small and microbusiness customers.
- Contract a qualified third-party vendor to develop a Language Access Plan (LAP) that sets forth how Rhode Island Energy will provide services to individuals who are non-English speaking or have limited English proficiency at each step of the customer journey.
- Target workforce development efforts to serving contractors in underserved communities (detailed recommendations on workforce development covered in separate priority). RI Energy should actively coordinate with state entities to leverage available state/federal funds and workforce development offerings.

#### **Conduct Targeted Workforce Development**

Rhode Island Energy will...

- Implement recommendations of the Equity Working Group.
- Deliver targeted workforce development for small/minority- and women-owned business enterprise (MWBE) contractors.
- Deliver workforce development focused on new and important technologies for meeting statewide climate goals, maximizing ratepayer benefits, and controlling ratepayer costs.
- Demonstrate responsiveness to recommendations from the Workforce Needs Assessment, which it completed in 2023.
- Increase investment in workforce development to expand training for existing workers, mitigate barriers to entry

# EEC PRIORITIES FOR THE 2025 ENERGY EFFICIENCY AND SYSTEM RELIABILITY PROCUREMENT ANNUAL PLANS

for new workers, and advertise training/job opportunities for workers.

#### **Revisit the Cost of Supply Methodology**

Rhode Island Energy will...

- Work with stakeholders to revisit its methodology for assessing and comparing costs of the EE programs and portfolio with the cost of procuring incremental energy supply.
- Remove the low-income discounts from the cost of supply and benefit cost calculations given that they represent a double counting since those costs and benefits are already captured in the Company's cost of supply calculation.
- Investigate and identify, with input from Stakeholders, appropriate reference scenarios for EE benefit cost analysis under the Act on Climate's decarbonization assumptions.
- Utilize updated Avoided Energy Supply Components in New England (AESC) data sets in all relevant analysis, including implementing updates to recently completed forward-looking analyses where the results could reasonably be expected to materially change as a result of the application of updated avoided cost values.

# Standards Develop and Utilize a Framework for Justifying Programs that Exceed Cost of Supply, but Support LCP Standards

Rhode Island Energy will...

- Work with stakeholders to develop a framework for how it will justify supporting programs that exceed cost of supply but support other areas of LCP Standards.
- Work with stakeholders to clarify the basis for support and/or revisit design approaches for programs that do not meet cost-effectiveness and/or cost of supply thresholds under the scenarios stated in the PUC's ruling on December 19, 2023.

#### **Standards Ensure Robust Coordination on Federal Funding Opportunities**

Rhode Island Energy will...

- Demonstrate in EE Plan materials its coordination efforts with OER on Federal funding opportunities
- Include in its 2025 Plan any outcomes of its forthcoming filing on March 18, 2024 related to how it allocates funding from System Benefit Charges to EE programs and measures where federal funded EE offerings are made available.

#### Update the Carbon Accounting Methodology Used in EE Plans

• Rhode Island Energy will lead a Stakeholder process to revisit and refine how avoided emissions are determined and tracked within the programs. Given the Act on Climate mandates, it is more important than ever to ensure that the value of avoided emissions from the energy efficiency programs are well-grounded.

#### SYSTEM RELIABILITY PROCUREMENT PLAN PRIORITIES:

Along with Energy Efficiency Plans, Rhode Island Energy submits System Reliability Procurement (SRP) Plans, which outline strategies for addressing the reliability of the state's electric and gas infrastructure (see page 44).

- Rhode Island Energy will demonstrate continued responsiveness to Council and other stakeholder input, including during the implementation of the 2024-2026 SRP Three Year Plan.
- Rhode Island Energy will submit any draft SRP Investment Proposals to the Council at least six weeks prior to the Company's intended filing date for any such proposals.
- To support stakeholder engagement, Rhode Island Energy will ensure sufficient opportunities for stakeholder engagement and substantive contributions during SRP planning and implementation, including but not limited to SRP Technical Working Group meetings and Council and other stakeholder review of draft and final SRP Investment Proposal materials.
- To achieve continued methodological development, Rhode Island Energy will actively pursue further development of benefit cost analysis and assessment of internal energy efficiency and distributed energy resource solutions to grid needs.
- Ensure robust Non-Wires/Non-Pipes Alternative (NWA/NPA)<sup>6</sup> program implementation by providing regular updates to the SRP Technical Working Group (TWG), and that system need forecasting is conducted in a transparent manner with adequate lead time to enable identification and screening for multiple NWA/NPA opportunities in this three-year plan cycle.

<sup>6</sup> Non-wires and non-pipes alternatives program is the process by which Rhode Island Energy identifies needs and potential solutions that satisfy a utility system need or optimization of system performance through means other than utility-owned infrastructure (i.e. electric wires and gas pipes).



## **2023 RESIDENTIAL RESULTS**

- 37,041 Annual MWh Saved (98.7% of Goal)
- 169,039 Lifetime MWh Saved (101.4% of Goal)
- 154,966 Annual MMBtu Saved (104.7% of Goal)
- 1,149,353 Lifetime MMBtu Saved (90.6% of Goal)
- 178,901 Metric Tons of Greenhouse Gas Emissions Avoided
- 425,245 Program Participants
- \$21.1 Million in Lifetime Electric Bill Savings
- \$7.0 Million in Lifetime Gas Bill Savings
- \$118.2 Million in Total Benefits

## **2023 RESIDENTIAL PROGRAMS**

#### **Residential Energy Efficiency Programs**

Rhode Island Energy offers comprehensive energy efficiency solutions for all Rhode Island residential customers. The goals of these offerings and services are to educate residents on saving energy and reducing energy bills while improving the comfort in their homes. The energy efficiency solutions concentrate on creating energy efficient homes through education and energy-efficient products; facilitating market transformation for efficient products and zero-energy homes and buildings; and educating Rhode Islanders on energy efficiency.

RI Energy continues its work to get the word out about the residential programs available to customers. In 2023, Rhode Island Energy attended and hosted several local events to promote efficiency, including:

- Woonsocket Public Library Customer Assistance
   Expo
- Ocean State Center for Independent Living Lunch
   and Learn

• Cumberland Carbon Footprint Fair

The air source heat pump incentive for electric resistance heating customers remained effective and electric savings far exceeded the goals for the EnergyStar HVAC program. Additionally, enhanced incentives were offered to oil or propane heating sources with additional Regional Greenhouse Gas Initiative funding.

In its eleventh year, the Rhode Island Home Energy Reports (HER) program continues to encourage energy efficiency behavior through personalized print and email reports, and a seamlessly integrated website. Each of the communication channels displays energy consumption patterns and contains a normative comparison to similarly sized and similarly heated homes, as well as to an energy reduction goal for each customer. 242,231 Rhode Island customers received reports in 2023.

Rhode Island Energy continued its core residential energy efficiency programs in 2023.

- Ocean State Job Lot Earth Day
- Providence Veterans Affairs Career Fair

#### **EnergyWise Program**

In 2023, the EnergyWise Single Family program achieved electric savings of 15,596 net lifetime MWh (92% of target) and gas savings of 524,666 net lifetime MMBtu (107% of target).

EnergyWise offers single family customers no-cost home energy assessments, incentivized weatherization, and information on their actual energy usage. Participants in this program receive personalized recommendations to reduce their energy consumption and improve the comfort in their home.

In addition, this program offers technical assistance, education, and financial incentives to replace and upgrade inefficient appliances, thermostats, water fixtures, heating and cooling systems, and insulation. In 2023, 12,520 in-person and virtual assessments were performed. EnergyWise works with single family customers of one-to-four-unit buildings in a two-pronged approach.

During the initial visit (known as the home energy assessment) an energy specialist spends one-tothree hours providing educational materials and evaluating the customer's home. Instantly recognizable savings opportunities (such as pipe insulation) are installed during this first visit. At the completion of the assessment, the customer receives an Energy Action Plan that recommends additional energy savings opportunities and any accompanying incentives / financing options.

Customers that proceed to the next phase of EnergyWise receive weatherization upgrades that provide savings for twenty years regardless of fuel type used. Overall, customers that install EnergyWise weatherization upgrades increase comfort while saving money on energy.

Throughout 2023, several steps were taken to improve the customer experience and encourage program participation. These steps included utilizing Virtual Home Energy Audits (VHEAs) to reduce wait times for customers requesting audits exclusively for heat pumps and expanding its concierge service to assist customers with heat pumps. Additionally, seven new energy specialists were hired, including three Spanish speaking individuals.

#### Residential New Construction Program

In 2023, the Residential New Construction program achieved 10,324net lifetime MWh of electric savings (79% of target) and 57,303 net lifetime MMBtu of gas savings (98% of target).

The Residential New Construction Program (RNC) benefits new construction and major renovation of single-family and multi-family homes for market rate and income eligible customers. The program elements include plan review, energy modeling, infield technical assistance, insulation and air sealing inspection, third-party blower-door and ductblaster testing (building performance testing), a HERS (Home Energy Rating System) Index rating and certification, energy performance-based incentives, complimentary WaterSense® showerheads, and optional support for projects seeking additional certifications such as ENERGY STAR® Homes, DOE Zero Energy Ready, Passive House/PHIUS, LEED-H and Living Building Challenge. In 2023, 470 housing units were built to program standards, which represents a 9% increase over 2022 year-end totals.

- 454 units were new construction/full gut rehab (97%)
- 16 were renovation/rehab (3%)
- 334 units were market rate (71%)
- 136 were Income Eligible (29%)
- 149 units had electric heat pumps (32%)
- 256 units had gas heat (54%)
- 65 units had either propane or hybrid heat pumps with propane (14%)
- 199 homes achieved >25% savings over the Program baseline (42%)
- 52 homes were ENERGY STAR and DOE Zero Energy Ready Homes certified and 48 are being submitted to PHIUS for official Passive House Certification

In addition, 798 newly planned housing units enrolled in the RNC Program.

In 2023, the RNC Lead Vendor partnered with local builders and designers to establish a local Passive House chapter. The chapter's mission is to promote the Passive House Building Energy Standard in Rhode Island through public outreach, education, advocacy, and training. The chapter held two inaugural events and attendees included architects, builders, homeowners, insulation representatives, students, and housing non-profits and agencies. The Passive House Rhode Island website can be found at <u>https://passivehouseri.org/.</u>

### ENERGY STAR<sup>®</sup> Consumer Products Program

In 2023, the Residential Consumer Products program achieved 15,024 net lifetime MWh of electric savings (47% of target).

The ENERGY STAR<sup>®</sup> Consumer Products Program promotes the purchase of high efficiency household appliances and electronics such as dehumidifiers, pool pumps, and room air cleaners. Throughout the year, the Residential Consumer Products Lead Vendor continued to promote the energy efficient products offered under the Rhode Island Energy program by staffing educational tables at big box retailers such as Lowe's, Home Depot, and Walmart. These informal events provide an opportunity for RI Energy customers to ask questions and gain information about a broad range of energy efficiency programs.

As part of its continued dehumidifier recycling campaign, RI Energy finished 2023 with a record total of 1,517 old, inefficient dehumidifiers recycled (far exceeding 2022 results, which was another record year). Rhode Island Energy made a concerted effort to target diverse communities and scheduled recycling events throughout the state. The continued success of this campaign has further enhanced Rhode Island Energy's reputation as a strong community partner.

The program also continued its Most Efficient Appliance Initiative. Building off the progress of the midstream offerings at Home Depot, Rhode Island Energy and its lead vendor partnered with Lowe's to offer ENERGY STAR® most efficient washers, dryers, and refrigerators to RI Energy Customers. The initiative with Lowe's began in the fourth quarter and they issued an invoice for a total of seventy-seven products, a number that is expected to increase into 2024.

## **ENERGY STAR® HVAC Programs**

In 2023, the EnergyStar HVAC program achieved 98,697net lifetime MWh of electric savings (140% of target) and 433,147 net lifetime MMBtu of gas savings (84% of target). ENERGY STAR® HVAC Programs (Gas and Electric Heating, Cooling and Water Heating Program) promote the installation of high-efficiency equipment for gas and electric space heating and cooling, water heating, and controls via tiered customer rebates. The program provides contractor training and incentives to ensure best practices for the proper design of distribution system improvements, equipment sizing and quality installation.

In 2023, Rhode Island Energy continued the HVAC program's weekly newsletter. Featured topics included rebate submission reminders/deadlines, promotion of upcoming trainings, industry best practices for successful installation and operation, availability of program support in Spanish, and FAQs and updates on Clean Heat RI. There are over 650 recipients currently on the newsletter's distribution list including HVAC companies, contractors, technicians, distributors, trade allies, and other industry stakeholders.

Beyond the newsletter, The HVAC Program actively encouraged contractors and customers to apply for rebates from Rhode Island Energy and Clean Heat RI. Links to Clean Heat RI are included on RI Energy's website and rebate portal. The two programs worked together in the fourth quarter to align offerings.

Throughout 2023, The HVAC Program has been working to adapt to the introduction of new DOE heat pump equipment ratings and standards. The program offered various Cold Climate Heat Pump trainings, Introduction to Heat Pump presentations, right sizing trainings, and live virtual and on-site HVAC Check Testing trainings.

## **Home Energy Reports Program**

In 2023, The Home Energy Reports program achieved 25,932net lifetime MWh of electric savings (107% of target) and 106,308 net lifetime MMBtu of gas savings (116% of target).

The Home Energy Reports (HER) Program encourages energy efficient actions through print and email reports. Each communication channel displays energy consumption patterns, energy reduction goals, and comparisons to similarly sized and heated homes. In 2023, Home Energy Reports provided energy efficiency messaging on the following topics: high-efficiency heating systems, electric heat pump water heating, ENERGY STAR<sup>®</sup> efficient room air conditioners, cold-climate heat pumps, air purifiers, smart thermostats, and home energy assessments.

### **Multifamily Program**

In 2023, the EnergyWise Multifamily program achieved 3,466 net lifetime MWh of electric savings (37% of target) and 27,929 net lifetime MMBtu of gas savings (25% of target).

The Multifamily Program provides comprehensive energy efficiency solutions to market rate and income eligible gas and electric multifamily (properties with five or more units) customers. In 2023, the Lead Vendor participated in several trainings and courses including Fujitsu Variable Refrigerant Flow training, Advanced Energy Auditing course by UTS Energy Engineering, SRGI heat pump training, Building Performance Institute (BPI) seminar for heat pump water heaters, Galetti heat pump chiller seminar, and Mitsubishi's manufacturer heat pump training. Below are a couple of examples of projects completed throughout the year:

- Regency Plaza Apartments in Providence: upgrades included water source heat pumps, variable frequency drives, and wall and pipe insulation. The electrical incentive for this project was \$110,463 with an estimated 1,171,500 net lifetime kWh savings, and the gas incentive was \$69,675.92 with an estimated 113,098 net lifetime therms savings.
- 56 Tell Street Apartments in Providence: installed 6 slim duct air source heat pump systems in a 3-story apartment building consisting of 6, 2 bed apartments. The heat pumps replaced electric baseboard heat. The electric incentive for this project was \$78,750 and the estimated net lifetime savings is 428,150 net lifetime kWh.
- Shadow Farm Condos in Wakefield: installed attic insultation, duct sealing, attic air sealing, basement sill insulation, and programmable thermostats to participating units. In order to complete the attic weatherization, it was necessary to vent some bathrooms fans to the exterior. The gas incentive for this project was \$31,967 with an estimated 28,560 net lifetime therms savings.



### **2023 INCOME ELIGBLE RESULTS**

- 3,065 Annual MWh Saved (74.8% of goal)
- 41,100 Lifetime MWh Saved (88.5% of goal)
- 14,328 Annual MMBtu Saved (74.2% of goal)
- 322,751 Lifetime MMBtu Saved (94.5% of goal)
- 45,789 Metric Tons of Greenhouse Gas Emissions Avoided
- 8,112 Program Participants
- \$5.1 Million in Lifetime Electric Bill Savings
- \$1.9 Million in Lifetime Gas Bill Savings
- \$57.8 Million in Total Benefits

## 2023 INCOME ELIGIBLE PROGRAMS

#### **Income Eligible Services Program**

In 2023, the Income Eligible Services Program achieved 41,100 net lifetime MWh of electric savings (88.5% of target) and 322,751 net lifetime MMBtu of gas savings (94.5% of target).

The Income Eligible Services (IES) program offers no-cost energy assessments and energy efficiency upgrades to residential income eligible customers without any financial contribution from the customer. Income Eligible Services are delivered by Rhode Island's six local Community Action Program (CAP) agencies to customers who meet one of the following criteria:

- Currently on the electric A-60 or the gas 11/13 rates; or
- Qualify for LIHEAP funds from the State; or
- Household income level falls below 60% of the Area Median Income (AMI).

Income eligible customers are eligible for a full energy assessment of their home including

appliances, weatherization (insulation and air sealing), and if deemed necessary, may receive replacement of inefficient or unsafe heating systems and/or appliances. All IES customers receive all services and equipment upgrades at no cost.

2023 saw multiple enhancements to the program. Most notably, Rhode Island Energy hired an Income Eligible Services Program manager and made the necessary preparations to move to a comprehensive full house audit for weatherization in 2024. CLEAResult (the IES Lead Vendor) has been working with RI Department of Human Services (DHS) to arrange training that will upskill Tier 1, the basic appliance management program (AMP) assessment, program specialists to the comprehensive audit. The Lead Vendor has also continued to improve communication across the Income Eligible Single Family program with assistance from the local appliance vendor (the South Middlesex Opportunity Council) and other local agencies. Key Performance Indicator meetings were held with each CAP and at least one DHS representative. These meetings ensured that the CAPs were aware of their KPI goals, their pace to meet the goals, and provided a dedicated time for constructive dialog.

#### **Collaborative Efforts**

Rhode Island Energy's Income Eligible Services are administered along with related and complementary federal, state, and local programs in collaboration with Rhode Island Department of Human Services (DHS), the Community Action Program (CAP) agencies, and other local agencies. This collaboration leverages funds that provide energy services to income eligible customers in Rhode Island. The programs discussed below allow more customers to receive comprehensive energy assessments and energy efficiency benefits.

- IES Best Practice meetings were held virtually on March 28, 2023 and June 28, 2023. These meetings focused on topics spanning Rhode Island Energy Marketing, a DOE WAP update including the Bipartisan Infrastructure Law (BIL) program, a DHS update, YTD program delivery performance, equity teams, notes from the field featuring customer feedback, a Home Show primer, and Q&A sessions. Representatives from 6 CAP agencies, Rhode Island Department of Human Service, Division of Public Utilities & Carriers, the Energy Efficiency Resource Management Council, Rhode Island Energy and CLEAResult, attended.
- The Lead Vendor participated in the Policy Advisory Committee (PAC) meeting to review and comment on the Department of Energy (DOE) State Plan Application. The PAC is the group that has assisted the Department of Human Services chart a course for a successful Department of Energy program for 2023 and beyond.

#### Low Income Home Energy Assistance Program

The Low-Income Home Energy Assistance Program (LIHEAP) block grant is funded through the U.S. Department of Health and Human Services. The purpose of LIHEAP is to assist Rhode Island's income eligible households in meeting the increasing costs of home energy and reduce the severity of any energy-related crisis. Rhode Island's LIHEAP is administered by the Rhode Island Department of Human Services (DHS) Individual and Family Support/Community Services Division. LIHEAP outreach, intake and income-verification are provided by the six local CAP agencies. Households are determined eligible for LIHEAP assistance according to income guidelines established by DHS.

#### Weatherization Assistance Program

The Weatherization Assistance Program (WAP) provides funds for income eligible families to insulate and air seal their homes to reduce their energy bills, improve potential health and safety concerns and improve thermal comfort. WAP is funded through annual appropriations from the U.S. Department of Energy's Weatherization Assistance Program and the U.S. Department of Health and Human Services. The state allocates 15% of its annual LIHEAP funding to weatherization.



### 2023 C&I RESULTS

- 53,294 Annual MWh Saved (96.9% of goal)
- 434,558 Lifetime MWh Saved (94.4% of goal)
- 128,077 Annual MMBtu Saved (81.3% of goal)
- 1,533,189 Lifetime MMBtu Saved (79.5% of goal)
- 384,699 Metric Tons of Greenhouse Gas Emissions Avoided
- 4,511 Program Participants
- \$59.9 Million in Lifetime Electric Bill Savings
- \$10.9 Million in Lifetime Gas Bill Savings
- \$319.6 Million in Total Benefits

## 2023 COMMERCIAL & INDUSTRIAL PROGRAMS

#### **Commercial & Industrial Programs**

Rhode Island Energy offers four Commercial and Industrial (C&I) energy efficiency programs. Depending on a customer's energy consumption and demand, they could be eligible to participate in one or more of the following programs.

#### 1) C&I New Construction

Provides offerings that target ground up new construction, major renovations, tenant fit-outs, and end-of-life replacement equipment.

2) Large C&I Retrofit

Focuses on all services and technologies towards retrofits needed for existing buildings.

#### 3) Small Business Direct Install

Offers turn-key solutions to many types of small businesses.

#### 4) C&I Multifamily Program

Provides joint residential and commercial energy services to condominiums and apartment complexes for energy efficiency upgrades.

The C&I sector encompasses a diverse and complex set of customers. Each C&I customer is assigned one of four dedicated account representatives who work for Rhode Island Energy and help connect customers with energy efficiency resources, vendors, and incentives. Rhode Island Energy leverages a market sector approach by assigning an account representative that has experience in the customer's specific industry, such as manufacturing and industrial facilities, chain restaurants, grocery stores, food services, and small businesses. This approach provides highly customized efficiency solutions that align with the customers' needs, thereby increasing program participation. All of the C&I Programs offer a "custom pathway" for energy efficiency measures that are unique or less common in our customers' facilities. These projects are evaluated using the custom screening tool to determine if they are cost-effective and then can proceed. Customers in market segments not targeted through industry-specific initiatives, such as hospitals, colleges and universities, commercial real estate, and retail, are still served by dedicated account representatives.

## **C&I New Construction Program**

In 2023, the C&I New Construction program achieved 126,976 net lifetime MWh of electric savings (81% of target) and 689,302 net lifetime MMBtu of gas savings (96% of target).

The C&I New Construction Program encourages energy efficiency in new buildings and major renovations as well as new equipment installed to replace aging or failed equipment. A dedicated account manager works with customers, developers, manufacturers, contractors, and design professionals to provide financial incentives and technical assistance.

Nine projects were completed in 2023, with a total of 95 active projects in the program at the end of the year. Projects of note included:

- A proposed new High School in Middletown
- Bryant University Dining Hall and Convocation and Arena for Athletics
- Central Falls Elementary School and High School
- Fogarty Memorial Elementary in North Scituate
- Johnston Public Schools
- Roger Williams University

#### Large C&I Retrofit Program

In 2023, the Large C&I Retrofit program achieved 259,740 net lifetime MWh of electric savings (106% of target) and 691,972 net lifetime MMBtu of gas savings (68% of target).

The Large C&I Retrofit Program incentivizes the replacement of existing equipment and systems with energy-efficient alternatives, as well as enhancements that reduce energy consumption, when the customer might otherwise not plan on making efficiency investments. The program offers three distinct pathways that aim to address specific market barriers:

- Prescriptive Pathway: Prescriptive incentives are streamlined to support trade allies (e.g. HVAC contractors, lighting vendors, and electricians) as they help RI businesses implement common measures like maintaining existing equipment and installing new energy efficient equipment.
- Custom Pathway: Custom incentives support large C&I customers in identifying and implementing more specialized and unique upgrades to increase the energy efficiency of their operations.
- Upstream Pathway: Upstream incentives provide a direct way for customers to receive reduced pricing at the point of sale for energy efficiency equipment.

#### **Industrial Initiative**

The Industrial Initiative targets manufacturers and other industrial customers that often use specialized equipment for industrial processes and consume large amounts of energy. The initiative is implemented by an engineering firm with expertise in this sector, which partners with Rhode Island Energy to implement energy efficiency opportunities for industrial customers across Rhode Island.

As an example of an Industrial Initiative project, the lead vendor worked with a customer to identify an energy conservation measure that would add 2 inches of fiberglass insulation to six uninsulated 10,000gallon steel tanks. By adding insulation to the tanks, the customer was expected to realize a 5% reduction in their total annual electric energy usage.

In another example, a manufacturer of dispensing systems underwent a major renovation. The customer is installing new compressors to increase plant productivity and meet increased product demand. Energy savings are realized from the improved air compressor efficiency, better part load operation of the new VSD compressor compared with the baseline compressor (load/no load) and improved dryer operation.

#### Strategic Energy Management Partnership

Rhode Island Energy has a total of 12 Strategic Energy Management Partnership (SEMP) partners including two public entities, six colleges and universities, an industrial park, a healthcare provider, and two large retail businesses. Since 2013, a total of 825+ energy efficiency projects have been implemented by Rhode Island Energy and its SEMP partners.

#### **EnergySmart Grocer Initiative**

The EnergySmart Grocer (ESG) initiative delivered cost effective, comprehensive energy savings in the grocery market segment. Below are four examples of 2023 projects under the EnergySmart Grocer Initiative:

- A large grocery chain proceeded with retrocommissioning measures through Rhode Island Energy's Equipment & Systems Performance Optimization ("ESPO") program. The rooftop unit and condenser coils across the customer's 26 stores in Rhode Island were cleaned, resulting in approximately 700,000 kWh of energy savings and \$16,000 in rebates.
- A grocery store chain-initiated Monitoring Based Commissioning ("MBCx") energy efficiency improvements in four stores located in Cranston, Barrington, Wakefield, and Middletown. The work was staged in two "phases", with the first phase completed in 2023 and the second phase planned for 2024. Total project savings are

estimated at approximately 270,000 kWh.

- Remodel projects were completed at two locations of a grocery store chain in East Providence and Lincoln, RI in Q2. These two stores had several improvements to stores including upgraded self-contained cases, night covers, destratification fans, lids on coffin cases, and adding doors to existing cases. Combined savings from these remodels totaled 80,894 kWh and 7,853 Therms.
- A study on the energy saving benefits of refrigeration leak detection and repair concluded at a grocery store in Barrington, RI. This location was part of a larger study across state lines, with this being the only location in Rhode Island. Overall, the store was in good condition except for a few leaks that were found and repaired. These repairs saved 5,785 kWh of energy.

#### **Work with Public Schools**

Building on the past several years' successes, Rhode Island Energy continues to partner with the Office of Energy Resources (OER) and Department of Education (DOE) to provide technical, procurement, implementation, and financial resources for public schools seeking to implement more energy-efficient equipment and practices at their facilities. In addition to the standard energy efficiency pathways, OER and DOE have partnered with Rhode Island Energy on two initiatives:

- School Lighting Accelerator Program Part of the state's Lead by Example initiative, this program helps schools to upgrade to LED lighting with controls.
- Energy Improvements for Rhode Island Schools -This program was funded by the U.S. Department of Energy in response to COVID-19 concerns. The program helps schools upgrade their HVAC systems and building controls to improve indoor air quality while reducing energy consumption.

Rhode Island Energy's work with public schools under this partnership with OER and DOE was initially focused on ten priority communities: Central Falls, Providence, Pawtucket, Woonsocket, West Warwick, East Providence, North Providence, Cranston, Coventry, and Burrillville. To date, more than \$20 million has been allocated to these efforts. In 2024, the initiative was expanded to include all RI school districts, with an additional \$3 million of funding allocated to the additional districts. To leverage the power of the joint funding available through all three entities, Rhode Island Energy expanded its own efforts through more aggressive and comprehensive audit efforts to identify and implement more projects including lighting, and a greater focus on HVAC and building controls.

#### **Active Demand Response Program**

ConnectedSolutions, Rhode Island Energy's active electric demand response program, officially launched in 2019, after running as a demonstration project in 2017 and 2018. In exchange for financial incentives, customers who opt into the program agree to reduce their electric use at times when the electric grid is experiencing the highest levels of demand. By reducing electric use during peak demand periods, customers help reduce emissions, infrastructure costs, and utility prices. Customers in the A-16, A-60, or C-06 rate classes are eligible to enroll in the Residential ConnectedSolutions track. Customers in the C-06, G-02, and G-32 rate classes are eligible to enroll in the Commercial and Industrial (C&I) ConnectedSolutions track. Note that C-06 customers may enroll in either the Residential or C&I tracks, but they may not enroll in both tracks at the same time or switch tracks mid-season.

In 2023, there were two Residential pathway options for participation in the ConnectedSolutions program: the Bring Your Own Thermostat (BYOT) pathway, the Residential and Small Business (RSB) Battery pathway. We hope to expand customer offerings in 2024 to include the Electric Vehicle Demand Response (EVDR) pathway. Participants may choose to enroll in just one of the pathways, or they may choose to enroll in multiple/all pathways. Eligible smart thermostat devices enrolled in the BYOT pathway will automatically increase target cooling levels, thereby reducing demand of central air conditioning units, during periods of high energy demand each summer. Battery energy storage systems participating in the RSB Battery pathway will discharge electricity to serve on-site load and export electricity to the electric distribution system for neighboring customers to use during peak demand events. Lastly, participants in the EVDR pathway will curtail their electric vehicle charging during peak demand periods each summer.

During the 2023 summer ConnectedSolutions season (June-September) there were 18 BYOT events and 28 RSB Battery events. Over 10,000 residential thermostats participated in the 2023 ConnectedSolutions season and achieved 6.50 MW of load reduction. Additionally, more than 752 residential batteries participating in the program achieved 2.86 MW of load shed reduction.

There are two Commercial and Industrial pathway options for participation in the ConnectedSolutions program: Targeted Dispatch and Daily Dispatch. The Targeted Dispatch pathway incentivizes participants to reduce their energy usage for three hours during the highest ISO-NE peak demand hour as well as the other 2-8 periods of highest regional energy demand each summer. The Daily Dispatch pathway incentivizes customers to reduce their energy usage for 2-3 hours during the highest ISO-NE peak demand hour as well as about 50 high and medium regional peak demand hours each summer. Customer's may also choose to participate in both pathways, or all Commercial ConnectedSolutions events. This is referred to as Dual Enrollment.

In the summer of 2023, there were 6 Targeted Dispatch events and 28 Daily Dispatch events. Of the 139 customers enrolled in the 2023 C&I ConnectedSolutions program, 10 participated in Daily Dispatch only, 83 participated in Targeted Dispatch only, and 46 participated in Dual Enrollment. The average hourly load shed per event was 14.65 MW for Daily Dispatch and 12.32 MW for Targeted Dispatch.

## Small Business Direct Install Program

In 2023, the Small Business Direct Install program achieved 47,842 net lifetime MWh of electric savings (83% of target) and 82,957net lifetime MMBtu of gas savings (64% of target).

Rhode Island Energy's Small Business Direct Install program is a retrofit program that provides turnkey services to customers that consume less than 1,500,000 kWh per year. As part of the program, customers receive a free on- site energy assessment and a customized report detailing recommended energy efficient improvements. Rhode Island Energy then completes retrofit installations at the customer's convenience.

Rhode Island Energy typically pays up to 70% of installation and equipment costs and customers can finance the remaining share of the project over as many as 60 months (typically 24) on their electric bill, interest free, using the Small Business Revolving Loan Fund, provided funds are available. There were 23 gas weatherization projects in 2023 leveraging RGGI funds provided by OER to supplement the system benefits charge (SBC) funds to enhance customer economics for these projects. This initiative, alongside the uptake of Variable Frequency Drives (VFD) controls, drove a consistent uptick in savings throughout the year. Below is a sampling of program participants.

**Local real estate** - a real estate company that owns several buildings in RI completed lighting and variable speed drive projects with kWh savings of approximately 25,000 kWh and rebates totaling approximately \$22,000. This customer has participated repeatedly in Rhode Island Energy's energy efficiency programs.

Assisted Senior Living in Warwick - An assisted senior living facility in Warwick RI had energy efficiency lighting installed and demand circulators upgraded, resulting in savings of approximately 150,000 kWh and 4,000 therms and rebates totaling approximately \$75,000.

**Central Falls Main Street businesses** - The Central Falls Main Street event resulted in 29 audits of which 20 converted to projects. Most of these projects were minority owned micro-businesses, resulting in an incentive spend of almost \$66k and net kWh savings of 84,951.

**Sporting Facility in North Smithfield** - An indoor sports facility in North Smithfield installed high performance LED high bays and upgraded their HVAC/ VFD system. The total project cost for both applications was \$64,081 with gross annual kWh savings of 64,961 kWh for LED and 93,681 kWh for the HVAC/VFD upgrade.

**Non-profit in Kent County** - A private non-profit agency in Kent County installed LED Flat Panel fixtures and Wi-Fi t-stats with temperature sensors that help them balance the temperature throughout the heating space were installed. The project cost \$48,903 with gross annual kWh savings of 70,035 kWh/year and 476 gross annual therms.



## **OTHER PROGRAMS IN 2023**

## Lead by Example: State and Municipal Entities

In May 2023, Governor Daniel McKee issued an updated Executive Order<sup>7</sup> directing State agencies to 'Lead by Example and Act on Climate' and expanded the scope of the program to include explicit support for municipalities and public schools. The updated Executive Order provides new targets for State agencies to reach that are aligned with the Act on Climate. The Lead by Example initiative is also promoting interdepartmental cooperation, unlocking opportunities to invest in comprehensive energy efficiency and renewable measures that can reduce and stabilize public sector energy costs, shrink the government's carbon footprint, and support Rhode Island's burgeoning clean energy economy. The programs and initiatives of the Lead by Example Program provide technical, procurement, project management, and financial assistance from Rhode Island's Office of Energy Resources to improve the energy efficiency of public sector buildings, upgrade or electrify HVAC systems, install renewable energy systems, and electric vehicle charging infrastructure. Lead by Example efforts are meant to serve as a model for businesses, organizations, and citizens as we all work together to move Rhode Island towards a clean, affordable, reliable, and equitable energy future.

In 2023, the Lead by Example Program achieved significant progress in its mission to help transition the public sector's energy profile. Several agencies are now operating with 100% LED lighting with integrated controls, and we estimate that nearly 80% of State facilities have LEDs. Our goal is to

7 Available online at: https://governor.ri.gov/executive-orders/executive-order-23-06

reach 100% LED lighting conversions in the near future.

The Public School Energy Equity initiative received additional funding from the US Department of Energy to support the upgrade of mechanical and HVAC equipment in public schools. This brings the total funding for this initiative to nearly \$20 million dollars, and as OER scales up the pipeline of mechanical projects, many schools have already participated through the upgrade of their lighting systems. To date, 18 schools have completed lighting upgrades and 15 more are under construction, with more in the pipeline.

## **RI Agricultural Energy Program**

Recognizing the vital role that farmers play in Rhode Island's economic and environmental framework, the Office of Energy Resources (OER), in consultation with the Department of Environmental Management (DEM) aims to improve the accessibility of resources for farmers that will offset agricultural electric load through cost-saving energy efficiency measures and on-site renewable energy projects. Historically, farmers make use of older and traditional infrastructure, and often rely heavily on delivered fuels. These challenges have traditionally made agribusiness a hard-to-reach sector for standard energy efficiency and renewable energy programs.

The RI Agricultural Energy Program (RI AgEP) offers Rhode Island agribusinesses incentives for prescriptive energy efficiency measures. Program participants receive a free on-site energy assessment and a report detailing recommended energy-efficient improvements. Farmers or agribusiness owners can then choose to install any number of recommended electric or delivered fuels measures.

The RI AgEP offers financial incentives to farms in Rhode Island of up to \$20,000 for energy efficiency and renewable energy projects. The program has continuously held two funding rounds each year, in spring and fall. The fall 2023 funding round awarded 14 farms for solar and energy efficiency projects. This program has helped fund over 70 projects since 2016.

OER continues to streamline the ability for farmers to leverage the RI Agricultural Energy program with other farm-related programs and grants. By establishing and maintaining open lines of communication with the Department of Environmental Management, Commerce RI, Rhode Island Energy and USDA Rural Development, OER does not limit its outreach work to the RI AgEP, but also promotes all financial incentives available to farmers at the federal and state level. With help from a University of Rhode Island Energy Fellow, additional outreach is conducted virtually and inperson through attendance at farmers markets, online webinars, email, and one-on-one phone calls. Outreach materials and the RI AgEP page on the OER website were also updated to be easier for farmers and agribusiness owners to navigate. The Farm Energy Fellow also helps to create video profiles that are posted to the OER website to spread awareness about program benefits and success stories. OER has created a total of four videos to date and is working on a fifth video project to be released in 2024. Presentations were also given at several workshops and further outreach was conducted through the program's growing social media presence: Facebook and Instagram (@RIFarmEnergyResources).

## **INCENTIVES BY TOWN**

 Table 2. Gas and Electric Energy Efficiency Incentives Provided to Residential, Commercial and Industrial Customers in 2023.

CITY / TOWN	2023	2022	2021	CITY / TOWN	2023	2022	2021
Barrington	\$1,497,734	\$ 1,292,799	\$1,466,386	New Shoreham	\$41,857	\$6,124	\$16,957
Bristol	\$2,331,538	\$1,487,059	\$1,392,368	Newport	\$3,816,902	\$1,997,660	\$1,694,671
Burrillville	\$803,592	\$523,315	\$816,559	North Kingstown	\$4,939,950	\$3,731,966	\$5,392,545
Central Falls	\$1,707,487	\$668,544	\$688,528	North Providence	\$1,767,844	\$1,062,251	\$1,229,493
Charlestown	\$685,893	\$595,883	\$598,561	North Smithfield	\$1,361,306	\$793,929	\$1,063,672
Coventry	\$3,086,324	\$2,295,182	\$2,109,036	Pawtucket	\$5,928,036	\$5,069,369	\$5,971,279
Cranston	\$8,920,572	\$5,531,820	\$7,562,266	Portsmouth	\$3,201,052	\$1,157,937	\$1,151,848
Cumberland	\$2,855,952	\$1,924,349	\$3,078,212	Providence	\$27,197,029	\$18,034,800	\$20,537,815
East Greenwich	\$1,810,299	\$1,640,784	\$1,901,598	Richmond	\$611,691	\$243,294	\$521,109
East Providence	\$7,236,487	\$3,875,796	\$6,093,821	Scituate	\$1,436,607	\$903,119	\$1,282,980
Exeter	\$666,944	\$335,767	\$327,727	Smithfield	\$2,285,022	\$1,429,662	\$2,458,367
Foster	\$458,045	\$236,043	\$262,436	South Kingstown	\$1,989,042	\$431,029	\$464,512
Glocester	\$760,890	\$425,628	\$657,807	Tiverton	\$1,324,843	\$1,822,687	\$848,274
Hopkinton	\$417,583	\$405,897	\$409,680	Warren	\$883,010	\$570,013	\$745,644
Jamestown	\$816,145	\$391,578	\$461,530	Warwick	\$9,238,526	\$6,447,573	\$9,140,948
Johnston	\$5,295,013	\$2,350,389	\$3,818,132	West Greenwich	\$906,603	\$1,126,167	\$661,300
Lincoln	\$4,709,009	\$2,477,748	\$2,314,841	West Warwick	\$2,690,775	\$1,960,687	\$2,254,910
Little Compton	\$332,374	\$164,851	\$236,207	Westerly	\$2,231,039	\$1,581,106	\$2,146,344
Middletown	\$1,502,259	\$1,131,318	\$2,038,161	Woonsocket	\$5,340,107	\$2,726,868	\$1,675,794
Narragansett	\$4,246,795	\$2,862,297	\$3,181,443	Grand Total	\$127,332,180	\$81,713,288	\$98,673,762



# 2023 COMMERCIAL, INDUSTRIAL & PUBLIC FINANCE

## Large C&I Revolving Loan Fund

Through the electric large C&I revolving loan fund, the Company offered \$4.65 million through 532 loans in on-bill financing to 379 large commercial customers. At the end of 2023, the fund had a balance of \$12.86 million (including committed 2023 dollars). Through the gas large C&I revolving loan fund, the Company offered \$0.12 million through 18 loans to 13 large commercial customers. At the end of 2023, the fund had a balance of \$1.17 million (including committed 2023 dollars).

#### **Small Business Revolving Loan Fund**

All Small Business Direct Install program participants receive financing to cover 30% of project costs, either over 24 months at 0% interest or a lump sum payment with a 15% discount. Through the small business revolving loan fund, the Company offered \$0.69 million in loans to 427 small business customers. At the end of 2023, the fund had a balance of \$4.12 million.

#### Efficient Buildings Fund (EBF)

Since 2015, Rhode Island Energy, the Rhode Island Office of Energy Resources (OER), and the Rhode Island Infrastructure Bank (RIIB) have been working together to leverage system benefit charge (SBC) funds and drive energy improvements in facilities in cities and towns across Rhode Island.

In 2023, the EBF partners approved projects in Providence, Narragansett, and Middletown to support efficiency improvements and solar installations. These projects will help these communities reduce both their energy costs and their emissions.

Since inception, the EBF has supported 24 projects to municipalities, loaning out over \$75 million dollars to support a variety of energy efficiency and renewable energy projects. These will deliver approximately \$110 million in savings over the lifetime of the installed measures.

### Commercial Property Assessed Clean Energy (C-PACE)

Since the program was adopted in Rhode Island in 2015, 34 projects have been completed, totaling over \$115 million in energy efficiency and renewable energy for businesses. Outreach by the Rhode Island Infrastructure Bank and the Company will continue in 2024.

# **2023 DEMONSTRATIONS, PILOTS & ASSESSMENTS**

Table 3. 2023 Demonstrations, Pilots and Assessments in Residential and Commercial & Industrial Sectors.

Pilot, Demonstration, or Assessment	Objectives	Findings	Next Steps
Final Gas Appliances Residential Assessment	Assess opportunities for electric appliances at new homes	Study report finalized	Apply study results to program design
Gas Demand Response C&I Pilot	Test supply and/or distribution system benefits, reduction of gas system peak demand via a reduction in overall natural gas consumption, customer adoption of gas DR and incentive levels to drive participation	Winter season concluded	Analyze winter results
Gas Leak Survey C&I Demonstration	Investigate the program potential of providing customers with gas leak detection and repair services	Working with vendors to determine savings calculation assumptions and post-verification procedures	Test post-verification procedures at sites
Rightsizing Rooftop Units (RTUs) C&I Assessment	Explore developing an approach for identifying rightsizing opportunities and estimating incremental savings through rightsizing equipment	Completed assessment, which identified strategies for RTU right-sizing	Integrate strategies into program design and implementation
Automated RTU Optimization C&I Demonstration	Examine the effectiveness of automated systems optimization for smaller customers with 2 or more RTUs	Evaluation report completed	Integrate strategies into program design and implementation
Commercial Weatherization C&I Assessment	Explore cost-effective opportunities to expand on historical weatherization efforts	Completed training with vendors, gathering feedback and conducting research for development	Develop express tool
Air Curtains C&I Demonstration	Review similar air curtains measures in other regions, and develop / demonstrate a RI-specific offering	Opted to develop measure offering, in line with MA PAs	Collaborate with MA, develop program offering, and develop go-to-market plan
Smart Valves for Chilled Water Systems C&I Demonstration	Demonstrate smart valves for chilled water systems. Recruit customers, monitor installed systems, develop analysis framework, and assess savings / cost-effectiveness	Final report submitted	Review report and develop plan on next steps



## 2023 CROSS-SECTOR PROGRAMS

#### **Community Initiative**

The Rhode Island Community Initiative is Rhode Island Energy's energy efficiency awareness campaign that drives program participation by engagement with communities ranging from residents and small businesses to business parks or other types of communities and local officials.

In 2023, Rhode Island Energy conducted its small business coordination by working with the Office of Planning and Economic Development and the Chamber of Commerce to help promote the initiative and to help identify potential customer leads. The Company also worked with the Department of Public Works to prioritize buildings based on Energy Use Intensity (EUI) and began performing energy assessments of high priority buildings. In the second quarter, Rhode Island Energy implemented initiatives for underserved communities and delivered 20 new projects under the Main Street program in East Providence. These projects included both Minority Owned and Women Owned businesses. Continued success is anticipated in these markets as it added an internal "lead generation" employee in 2023. The

employee received extensive training on identifying new opportunities and assisting Energy Specialists.

# Building Energy Codes and Appliance Standards

The Codes and Standards initiative provides targeted stakeholder outreach and technical guidance to improve compliance with minimum energy efficiency policies currently in effect and accelerate the improvement of these minimum efficiency requirements. In 2023, Rhode Island Energy continued to expand its energy code compliance support services to a variety of stakeholder groups.

In 2023, the Code Compliance Enhancement Initiative (CCEI) conducted 61 training events across the state with 990 total attendees.

- 53 residential trainings with 743 attendees
- 9 commercial trainings with 247 attendees

Rhode Island Energy partnered with several local organizations to promote and deliver trainings, including:

Rhode Island Builders Association

- Rhode Island Association of Realtors
- American Institute of Architects Rhode Island

A sampling of training topics included:

- Health Homes & Indoor Air Quality
- Advanced Building Science and Zero Energy Homes
- Heat Pump Incentives
- Introduction to Heat Pumps
- Zero Energy Homes Case Studies
- Commercial Passive House
- Chapter 11 1 & 2 Family Dwelling Energy Code
- Advanced Framing
- MSHP Design for Low Load Homes
- Insulation & Wallboards



Figure 3. Code Compliance Enhancement Initiative (CCEI) Training Attendees by Type.

• Air Sealing & Air Leakage Testing

CCEI also launched a 20-week Residential Construction pre-apprentice training course funded through the RI Department of Labor and Training and Rhode Island Builders Association and offered through the Residential Construction Workforce Partnership. Trainings sponsored through this initiative engaged a diverse range of participants. The course provided the basic skills and training needed for entering a career in energy efficiency, including soft skills, introduction to building science, weatherization, and HVAC. The goal was to provide employment opportunities for participants by connecting them with companies and organizations such as CAP agencies who often struggle to attract and retain skilled energy auditors. The Income Eligible Services, EnergyStar HVAC and Residential New Construction programs supported this course

through the Lead Vendors providing specific training in respective expertise areas.

New trainings were also developed and delivered to address the upcoming requirements associated with the 2024 IECC, which the state intends to adopt in full, without amendments. The 2024 IECC is still under review by the ICC and should be finalized in early 2024. The Initiative will develop an updated toolkit and suite of resources once the 2024 IECC has been finalized.

#### **Block Island Energy Efficiency Program**

Block Island Utility District (BIUD), with the support of OER and funding from RGGI auction proceeds, launched its first utility-run energy efficiency program with PUC approval in 2020. The efficiency program aims to educate and engage BIUD customers and deliver energy conservation measures including energy efficiency assessments, and upgrades to LED lighting, insulation and weatherization, and more efficient HVAC equipment. The utility district started the energy efficiency program to provide its customers with more information about, and control over, their energy usage and to help manage the extreme peaks experienced on its grid due to the seasonal nature of operations on Block Island.

The 2023-2024 energy efficiency plan seeks to sustain the initial customer interest for residential energy assessments, serve more business customers, and work to overcome some of the logistical obstacles contractors face in serving the island. The program year runs from June through the following May and further details about the energy efficiency program can be found on Block Island Utility District's website at <u>https://</u> <u>blockislandpowercompany.com/</u>.

#### Energy Efficiency in Pascoag Utility District

The 2023 Pascoag Utility District (PUD) energy efficiency plan continued to deliver significant energy and cost savings to customers through energy efficiency audits, LED lighting, and strong incentives for insulation and HVAC equipment upgrades.

- 511 MWh lifetime electric energy savings
- 520 Short Tons of Lifetime Carbon Emissions Reductions
- 135 customers served

The Public Utilities Commission (PUC) approved an energy efficiency charge increase which went into

effect this year allowed PUD to continue offering a robust suite of programs and incentives to its customers as Regional Greenhouse Gas Initiative (RGGI) funding from the Office of Energy Resources (OER) phases out starting in 2024. PUD also has been working in close coordination with OER staff to ensure that PUD rebates for heat pumps are in alignment with OER's CleanHeatRI heat pump program specifications so Pascoag customers can seamlessly participate in both offerings. Pascoag's close relationship with its customers, through events, outreach, and education allows them to continually monitor customer needs and tailor programmatic offerings accordingly. As a result of their hard-work, community focus, and continuous outreach, PUD has executed on the strategy outlined at the outset of their collaboration with OER in 2018 and is fully capable of independently offering a robust energy efficiency program to its customers long into the future.

# Zero-Energy Buildings Task Force and Working Group

In 2023, Rhode Island Energy provided technical support for several Residential New Construction (RNC) Program zero energy and Passive House projects, which included contractor training, in-field support, and design review. RI Energy has also continued to develop and deliver presentations on Designing HVAC for Large Spaces with Low Loads. The RNC Program Lead Vendor continues to provide technical support for Zero Energy homes across the state, including 48 seeking Passive House certification and 52 seeking DOE Zero Energy Ready certification.

In the second quarter, the RNC Program held a tour of a DOE Zero Energy Ready (ZER) single-family home on Biscuit City Road in Charlestown in collaboration with the builder Steve DeMetrick of DeMetrick Housewrights. RI Energy is showcasing the home on their website: <u>https://weare.rienergy.com/building-azero-energy-ready-home/</u>

#### Zero Energy for the Ocean State

Since 2019, the Office of Energy Resources, RI Housing, and Rhode Island Energy have partnered together for the Zero Energy for the Ocean State (ZEOS) program. This program provides grants to builders to create innovative, replicable, zero energy housing for low- and moderate-income Rhode Islanders. To date, ten residential projects have been supported through this program with four new awardees announced in February 2024. Over three rounds of funding, the ZEOS program has provided \$1,875,000 for the construction of energy efficient housing in Rhode Island, totaling 436 units.

#### **Building Operator Certification**

In 2023, Rhode Island Energy continued its longstanding sponsorship of Building Operator Certification (BOC) training that is discounted or free for building operators in Rhode Island. Those that completed the course are expected to benefit by learning to better communicate with occupants about maximizing facility efficiency, identify low-cost energy conservation opportunities, and implement best practices in preventative maintenance.

In June 2023, BOC hosted a webinar that covered using data analytics and air source heat pumps to increase energy efficiency in buildings. Some of the specific topics included benchmarking a building, calculating energy use indices for buildings, and exploring technology and solutions related to variable refrigerant flows and heat pumps. The Webinar was sponsored and supported by Rhode Island Energy, CLEAResult, and National Grid, with presenters from Steven Turner Inc., and Mitsubishi.

An important role of the Energy Efficiency Council (EEC) is to promote public awareness of energy efficiency programs and their benefits. The Council hosts and sponsors a variety of public events and initiatives that help Rhode Islanders understand the value of energy efficiency as the state works to achieve its energy and climate goals.



## **2023 COUNCIL PUBLIC EDUCATION EFFORTS**

### **Energy Efficiency Council Annual Public Forum**

With the help of the University of Rhode Island (URI) Cooperative Extension, this year's EEC Public Forum took a new and more direct approach to reaching target audiences by partnering with the Rhode Island Department of Health's Health Equity Zone (HEZ) Initiative. The HEZ Initiative's mission is to build a healthy and resilient Rhode Island by investing in communities and their capacity to affect change, honoring the expertise of those who live and work in those communities, and challenging the systems and structures that perpetuate health inequities. As a society, we spend an enormous amount of resources on healthcare, yet 80% of our health is determined outside the doctor's office and inside our homes, schools, jobs, and neighborhoods. Energy efficiency is one of the many factors that play a role in addressing systemic inequities and fostering healthy communities.

On August 10, 2023, URI Cooperative Extension, working on behalf of the EEC, hosted a workshop as part of the all-day HEZ Learning Community Event held at Rhode Island College. These annual events convene HEZ Initiative stakeholders, including a wide array of community-based organizations, for shared learning, training, and technical assistance. This format allowed the EEC to connect with an existing network of people working in underrepresented communities to raise awareness about how energy efficiency programs can contribute to shared goals around housing affordability and health.

The workshop featured three speakers. A representative from Green and Healthy Homes Initiative (GHHI) laid the groundwork by explaining the relationship between energy efficiency and health. Next, the Community Outreach Coordinator from the state's Low Income Home Energy Assistance Program (LIHEAP) discussed program eligibility and pathways to reducing the energy burden. Lastly, the Weatherization Coordinator from Comprehensive Community Action outlined a roadmap for navigating the state's weatherization program.

Then the workshop's 80 participants broke out into 10 groups and discussed key questions with the goals of identifying community-based approaches to improving access to energy efficiency programs, mapping connections between different organizations and community members, and strategizing methods for increasing awareness of and successful participation in available energy efficiency programs.

The EEC looks forward to building on this successful event as a way of enabling some of the many recommendations identified to address equity issues in energy programs and reduce energy burden within Rhode Island communities.

## Plugged Into Energy Research Lecture Series at the University of Rhode Island

In 2023, the EEC once again sponsored the University of Rhode Island's Plugged Into Energy Research (PIER) Lecture Series. Since 2015, the PIER Lecture Series has highlighted cutting-edge research and outreach projects and engages industry experts to explore how a variety of energy -related topics may affect our daily lives in the future. The goal of the PIER lecture series is to increase literacy around energy topics of concern in Rhode Island. The Energy Efficiency Council invites all members of the public to join us this fall at the URI Kingston Campus or on livestream for this year's series.

The 2023 series included three lectures, held inperson and virtually, themed around *Energy Efficiency in the Marketplace: Communicating Value and Encouraging Participation,* and addressed the transition towards an economy driven by renewable energy sources.

The first lecture was held on September 19, 2023 and was titled *Energy Efficiency Unraveled: Analyzing Participation in RI's Incentive Programs.* All Rhode Islanders pay into the energy efficiency programs, though not all Rhode islanders participate. This lecture looked at the reasons why many eligible people and businesses do not participate in the energy efficiency programs. Participants heard from experts in market research, behavioral economics, and energy equity, who discussed the relationship between consumer behavior and the effectiveness of our energy efficiency programs.

The second lecture was held on and was titled *Is the Price Right? Embracing Energy Efficiency in the Real Estate Market.* This lecture addressed the pathways, obstacles, and opportunities for incorporating energy efficiency as a market driver for real estate and rental properties. Participants will hear from experts in energy efficiency policy, research and housing development discuss how the real estate market can more effectively reflect the value of energy efficient buildings.

The third lecture was held on October 18, 2023 and was titled *Wired for the Future: Navigating the Path to Electrification.* Participants heard from experts on the economics of electrifying everything in the home, how to calculate the cost of electrifying and how regional governments are incentivizing, and planning for, the transition to electrifying everything.

Among the three events, there were a total of 160 in-person attendees and 203 livestream attendees, with an additional 416 YouTube views to date. Participants included members of the public, industry professionals, students, and university faculty and staff (Figure 4). The lecture recordings can be found at: <u>https://web.uri.edu/coopext/</u> <u>plugged-into-energy-research-lecture-series/</u>.

## Energy Expo at the Rhode Island Home Show

Since 2014, the EEC has sponsored the Energy Expo at the Rhode Island Home Show in partnership with the Rhode Island Builders Association, Rhode Island Energy, and the Rhode Island Office of Energy Resources. The Energy Expo connects Rhode Islanders with resources that can help them reduce energy usage, save money, and increase the comfort of their homes. At the Energy Expo, residents can interact with dozens of energy related companies, sign up for a no-cost home energy assessment, attend energy seminars, and learn about clean energy programs available in Rhode Island. In 2023, the Home Show had over 16,000 attendees, 85% from Rhode Island and 15% from Massachusetts. Rhode Island Energy received over 220 home energy assessment requests Learn more at https://ribahomeshow.com/learn/.

The Home Show engages over 1500 students from

26 local Career and Technical Education schools to design and construct various elements of the show floor, including an energy efficient residential technologies demonstration. The Rhode Island Department of Education has approved this workbased learning and career exploration opportunity to satisfy internship requirements for graduation. This year's student-built demonstration included an insulation comparison, an air source heat pump, a hybrid hot water tank, electrical panel upgrades, smart technologies, electric vehicle charging, solar panels, and efficient lighting.

## **EEC Branding & Communications** Initiative

As the Council continues to expand its public outreach and engagement efforts, fostering recognition, trust, and credibility among Rhode Islanders is key. In 2023, the EEC engaged in an effort to further develop its brand identity and enhance its communication tools with the goals of fostering increased brand recognition and building trust and credibility among the Rhode Island general public. Council members and staff worked closely with a communications and design team to refresh its mission language and visual identity including a new name, logo, and website. The Council launched the new brand in early 2024 to serve as a foundation for future efforts to promote public awareness of the state's energy efficiency programs and provide educational opportunities around current energy topics that impact Rhode Islanders.

## Farm Energy Outreach

Due to the volatile nature and seasonality of many farm businesses, keeping costs low is vital to their success. However, participation in the half-dozen available farm energy programs has remained relatively low in comparison with other small-scale programs. Conversations with stakeholders, energy program administrators, and Rhode Island Energy suggest low participation is due, in part, to a lack of knowledge of available programs.

In 2023, the EERMC and the Office of Energy Resources co-funded a University of Rhode Island Energy Fellow from February through December to assist with outreach to the farm community regarding energy management. The Energy Fellow conducted outreach virtually through, email, attendance at farmer's markets, and one-on-one phone calls. The 2023 Energy Fellow placed his focus on increasing awareness about thermal decarbonization options available to farmers, such as air source heat pumps and heat pump water heaters. He developed flyers to promote heat pump technologies through RI AgEP, and visited nearly every farmers market open in Rhode Island during the busy season. He also aided in updating the RI Farm Energy Resource Guide that was initially created by the 2019 Farm Energy Fellow. These efforts were successful in engaging farmers for the Fall 2023 round, which saw 14 total farms awarded for energy efficiency and renewable energy projects, including heat pump installations. A video profile for Sweet and Salty Farm in Little Compton was written, filmed, and produced describing the benefits of several clean energy projects on the farm's operations and the programs utilized to implement that work. This video was published this year, along with the other Energy Profile Videos. These video profiles help supplement written energy profiles to share the success stories of agribusinesses tackling clean energy projects. Social Media outreach was conducted through the program's growing online presence: Facebook and Instagram (@RIFarmEnergyResources).

## **Combined Heat and Power Public** Meeting

On Thursday, June 8, 2023, the EEC hosted the Annual Rhode Island Combined Heat and Power (CHP) Stakeholder Meeting virtually. As a legislative mandate, this meeting gives stakeholders the opportunity to provide feedback on the state's CHP programs and policies. The meeting also serves to inform CHP developers and potential customers about program details and updates for the upcoming year. The meetings are timed to allow for any recommendations to be incorporated, as appropriate, into the Three-Year and Annual Energy Efficiency Program Plans.

Invitations were distributed to Rhode Island Energy's database of CHP vendors as well as past and potential program participants. The Rhode Island Office of Energy Resources also sent the invitation to a variety of contacts, including potential Efficient Buildings Fund borrowers as well as legislative, municipal, quasi, and school contacts. There were about 25 participants, the majority of which were CHP developers or vendors that provide related technical assistance or financing.



# 2023 ENERGY JUSTICE & EQUITY EFFORTS

In 2023, the EEC continued to take steps to increase awareness of energy justice and improve the understanding of equity as it relates to energy efficiency.

## Energy Efficiency Equity Working Group

In 2023, under the advisement of the Council, Rhode Island Energy resumed its work with the Office of Energy Resources (OER) to co-host an Equity Working Group. The goal of this working group was to provide Rhode Island Energy with written recommendations to advance equity in the planning, design, and delivery of its energy efficiency programs. The Equity Working Group was comprised of over thirty representatives from state agencies, community-based organizations, advocacy organizations, and local subject matter experts in equity. The Equity Working Group met four times in 2023 and provided a space where voices and concerns of impacted communities could inform discussions to help identify areas of importance and focus around issues of equity for the energy efficiency programs and adjust the programs to reflect this feedback.

The Equity Working Group's focus in 2023 was to identify equity-related challenges and to develop recommendations to incorporate in the Company's 2024 Annual Energy Efficiency Plan. As an outcome of this work, the Equity Working Group identified six key issues and recommendations which were accompanied by a list of suggested strategies, metrics, and targets. The key issues identified by the Equity Working Group were participation barriers, multifamily barriers, weatherization deferrals, workforce development and training, micro- and small -businesses, and establishment of metrics tracking and reporting<sup>8</sup>. Many individuals, particularly renters and those living in multifamily buildings, have not been

<sup>8</sup> For more information on the Equity Working Group's recommendations, as well as a full report of its activities, please see Attachment 11 of Rhode Island Energy's 2024-2026 Energy Efficiency Three-Year Plan and Annual Energy Efficiency Plan for 2024, available at: <u>https://ripuc.ri.gov/sites/g/files/</u> <u>xkgbur841/files/2023-10/2335-RIE-Attachment11\_Bates.pdf</u> able to participate in the programs for a variety of reasons. Many homes need significant non-energy efficiency upgrades, like replacement of knob and tube wiring, before being able to receive low- or nocost weatherization services from the energy efficiency programs. Investing in these "preweatherization" measures and navigating the available programs pose real challenges. In its 2024-2026 Three-Year and 2024 Annual Energy Efficiency Plans, Rhode Island Energy highlighted the Equity Working Group's recommendations and provided commitments that aim to be responsive to each recommendation.

#### EEC Activities on Advancing Equity in RI Energy Efficiency Programs

Rhode Island Energy filed a report from the Equity Working Group alongside its energy efficiency plans, as noted above. Because the report was finalized at the same time as the energy efficiency plans and not with sufficient lead time to meaningfully inform the plans themselves, the Council held three meetings in the months following to ensure that Rhode Island Energy would continue to focus on equity issues. Each of the three meetings included presentations and updates from the Company on its continued progress on equity efforts following the completion of the Equity Working Groups activities for the year. The focus of those presentations, and ensuing Council discussion, was to emphasize the importance of building on the Equity Working Group's recommendations so that meaningful progress could be made prior to the start of the new program year in 2024. The Council expects to continue to hold additional meetings with topic areas around issues of equity in energy efficiency programs in 2024.

# Equity in EEC Priorities and Policy Recommendations

This year the Council has once again included equity considerations in its stated priorities for the 2025 Annual Energy Efficiency Program Plan, as well as in its 2024 Policy Recommendations. Emphasizing and embedding equity considerations in the design and delivery of all state energy programs is critical to ensuring that all Rhode Islanders receive the maximum possible benefits.



## 2023 PLANNING INITIATIVES

Comprehensive and coordinated planning is critical for Rhode Island as it faces urgent climate imperatives and evolving energy challenges. Because the least expensive energy is the energy not used, efficiency is the bedrock of a sustainable and resilient energy economy. Against the backdrop of the state's legislated mandates like Act on Climate, the Energy Efficiency Council offers strategic foresight and planning guidance to maximize energy savings through efficiency programs.

#### **Three-Year Energy Efficiency Program Plan**

As part of the legislated triennial process to develop Three-Year Energy Efficiency and System Reliability Plans, the EEC worked with Rhode Island Energy, the Office of Energy Resources, the Division of Public Utilities and Carriers, and other key stakeholders to develop the 2024-2026 Energy Efficiency Program Plan for Rhode Island. Rhode Island Energy filed the Three-Year Plan with the Public Utilities Commission on October 2, 2023. The purpose of this Three-Year Plan was to establish an overarching strategy for the next three years that will enable Rhode Island Energy to successfully meet the goals of Least Cost Procurement and meet the Energy Savings Targets developed by the EEC and approved by the Public Utilities Commission. The Three-Year Plan met the objectives of being cost-effective and less than the cost of supply, and is grounded in economics, flexible to changing market conditions, and designed to maximize consumer benefit. The Public Utilities Commission deferred its ruling on the Three-Year plan until a later date in 2024.

While the 2021-2023 Energy Efficiency Plan has guided the work of the annual plans for the past three years, work is already underway in 2023 to set the stage for the next three-year period of 2024-2026. An initial outline of the 2024-2026 plan was delivered to stakeholders on April 6<sup>th</sup> and the first draft is slated to be delivered in June. It is anticipated that the final draft of the 2024-2026 Plan will be considered by the Council in September with Rhode Island Energy filing the Plan in October.

#### **Annual Energy Efficiency Program Plan**

In addition to the Three-Year plan, Annual Energy Efficiency Program Plans (Annual Plans) are developed by Rhode Island Energy with significant stakeholder input, including thorough review by the Energy Efficiency Council. These Annual Plans clearly define how the energy efficiency programs will be implemented and specify how the programs will be cost-effective. The Annual Plans are considered by the Council and are ultimately reviewed and ruled on by the PUC. Work on the 2025 Annual Plan is already underway and the Council expects to vote on it at its September 26, 2024 meeting prior to the Company filing it with the PUC by October 1, 2024.

### **System Reliability Procurement**

As an electric and gas distribution company, Rhode Island Energy (RIE) owns and operates the electric and gas distribution systems. The electric distribution system is composed of the entirety of poles, wires, transformers, substations, and other infrastructure that supports delivering electricity to customers across Rhode Island. The gas distribution system is composed of the pipelines, gate stations, pumps, and other infrastructure required to move gas through the pipelines to the equipment that uses it. As customer needs change, generation evolves, and technology matures, RIE continually examines its electric and gas distribution systems to prioritize necessary investments for maintaining safe, affordable, reliable electricity and gas service.

System Reliability Procurement (SRP) is one process for investing in electric and gas distribution systems<sup>10</sup>. SRP encompasses the activities conducted by Rhode Island Energy to meet or mitigate a gas or electric system need or optimization that provides the need or optimization by employing diverse energy resources, distributed generation, or demand response. Unlike RIE's direct ownership of, say, the poles and wires that make up our electric grid (called Utility Reliability Procurement), through SRP, RIE identifies targeted alternative solutions to certain distribution system needs that are instead owned by third-party vendors. These solutions are referred to as non-wires solutions and non-pipes solutions, which include both customer-side and networkside solutions and which must be cost-effective, reliable, prudent, environmentally responsible, and provide the path to lower supply and delivery costs to customers in Rhode Island.

In 2023, RIE aimed to complete its commitments described in the 2021-2023 System Reliability Procurement Three-Year Plan (SRP Plan). Importantly, RIE made substantial progress in institutionalizing a process for identifying opportunities for non-pipes solutions and carrying through with screening, scoping, soliciting, evaluating, proposing, and implementing. This full process is described in detail in the RIE's proposed 2024-2026 SRP Three-Year Plan, on file with the Rhode Island Public Utilities Commission in Docket No. 23-47-EE.

**Non-wires solutions:** As required by law, RIE screened electric distribution system needs for the potential to be served by non-wires solutions in alignment with Least-Cost Procurement statute, standards, and the 2021-2023 SRP Plan. Rhode Island Energy's assessment was that, for all electric distribution system needs, system reliability procurement was not a viable investment strategy. RIE instead pursued utility reliability procurement and installed additional infrastructure like poles and wires.

**Non-pipes solutions:** RIE filed an initial non-pipes solution program components, processes, and criteria in the 2024-2026 SRP Three-Year Plan. In 2023, RIE made progress toward producing a detailed initial non-pipes solution program, including continued analysis of the current nonpipes solutions screening and development process, and continued background research on non-pipes solutions. RIE did not identify a non-pipes pilot opportunity to pursue in CY 2023. Refinement of the non-pipes solutions program will be an ongoing process as RIE gains experience and learns from non-pipes opportunities. RIE engaged stakeholders in the development of a non-pipes solution program, opportunities, and challenges through the SRP Technical Working Group.

**Coordination:** All investments RIE proposes are required to advance safe, affordable, reliable, decarbonized energy distribution to satisfied customers. As such, RIE must coordinate across all investment portfolios, including Infrastructure, Safety and Reliability Plans, Energy Efficiency Plans, Renewable Energy Programs, and others. This coordination is standard practice for the utility company.

**Stakeholder engagement:** RIE continues stakeholder engagement through the SRP Technical Working Group, an external stakeholder group that advises RIE on matters related to system reliability procurement. In 2023, the SRP Technical Working Group discussed Rhode Island Energy's SRP process, the application of expected value in evaluating non-wires and non-pipes solutions, the 2024-2026 SRP Three-Year Plan, among other topics.

Additional detail about RIE's activities in 2023 related to system reliability procurement, including assessment of

<sup>&</sup>lt;sup>10</sup> System Reliability Procurement (SRP) is a statutory obligation of public utilities and carriers under RIGL 39-1-27.7 (commonly referred to as "Least-Cost Procurement"). The purpose of SRP within the overarching umbrella of least-cost procurement is "Least-cost procurement shall comprise system reliability and energy efficiency and conservation procurement, as provided for in this section, and supply procurement, as provided for in § 39-1-27.8, as complementary but distinct activities that have as common purpose meeting electrical and natural gas energy needs in Rhode Island, in a manner that is optimally cost-effective, reliable, prudent, and environmentally responsible [RIGL 39-1-27.7(a)].

non-wires solutions and advancements in non-pipes solution program development, can be found in RIE's 2023 System Reliability Procurement Year-End Report (forthcoming filing with the Public Utilities Commission in Docket No. 5080).

## State Goals: State Energy Plan & GHG Reduction Goals

The 2021 Act on Climate sets a requirement that Rhode Island must achieve net-zero carbon emissions economywide by 2050.The 2021 Act on Climate also established interim targets including reducing emissions by 10% by 2020, 45% by 2030, and 80% by 2040, based on the state's emissions in 1990 as a baseline. With the publishing of the State's 2020 greenhouse gas emissions inventory in 2023, it was confirmed that the 2020 Act on Climate target was met, as emissions were reduced by 20.1% compared to the 1990 baseline.

Each year, the Rhode Island Department of Environmental Management publishes the state's latest greenhouse gas emissions inventory. This report showed that as of 2020, the state's economy-wide emissions are estimated to be 9.24 MMTCo2e, declining by .63 MMTCo2e over the previous year.

Energy 2035: The Rhode Island State Energy Plan, formally adopted in October 2015, lays out a long-term, comprehensive energy strategy for Rhode Island. The vision of the Plan is to provide energy services across all sectors-electricity, thermal, and transportation-using a secure, cost- effective, and sustainable energy system. The Plan identifies energy efficiency as the state's "first fuel" and a centerpiece strategy for achieving the Rhode Island Energy 2035 Vision. The State Energy Plan identifies energy efficiency as the lowest-risk, lowest-cost, and arguably, the most sustainable energy resource available for Rhode Island. The Plan also lists Least-Cost Procurement as one of Rhode Island's cornerstone energy policies, and the primary vehicle for delivering the benefits of energy efficiency to Rhode Island consumers and businesses.

RI 2030<sup>11</sup> was released in 2021 as a working document of the State's priorities for the next decade. This plan identifies climate objectives including examining opportunities for a renewable thermal standard, replacing fossil fuel electricity generation with renewable resources, and continuing investment in energy efficiency as a foundational climate strategy. To achieve the objectives of these plans and the Act on Climate, the Energy Efficiency Council is working closely with the Office of Energy Resources and the Executive Climate Change Coordinating Council (EC4) to ensure that Rhode Island's energy efficiency programs continue to provide a strong foundation for the necessary energy demand reduction.

<sup>&</sup>lt;sup>11</sup> Available online at: <u>https://ri2030.com/\_files/public/RI\_2030\_final.pdf</u>



# **2024 ENERGY EFFICIENCY PROGRAM PLAN HIGHLIGHTS**

#### **2024 RESIDENTIAL PROGRAMS**

In 2024, Rhode Island Energy will continue all residential programs offered in 2023 and will additionally focus on changes that improve equity and access and that leverage findings from the non-participant and participant studies.

#### **EnergyWise Weatherization**

The EnergyWise Program offers a number of weatherization services to customers, including insulation and air sealing. However, due to the older housing stock in Rhode Island, several homes have pre-weatherization barriers (e.g., asbestos, knob-and-tube wiring, and vermiculite) that prevent customers from moving forward with weatherization projects. Rhode Island Energy is considering using energy efficiency funds to address preweatherization barriers on a project-by-project basis or program-by-program basis so long as the project or program remains cost effective. Additionally, Rhode Island Energy plans to improve data collection efforts around pre -weatherization barriers to better understand their impact on energy efficiency progress. Addressing these preweatherization barriers will help to ensure the equitable distribution of program benefits to households with high energy burdens.

#### **Multifamily Outreach**

Rhode Island Energy will incorporate a multi-family component into the Residential Equity Outreach Assessment where Rhode Island Energy partners with community-based organizations that have experience and established relationships with neighborhoods and municipalities to promote the multifamily program and the benefits of energy efficiency. Through this assessment, Rhode Island Energy looks to strengthen communication channels and build trust with multi-family building owners.

#### **Residential New Construction Standards**

In 2024, RI Energy plans to increase the number of projects achieving advanced building standards and certifications including Zero Net Energy and Passive House. Additional training for builders, homeowners, and code officials will be held to make them aware of these certifications and advanced building standards. Additionally, Rhode Island Energy will make revisions to the 2024 RNC Program's guidelines to reflect changing baseline assumptions, since meeting the percentage savings targets will become more difficult with these higher baselines. The implementation changes will be determined based on the ongoing User Defined Reference Home study.

#### **High-Efficiency HVAC and Hot Water**

To facilitate customer transition from electric resistance heating to high efficiency heat pumps, Rhode Island Energy plans to coordinate with OER to leverage additional funding opportunities funded through the American Rescue Plan Act (ARPA) and the Inflation Reduction Act (IRA), such as Clean Heat Rhode Island. This program is administered by OER and received \$25 million in ARPA funds to provide financial incentives to residential and C&I customers for the purchase and installation of high efficiency electric heat pumps. RI Energy will also introduce Energy Star 6.1 Cold Climate certifications for heat pumps as a rebate-eligible option and will accept both SEER/HSPF (old) and SEER2/HSPF2 (new) rated equipment for rebate eligibility as systems are tested and re-rated against the new standards.

# 2024 COMMERCIAL AND INDUSTRIAL PROGRAMS

In 2024, Rhode Island Energy is focused on building a program ecosystem that supports a more diversified mix of electric measures, while harvesting remaining lighting savings, controlling program costs, and promoting equity among small business owners and within the workforce. Although Rhode Island Energy anticipates that lighting will continue to constitute a large source of electric savings in the 2024 C&I programs, its efforts are focused on driving non-lighting program enhancements that encourage deeper, more comprehensive measure adoption and build for long-term program success. There is a particular focus on high-efficiency heating, cooling, ventilation, and air conditioning (HVAC) measures, as well as controls to improve the performance of HVAC equipment.

In 2024, some highlights of Rhode Island Energy's efforts will be to:

- Implement revised participation pathways for the New Construction program to simplify enrollment and increase total program activity.
- Develop more effective savings calculators, including:
- A Heat Pump Hot Water Heater calculator
- An Energy Management System prescriptive calculator
- A C&I weatherization tool
- Expand on equity efforts begun in recent years.
- Deploy a data-driven approach to increasing customer participation.
- Monitor and help mitigate supply chain disruptions

and inflation impacts.

- Continue to enhance continuing education offerings for building managers and facilities operators.
- Provide technical assistance and funding to local higher education institutions in support of developing new Industrial Assessment Centers. If awarded, these IACs would conduct energy assessments and provide additional workforce capacity while adhering to Justice40 guidelines.
- Phase out most of the lighting program in response to a changing market. Due in part to the resounding success of efficient lighting initiatives by Rhode Island Energy and others, upgrades are now more affordable and available than ever before, reducing the need for continued incentives.
- Offer a limited-time incentive to contractors who identify opportunities to retrofit commercial and industrial sites with variable frequency drives (VFD).

## INNOVATING FOR FUTURE ENERGY EFFICIENCY SAVINGS FOR RHODE ISLAND CUSTOMERS: PILOTS, DEMONSTRATIONS, AND ASSESSMENTS

For 2024, Rhode Island Energy intends to continue or start three Pilots, Demonstrations, or Assessments. Rhode Island Energy will continue to provide updates of the progress, findings, and next steps of all Pilots, Demonstrations, and Assessments over the course of 2024 in the Quarterly Reports.

The following table outlines the objectives, planned activity, and next steps of the five Pilots, Demonstrations, or Assessments underway in 2024.

Pilot, Demonstration, or Assessment	Objectives	Planned 2024 Activity	Next Steps
Weatherization C&I Demonstration	Continue to research opportunities for expansion around commercial and industrial weatherization. Test a wide range of potential solutions.	Integrate weatherization into other pathways (e.g., Equipment and Systems Performance Optimization Initiative)	Use a third-party vendor to assist in determining target facilities and potential solutions
Residential Equity Outreach Assessment Residential Assessment	Understand and address barriers to program participation by landlords in equity communities. Work closely with and incentivize selected organizations/non- profits to conduct outreach and education.	Select partners (nonprofits/ municipalities), co-create outreach and education plan, determine desired outcomes and performance metrics	Work with funding recipients to design an equitable and robust landlord/renter outreach and education plan
Multifamily Financing Residential Demonstration	Test an alternative financing model to fund projects at residential multifamily buildings with a particular focus on smaller buildings with two to twenty units.	Work with vendor to incorporate new financing structure into project proposals	Expand outreach and education efforts to contractors

Table 4. 2024 Pilots, Demonstrations and Assessments—Residential and Commercial & Industrial.

Appendix A: Energy Efficiency Program Studies & Evaluations

2022 Residential New Construction Baseline Study

The Rhode Island Residential New Construction (RNC) program provides financial incentives and technical resources to builders and homeowners to encourage efficient construction practices in new homes. The RNC program calculates energy savings by comparing the consumption of program homes to a hypothetical typical home. Periodic baseline studies inform the program about how typical new homes are constructed, allowing the program to claim savings against true market conditions.

## Methodology

**Conducted** 40 onsite visits to newly constructed nonprogram homes and collected full HERS rating data **Visited** building departments across the state to gather energy code compliance documentation

**Analyzed** building shell and mechanical equipment data and used energy modelling to assess code compliance

## Code Compliance

Overall energy code compliance is high among non-program homes at 87%; an increase from the 80% compliance rate observed in the 2017 baseline. Most measures showed high levels of code compliance, but duct leakage remains low at 68%.

**Recommendation**: Focus code compliance training activities on measures with the lowest levels of compliance, specifically duct leakage. A majority (93%) of homes sampled in this study had ducts, presenting a large opportunity to increase compliance.



## **Program Home Performance**



Program homes continue to outperform sampled non-program homes, but there has been limited improvement in performance since the last baseline study. The 2017 baseline study found the average program HERS score to be 62, which has only decreased by one point to 61.

**Recommendation**: The program should consider increasing the stringency of program requirements to increase the overall performance of program homes over the general market, otherwise program savings may decrease. This may involve increasing the minimum % savings thresholds for program Tiers or adopting a pay for performance type model.

## **Building Department Data**

The documentation available at building departments was found to be relatively sparse and rarely contained reliable data that could be used to determine UDRH values. The most common types of documentation found were permits and blueprints which specify what is planned to be installed a new home, but documentation containing third party verification of building details was not commonly found.

**Recommendation**: Focus code official trainings on consistently collecting third party verification of energy code compliance such as prescriptive checklists, blower door and duct blaster results, IECC certificates, or HERS ratings. Collecting building department data to inform UDRH values in future RNC baseline studies is still a worthwhile endeavor, but data from third party verified sources should be prioritized.



Reliable measure life assumptions are critical for understanding the impact of Rhode Island Energy's energy efficiency programs on lifetime energy savings. For this reason, Cadeo reviewed measure life assumptions to ensure the accuracy of measure life values for prescriptive measures in the state's 2023 Technical Reference Manual (TRM) and Rhode Island Energy's benefit-cost ratio (BCR) models.

# Methodology

## 1 Prioritized

a list of over 300 prescriptive efficiency measures into "high", "medium", and "low" ranking categories based on each measure's relative contribution to RI Energy's portfolio level expected lifetime energy savings.

## 2 Scored

the existing source for every high and medium measure, as well as a sample of low measures, using three factors: source origin (i.e., was it RI- or NE-specific?), robustness (i.e., how strong was the research?), and age (i.e., how recently was the research completed?)

## ③ Investigated

2023 RI Energy Measure Life Study

the existence of a "better" source for all measures that scored poorly. Cadeo defined a "better" source as one that scored more favorably than the existing source using the same three review criteria.

### Key Takeaway:

In total, Cadeo reviewed **68** prescriptive gas and electric measures across all sectors (commercial, residential, and income eligible), including every high and medium measure and a subset of low measures. Collectively, the measures included in the review represent **85%** of the total lifetime energy savings expected for prescriptive measures for 2023.

# **Recommended Measure Life Updates**



Cadeo's impact evaluation of Rhode Island Energy's EnergyWise Single Family (EWSF) program focused on updating the gross energy savings for EWSF's weatherization (i.e., air sealing, duct sealing, and insulation) measures. This evaluation accounts for the full range of weatherization energy impacts including savings associated with primary heating fuel and, when relevant, secondary heating, cooling, and furnace fan usage.

# Methodology

## 1 Primary Heating

Cadeo completed a billing analysis for participants that primarily heated with natural gas. Cadeo applied a series of engineering adjustments to leverage the results of the natural gas billing analysis to estimate savings for weatherized participants that primarily heat their homes using electricity or a delivered fuel (i.e., heating oil or propane). **2** Secondary Electric Heating

Cadeo conducted an additional electric billing analysis focused on primary gas heated participants that self-identified as using secondary electric heating via a participant survey.

## The evaluation includes savings estimates for participants that heat with:



## **Key Findings:**

The evaluation found higher weatherization savings than the previous evaluation for participants that heat their homes with natural gas or a delivered fuel (realization rates of **138%** and **126%** respectively), which collectively represent over 90% of weatherized EWSF participants. On average, 2021 natural gas weatherization participants installed more types of insulation (i.e., attic, wall, and floor each counting as 1.0 insulation type) in their home relative to participants in 2017-2018. For example, the average 2021 participant installed **2.11** types of insulation – up from 1.88 in 2017-2018. Most of the difference comes from a jump in percentage of participants that installed wall insulation, which increased from 43% to **62%**. The evaluation team found slightly lower savings – again relative to the previous evaluation – for the small number of electrically heated weatherization participants (**91%** realization rate). The team also found weatherization had small but observable decreases in participants' use of secondary electric heating sources.

#### **Recommendations:**

The evaluation team recommends that Rhode Island Energy collect and provide evaluators with the following data not available to our team: pre-program R-value by location (e.g., attic, wall, floor), pre- and post- CFM-50 data for air sealing, type of primary heating equipment by fuel type, presence and type of secondary electric heating equipment, and seasonal occupancy flag (e.g., number of months unoccupied, when relevant).



# **Rhode Island Commercial Food Service Equipment ISP Study**

## **Executive Summary**

DNV conducted an **industry standard practice** (ISP) **kitchen equipment study** because of the new Rhode Island Appliance Standards that went into effect on January 1, 2023. The study characterizes ISP in Rhode Island (RI) for commercial kitchen equipment by **incorporating the new standards** and the **prevalence of used equipment** in the marketplace. The study's primary focus was on **commercial fryers, ovens, steam cookers, hot food cabinets**, and **dishwashers**, due to their relative magnitude of historical program savings.

This study effort was intended to provide **new baseline recommendations** to be applied prospectively to PY2024 and beyond. The **key research question** for this effort was to understand the extent to which used equipment is sold in the market and should therefore be reflected in the baseline assumptions.

### Methodology and Approach

To develop the recommended ISP baselines and updated deemed savings and demand values, the team conducted background research, interviews with market actors, and a survey of end users.

Measure	% New Equipment	% Used Energy Star	% Used Standard
Fryer	87% Energy Star V2.0	2% Energy Star V2.0	11% Energy Star V2.0 – baseline
Oven	83% Energy Star V2.2	2% Energy Star V2.2	15% Energy Star V2.2 – baseline
Commercial dishwasher	83% Energy Star V2.0	0% N/A	17% Energy Star V2.0 – baseline
Hot food holding cabinets	86% Energy Star V2.0	0% N/A	14% Energy Star V2.0 – baseline
Steam cooker	100% Energy Star V1.2	0% N/A	0% N/A

#### **Results/Key Findings and Conclusions**

**Used equipment does play a role in the commercial food service industry.** Across the commercial kitchen equipment market, customers estimated that used equipment accounts for about 15% of sales and distributors estimated that used equipment accounts for 12% of sales. Estimates of the percentage of used equipment varied by equipment type – used equipment was most prevalent for fryers, ovens, dishwashers, and hot food holding cabinets. The average age of used equipment was two to three years.

**Replace on failure vs. new construction.** DNV did not find any difference in the percentage of used equipment for commercial food service equipment installed as a replace on failure vs. a new construction project.

#### Recommendations

1: Adopt the baselines outlined by equipment type in the study appendix. These are based on the new food service equipment standards and our primary research. For fryers, ovens, commercial dishwashers, and hot food holding cabinets, we recommend a weighted baseline that takes used equipment into account. The ISP baseline for steam cookers should be the appliance standard requirements, due to a lack of evidence of used equipment.

**2: Update TRM with new savings values.** We recommend adopting the updated energy savings and demand savings shown in the body of the report. DNV also recommends listing all relevant savings parameters in the TRM. Currently, only the idle energy rate and efficiency level are listed in the TRM.

## **Rhode Island Energy**



# 2022 Commercial and Industrial Programs Free-Ridership and Spillover Study

# Objective

Tetra Tech quantified the net impacts of Rhode Island Energy's 2022 commercial and industrial (C&I) electric and natural gas upstream and downstream energy efficiency programs.

The net-to-gross (NTG) rate: The NTG rate is the rate of program-attributable savings to program gross savings. It is calculated as follows: **100% – free-ridership + spillover.** 

Methodology

Tetra Tech conducted surveys with a sample of 2022 program participants, market actors, and distributors in each of the C&I electric and natural gas programs.



**Free-ridership:** Program participants who would have installed the same high-efficiency equipment on their own at that same time if the program had not been offered.

**Spillover:** The adoption of additional energy-efficient measures of the same type implemented without assistance from the program due to program influences.

The 2022 study included the following Commercial & Industrial programs:

- New Construction
  - Design 2000 (electric)
  - Large Commercial & Industrial New Construction (gas)
- Retrofit
  - Energy Initiative (electric)
  - Large Commercial Retrofit (gas)
  - Small Business Solutions (electric, gas)
- Upstream Gas (gas)

# **Net-to-Gross Results**

Tetra Tech, with input from Rhode Island Energy, combined NTG estimates across fuel types, programs/pathways, and measures to report unique NTG estimates by program and delivery type/pathway.

#### 🖌 Low NTG Rates

- The lower the rate, the more *likely* the customer was to have installed equipment without the program.
- Fewer savings are attributable to the programs.

#### **High NTG Rates**

Distributor

- The higher the rate, the more *unlikely* the customer was to have installed equipment without the program.
- More savings are attributable to the programs.



#### Electric and Natural Gas NTG Results

#### Small Business Program Process **Evaluation (RI-22-CX-Proc)**

Rhode Island Energy (RIE) operates a long-standing Small Business Program (SBP) that provides deeply discounted retrofits to business customers who consume less than one million kWh/year. The program subsidizes the installation of efficient equipment, including custom and prescriptive measures. In September 2022, RIE contracted with Cadeo to conduct a process evaluation to assess program activities and identify opportunities for program enhancement. Although the SBP has successfully reached thousands of Rhode Island small businesses, it will need to adapt as low-cost savings from lighting change outs decline.

#### Key Findings:

- 1. The RIE SBP operates effectively and has many features that can support the program as it adapts.
- 2. Program contractors are completing projects on schedule, but customer-directed projects need more attention.
- 3. Increased labor costs are affecting the program's ability to retain skilled labor.
- 4. Main Street canvassing approaches can be effective for reducing the cost of serving very small businesses and may help the program engage underserved small businesses (including those minority- and women-owned).
- 5. There are opportunities to customize marketing materials for small businesses and further support program contractors in outreach.

## **Methods**

#### Interviews with three program staff and seven programaffiliated contractors

Survey with 106 participant and 139 nonparticipant businesses

Focus Groups with 12 nonparticipant small business representatives

Literature review and jurisdictional scan

### **Motivations to Participate**

#### Weatherization 69% Upgrade old/inefficient equipment (n=105) 85% HVAC 68% Identify strategies to reduce energy cost (n=105) 83% Thermostats 65% Access incentives (n=102) 80% New LED lighting 59% Lighting controls 59% 48% Water heater 47% 50%

Access on-bill repayment financing (n=103) Increase comfort (n=102) Word of mouth recommendation (n=101) 24% Contractor recommendation (n=103)

Measure Interest Among Nonparticipants Who Are Likely to Participate (n=59)



Participants are satisfied with their program experience and sought to improve the efficiency of their spaces. Nonparticipants face challenges paying for upgrades, especially when they lease their space however they are interested in comprehensive projects, including weatherizing their space and obtaining HVAC.

## Recommendations

- Promote the on-bill financing path to encourage wider adoption and overcome first cost barriers.
- Use financing to expand access to measures that offer energy savings and other benefits.
- ✓ Increase tracking and follow up for customer-directed projects
- Ensure the labor rates and reimbursement schedule reflects recent cost increases.
- Deploy strategies that expand the effectiveness of Main Street outreach efforts.
- Expand marketing and collateral tools to support a range of communications and promotion of measure packages.



Appendix B: Energy Efficiency Vendors

# 2023 ENERGY EFFICIENCY VENDORS

The following list includes contractors and subcontractors performing work directly for Rhode Island Energy Energy Efficiency programs in 2023 that were counted in the full-time equivalent analysis and additional companies who assisted customers to secure equipment rebates, for example through the new construction, high efficiency HVAC, and upstream lighting programs. The list also includes the Community Action Program agencies and their subcontractors involved with the delivery of the income eligible program, whether under Rhode Island Energy funding or WAP/LIHEAP funding.

The list is organized by state, with companies then listed alphabetically. Rhode Island firms are listed first. Of the 626 companies, agencies, contractors and sub-contractors listed here, 68% are either headquartered in Rhode Island or have a physical presence in Rhode Island. 20% are Massachusetts-based companies with no physical presence in Rhode Island. 3% of companies are Connecticut firms. The remaining firms have offices in the other New England states or outside of New England.

210 Plumbing	Newport RI	AM Electric LLC	Warwick RI
24K Construction	Riverside RI	American Heating, Plumbing & Sprinkler, Inc.	North Providence RI
A & R HVAC	Johnston RI	American Home Heating And AC	Cranston RI
A & T General Maintenance & Repair	Bristol RI	Amgen	West Greenwich RI
A Perry Heating	Exeter RI	Anchor Insulation Co. Inc.	Pawtucket RI
A To Z Plumbing, Heating & Air	Riverside RI	Anchor Mechanical Services LLC	Westerly RI
A Westerfield Plmg	Wakefield RI	Andrade & Co LLC	North Providence RI
A&L Mechanical Inc	Providence RI	APB Plumbing & Heating	Cumberland RI
A&M Compressed Air Product, Inc.	East Providence RI	Aquidneck Pools & Spas	Portsmouth RI
A&T General Maintenance & Repair	Bristol RI	AR Heating & Cooling Inc	Cranston RI
A. Barber Excavating & Environmental	Warwick RI	Arden Engineering Constructor	Pawtucket RI
A/Z Corp	Cranston RI	Ardente Supply Co Inc	Providence RI
Absolute Haitian	Lincoln RI	Arema HVAC	Greenville RI
Advanced Comfort Systems	North Smithfield RI	Armor Insulation	Cumberland RI
Advanced Heating & Cooling	Greenville RI	Association Of Energy Ser	Providence RI
Advanced Pro Insulation	Pawtucket RI	Aten Energy Conservation	Pawtucket RI
Advantage Engineering	North Kingstown RI	Atlantic Compressor & Vacuum Inc	West Warwick Bl
Aero Mechanical Inc	Johnston RI	Atlantic Control Systems Inc	Poston Pl
Affordable Htng & AC	North Providence RI	Atlantic Control Systems inc	Coventry Pl
Air Conditioning Services of New England	Cranston RI	Atlantic Comfort Systems	West Warwick BI
Air Flow Inc	Coventry RI		
Air Metalworks Ltd	Carolina RI	Atlas Copco	North Kingstown Ri
Air Quality LLC	Cranston RI	Automated Temperature Controls	Cranston RI
Air Synergy LLC	Providence RI	B & B Natural Gas	Woonsocket RI
Air Tech Heating & A/C	Rumford RI	B&D Boiler Removal	Pawtucket RI
Air Tech Pro HVAC	Warwick RI	B2Q Associates Inc	Providence RI
Airtemp HVAC	Johnston RI	Barlow Heating LLC	Warwick RI
AJ's Plumbing & Heating	North Providence RI	Barrett Plumbing & Heating Inc	West Greenwich RI
AK Mechanical	Coventry RI	Barrington Plumbing and Heating Inc	Barrington RI
Al Danti & Son Plumbing & Heat	South Lancaster RI	Baum Energy	Warren RI
All Comfort Heating and Cooling	Bradford RI	Becks Refrigerated Services	Chepachet RI
All Phase Heating & Cooling	Hope RI	Beneficial Energy Products	Pawtucket RI
All Star Insulation	Providence RI	Berard Heating & HVAC	Warwick RI
Almeida Plumbing & Heating	Greenville RI	Bileau HVAC Inc	Woonsocket RI
Alpha Mechanical	East Providence RI	Bill Identity Inc	Warwick RI

Bill's Direct Plumbing & Heating Blue Light Energy LLC **BMB** Services LLC Boss Heating & Cooling Inc **Bouckert Industrial Textiles** Brittain Electric Inc Buckley Htg & Cooling Butler & Sons Plumbing and Heating Inc C & K Electric Co. Inc. C. Caswell Plumbing **C.E.S Construction** Caiozzo Plumbing Cal Supply Company Calyx Retrofit **Campbell Plumbing LLC** Capwell Heating and Air Carjon Air Conditioning & Heating, Inc. Carter Bros Inc Caseys Oil & Propane **CD** Heating Inc Century Sheet Metal Inc Certified Energy Consultants, LLC Chace Co **Charland Enterprises Chaves Services** CJ's Plumbing & Heating Specialists **Clermont Mechanical Plumbing Cmags Heating & Air Conditioning** Coldmasters Temp Cont Inc Comfort Zone Inc **Commercial Heating Service Inc Concept Home Services LLC Connolly And Sons Heating Services** Consumers Propane, Bousquet Oil Continental Engineering Inc **Coverall Mechanical Services LLC** Creative Plumbing & Heating In Crew Remodeling & Construction **Cross Insulation Crown Supply Company Inc** CSV Mechanical **Custom Coatings Inc CV** Construction CW Cummings Plumbing Co D & D Metal Works D & V Mechanical Inc Dalkia Energy Solutions LLC Danico LLC David Parrillo Plumbing, Heating & Son LLC Delmonico Enterprises Plg **Delo Mechanical Contractor** 

Bristol RI Smithfield RI East Greenwhich RI Charlestown RI Woonsocket RI Jamestown RI Peacedale RI Cranston RI Providence RI Jamestown RI Woonsocket RI Warwick RI Portsmouth RI Lincoln RI Middletown RI Hope Valley RI Smithfield RI Pascoag RI Portsmouth RI Cranston RI **Riverside RI** Rumford RI Manville RI Pawtucket RI Middletown RI Smithfield RI Glendale RI Warwick RI Providence RI Hopkinton RI Cranston RI Bradford RI Harmony RI Woonsocket RI Johnston RI Cranston RI Newport RI Newport RI **Cumberland RI** Providence RI South Kingstown RI Slatersville RI Cumberland RI Coventry RI North Providence RI Westerly RI Wakefield RI East Greenwich RI Hope RI Cranston RI Coventry RI

**Delta Mechanical Contractors** Dennis Pratt Plumbing & Heating **Dillion Boiler Services Dimeo Construction** Dirocco Plumbing and Heating Services LLC **Disciullo And Son Plumbing DMV** Industries Donovan & Sons **DR Refrigeration Services Driver's Plumbing & Mechanical** DSM Rebates OTV Dudek Oil Dupuis Oil Co Dynamic Air Systems Inc E Nunces Plmbg & Htng Installation E.A. Marcoux & Son Inc E2S Energy Efficiency Services, LLC Earthlight Technologies LLC East Bay Air Systems East Coast Plumbing LLC Eastern Electric **Eastern Refrigeration Ecologic Spray Foam Insulation** Ed Sylvia Plumbing **Eddys Weatherization Electrical Wholesalers Inc** Elite Heating & Cooling LLC **Emerald Reconstruction LLC** Emergency Response Plumbing Heating and Air Conditioning Inc Emery HVAC **Energy Conservation Inc Energy Efficient Exteriors Energy Geeks Energy Machinery Inc Energy Management Collaborative LLC Energy One Energy Source** Engie Insight Services, Inc. ESB HVAC Evergreen Plg & Htg **EW Energy Solutions** F W Webb Co F&S Electric Falcone Plumbing and Heating Feula Plumbing & Heating Figlozzi Plg & Htg Fleetwash Inc Flex Technology Park LLC FM Bodington Plbg & Htg Inc Garden City Elementa Gas Works

Newport RI Harrisville RI Lincoln RI Providence RI Johnston RI Warwick RI East Providence RI S Attleboro RI Providence RI Providence RI Providence RI Warren RI Pawtucket RI East Providence RI Riverside RI Woonsocket RI West Warwick RI Cranston RI **Riverside RI** Wakefield RI Exeter RI Smithfield Crossing RI Tiverton RI Narragansett RI Providence RI North Kingstown RI Pawtucket RI Johnston RI Warwick RI Mapleville RI Wood River Junction RI Pawtucket RI North Smithfield RI Pawtucket RI Warwick RI West Warwick RI Smithfield RI Westerly RI North Providence RI Warwick RI North Kingstown RI Warwick RI Bristol RI Westerly RI Johnston RI Peacedale RI Warwick RI North Kingstown RI Little Compton RI Cranston RI Westerly RI

Gem Air Services Gem Plumbing & Heating Services, Inc. Global Sheetmetal Inc **Global Tech LLC** Gold Standard Plumbing **Goularts Petroleum** Great North HVAC Green & Healthy Homes Initiative Green System Consulting Greenville Plg & Htg **Greenwich Insulation** Greenwood Plumbing & Heating Grenier & Sons Plumbing & HVAC LLC Hanlon Electric Hans Handyman LLC Hart Engineering Corporation Hawkes Plg & Htg Co Inc. Heru HVAC LLC High-Tech Engineering Inc Holgate Plumbing and Heating Honeywell International Inc. Horizon Mechanical, LLC Houle Plumbing & Heating **Howards Heating HSP Construction LLC Hussmann Corporation** Hydro Earth lasimone Plumbing & Heating Inovis Energy Inc Installed Measures Interstate Mechanical LLC Island Carpentry Inc J & K Supplemental Plumbing Inc J&E Comfort Air J&L Heating and Air Conditioning J.B. Cote Construction Inc. J/Z HVAC Jacobson Energy Research Jake Lavoie Plumbing and Heating LLC Jason Truppi Plumbing Jenkins Construction Co Jeo HVAC LLC Jim Steitz Plg & Htg IM HVAC JMC Mechanical LLC JO Plumbing Joaquin HVAC & Ref Inc Johnston Electric JPS JR Professional Services K & B Cooling & Heating

Providence RI Lincoln RI Warwick RI Pawtucket RI Coventry RI Compton RI Providence RI Providence RI North Kingstown RI Smithfield RI Coventry RI Warwick RI Foster RI West Greenwhich RI Foster RI North Kingstown RI Fiskdale RI Pawtucket RI Hudson RI **Tiverton RI** Smithfield RI Cranston RI Greene RI North Kingstown RI West Greenwich RI **Barrington RI** Warwick RI North Providence RI West Warwick RI Coventry RI Johnston RI Newport RI East Greenwhich RI Johnston RI Pawtucket RI Cumberland RI Providence RI Providence RI Charlestown RI North Providence RI Middletown RI Smithfield RI Greene RI Pawtucket RI Slatersville RI Warwick RI Portsmouth RI **Fiskeville RI** Middleton RI Fast Greenwich RI Lincoln RI

K&R Heating and Cooling Kaeser Compressors Inc. **Kazounis Plumbing Heating** Kent County Mechanical Kwik Plumbing & Heating L & B Remodeling L.T. Comfort LLC Lamara & Sons Lancellotta Plumbing & Drain Cleaning Liberty Plumbing & Heating Lighting Retrofit Services, Inc Lincoln Sheet Metal Inc Litemor Lombardo Electric Co Lovewell Heating & Cooling M Norberg Plumbing M&M Electric Main Street Plumbing LLC Malony's Oil Mario's HVAC Services LLC Martel Plumbing and Heating Mastro Electric Supply Co Inc. Matt Flush LLC Matt's Mechanical McKee Bros Oil Corp MDH Plumbing & Heating LLC MD's Handi Services Mechanical Republic LLC Melco Plumbing Mercury Tec Inc Michael Freitas Plg & Mech Micheletti Oil Midstate Heating & Cooling MJ Heating & A/C **MO HVAC Service** Modern Mechanical LLC Moldanado Construction, Inc. Moonworks Motion MPG Mechanical MPH Globa Mr. Rooter MTS Mechanical **Multitask Construction Mutual Engineering** N Francis Plumbing LLC National Efficiency Supply (NES) National Refrigeration Inc National Service Co Navarro Construction LLC Netzero Insulation Technologies, Inc.

Cranston RI North Kingstown RI Warwick RI Johnston RI North Providence RI Warwick RI Greenville RI North Scituate RI Jamestown RI Cranston RI Central Falls RI Providence RI Warren RI Westerly RI North Scituate RI Providence RI Pawtucket RI Pawtucket RI **Central Falls RI** Lincoln RI Providence RI Greenville RI Smithfield RI **Cumberland RI Tiverton RI** Exeter RI Providence RI Lincoln RI East Providence RI Pascoag RI Johnston RI Hope Valley RI **Tiverton RI** Warwick RI Warwick RI Providence RI Woonsocket RI Lincoln RI Charlestown RI Warwick RI Warwick RI East Providence RI Warren RI Warwick RI North Kingstown RI Lincoln RI Warwick RI Warwick RI Central Falls RI Warwick RI

Lincoln RI

New England Boiler Works Newbury Insulation Newport Electric Construction Nexgen Mechanical, Inc Nexrev LLC Nite Oil Northeast Coil, Inc. Northeast HVAC LLC **Oberon Initiatives Inc** Ocean State Group LLC Ocean State Weatherization **Oceanline Combustion** Oil Central Inc One Utility LLC **Optima Technology** Papas Plumbing Pecchia Plumbing and Heating Pelletier & Son Plumbing Peter Bibby Ponagansett LLC Petro Heating & AC Services Phillips Plumbing & Mechanical Phil's Heating & AC **Phoenix Plumbing LLC** Pierce Plumbing and Heating LLC Polaris Plumbing and Heating Inc Preferred Heat Inc Premier Heating and Air Presto Plumber LLC Pride Heating & Air Conditioning **Prime Heating** Prism Consulting Inc. **Process Cooling Inc** Prospect Charter Care SJHSRI LLC **Prout Mechanical LLC** Providence Mech Serv **Quality Mechanical Services Inc** R Ariza Contractors LLC R Distefano Heating & Cooling LLC **R&D HVAC And Refrigeration Service** R.B. Queern & Co Inc R.E. Coogan Heating Inc Ray Ciampanelli Plumbing & Heating Co **Reddy Piping Concepts Inc** Regan Heating and Air Conditioning **Reichert And Sons Renaissance Sheet Metal LLC** Renewable Energy Solutions LLC Restivos Heating & A/C Retail Business Services, LLC Rhode Island Builders Ass **Rhode Island Renovations LLC** 

West Greenwich RI Woonsocket RI Bristol RI North Kingstown RI Warwick RI **Tiverton RI** Cumberland RI Westerly RI Greenville RI Providence RI North Smithfield RI Pawtucket RI Pawtucket RI Cranston RI West Warwick RI Johnston RI Warwick RI North Kingston RI Providence RI Warwick RI Cranston RI Westerly RI Charlestown RI Ashawav RI North Kingstown RI Providence RI **Barrington RI** Westerly RI Bristol RI Cranston RI Providence RI Rumford RI North Providence RI Providence RI Smithfield RI Exeter RI Pawtucket RI Warwick RI North Kingstown RI Portsmouth RI Warwick RI Peace Dale RI Cranston RI Providence RI **Chepachet RI** North Kingstown RI Warwick RI Johnston RI North Providence RI East Providence RI Warwick RI

**RI Insulation RI Sheet Metal LLC Rich Burns Plumbing & Heating Rise Engineering** Rivera Renovation, Inc **Roberto Rodriguez Service LLC ROI Energy Investments LLC Rooter Man Plumbers** Rowlett & Son's HVAC RSM **Rumford Mechanical Systems Ryan Heating Cooling** Sakonnet Plumbing & Heating Santoro Oil Schneider Electric Scituate HVAC LLC SDS Heating & Cooling Sensible Heating & Air Conditioning LLC Shane Sprague - Comfort Sheahan Printing Shearman Oil Sherwood Enterprises Siemens Industry Inc. Simaan Contracting Size Construction Skawski Heating & Cooling Sosa & Son Corp A/C Heating South County Gas Services South County Mechanical Services Inc Stable, HVAC Mechanical Contractor Standish Heating & AC Statewide Insulation Statewide Plbg & Htg Sterling Mechanical Services LLC Suffolk Construction Sunrise Plumbing and Heating Superior Comfort Inc Superior Insulation LLC Superior Led Lighting LLC SW & Sons Plumbing & Heating LLC Sylvester Sheet Metal Inc T. Gomes Heating & Cooling **Temptec Mechanical** The Affordable Plumber LLC The Energy Efficiency Group The Healthy Home Shop The Lab Insulation The Moore Company The Plumber Company The Plumbing Doctor The Pool Doctor of Rhode Islnd

Hope RI East Providence RI Portsmouth RI Cranston RI Middletown RI Providence RI Providence RI Johnston RI Cranston RI Johnston RI Rumford RI Charlestown RI Little Compton RI Providence RI Providence RI North Scituate RI Coventry RI Hope Valley RI Coventry RI Woonsocket RI Portsmouth RI North Kingston RI Providence RI Newport RI Cranston RI **Providence RI** Woonsocket RI Narragansett RI Wyoming RI Pawtucket RI Coventry RI North Smithfield RI Cranston RI Coventry RI Lincoln RI Johnston RI Bristol RI Smithfield RI Warwick RI North Providence RI West Warwick RI Warwick RI Providence RI Pawtucket RI Providence RI Portsmouth RI Providence RI Westerly RI Johnston RI Charlestown RI Coventry RI

The Pool Source Thermal Energy Theroux Properties, Inc. Thomas Wojcieohowski Master Plumber Tim The Plumber Tom Peters Plg & Htg Tomas HVAC **Tony Refrigeration LLC** Tops Lighting (Electric Supply Company) **Total Comfort Heating & Cooling** Trade Posted TRC Environmental Corp. Tuma Insulation **Twins Plumbing & Heating** U.G. Nason's Inc **Ultimate Plumbing** Universal HVAC LLC Uzzi Plumbing & Heating Valcourt Heating Inc Valley Heating & Cooling Vaughn Oil Verdant Technologies Verizon Communications Vermont Energy Investment Corporation Vicmir And Sons Inc Vincent Heating & Air Inc Vision Energy Solutions Inc. Vortechs HVAC Inc W Herb Plumbing W.W. Weatherization and Construction Wakefield Heating Service Wakefield Plumbing LLC Weathertek Insulation Wesco Oil Company Wickford App & Lghtng William Harris HVAC Solutions William J Riley Plumbing & Htg Wood's Heating Service Wordell Heating & Cooling LLC World Energy Efficiency Services LLC Wright Comfort Solutions Inc Wyman And Sons Electric **XPT Plumbing LLC** Xtremo HVAC LLC Zawadzki Plumbing & Heating Inc Zeno Controls, LLC Zincones HVAC Zuri Construction LLC **Cohen Ventures** eKings Evercharge Inc

Cranston RI Cranston RI West Greenwich RI Kingston RI Bristol RI Portsmouth RI Smithfield RI Providence RI Providence RI Cumberland RI Coventry RI East Providence RI Warwick RI North Kingstown RI Middletown RI Warwick RI North Providence RI Westerly RI Tiverton RI Wyoming RI Smithfield RI Providence RI Providence RI Lincoln RI **Riverside RI** Conventry RI Providence RI Wakefield RI Harrisville RI Narragansett RI Wakefield RI Middletown RI Greene RI Esmond RI Pawtucket RI **Barrington RI** Warwick RI East Providence RI Little Compton RI Woonsocket RI Coventry RI East Greenwich RI Exeter RI Providence RI Warwick RI Coventry RI Warwick RI Providence RI Oakland CA Chatsworth CA Palo Alto CA

Frontier Energy Inc Voltus Inc Apex Analytics **Certified Brands** Oracle America Inc. Simple Energy Inc Acme Plbg & Mech Ameritech Contracting Inc Best Energy **Budderfly Inc BVH Integrated Services** Capitol Light Ceil Plbg & Htg Duncklee Inc Dynamic Building & Energy EMCOR New England Mechanical Services JKMuir LLC Lantern Energy McNeil Heating & Cooling R And R Mechanical HVAC Sharpco Inc Simmons HVAC Smart Thermal Solutions LLC South Shore Heating & Cooling, Inc Sustainable Ecovations Wattsaver Lighting Products Williams & Associates Parker Davis HVAC International Inc Lighthouse Consulting Group Ace Hardware HH Associates Us Inc Slipstream Group Inc W.W. Grainger, Inc. Alpine Home Air Products 3 D Lighting 5C Energy Advanced Energy Services AES AGS HVAC Services, LLC Air Masters HVAC Serv Of NE Air Tight Insulation Allstate Plumbing and Heating Co Alternative Weatherization American Plant Maintenance Andelman And Lelek Engine Atlantic Electrical Distributors **B & L Ductless Baylies Insulation Baystate Energy Reduction BCS Efficient Cooling BDL Plumbing & Heating** 

Sacramento CA San Francisco CA Boulder CO Wheat Ridge CO Colorado Springs CO Boulder CO North Stonington CT Middletown CT Pawcatuck CT Shelton CT Bloomfield CT Hartford CT Pawcatuck CT Stonington CT North Stonington CT South Windsor CT Rocky Hill CT Norwich CT Pawcatuck CT Griswold CT North Grosvenordale CT Pawcatuck CT Pawcatuck CT Pawcatuck CT Middletown CT East Hartford CT North Stonington CT Doral FL Atlanta GA Oak Brook IL Chicago IL Chicago IL Lake Forest IL Shepherdsville KY Franklin MA Attleboro MA Hopedale MA Hudson MA Westport MA Fall River MA New Bedford MA North Attleboro MA Fall River MA Woburn MA Norwood MA Shrewsbury MA Swansea MA Fall River MA Norwood MA Assonet MA North Attleboro MA

Bluemetal An Insight Comp **BNB HVAC** Boston Light Supply, Inc. Briggs Mechanical **Bruin Corp Building Science & Construction** Bulbs.com **BW Research Partnership** C2S Energy Caliber Building and Remodeling Camara's HVAC Services, Inc. Clatyon St. Pierre Plmg & Htg CMA Heating & Air **Coastal Energy Services Columbus Energies Inc Commonwealth Electrical Complete Energy Services Complete Recycling Solutions Concord Electric Supply Consortium For Energy Efficiency** Cotti-Johnson HVAC Inc CPS Heating and Cooling Dan The Super Contractor HVAC Dannys Daughter And Son Delta Electro Power Inc. **Diamond HVAC** DMI **DNV Energy Insights USA** Dodge Data & Analytics LLC **Dube's Plumbing DXS New England** E & V Oil Co Inc/Iron Man Htng **Ecoplus Recycling Services LLC** Efficiency Forward Inc Efficient Buildings **Electric Supply Center Elite Energy Services** Elite Heating & Air Conditioning Elkus Manfredi Architects **Energy Federation Inc Energy Monster** Gaia Temperature Controls Gary Moreau Heating & Ac Granite City Electric Graybar Electric Co. H-I-M Mechanical Systems, Inc HP Plumbing & Heating Srvc Inc Independent Electric Supply Insulate 2 Save Insulation & Energy Solutions Insulation R Us

Watertown MA **Billerica MA** Lynn MA North Attleboro MA North Attleboro MA Braintree MA Worcester MA Wrentham MA New Bedford MA Sandwich MA Westport MA South Dartmouth MA North Dartmouth MA Swansea MA Swansea MA Worcester MA Raynham MA Fall River MA Brockton MA Middleton MA Taunton MA Westborough MA Webster MA Millville MA Haverhill MA Westport MA Needham MA Medford MA Bedford MA Blackstone MA Peabody MA Swansea MA Foxborough MA Medford MA Bridgewater MA **Burlington MA** Fall River MA Swansea MA Boston MA Westborough MA Worcester MA Blackstone MA Ludlow MA Quincy MA Westwood MA **Bridgewater MA** Mattapan MA Somerville MA Fall River MA Holbrook MA Fall River MA

Ion Lighting Distribution Inc. Ironman Heating & Cooling J Sheet Metal And HVAC Kafin Oil Company Inc **KP Sullivan Heating LLC** L.L. Mechanical Contracting Last Call Heating And AC Lawrence Air Systems Inc Lefevre Electric Lexicon Energy Consulting M Sardinha & Sons Plmb & Htg Machs Mechanical Marc's Sheet Metal, Inc. Mazzarella Mechanical Mikes Heating & AC MJ Electric & Refrigeration, Inc Nesco (Needham Electric Supply) New England Energy Concepts New England Solar Hot Water Inc Northeast Electrical Distributors (NEEDCO) Northeast Energy Efficiency Partnerships Northern Energy Services Inc. NRM Pacheco Plumbing & Heating **Plumbers Supply Company Precision Climate Control R&S Heating & AC Rapid HVAC & Refrigeration** Raymond D Melanson Electric and Safety Corp **Rebello Weatherization Inc Rethinking Power Manageme Retrofit Insulation Revise Energy Rexel Energy Solutions** Secure Energy Solutions Seekonk Supply Inc Silvia Heating & Ac SMBLC LLC Standard Electric Stateline Fuel & Burner Service Inc Steam Trap Systems Superior Energy Solutions, Inc. Supply New England Synapse Energy Economics Inc. T&J Heating, Air Conditioning and Plumbing, Inc. Taylor Heating & A/C **Thackaberry Heating & Cooling** The Brattle Group The Lighting Gallery Thermo Solutions, Inc Theroux Mechanical

West Springfield MA Swansea MA New Bedford MA Woonsocket MA Blackstone MA Mansfield MA Middleboro MA Seekonk MA Taunton MA Concord MA Fall River MA Attleboro MA Assonet MA Westport MA Fall River MA Rehoboth MA Canton MA North Dighton MA Canton MA Brockton MA Boston MA Newton MA Canton MA Fall River MA New Bedford MA Mansfield MA Assonet MA Seekonk MA Somerset MA Swansea MA Boston MA Fall River MA Haverhill MA Taunton MA East Longmeadow MA Rehoboth MA Lakeville MA Norwood MA Wilmington MA Seekonk MA Newburyport MA Swansea MA Attleboro MA Cambridge MA Bellingham MA Attleboro MA Hopkinton MA Cambridge MA Taunton MA Swansea MA S Attleboro MA

TNZ Energy Consulting Inc	Stoughton MA
Triangle Refrigeration	Fall River MA
Uplight Inc	Somerville MA
Utility Energy Inc	Fall River MA
UTS Energy Engineering LLC	Quincy MA
Vicor Corporation	Andover MA
Victory Heating & AC Co	Bellingham MA
Wattson Home Solutions	Worcester MA
Wayne's Sheet Metal Inc	Rehoboth MA
Enerwise Global Technologies	Baltimore MD
Arca Recycling Inc	Edina MN
Commercial Green Solutions LLC	Charlotte NC
Cprime Inc	Cary NC
Hallmann Sales LLC	Graham NC
KT&T Distributors	Nashua NH
TBD Lighting LLC	Bedford NH
The Granite Group	Concord NH
Briteswitch LLC	Kingston NJ
elgeo	Maplewood NJ
Rayz Lighting Inc	Paterson NJ
Absolute Plumbing	Albuquerque NM
Atelier Ten USA LLC	New York NY
Big Shine Worldwide Inc	Newburgh NY
Customertimes Corp	New York NY
Energyhub Inc	Brooklyn NY
Eric Mower And Associates	Syracuse NY
Fuseideas LLC	Buffalo NY
Green Building Research Institute	New York NY
Homeserve USA	New York NY
Leak Finder Inc	Akron OH
Questline Inc.	Dublin OH
Building Performance Association	Pittsburgh PA
CMC Energy Services Inc.	Fort Washington PA
Constellation Energy	Philadelphia PA
Verdant Environmental Tec	Montreal QC
Clearesult Consulting Inc	Austin TX
Dell Marketing LP.	Round Rock TX
Lopez Negrete Communication	Houston TX
Pinnacle Technical Resources Inc	Dallas TX
Rexel/CLS	Dallas TX
Coastal Lighting LLC	Chesapeake VA
Leidos Engineering LLC	Reston VA
Green Mountain Electric Supply	Colchester VT
Optimal Energy Inc	Hinesburg VT
Cadeo Group LLC	Seattle WA
Anquil Environmental	Milwaukee WI
Tetra Tech	Madison WI

Rhode Island Energy Efficiency Council One Capitol Hill, Providence, RI 02908

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