

2023 Commercial and Industrial Energy Efficiency Solutions and Programs

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1. Overview

The Commercial and Industrial (C&I) programs are designed first and foremost to help RI Energy's business, institutional, and government customers to save on their utility bills by reducing their energy consumption. The programs support other customer objectives as well, including sustainability goals, reducing operations and maintenance expenses, and improving air quality.

The Company continuously evaluates customer needs and market dynamics to develop program enhancements and adjust offerings to secure more comprehensive savings, improve program operating efficiency, and evolve program designs to drive market transformation across multiple end-uses. The C&I sector encompasses a diverse range of customers.

For large customers where the Company sees the greatest opportunities for cost-effective savings, RI Energy operates primarily through an account management approach. Each account manager focuses on one or more industry verticals, often supported by an implementation vendor (through the Industrial, Grocer, or Restaurant Initiative) or through a large-scale agreement (a Strategic Energy Management Plan). This enables the Company to tailor offerings to meet the needs of specific customers, apply learnings from customers operating in similar industries or facilities, and encourage repeat program participation through this relationship-based approach.

Smaller customers are served primarily through the Small Business Direct Install (SBDI) initiative. SBDI offers audits, enhanced incentives, financing, and installation services through either the Company's turnkey vendor or an alternate vendor of the customer's choice.

The Upstream program subsidizes high-efficiency equipment to encourage distributors to stock and promote this equipment. Any C&I customer, regardless of size, can benefit from the Upstream pathway simply by purchasing qualifying high-efficiency lighting, HVAC, hot water, or kitchen equipment.

The C&I sector encompasses a diverse and complex set of customers. RI Energy is focused on a Market Sector Approach for commercial and industrial programs. This approach allows the Company to address customer needs that are shaped directly by the industry and geographies in which the customers operate, and on strategic and commercial pressures specific to the industry or sector, resulting in customized solutions that fit customers' needs and increase participation in energy efficiency.

The detailed program descriptions provided in the Annual Plan explain how programs are continuously evolving, building from one plan year to the next. They translate high-level strategies into specific actions and activities that secure savings for customers and meet other goals set forth by stakeholders. The detail in this attachment is designed to allow stakeholders, the Public Utilities Commissioners and staff, and other interested parties to delve deeply into the complex interplay between specific customer and building types, program implementation and delivery, incentive design, and high-efficiency technologies.

What to look for in 2023

In 2023, the Company 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 the Company anticipates that lighting will continue to constitute the largest single source of electric savings in the 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 2023, some highlights of the Company's efforts will be to:

2. Scale up the Building Analytics initiative to help customers optimize the performance of HVAC and other systems.
3. Improve technical processes by streamlining savings calculators, revisiting burdensome data collection practices, and better leveraging site visits to identify EE opportunities.
4. Expand on equity efforts begun in recent years.
 - Conduct targeted training activities to upskill the program delivery workforce on specific focus areas, such as HVAC, building controls and automation, and building envelope.
 - Monitor and help mitigate supply chain disruptions and inflation impacts.
 - Streamline the Large Commercial and Industrial New Construction pathways, required documentation, and savings calculations.
 - Sunset efforts that have failed to demonstrate the potential to generate significant cost-effective savings, including the Telecommunications Initiative and various demonstrations to reduce costs and focus on efforts with greater savings potential.
 - Investigate promising new measure offerings, including gas leak detection and repair.

In some cases, these are long-term investments where it may take years to realize the full benefits. For example, a more highly trained workforce can complete better system installations for years. Likewise, Building Analytics systems can drive significant savings over time but often

requires a year or more to yield results. Similarly, the Whole Building New Construction approach seeks to influence the design of buildings that take several years to complete.

The focus areas in the 2023 Plan reflect ideas and insights that have evolved in part through collaboration with the Energy Efficiency & Resource Management Council (EERMC) and its consulting team, the Office of Energy Resources (OER), and the Division of Public Utilities and Carriers (the Division), as well as program vendors, customers, and trade allies.

Although equity has historically been less of a focus for the C&I sector than Residential, it is a significant focus in this Plan, in alignment with the objective set forth in the Least Cost Procurement (LCP) standard. To that end, the Company will continue to offer robust opportunities to small businesses customers, with a specific focus on woman and minority-owned enterprises, hiring multilingual small business auditors, conducting participant surveys in multiple languages, and promoting equitable hiring practices through vendor agreements. The Company is continuing to monitor the Equity Working Group's progress and will implement new recommendations as appropriate and prudent within the C&I portfolio.

The Company has also collaborated with stakeholders to address workforce development issues in alignment with the LCP standard, which states, "The distribution company shall include wherever possible and practical partnerships with existing educational and job training entities." To meet these objectives, the Company plans to ensure contractors and engineers participating in the programs receive proper training on identification, design, and installation from manufacturers or others and encourage achievement of advanced certifications to further enhance expertise. To complement this effort, the Company will sponsor targeted training sessions to upskill the workforce in supporting high-performance buildings, including trainings on advanced controls for HVAC and lighting. These efforts are described under Cross-Cutting Programs.

Finally, this plan will be implemented in an environment of rapidly rising inflation, potentially driven by government stimulus, workforce shortages, and supply chain disruptions. According to the U.S. Bureau of Labor Statistics' most recent Producer Price Index (PPI) report (April 2022), nationwide producer prices have risen 11.0% over the past year and 16.2% since February 2020 at the outset of COVID-19.¹ Lighting, HVAC, and other distributors have reported significant price increases since the start of COVID lockdowns in February 2020. Inflation is a headwind that

¹ U.S. Bureau of Labor Statistics. (2022, May). PRODUCER PRICE INDEXES – April 2022. U.S. Department of Labor. <https://www.bls.gov/news.release/pdf/ppi.pdf>

will reduce the portion of customer project costs covered by program incentives and lengthen project payback periods. Furthermore, growing equipment delivery timelines, compounded by workforce shortages, are causing extensive project delays – with many projects that would have been completed in 2022 pushed into 2023. This phenomenon is likely to continue for the foreseeable future. Several customers that have historically been active in the program have scaled back spending on energy efficiency and capital measures.

Commercial & Industrial Programs

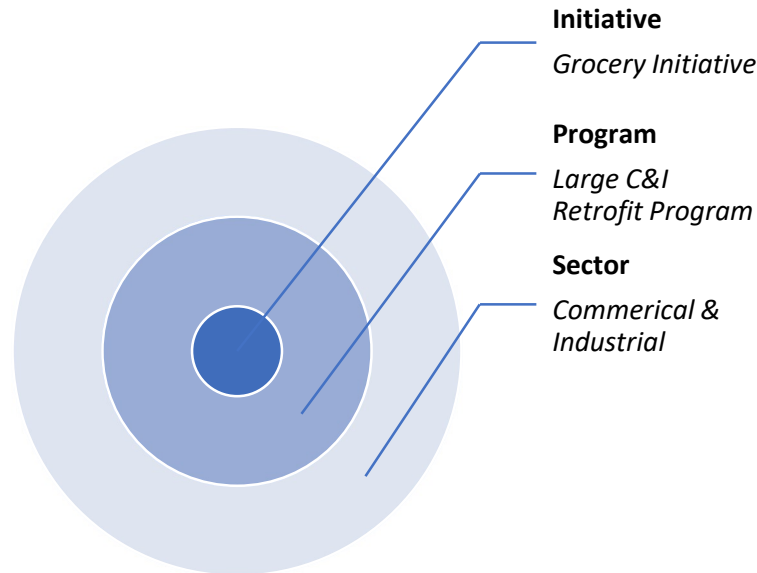
There are five C&I energy efficiency programs.

Table 1. Commercial and Industrial Programs

Large Commercial and Industrial New Construction
Large Commercial Retrofit
Small Business Direct Install
Connected Solutions (Active Demand Response)
C&I Multifamily Program

All C&I customers are eligible to participate in the Large Commercial and Industrial New Construction Program and the Large Commercial Retrofit Program. The Small Business Direct Install (SMB/DI) Program, however, is restricted to customers that consume less than 1,000,000 kWh per year. Larger and more complicated measures not offered by the SMB/DI vendor can be accessed by small business customers through the New Construction or Retrofit Programs. Within a given program, there may be one or more initiatives that offer a targeted approach or tailored delivery design to more effectively and efficiently attract and secure savings from target customers. An initiative is defined as a go-to-market strategy within a Program that promotes a subset of measures or services within that program and/or targets a certain segment of customers. Examples include the Grocery Initiative and Industrial Initiatives, primarily within the Large Commercial and Industrial Retrofit Program (though some savings and incentive spend within these programs are captured in the New Construction Program). Anticipated savings, budgets, and participants for each initiative are included in the program-level totals. All initiatives support both electric and gas measures, unless otherwise noted or self-evident (e.g., lighting initiatives only cover electric measures).

Figure 1. Relationship between Programs and Initiatives



This attachment provides detailed descriptions of C&I energy efficiency and active demand response programs and initiatives, including detail on the target market (customer/building types), eligibility requirements, offers, implementation and delivery, and changes for 2023, along with the rationale for changes, in a standardized table format.

Enabling strategies for efficient delivery, better customer experience, and participation in energy efficiency programs are covered in the Finance and Marketing sections. Workforce development is addressed in the main text and covers initiatives for training, education, and awareness. A list of measures and incentives can be found at the end of this Attachment. The Company will continue to engage in pilots, demonstrations, and assessments; please refer to Attachment 8 for a detailed scope and list for each pilot, demonstration, and assessment proposed for the 2023 Energy Efficiency Plan.

Financial mechanisms structures are described in Section 7. Table 2 below presents the format of the descriptions of those

Table 2. Financial Mechanisms Structure

Customer type	This section highlights the customer consumption in kWh or customer type for which the mechanism is best suited
Loan size	Shows maximum loan size
Maximum Tenor	Shows the maximum length of time for which a customer can borrow funds

Loan Volume	Shows the dollar volume of loans outstanding or the range of funds borrowed in the past years or both
Benefits to customer	Describes the benefits of a mechanism to a customer
Limitations	Describes the limitations of a mechanism to a customer
2023 Actions	This area is included for EBF and C-PACE as the Company is working with RIIB and others on these mechanisms
More information	This area describes where more information can be found on the mechanism such as numeric tables. This area may also include additional information such as justifications for OBR fund injections (gas) or OBR rightsizing (electric)
Relevant notes	This area contains notes and will vary from mechanism

2. Large Commercial and Industrial New Construction Program

2.1 Offerings

The services and incentives offered are designed to promote and support high performance building design, equipment selection, and building operation. This program offers both technical assistance and financial incentives based on projected energy savings performance to incentivize building beyond the current RI program energy baseline. Technical assistance ranges from simple plan review and efficiency upgrade recommendations to complete technical reviews. Incentives are available for building owners, design teams, post occupancy verification, and Zero Net Energy certification and verification.

The Large Commercial and Industrial New Construction Program incentives both new equipment at existing sites and new construction/major renovation projects. Baselines and eligibility guidelines for new equipment are described under New Equipment/End-of-Life Replacements in Section 2.3.2.3. The C&I Retrofit initiatives apply to new equipment as well, though the savings and budget are part of the New Construction program.

Since early 2021, the Company has offered four pathways for ground-up new construction or major renovation projects . In 2023, the Company will consolidate and simplify the structure described below, as described below.

Pathway 1: Energy Use Intensity/Zero Net Energy Ready

This pathway 1 will incentivize buildings to achieve very high-efficiency designs based on energy use intensity (EUI), which measures total annual energy consumption per square foot

throughout a whole building. Specific EUI targets have been developed for several sectors, including elementary schools, high schools, offices, libraries, and public safety facilities. Any new building over 20,000 square feet will be eligible. For other building types, a site-specific EUI category will be available to ensure that any building type can participate in this pathway.

Ranges have been established for both Tier 1 and Tier 2 buildings. Tier 2 buildings are high-efficiency buildings designed to achieve savings relative to energy code and ISP. Tier 1 buildings are designed to achieve even higher efficiency and are considered net zero energy ready. This encourages a wider range of building types to participate by offering ranges of EUI rather than one specific target. Furthermore, the program is designed to drive additional savings by offering higher incentives for buildings that drive further below the Tier 1 EUI targets. (For example, a building with a Tier 1 EUI target of 30 would receive additional incentives for additional incentives for an EUI of 25.)

For customers seeking to develop Zero Net Energy (ZNE) buildings, the program offers enhanced technical assistance from industry experts as well as funds for ZNE certification.

Pathway 2: Streamlined/Systems

This pathway will be offered to any building type in any stage of design 20,000 square feet or above. There will be a variety of technical assistance services for each project depending on the stage of design. The program process requirements will be streamlined from the required documents to the technical assistance procedures to encourage more participation for the simpler building designs through this pathway.

Incentives are provided based on individual energy saving measures implemented. A spreadsheet analysis tool is used to estimate energy savings and incentives early in the project. This pathway is especially appropriate for major renovations that do not include the entire building (e.g., tenant fit-outs), or for customers that lack the resources or appetite to pursue the EUI-based approach.

2.2 Initiatives Primarily Targeting Large C&I New Construction

Performance Lighting Plus

Any customer with a commercial meter is eligible to participate in this initiative. All projects that qualify under this incentive must:

- Be a new construction or renovation project that includes the installation of new LED light fixtures and qualifying lighting controls for commercial, industrial, educational, or municipal building(s).
- Be a code-dependent project or extensive/substantial renovation.

- Average a minimum of 2,000 lighting operating hours per year (before controls).
- Provide maintained light levels in accordance with the recommendations of the Illuminating Engineering Society of North America's 10th Edition Lighting Handbook or supporting Design Guides.

Objectives of this initiative are to:

- Move the market forward for luminaires and systems with additional savings and capabilities.
- Increase the deployment of demand responsive lighting.
- Performance Lighting may also be utilized in Retrofit applications as well. Please see the Retrofit portion of this attachment for more details.

Performance Lighting Plus incentives are offered in two tiers.

Tier 1 – LED lighting with Luminaire Level Lighting Controls or Wirelessly Accessible Controls:

This pathway offers an incentive of \$0.55 per gross kWh saved greater than 40% below code for the building or space type and must meet the following requirements: 80% of lighting project load must be controlled LED fixtures (listed in the Design Lights Consortium (DLC) Qualified Product List or RI Energy approved by the Company), with all controlled LED fixtures wirelessly accessible to initialize, configure, and commission. Individual fixture addressability and luminaire level lighting control (LLLC) as outlined by DLC is optional. The project must include high-end trim (task tuning) of luminaires with the goal of achieving IES recommended light levels per the tasks and space requirements. High-end trim is defined as: The capability to set the maximum light output to a less-than maximum state of an individual or group of luminaires at the time of installation or commissioning. The project must demonstrate a minimum of one additional control strategy per fixture and two different control strategies at the project level (e.g., occupancy, daylighting, or task tuning/high-end trim). If luminaires are not LLLC, RI Energy will consider "room based" controls on a case-by-case basis.

Tier 2 – LED Fixtures with Networked Lighting Controls System or Qualifying LLLC systems:

This pathway offers an incentive of \$0.85 per gross kWh saved greater than 40% below code for the building or space type and must meet the following requirements: 80% of project load must utilize a networked lighting control system (or qualifying LLLC system), as defined by DLC. The system must be capable of energy monitoring and demand response, as defined by DLC. The project must include high-end trim (task tuning) of luminaires with the goal of achieving IES-recommended light levels depending on task and space requirements. High-end trim is defined as the capability to set the maximum light output to a less-than maximum state of an individual or group of luminaires at the time of installation or commissioning. The customer must provide a control narrative for the system with a minimum of two different control strategies at the

project level (e.g., occupancy, daylighting, task tuning/high-end trim, and it must be fully commissioned with reporting. RI Energy recommends that these systems demonstrate demand response capability.

RI Energy has worked with the EERMC's consultants to modify incentives and requirements to encourage the adoption of luminaires and systems that offer greater savings and control flexibility. In addition, the incentives have been restructured to increase transparency to vendors, allowing for increased participation. The incentives and requirements are modeled on a successful offering in Connecticut.

Products Offered Through "Upstream"

When the Company refers to an "Upstream" initiative it is referring to the practice of offering an incentive directly to a manufacturer or distributor (mainly distributors in Company initiatives) of efficient equipment instead of offering an incentive to the customer through an application form after the sales transaction has been made. This allows them to sell the product for less and make it more appealing to a potential customer. It also allows the customer to acquire this more efficient equipment without the burden of paperwork and waiting for reimbursement.

Upstream HVAC initiative is available to all C&I customers. Discounted premium efficiency HVAC equipment and controls at the point of sale at qualified distributors including air-cooled air conditioning and heat pumps systems, water-cooled air conditioning and heat pump

Upstream Gas initiative is available to all commercial customers. Discounted premium efficiency water heating equipment at the point-of-sale through qualified distributors. The 2023 initiative will include water heaters (indirect and on-demand), water heating boilers, and condominium water heaters.

Upstream Kitchen Equipment initiative is available to all commercial customers.

Discounted premium efficiency electric and gas kitchen equipment at the point of sale at qualified distributors. RI Energy currently offers more than 9 different types of energy efficient cooking equipment across both fuels.

Upstream Lighting initiative is available to all commercial customers, primarily focused on Retrofit. Discounted luminaires, luminaires with controls, lamps, and controls at the point of sale at qualified distributors.

All Upstream products follow a similar implementation and delivery process. RI Energy targets marketing to relevant customers and works in collaboration with qualified distributors, who also conduct marketing. Distributors sell products directly to consumers or relevant intermediaries

(e.g., electricians) and provide discounts at the point of sale. The distributor then submits data on the purchase and the Company pays the incentive to the distributor and conducts quality control visits.

2.3 Eligibility

The New Construction Program is divided into two main categories to address the two primary new construction target markets: those pursuing ground-up new construction and major renovations, and those investing in new equipment and major systems upgrades.

New Buildings, Additions, Major Renovations and Tenant Fit-Ups

This is specifically for projects that are ground up new construction or major renovations, all of which traditionally involve some level of design and are governed by code.

New Equipment and End-of-Life Replacements

Typically, there is no design component to these projects. Customers purchasing new energy-consuming equipment or replacing equipment that has reached the end of its useful life are incentivized to purchase and install energy efficient equipment. Customers are encouraged to make efficient choices with every category of equipment purchase. Baseline energy use is considered to be the energy code or industry standard practice where applicable. Savings are calculated using the baseline. Where equipment has reached the end of its life, savings from new measures are calculated not from the old equipment, but assuming all new equipment against the current codes and standards baselines. This works the same way as the “systems approach” described below, whether through prescriptive or custom pathways.

2.4 Implementation and Delivery

Pathway 1: Energy Use Intensity/Zero Net Energy Ready

The RI Energy EE implementation team reaches out to customers, owners, and developers regarding new construction project opportunities. (Several customers and design teams have become repeat participants as well.) If the customer decides to participate in energy efficiency programs, the Company’s team engages with the customer project design team and facilitates a design charette to establish customer project goals. Based on the project goals, an EUI target range is established, and a technical assistance (TA) vendor is engaged to model the baseline project and proposed design project.

Potential ZNE projects include the following additional steps: After vetting the project to ensure it meets basic program requirements, a ZNE expert is brought in to assist the customer in assessing the project and identifying services that may be needed to achieve the ZNE goal. The ZNE consultant will be engaged by the customer, with the fee cost-shared between RI Energy and the customer. The ZNE consultant is engaged from early in the project

through the end of design development. The consultant provides services such as EUI benchmarking to help set EUI targets, conducting an energy charrette, load reduction analysis, and HVAC selection analysis and model feedback.

The customer then signs a MOU that outlines the EUI target that is included in the project documents and the post occupancy EUI verification plan and the other incentive details. An application including the energy conservation measures and systems agreed upon is signed by the owner. By signing the MOU and application, the owner commits to implementing the efficiency recommendations and accepts the associated incentives. A Minimum Requirements Document (MRD) created by the RI Energy engineer is created as part of the application process. The RI Energy sales team remains engaged during the design development and construction process to ensure energy efficiency measures and solutions are incorporated in the building projects to achieve the EUI targets.

After completion, the project undergoes an inspection that includes both a visual inspection and review of construction design submittals. If any HVAC controls or variable-load ECM have been incorporated in the project, field measurements are required to verify operation standards, as described in the MRD. The EUI measurements are then monitored over a prescribed period, under the prescribed conditions, before final incentive payment is made based on the savings achieved. An optional verification incentive is offered to assist customers in identifying and correcting issues that may arise in the first year of occupancy to help achieve the EUI. Verification documents must be submitted to obtain the optional verification incentive.

Pathway 2: Streamlined/Systems Approach

The RI Energy implementation team approaches customers, building owners, and owner representatives regarding new construction or major renovation projects. When a customer decides to move forward with a project, the customer has a choice to use their vendor of choice to install measures or to develop the project with technical assistance from the RI Energy team. Once the project is installed, the project undergoes inspection of installed measures and review of design submittals. Incentives are paid out to the owner on documented savings from the project.

2.5 Changes for 2023

New Buildings Pathways

RI Energy revised its approach to new buildings in 2021, launching a four-pathway structure. In 2023, the Company will consolidate these into two pathways and offer additional enhancements, with the goal of improving the customer experience and in turn driving repeat participation from customers and design teams.

Originally, the pathways were designed to serve both the Massachusetts and Rhode Island markets. Having delivered the program using this structure, RI Energy has developed a streamlined structure better tailored to the Rhode Island market. Rhode Island has few buildings greater than 100,000 square feet under development, and thus little need for a separate program to serve this size class. ,

Specifically, the Path 1 will be combined with Path 2 to create a single EUI-based pathway; Path 3 will be combined with Path 4 to create a pathway where incentives directly relate to measure-based savings (as opposed to a holistic approach). Both pathways will contain multiple tracks. The tracks in the EUI-based path would be based on building type, while the tracks in the savings-based path would be based on project design phase.

Combine Path 1 and Path 2 – EUI/ZNE Pathway 1

- Tracks within the pathway depending on the building type
- Adopt a tiered EUI target range and incentive structure.
- Building size for participation in all paths 20,000 square feet and greater.
- Streamline the Memorandum of Understanding (MOU) agreement
- Streamline the technical assistance study process

Combine Path 3 and Path 4 – Systems Streamline Pathway 2

- Same set of incentives for all projects in pathway
- Building Size 20,000 square feet and greater
- Streamline the MOU
- Streamline the technical assistance study process

The Company also intends to revise the memoranda of understanding (MOU's), reduce the number of forms requiring signature, and streamline the technical assistance (TA) study process to reduce the time and cost required to participate.

New Equipment and End-of-Life Replacements

Qualifying measure types are updated frequently, especially for the Upstream program. Changes in 2022 (and incorporated into the 2023 Plan) include:

1. **Upstream HVAC** includes several new measures. Most notably, heat pumps were moved Upstream in the second half of 2022. Energy recovery ventilators were also added in 2022.
2. **Upstream Food Service** is adding conveyer toasters and vending misers.
3. Air curtains are being added as a downstream measure. This measure is the result of a successful 2022 demonstration.

2.6 Other Considerations

Customer Feedback

Customer feedback is gained through implementation team interactions with customers and design teams, who regularly provide insights on what types of technical assistance and design support moves builders, architects, and customers to adopt the high-efficiency measures and design practices.

Market Characterization

The Company leverages municipal electronic permitting information (subject to this data being easily and broadly accessible) to identify new facilities under design in Rhode Island. The team contacts candidate facilities identified about assistance available through the New Construction program.

3. Large Commercial Retrofit Program

3.1 Offerings

The Company has several pathways by which customers can participate in the Large Commercial Retrofit program for energy efficiency in existing buildings. Customers can participate via the:

- **Prescriptive application** process;
- By working with a RI Energy Sales Representative or a Project Expeditor (PEX) to complete a **Custom application** for any energy improvement that is not covered by the Prescriptive pathway; or
- Via the **Upstream program** for Lighting (described with other Upstream products under New Construction).

The Retrofit program also offers initiatives targeting specific market segments, such as the grocery and industrial initiatives that focus on specific needs of that customer type. The Company also serves some of its largest customers through Strategic Energy Management Plans (SEMPs). These are described in more detail below.

The Company has found that although sector-specific initiatives (Industrial, Energy Smart Grocer, etc.) and SEMPs are helpful in achieving greater savings and completing measures beyond lighting, they do not cover the entire C&I customer base. Regardless of whether customers qualify for these pathways, a sales representative is typically assigned to cover each large C&I account, enabling the company to target energy efficiency offerings to each customer. This typically includes customers with at least 1 million kWh or 100,000 therms of annual energy usage.

The following areas are specific to a technology or practice but do not address a specific market sector are also included as part of the Large Commercial Retrofit program and are included in this section of the plan:

1. Building Operator Certification
2. Equipment & System Performance Optimization
3. Performance Lighting
4. Customer Owned Streetlights
5. Company Owned Streetlights
6. Combined Heat and Power (CHP) and Fuel Cells

3.2 Initiatives Primarily Targeting Large Commercial Retrofit

Industrial Initiative

The Industrial Initiative offerings are available to all manufacturing and industrial customers. The following assistance is provided under the Industrial Initiative: incentives, free facility audits, technical assistance, project management, installer and customer education sessions, production systems and line efficiency coordination, and support in identifying and implementing process-related energy efficiency improvements that increase the efficiency of both energy use and business processes.

The initiative will continue to expand outreach to customers in the 200 to 400 kW range to encourage greater participation by medium-sized industrial customers. Historically, the Industrial Initiative has primarily targeted large C&I customers to ensure economies of scale. By expanding outreach to mid-sized customers, the Company intends to improve parity among customer sizes and capture projects with rapid paybacks such as remaining opportunities for LED retrofits, variable frequency drive installation, and enhanced controls.

The Industrial Initiative has helped diversify the Electric portfolio, with 66% of electric savings from January 2016 through July 2022 deriving from non-lighting measures including process equipment and controls (30%), compressed air (16%), HVAC 7%, and motors & drives (5%) – as well as contributing significant Gas savings from process improvements.

Grocery Initiative

EnergySmart Grocer (ESG) is an initiative that serves commercial customers who sell food at the retail or wholesale level. ESG offers technical assistance, project management, targeted incentives, financing, and education sessions for installers and customers. This initiative primarily delivers electric savings through lighting and refrigeration upgrades. In 2022, the vendor's compensation structure was altered to encourage greater emphasis on non-lighting measures.

The initiative has been in place for roughly a decade. While low-hanging opportunities related to refrigeration and lighting have been largely saturated, some additional opportunities remain – especially among late adopters, although these customers are often more difficult to engage. The initiative is also now focusing on operations and maintenance (O&M) measures submitted through the ESPO initiative, as well as advanced controls measures.

In 2022, the Company collaborated with its vendor to conduct an assessment investigating the energy and carbon reduction benefits of integrating leak detection and repair as a standard offering. At the time of this writing, the Company anticipates the assessment will be completed in late 2022, at which point a determination will be made whether to include this as a standard offering. Typically, refrigerant leak surveys are only performed when leaking refrigerant is visible to the naked eye or identified as a problem by the customer.

National and Regional Restaurant Initiative

The Serve Up Savings (SUS) initiative serves regional and national restaurant chains. Restaurants with multiple locations within Rhode Island only are served by the Small Business Program. The initiative offers technical assistance, project management, incentives, and collaboration with franchisors to develop a package of efficiency measures that will work for their franchisees.

Telecommunications Initiative

This initiative was designed to serve mobile, fiber optic, and cable data companies and their associated infrastructure. It offers technical assistance, project management, and incentives to these customers. The initiative began delivering audits and reports to customers in Q1 2021, with a focus on identifying HVAC measures in particular. Given the limited success of the program in building a pipeline or securing savings thus far, the Company plans to terminate this initiative and eliminate the associated costs. Telecommunications customers would still be served through other pathways, potentially including the Industrial Initiative.

Strategic Energy Management Plans (SEMP)

The Strategic Energy Management Plan (SEMP) Initiative is available to the Company's largest C&I customers. These partnerships offer an integrated package of technical, financial and program management support to drive broader and deeper energy savings. This initiative targets customers that commit to achieving deeper energy efficiency savings, have sufficient in-house sophistication to make organizational changes to incorporate multi-year energy planning, and are motivated by corporate and institutional sustainability goals. Each participating customer agrees to specific savings targets.

The SEMP Initiative provides customers with customized support and flexibility to address the energy efficiency and sustainability opportunities of the organization and its facilities in the context of the Company's self-identified business needs. Working with a SEMP provides the customer the opportunity to think long-term about their energy needs and equipment, resulting in more comprehensive savings compared to traditional energy efficiency programs. Where appropriate and valued by the customer, automated benchmarking is available to help demonstrate the impact of energy efficiency at these facilities.

The Company has existing SEMP agreements in place with customers that operate in the following sectors: Colleges and Universities, Chain Restaurants, Health Care, Industrial, Municipal and State Government.

In 2023, the Company will continue to partner with these large customers to meet shared energy efficiency and sustainability goals, while expanding the scopes of these agreements to include other customer programs, such as demand response and clean transportation. The Company will continue to partner with OER's Lead by Example program to achieve energy savings goals with public entities, including state agencies, state colleges and universities, and municipal buildings.

Building Operator Certification

RI Energy sponsors Building Operator Certification (BOC) classes for facility engineers and maintenance staff. This training helps these operators to make their buildings more comfortable and efficient. Many participants follow up BOC training by actively seeking out energy efficiency solutions at their facilities, which drives savings through the program.

Equipment & System Performance Optimization

The Equipment & Systems Performance Optimization (ESPO) Initiative is available to all C&I customers averaging greater than 2,000 building operating hours a year. ESPO helps customers optimize the efficiency of their HVAC, refrigeration, compressed air, and steam systems. This may include retro-commissioning (RCx), operations & maintenance (O&M), and monitoring-based commissioning (MBCx). The new Building Analytics Program provides a refined MBCx offering. ESPO is a means of capturing savings and may be delivered through other initiatives (such as the State SEMP or Industrial Initiative). This initiative covers several technologies and end-uses identified in the Market Potential Study, including boilers (steam and hot water), waste energy recovery, refrigeration, scheduling and set point optimization, energy management systems, and rooftop units.

ESPO provides multiple pathways for participation depending on the customer's energy efficiency opportunity, building characteristics, and the sophistication of existing control systems:

Low-Cost Tuning offers prescriptive incentives to customers for systems in need of common tuning measures. These measures are often identified through facility audits or retro-commissioning efforts, which can also serve as vehicles to identify additional efficiency measures. Pre-approval for implementation had been required before the customer or outside party can receive an incentive on the installation. The Company is developing guidelines for documenting baseline conditions to enable program participants to implement some Low-Cost Tune-Up measures without pre-approval. Incentives are provided to sites where the baseline condition and proposed upgrade are documented through a simple data input, which is used to determine savings at the measure level. Only selected HVAC, steam, refrigeration, and compressed air measures are eligible for prescriptive incentives. Customers participating in the two other ESPO pathways described below may opt to apply for Low-Cost Tuning incentives, eliminating the need to submit custom savings calculations.

Targeted Systems and Whole Building & Process Tuning offer a custom RCx approach. Targeted Systems Tuning offers an in-depth investigation of specific process or end-use. The Whole Building and Process Tuning pathway offers a comprehensive approach to RCx for customers with a functional control system in place and electric usage greater than 5,000,000 kWh annually. Investigation funds are available for System Tuning and Whole Building & Process Tuning. Incentives are offered per unit of savings for measures implemented through this pathway, with higher incentives available for meeting certain site-specific thresholds.

MBCx is a process intended to maintain and continuously improve building performance over time achieved through monitoring and analysis of large amounts of data. Also known as real-time energy management, this approach requires the installation of a software platform and monitoring equipment that captures and analyzes operational data from a facility's building automation system. Larger systems may continuously monitor hundreds of control points within a building. MBCx systems can provide fault detection and diagnostics capabilities, meaning building operators can find equipment that is not operating as intended due to faulty programming, current settings (e.g., scheduling or setpoints), damaged equipment, or simply systems in need of maintenance. The MBCx pathway is similar to the Whole Building and Process Tuning approach in that most savings calculations are custom; however, this pathway assumes that identified measures will persist for at least three years.

Building Analytics is a new initiative that at the time of this writing the Company anticipates will launch in the second half of 2022, with customer recruitment and savings ramping up in 2023.

This initiative will fund system set-up costs for MBCx systems from a closed qualified service provider (QSP) list. This structure will address the historical barriers to MBCx adoption, including:

- Up-front support for installation of systems that produces unknown savings.
- Identifying sites that would benefit from MBCx.
- Vetting best-in-class providers and recommending them to the specific customer base each provider is best able to serve.
- Minimizing program transaction costs to customers and providers through an implementation vendor with expertise in this niche field, working with a limited pool of QSPs, and providing up-front guidance on savings calculations and required documentation.
- Selection of QSP's that, in most cases, provide ongoing service analysis to help customer facilities staff interpret MBCx system output and improve system functionality.
- Improving measure persistence through long-term service contracts, training for facilities staff, and a focus on long-lasting measures like physical repairs and reprogramming of control systems.

The Company is working to standardize the process of completing and documenting RCx savings calculations and classifying different measure types by developing a guidebook. This should assist customers and trade allies participating in the MBCx and System and Whole Building pathways. Calculating savings and classifying RCx and controls measures has posed a significant challenge for ESPO participants and created an administrative burden for program implementation staff. The guidebook will answer common questions and eliminate points of confusion.

Program staff have suggested that unit ventilators and other gas measures located in school classrooms and other occupied zones (as opposed to heating and cooling equipment located in mechanical rooms) frequently need significant tuning or repairs. This may be an excellent opportunity in schools.

Energy Management Systems (EMS) show the second-highest savings among Electric non-lighting measures in the Market Potential Study. Although ESPO is designed to improve the performance of existing systems, MBCx and Tuning investigations very often lead to the installation of new EMS equipment or reprogramming of controls, which are treated as EMS for program purposes (New Construction or Retrofit, depending on the situation).

Performance Lighting

Any customer with a commercial meter is eligible to participate in this initiative. All projects that qualify under this incentive must:

- Average a minimum of 2,000 lighting operating hours per year (before controls).
- Provide maintained light levels in accordance with the recommendations of the Illuminating Engineering Society of North America’s 10th Edition Lighting Handbook or supporting Design Guides
- The Customer must submit a copy of the Manufacturer’s technical specification sheets (“cut sheets”) for each type of eligible equipment to be purchased.

Incentives will be offered in two tiers: Tier 1 – Performance Lighting – LED lighting with Luminaire Level Lighting Controls or Wirelessly Accessible Controls and Tier 2 -Performance Lighting – LED Fixtures with Networked Lighting Controls System.

Lighting Designer Incentives (LDI) are offered to lighting design teams for qualifying Performance Lighting projects at both new and existing buildings. RI Energy maintains a list of qualified Lighting Designers, as well as Engineers and Architects who have demonstrated at least 5 years of lighting design experience. RI Energy markets the program to the construction and design community. Lighting designers cannot sell products for the project that they are receiving LDI.

The Lighting Designer must have at least one of the following qualifications:

- Lighting Certified (LC) – granted to those who successfully complete the NCQLP (National Council on Qualifications for the Lighting Professions) Lighting Certification Examination
- CLEP – certification from the Association of Energy Engineers (AEE);
- IALD – International Association of Lighting Designers Professional Membership status
- CLD – the IALD sponsored Certified Lighting Designer, certification.

Guidelines related to the LDI incentive:

- This incentive goes directly to the lighting design team to fund their efforts to achieve lighting energy savings while maintaining quality lighting design.
- LDI equals 20% of the customer lighting incentive for Performance Lighting Tier 2 projects, 15% of the incentive for Performance Lighting Tier 1 projects, and 10% of the incentive for all other projects.
- There is a \$15,000 maximum per project.

These incentives have been recalibrated to encourage projects to achieve higher tiers in Performance Lighting.

Customer-owned Streetlight Equipment

The customer-owned LED streetlighting initiative is available to any city or town in Rhode Island serviced by Rhode Island Energy for electric service on the Customer Owned Equipment S-05 tariff (Rate S-05), as well as fire districts, municipal water utility boards, Kent County Water Authority, Rhode Island Commerce Corporation, Narragansett Bay Commission and the State of Rhode Island. Incentives are available for qualifying LEDs and/or controls associated with either the dimming or part-night run hours as set forth in the streetlighting tariff.

The majority of Rhode Island’s municipal and state streetlights have been converted to LED’s already, although opportunities remain to implement advanced controls. This is a success story, due in large part to efforts by the Company and actors within state government.

Company-owned Streetlight Equipment

Eligibility for the incentive for company owned LED streetlighting is dependent on service on the 3 unmetered streetlight tariffs, S-06, S-10 and S-14 with exchange of an existing roadway or post-top style, Incandescent, Mercury Vapor or High-Pressure Sodium Vapor sourced luminaire to one of the Company’s LED offerings. The tariffs allow LED street or post-top fixtures to be available to all customer groups. All company owned street and area lights are operating at a dusk-to-dawn schedule.

The majority of Rhode Island’s municipal and state streetlights have been converted to LED’s already, although opportunities remain to implement advanced controls. This is a success story, due in large part to efforts by the Company and actors within state government.

Combined Heat and Power

Eligibility

To qualify for a Combined Heat and Power (CHP) energy efficiency incentive, a proposed project must meet the following conditions:

- Host customers must be in the franchise service area of the Company.
- Both new construction and retrofit installations are eligible; in either case, the baseline system must be documented.
- The CHP system must meet the applicable efficiency requirements listed in Table 2. requirement. System efficiency is calculated as Annual Useful Energy/Annual Natural Gas Input where

$$\text{Annual useful energy} = \text{Net Annual kWh} * 3,413 / 100,000 + \text{utilized thermal output (therms)}$$

$$\text{Annual natural gas input} = \text{CHP gas input in therms (HHV)}$$

- The equipment to generate electricity may be a combustion-based system (internal combustion engine, gas turbine engine, steam turbine), or a fuel cell system, and the facility will capture waste heat for use in the facility.
- For combustion-based systems greater than 250 net kW, projects must reduce carbon emissions related to overall site energy use by a minimum of 25%, which may be achieved through other simultaneous EE installations.
- The project must pass cost effectiveness screening.

In order to support Rhode Island’s climate objectives while still promoting CHP, for 2023 the Company proposes the following changes which are reflected in this plan.

- Total combustion-based system efficiency must be greater than or equal to 60%
- Back pressure and extraction turbines are no longer eligible
- For systems greater than 250 net kW, eligibility for incentives will be available to only those CHP projects that reduce carbon emissions related to overall site energy use (including source generation, even if out of state) by a minimum of 25%; the amount of carbon reductions may be achieved through other simultaneous EE installations to achieve the site carbon reduction goal. In this way, long term investment in larger fossil fuel generation facilities would be offset by deep reductions in consumption.

Offerings

If a project has been shown to be cost effective, presents no capacity or reliability concerns, and has met the required eligibility criteria, it will be eligible for a non-variable incentive. ²

Table 2. Determination of Non-Variable Incentive Level for CHP Projects

SYSTEM	INCENTIVE ≤ 250 kW	INCENTIVE > 250 kW and reducing carbon footprint of site by 25% or more
Fuel cell	\$900 per net kW	\$900 per net kW
Combustion-Based CHP with total system efficiency ≥60%	\$1,000 per net kW	\$1,000 per net kW

CHP (fuel cell or combustion-based) that utilizes more than 25% opportunity fuels, renewable natural gas, or biogas as the fuel source	\$1,250 per net kW	\$1,250 per net kW
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For the purpose of determining the non-variable incentive level, the Company has defined opportunity fuels, renewable natural gas and biogas as gaseous fuels derived from the biological breakdown of waste.

The CHP system costs must include: all system, auxiliary, and interconnection costs, and CHP maintenance. If the CHP system is receiving a tax credit or other financial arrangement that reduces the cost of the CHP project to the customer without distributing that cost reduction as an additional cost to other electric or gas ratepayers, it may be treated as a credit against the cost of the CHP project.

The CHP incentive package cap from the Company will be 70% of the total project cost inclusive of the installation incentive, incentives related to gas service, present value of any performance incentive, system reliability procurement incentive, and any other incentives related to the transaction. For new construction installations, the incentive cap will be 70% of the incremental cost difference between the cost of what would have been done absent the CHP project and the cost of the CHP project. In the event the incentive is greater than 70% of the total project cost, the incentive amount will be reduced to an amount equal to or less than 70%. A minimum of 20% of the energy efficiency incentive payment will be held until commissioning is completed.

An additional optimal operations and maintenance energy efficiency incentive capped at \$20/kW-year (\$1.66/kW-month) and \$50/kW-year (\$4.16/kW-month) for systems utilizing biogas will be offered as part of the incentive package for any project with a net output greater than one MW for a period of up to 10 years. No payments will be made until the unit is in operation and provides demonstrated load reduction. The optimal operations and maintenance energy efficiency incentive will be made semiannually based on actual metered load reduction. Load reduction performance will be based on the net daily metered kW output of the system during ISO-New England’s on-peak periods averaged over each six-month period.

The optimal operations and maintenance energy efficiency incentive provides the customer with a post-commissioning incentive for maintaining or increasing the total system efficiency of the CHP system. This helps ensure the system is operating efficiently and that the system capacity savings are in-line with those bid into the ISO-NE Forward Capacity Market.

The customer will repay a portion of the incentive to the Company if the project is abandoned, removed from the premises, sold, or otherwise no longer utilized as the primary source of heat and electricity by the customer, within 10 years from the date of final incentive payment authorization. The repayment will be the energy efficiency installation incentive times the number of years remaining until the required ten years of service divided by ten.

Identification and Recruitment of Qualified CHP Projects

The Company currently works with vendors and customers to identify CHP opportunities at customer locations. The Company promotes CHP systems and outlines the process for qualification and implementation of CHP facilities through the Company's energy efficiency programs. The Company has sales and technical staff that are the primary points of contact for customers and vendors with potential CHP projects. The Company will continue to communicate criteria for CHP assessment and will communicate to vendors so that their presentations to customers will be more consistent with Company technical assistance requirements.

Targeted Outreach and Support for Potential CHP Customers

The CHP offering is available for small, medium and large customers. The Company also works with TA vendors that provide assistance in identifying and executing CHP projects. In addition, the Company works with CHP vendors to offer RI customers smaller CHP units where installation and operations are turn-key. Other strategies that will enhance CHP acceptance will also be considered, such as: preparing and distributing case studies, providing customer plant operator training depending on the size and complexity of the system and whether the management of the system will be outsourced, and providing easier customer access to CHP unit performance data.

Installation of Incremental or Additional Energy Efficiency Measures for Customers who have Previously Installed CHP

The Company will individually review the installation of proposed incremental energy efficiency measures for customers who have previously installed CHP on site or who are adding additional energy efficiency equipment that might affect the performance of an existing CHP unit. The Company will carefully categorize and protect the benefits attributed to previously installed CHP projects, while at the same time foster any additional cost-effective energy efficiency measures that further reduce total energy use.

There are two types of project categories. The first category is "CHP Optimization" and involves measures which are installed with the purpose of increasing the output or operating efficiency of the existing CHP or other distributed generation (DG) unit; for example, the addition of combustion air precooling on a gas turbine CHP unit. In order to maintain compliance with ISO-NE's FCM rules, such projects will be tracked in the FCM, if applicable, as incremental output of the associated DG facilities. The second category is "Incremental EE", which includes "traditional" energy efficiency measures installed with the intent of reducing energy consumption in sites that have previously installed CHP. These measures may or may not affect CHP performance and output.

For locations where an existing CHP unit covers a large percentage of the total load at the facility, additional energy efficiency savings measures installed may result in lowering the

output of the CHP system instead of a load reduction on the Company's electric grid. Therefore, to assess savings that can be claimed by the energy efficiency programs, hourly load mapping may be required to accurately assess the net savings on the Company's electric and gas distribution systems, which will be assessed at the Company's electric and/or gas revenue meters at the customer's site. In cases where a typically electric measure (like lighting) reduces the electric load enough to require reducing the CHP output, gas savings may result from a normally electrical energy efficiency measure and could be claimed in the Gas utility DSM programs.

Scoping Study/Qualification

The Company will offer technical assistance on CHP projects beginning with a preliminary scoping of a potential site. This scoping will be based on an evaluation of:

- Monthly (or hourly, where available) electric, gas, and other fuel usage
- All site-specific forms of thermal energy end-uses
- Coincidence of electric and thermal loads
- Proposed project cost
- A high-level analysis of the fuel resources needed for the project and any actual or anticipated fuel capacity constraints and/or actual or anticipated fuel reliability issues

This scoping will determine if further study of the site appears favorable, i.e., provides CHP operating hours and load factors that would be an appropriate application of CHP.

Technical Assistance Study

Assuming a favorable screening during preliminary scoping, Rhode Island Energy will offer to co-fund a TA study of CHP with the customer. The TA study will be performed by an independent, qualified engineering firm. This study will assess thermal and electric loads, propose an appropriate CHP size and technology, compile a budget cost estimate, and identify potential barriers to the technology, etc. Rhode Island Energy typically funds 50% of the cost of any TA study conducted by a preferred vendor selected by the Company, and up to 50% of the TA for other qualifying independent engineering firms. Any TA study by a CHP vendor or its representative which fulfills the CHP TA requirements may be accepted, though no co-funding will be provided. The TA study must be completed, submitted, and approved by the Company prior to implementation. The TA study must include an assessment of the likely on-peak kW reduction from the CHP given the proposed nameplate rating, the net CHP output after subtracting parasitic loads associated with the CHP, projected availability based on anticipated site-specific operating characteristics, performance data on other similar units, and a greenhouse gas analysis that estimates the change in greenhouse gas emissions expected from the project and a statement that informs the customer of the state goal to reduce greenhouse gas emissions by 45% below the 1990 levels by 2030; 80% below 1990

levels by 2040; and net-zero by 2050. (On-peak kW reduction = Net Output x Availability x % Loaded.) This kW load reduction should be used in the benefit-cost screening.

As indicated in the offering section, for CHP facilities greater than 250 net kW, incentives are only available for CHP projects that reduce the carbon footprint of the host facility by more than 25%. The TA study of the CHP proposal could include an assessment of energy efficiency measures that would help meet that objective. These opportunities themselves will be eligible for energy efficiency incentives and will help make sure that the CHP facility is correctly sized for the facility's needs and will avoid creating a disincentive for future load reduction at the site.

Cost Effectiveness

The screening for cost effectiveness specific to CHP is included in the Rhode Island Test included as Attachment 4. However, given the Division's concerns over the applicability in all circumstances of what the Division characterizes as generic economic benefit assumptions identified in the CHP economic development benefit study underpinning these adders, the Company will provide two scenarios of the benefit cost screening for CHP systems with a net output of one MW or greater: one test that includes the economic benefits adder within the Rhode Island Test, and one test that excludes the economic benefits adder. If the scenario of the screening test for the project would not pass without the economic benefits included, the Company will provide a written and well-supported justification explaining why the economic benefits are reasonably likely to be obtained. During the project notification process described elsewhere in this section for projects of one MW or greater, if any party who has intervened in the notification dockets disagrees with the Company's justification, the matter will be set for hearing at the Commission for resolution.

Other Contract Terms and Guidelines

In order to ensure proper operation of the CHP facility and persistence of energy savings, the following terms and guidelines will be required:

- As part of the TA study, a minimum requirements document (MRD) will be developed. This MRD will contain engineering hardware and operational specifications that directly affect the savings estimates developed in the TA study. Compliance with the MRD will be necessary to receive rebate payments.
- All systems greater than one MW will require electric, thermal and gas metering for commissioning and monitoring of system efficiencies.
- The project must be commissioned. Commissioning is a process following installation whereby a third party verifies that the project is installed and operating as detailed in the TA study and MRD.
- The customer must sign and produce a contract for O&M services through the first planned major overhaul of the CHP unit after post installation commissioning. On-going

O&M contracts for a minimum of 10 years from project commissioning are recommended.

- Customers applying for interconnection of a CHP systems must not operate the unit until they receive the authorization to interconnect from the Company.
- kW-demand savings achieved via the electric energy efficiency programs, including CHP, will continue to be reported by the Company to ISO-NE as Other Demand Resources (ODR) and the revenue generated will be used to fund future energy efficiency projects through the Company's programs.

Qualification

The cost of the project will be provided by a design/build or general contractor experienced with CHP projects and revised as necessary.

Options for a CHP proposal that fails cost effectiveness testing

If a CHP project does not pass the benefit-cost test, the Company will work with the customer to develop other solutions that may still support the CHP facility. Such other solutions may include one or all of the following:

- Re-analyzing the optimal size of the CHP unit, or the number of generators. A different sized CHP unit might provide better efficiencies and pass the benefit cost test.
- Identifying other load reduction opportunities at the facility. Benefits can be garnered from load reduction in lieu of achieving that load reduction through CHP.

Attribution of CHP Energy Savings to the Company

For CHP projects one MW or greater in size that meet the eligibility criteria, 100% of the project savings shall be attributed to the energy efficiency programs. For CHP projects smaller than one MW, the Company shall use the latest net to gross adjustments determined by impact evaluations conducted on the RI CHP programs. These evaluations shall be conducted at least once every five years.

Notification Process

The Company shall inform the DPUC, OER, and EERMC of any CHP project with a net output of one MW or greater (where net is the nameplate MW output minus CHP auxiliary kW). The notification shall occur after the cost benefit screening and before the offer letter is presented to the customer. For CHP projects with a net output of one MW or greater, the Company shall submit the following documents for review by the Division:

1. Documentation demonstrating that the project would not move forward without energy efficiency technical assistance and/or incentives. The documentation shall justify its finding with the following evidence:

2. A letter signed by a senior executive or site operations manager stating that the project would not move forward without the energy-efficiency technical assistance and incentive;
 - a. Documentation from the customer on all relevant leases, agreements or commitments related to the CHP system or incentive offer;
 - b. Estimated project budget
3. A complete benefit cost analysis for the CHP project using the Rhode Island Test, as well as application of this test applying sensitivities related to the removal of economic benefits
4. A report including a natural gas capacity analysis that addresses the impact of the proposed project on gas reliability; the potential cost of any necessary incremental gas capacity and distribution system reinforcements; and the possible acceleration of the date by which new pipeline capacity would be needed for the relevant area.

For any proposed CHP project greater than one MW:

1. The Company will submit a project description to the Division, providing all the pertinent details relating to the project.
2. The Division may submit information requests to the Company at any time after receipt of the project description. The Division may also submit follow-up data requests, as needed.
3. The Company shall respond to all information requests as soon as reasonably possible, but no later than fourteen days from receipt of information requests, unless the Division grants an extension.
4. The Division will make all reasonable efforts to communicate decisions around the provision of a notification of support within thirty days of the receipt of the last set of information request responses received from the Company.
5. To the extent that additional review time is required, the Division will provide notification to the Company.
6. If at the end of fifty days from the date the Company provided the project description to the Division, the Division has not provided to the Company its opinion of support or opposition to the project, the Company retains the right to make a filing with the Commission seeking approval of the CHP incentive. The Division retains its right to take any position on the project it deems appropriate and shall not be prejudiced by the fact that it did not provide an opinion to the Company within the fifty-day period.

Even if the Division provides its opinion to the Commission that the Division supports the CHP project, the Company must file a notification with the Commission, setting forth the pertinent facts relating to the project. If (i) the Commission takes no action within thirty days and (ii) the Division or any other party has not objected to the proposed project, the project will be deemed

approved. If the Division or any other party objects, the Commission will set the matter for hearing.

Stakeholders including vendors and installers provided feedback at the 2022 Rhode Island Annual CHP Public Meeting. Stakeholders expressed that the interconnection process remains the most significant barrier to CHP adoption, noting that the process is time-consuming, costly, and creates difficulty in planning projects as interconnection requirements and costs are not known until late in the design process. Stakeholders also expressed desire for streamlined interconnection and additional support for smaller CHP systems.

The Company is currently exploring options for a prescriptive pathway for micro-CHP systems. This process would simplify the interconnection process and expedite the installation time for smaller CHP systems.

Due to the high capital cost and technical requirements of installing CHP, there is a very long lead time for a successful installation. With small numbers of projects and wide ranges of possible project sizes, the Company anticipates substantial variability in MW realized in any given year. Due to the high capital cost and technical requirements of installing CHP, there is a very long lead time for a successful installation.

The Company commits to providing an updated estimate of projects in the current-year pipeline in each annual Energy Efficiency Plan and reconciliation filing to the PUC going forward.³ Direct notification shall be sent to the Division of Public Utilities & Carriers, the Office of Energy Resources, and the Energy Efficiency and Resource Management Council via email whenever a CHP project with a net output of one MW or greater is added, removed, or updated after the Technical Assistance Study and before the offer letter to the customer.

The Company is aware of a 2 MW fuel cell project under development. Preliminary savings calculations became available in late summer of 2022, and the project has not yet been analyzed in a Technical Assistance study nor screened for cost-effectiveness. The developer believes it is likely the project can be completed during 2023, provided it is financially viable. Therefore, funds for this project have been allocated in the budget and the Company will follow the appropriate notification procedures outlined above.

Rhode Island Grows continues to pursue the installation of a 13.3 MW combustion-based CHP system, however this project is currently on hold. In August 2022, a Rhode Island Superior Court Judge ruled that RI Grows is subject to town zoning. If/when RI Grows demonstrates that all zoning requirements have been satisfied, the Company will consider next steps. Per previous discussions regarding this project, any next steps taken by the Company regarding

³ Other project information such as Name*, Approximate Size of CHP (kW and Net Lifetime MWh), Location, and Current Status (Scoping, Study, Notification Process, Under Construction, Post-Inspection or Commissioning), may be provided depending on the state of advancement of CHP projects.

this CHP system would be pursued through a separate filing with the PUC outside of this annual plan. In advance of any potential filing with the PUC, the Company will supplement the notice documentation and provide to the Division consistent with the CHP notification procedures outlined above.

The Company continues to explore alternative fuel options for CHP systems, such as renewable natural gas, hydrogen, biogas, and other opportunity fuels.

3.3 Eligibility

The Large Commercial Retrofit Program serves the needs of existing buildings in their pursuit to lower energy consumption. All commercial and industrial customers are eligible for the Large Commercial Retrofit Program.

3.4 Implementation and Delivery

Customers may participate in the Large C&I Retrofit program through a variety of pathways, described below. A sales representative is typically assigned to cover any large C&I account, typically defined as any customers with at least 1 million kWh or 100,000 therms of annual energy usage. Although there is no single customer journey, the general approach is as follows:

- One or more measures is identified by the Company, the customer, or a third-party vendor, typically through a facility audit or walk-through.
- In many cases (especially custom measures), the company provides a letter committing to a specific incentive offer and laying out basic requirements. The customer signs and submits the offer letter. More details are below on custom measures.
- Once the measure is implemented, the customer notifies the Company. Company staff or vendors (often engineers) verify that the measure has been implemented in accordance with project requirements.
- RI Energy staff (administrators, engineers, and sales staff) work with the customer to ensure complete documentation and pay the incentive.

Prescriptive Application

Customers complete prescriptive applications either by printing applications from the website (<https://www.rienergy.com/RI-Business/Energy-Saving-Programs/Large-Business-Program>) or online through the Rhode Island Digital Application Portal (RIDAP; <https://www.ridap.nationalgridus.com>). Prescriptive incentives are available for a wide variety of standardized energy-efficient products with “deemed” savings values, such as lighting equipment, air compressors, variable speed drives (VSDs), and steam traps.

Upstream

The Upstream Initiatives, which offer “instant incentives” to customers for the purchase of qualified, high-efficiency products. Product categories covered include luminaires, kitchen equipment, water heating equipment, and high-efficiency heating and cooling technologies at participating distributors at a discount. Offering discounts through distributors obviates the need for individual customers to submit incentive applications, which previously was a significant barrier for non-managed accounts (smaller customers). **Error! Reference source not found.** Eliminating the need to submit applications is a huge benefit to customers, driving far greater program participation and more equitable distribution of incentive funds. These are collectively known as the Upstream Initiatives, which offer “instant incentives” to customers.

The Upstream programs impact the market both by reducing the cost of high-efficiency products compared to alternatives and by encouraging distributors to stock and promote these high-efficiency products. Note that Upstream Lighting savings and budget are captured within the Retrofit program, and Upstream HVAC and Food Service are captured within New Construction.

Custom Application

A RI Energy Sales Representative or Project Expeditor (PEX) assists customers and their vendors with completion of custom applications for any energy conservation measure that is not covered by Prescriptive or Upstream pathways. A custom measure typically requires minimum requirements document (MRD) laying out project requirements and engineering specifications. Custom measures also require detailed savings calculations completed by a combination of customer, vendor, and Company staff. For some projects, additional post-installation monitoring must be completed prior to incentive payment to ensure projects perform in accordance with the MRD.

Project Expeditors

The Company utilizes Project Expeditors (PEX) to provide turnkey services for Retrofit and New Construction energy efficiency projects for its large commercial and industrial customers. A PEX is an authorized vendor who serves as a customer’s main point of contact and personal guide to energy cost savings. Several PEX’s work closely with the Company’s account management team, who work with the PEX to evaluate EE opportunities and determine incentives.

A PEX can connect large C&I customers with the latest energy technology solutions and savings on equipment, including:

- Lighting and lighting controls

- HVAC efficiency improvements
- Energy management systems
- Variable speed drive upgrades for fans, motors, and pumps in HVAC, refrigeration, and other systems
- Gas heating and hot water system upgrades
- Compressed air solutions, including air compressors, dryers, drains, engineered air nozzles and more

3.5 Changes for 2023

Building Analytics

The Building Analytics initiative is expected to launch in the second half of 2022, including selection and onboarding of Qualified Service Providers, finalization of program materials, and initial outreach to customers. In 2023, outreach and system installation are expected to ramp up. Although it often takes a full year after system installation to achieve significant customers savings, some savings is likely to be captured in 2023.

Technical Processes

In 2023, the Company will implement multiple improvements to technical processes. The Company will also develop streamlined savings calculators for target measures, such as energy management systems. Furthermore, the Company will revisit burdensome data collection practices that can discourage customers from pursuing custom projects. The objective is to strike a better balance between the need for accurate savings calculations and the need to minimize the time required by customers and their contractors to participate in the EE program.

Finally, RI Energy engineers often conduct site visits when validating project installations and savings calculations. Going forward, the engineers will leverage these site visits not only to validate installed measures but to identify additional savings opportunities.

Trade Ally Engagement

In 2023, the Company will seek to better engage trade allies (primarily contractors) with expertise in HVAC, controls, refrigeration, and other technologies to participate in the energy efficiency programs. Broader program participation from these trade allies is critical to diversifying the Company's portfolio beyond lighting. This effort would involve building relationships with trade allies, educating them on available efficiency incentives and other program benefits, and breaking down barriers to program participation.

This effort will tie in with both the efforts described above to streamline technical processes and with the C&I workforce development activities. The Company believes this will contribute to both the installation of a greater volume of high-efficiency equipment and sophisticated control systems and to a better-trained workforce.

Telecommunication Initiative

This initiative launched in Q1 of 2021. The program has produced negligible savings to date, with a limited pipeline of future projects. Thus, the Company will terminate this initiative and eliminate the associated costs. Telecommunications customers will still be served through other pathways, potentially including the Industrial Initiative.

New Measures

In 2022, the Company is conducting a demonstration to explore the possibility of adding a gas leak survey as a new measure. Early results of this effort are promising, with significant potential cost-effective savings produced. The gas leak survey is described in greater detail in Attachment 8.

Other new measures are described under Large C&I New Construction.

3.6 Other Considerations

Supply Chain Disruptions

RI Energy has observed significant supply chain disruptions since the outset of the pandemic. These have become worse over the course of 2022 as a result of extended lockdowns in China and the war in Ukraine/trade sanctions on Russia. These add to existing disruptions resulting from ongoing domestic truck driver shortages, constraints at ports, and insufficient supply relative to demand for some equipment. This has led to rising prices and significant delays for certain types of equipment. Like other employers, contractors have been impacted by the tight labor market, which has further compounded project cost increases and delays.

Where feasible, the Company and its vendors are working with customers to (1) identify alternative suppliers for equipment experiencing long lead times or major price increases and (2) order equipment as early as possible for EE projects. However, these phenomena affect the entire global economy. By and large, there is no easy fix, and RI Energy has limited control over the situation.

The Company commissioned a study of the situation to discuss key equipment types with distributors, contractors, and other utility EE programs. This study, completed in July 2022, sought to quantify the impact of these supply chain disruptions and price increases. Results of the study and potential mitigation strategies were presented to stakeholders at the July 2022

Technical Working Group. The tables below show estimated delivery timelines and price increases since the outset of COVID-19.

Measure	Specification	Typical Pre-Covid Lead Time	Typical Current Lead Time	Typical Increase
Lighting	General	<1 month	1-3 months	~1.5 months
	Controls	<1 month	3 months	~2.5 months
HVAC	General	<1-2 month	4-6 months	~3 months
	Controls	<1 month	3-6 months	~3 months
	Rooftop Units	1-2 months	3-6 months	~3 months
	VFD/VSDs	<1 month	2-7 months	~3.5 months
	Chillers	3-4 months	4-6 months	~1.5 months
	Boilers	<1-2 months	2-6 months	~2 months
Compressed air	General	1-3 months	4-6 months	~3.5 months

Measure	Specification	Price Changes Relative to Pre-Covid
Lighting	General	10-30%
	General	15-35%
HVAC	Rooftop Units	24-35%
	VFD/VSDs	30-35%
	Boilers	~30%
	Chillers	20-30%
Compressed air	General	>30%

The study recommendations were for RI Energy to consider:

1. Adjusting incentive levels and focus on marketing products with shorter lead times.
2. Reducing savings targets.
3. Communicating mitigation strategies to market actors.
4. Helping market actors (contractors) forecast product pricing and availability.

Tuning Pre-Approval

The Company is exploring a process to allow some tuning measures to be implemented without pre-approval, provided baseline conditions are documented sufficiently to withstand M&V

scrutiny. A study is currently underway to determine the extent to which this is feasible at RI schools and to develop a methodology for documenting baseline conditions and calculating savings for HVAC measures commonly found at schools. The option to waive pre-approval for tuning measures will enable building auditors/RCx agents to implement many measures in a single trip, eliminating the need for a return trip (and the associated cost and time lag).

Low-Cost Tuning

The Company is also exploring opportunities to scale up Low-Cost Tuning adoption through additional outreach to contractors and PEX's.

The Company is also investigating the possibility of adding Low-Cost Tuning measures, including a CHP system tune-up as well as gas measures such as unit ventilator adjustments. This effort can only proceed if sufficiently broad savings calculations can be developed.

An additional change under exploration is to identify a more streamlined way to capture savings. Although the current pathway was designed to do just this, it may still be too cumbersome to capture the relevant data from contractors to achieve large-scale adoption. Thus, the Company is seeking further opportunities to reduce the amount of data required for participation.

Workforce Development

In 2022, the Company began planning additional trainings to upskill the C&I workforce. Technologies of focus include HVAC, building controls and automation, building envelope, and energy management. These trainings target a mix of customers, trade allies (PEX's, contractors, engineers, etc.), program vendors, and other project influencers.

A particular area of focus is facility auditors, who are often charged with identifying potential opportunities. While some have broad-based expertise, in many cases these auditors possess expertise in lighting but have limited experience with other EE technologies.

In addition to the direct benefits of these trainings, the events can serve to drive program participation by increasing awareness of EE incentives and services. Likewise, events help RI Energy staff and program implementers form deeper relationships with attendees, increasing the likelihood that trade allies and customers will participate in the programs going forward to implement EE projects.

Pricing Study

In 2023, the Company plans to complete a study of pricing key products. The primary objective of this study will be to inform the Company as it revisits incentive levels. A secondary objective is to inform a future update of total resource costs.

4. Small Business Direct Install Program

4.1 Offerings

The Small Business Program begins with a no-cost site assessment conducted by a Small Business Energy Specialist to understand the customer's energy-related needs and goals. The assessment keys in on energy efficiency measures such as lighting systems and controls, cooler/refrigeration control, water saving measures, HVAC controls, motor controls, weatherization/insulation, and custom measures. Turn-key install and OBR is offered to support the adoption of the recommended measures to the customer.

A Customer Directed Option (CDO) is also available. In this pathway, customers may use their own contractor to install measures while the Small Business program vendor processes and submits all necessary paperwork to RI Energy.

4.2 Eligibility

Commercial customers who have less than 1,000,000 kWh in annual usage may participate in the Small Business Direct Install Program. K-12 schools, national and regional chain restaurants, and small grocery stores who consume less than 1,000,000 kWh per year are excluded from this program as they are served through other pathways or initiatives.

4.3 Implementation and Delivery

Once a customer is aware of the program, the customer begins the process for a Small Business energy assessment by either calling, emailing, or using an online form to express interest in the program. The customer is connected to a dedicated Small Business program representative to learn details about the process and next steps. The assessment is scheduled with the customer, and the Energy Specialist meets the customer at the scheduled time. The Energy Specialist performs the assessment, identifies strategies to pursue opportunities, reviews design considerations with the customer, and incorporates this detail into a proposal describing appropriate energy efficiency measures. The proposal reflects the installed costs, the expected energy savings, and the applicable program incentives.

Once the customer decides to proceed, the Energy Specialist hands off the project to a Project Coordinator who works with the customer to set a convenient installation schedule that will minimize interruptions to their business operations. After installation, the customer certifies in writing their satisfaction with the work provided. Dedicated support staff are available to

address any post-install issues that arise. This support structure is designed to ensure smooth project execution and allow customers to remain focused on their daily tasks.

Program awareness is driven first and foremost through word of mouth from other customers. Leads also come through program outreach and marketing, trade allies (contractors, distributors, etc.), and customer initiative to seek out more efficient options. The program vendor also conducts “main street” outreach efforts.

4.4 Equity

Beginning in 2022 and continuing in 2023, the Company incorporated two equity-related initiatives. First, the Company and its vendor have deployed bilingual auditors who speak either Spanish or Portuguese – the two most widely spoken languages besides English in Rhode Island.

Second, in addition to collecting information about who is served by this program, the program targeted its marketing directly to Woman and Minority Owned Enterprises (WME). This effort extends beyond the WME businesses registered with the state and sought to develop relationships with groups such as the RI Black Business Association and the RI Hispanic Chamber of Commerce to determine how to better serve these businesses. The Company’s vendor also canvasses in conjunction with local community organizations, such as Progreso Latino.

Finally, the Communities initiative includes equity elements, including a focus on microbusinesses, as described in the Main Text of this Plan.

4.5 Changes for 2023

Language Access

Also related to furthering the equity of the small business direct install offering, the Company will translate small business program materials into Spanish and Portuguese.

Additionally, the company will support participation by minorities in vendor training by offering certain trainings in commonly spoken languages.

Main Streets Initiative

Building on planned work in one community in 2022, the Company will establish a Main Streets initiative that aims to increase adoption of direct install energy efficiency measures among hard-to-reach microbusinesses in Rhode Island. In 2023, through its turnkey vendor, the Company will target microbusinesses concentrated around the main streets of three communities. For each targeted community, the vendor will conduct targeted direct mail and/or social media followed by door-to-door outreach for 3-7 working days. For door-to-door canvassing, the vendor may

seek to secure cooperation and support of local government leaders, community organizations, and neighborhood groups (e.g., chamber of commerce). The five communities targeted in 2023 are Central Falls, Pawtucket, Woonsocket, Providence and East Providence. These communities contain Environmental Justice areas and are also targeted for enhanced outreach through the Company's Income Eligible programs.

Targeted All-Fuel Weatherization

In 2021 and 2022, the Company utilized a \$1,100,000 RGGI allocation from OER to help increase weatherization installations. Through April 2022, the SBDI program had already achieved 43% of its gas target, primarily as a result of this effort. At the time of this writing, the RGGI funds are expected to be fully allocated by the end of 2022 and based on recent discussions with OER the Company does not anticipate further RGGI funding will be available. To ensure this work can continue for gas customers, the Company has proposed a larger SBDI gas budget than in prior years.

To help increase the volume of weatherization installations, the Company will explore the development of a weatherization tool to enable vendors and customers to easily identify cost-effective weatherization projects for small business customers. The Company will also revisit incentives for weatherization and air sealing, balancing the desire to increase savings with the need for cost control.

Finally, because many insulation contractors often have less experience with commercial buildings, and weatherization measures are more complex to identify and implement than for homes, the Company plans to offer training to help contractors develop additional expertise in commercial insulation and air sealing. Insulation contractors are the primary targets of this training, and others who perform energy audits of facilities will also benefit.

4.6 Other Considerations

RI Energy's program managers regularly check in with the vendor to capture feedback from the vendor and from customers. In 2022, the Company introduced a short, formal customer satisfaction and input survey. In addition to questions typical of a customer satisfaction survey, the Company asked optional questions about whether the customer identifies as a woman, minority, or LGBT owned business. This will allow the Company to create a baseline of customers served. This survey was offered in English, Spanish, and Portuguese.

The Company's 2022 goal is to achieve the following penetration ratios for luminaires and retrofit kits, and report on progress quarterly:

1. At least 8% of installed luminaires with one or more control strategies, compared to 1.9% of luminaires incentivized in 2021 and 1.1% in 2020.
2. At least 10% of installed retrofit kits with one or more control strategies, compared to 5.7% of retrofit kits incentivized in 2021 and 2.6% in 2020.

In 2022, the Small Business vendor has been educating customers on the benefits of participating in the ADR program using WiFi thermostats and providing information on how to enroll.

5. Connected Solutions (Active Demand Response)

5.1 Offerings

The Company implemented an active demand reduction program beginning in 2019. Under this program, customers agree to reduce their electricity use during the system peak. Customers participating in the demand response (DR) program are free to curtail their energy use by any means possible, as this program is technology neutral.

Targeted Dispatch (One to eight DR events per summer)

This option calls on customers to curtail their electricity use or discharge energy from generators only a few times per summer. Typical technologies or strategies used to curtail load include building management systems to control HVAC systems, lighting control systems, and manual or automated changes to manufacturing processes. The customer's performance is calculated using either the Company's electric meter where available (typically G-32 customers) or third-party metering (typically G-02 customers). Please refer to the program materials available on the Targeted Dispatch page of the Company website for a detailed explanation of the baseline method used and examples.

This initiative uses Curtailment Service Providers (CSPs) to assess curtailment opportunities at a facility and deliver curtailment services to enrolled customers. CSPs identify curtailment opportunities for deployment under the Company's initiative (often in collaboration with RI Energy's implementation team), as well as demand charge and Installed Capacity (ICAP) tag management opportunities and present a complete curtailment proposal to the customer. The demand charge and ICAP tag management provide opportunities for direct bill savings to customers.

Customers and CSPs respond to dispatch signals sent by the Company. Customers and CSPs are notified of events one day before the event. The core model remains focused on reducing demand during summer peak events, typically targeting fewer than twenty hours per summer.

The program is structured to avoid interfering with the ISO-NE programs or penalizing customers for participating in both programs.

This Energy Efficiency Plan is being coordinated with the SRP Plan to ensure that the customer offerings are cohesive, not duplicative, and a comprehensive marketing plan is being implemented. This coordination between SRP, NWAs, and DR is detailed in the 2021-2023 SRP Plan sections on NWAs in System Planning and on Coordination with Energy Efficiency.

Daily Dispatch (40 to 60 DR events per summer)

This option calls on customers to curtail their energy use or discharge energy many more times per summer than the Targeted Dispatch. Because of the number of dispatches, customers typically look for an automated participation path with a technology that does not disrupt their comfort or business, such as battery storage or thermal storage.

5.2 Eligibility

Commercial and Industrial customers

5.3 Implementation and Delivery

Targeted Dispatch (One to eight DR events per summer)

The number of enrolled MW in Targeted Dispatch has decreased since 2019. This is in large part due to customers choosing to move their enrollment from Targeted Dispatch to Daily Dispatch. This is a good trend, because Daily Dispatch generates more system benefits per MW than Targeted Dispatch offering.

Please refer to the program materials available on the Targeted Dispatch page of the Company website⁴ for a detailed explanation of the baseline method used and examples.

Customers have the option to receive their incentives directly from the Company, or have the Company send the incentive to the customer's curtailment service provider.

Daily Dispatch (40 to 60 DR events per summer)

The estimated performance for Daily Dispatch in 2022 is projected to be at or above the proposed MW goal for 2022. As mentioned above, some Targeted Dispatch customers have moved to Daily Dispatch which generates more system benefits per MW.

⁴ <https://www.rienergy.com/RI-Business/Energy-Saving-Programs/ConnectedSolutions>

One of the curtailment service providers (CSPs) who participates in the Connected Solutions program has begun the process of installing large energy storage (battery) projects at customer sites. These projects are large and may or may not be ready for the 2023 summer season. They would be looking to participate in the Daily Dispatch program to export the energy of the battery to the electric grid during events. The Company is proposing to increase the Daily Dispatch goal and decrease the Targeted Dispatch goal due to these prospected projects.

Please refer to the program materials available on the Daily Dispatch page (same as Targeted Dispatch page) of the Company website for a detailed explanation of the baseline method used and examples.

Customers have the option to receive their incentives directly from the Company, or have the Company send the incentive to the customer's curtailment service provider.

5.4 Changes for 2023

At this time, there are no anticipated program changes related to Targeted or Daily Dispatch for 2023 based on performance projections and results from currently available data. The results from the summer 2022 performance may highlight opportunities to improve the program in 2023, however results are not expected until shortly after the filing of this Plan. The Company will share any proposed program changes resulting from the evaluation with stakeholders prior to implementing changes.

5.5 Other Considerations

Coordination with other Company Energy Storage programs

The Company is supporting an OER-led Department of Energy (DOE) grant for the field validation of an Integrated Refrigeration Energy Management (REM) technology for controls, active demand response, and continuous commissioning in grocery stores. The objectives supported by the DOE grant are to recruit grocery stores to participate in ConnectedSolutions offerings using refrigeration systems yielding flexible active demand reduction and demonstrate revenue and/or operational savings for grocery customers.

The Company's other efforts related to storage are complementary to the ConnectedSolutions program's goal of reducing electric use during system peaks. Routine coordination with other Company programs helps leverage opportunities for further savings while minimizing duplication of efforts that could otherwise confuse customers.

6. C&I Multifamily Program

6.1 Offerings

See Attachment 1, Section 3, for offerings.

6.2 Eligibility

See Attachment 1, Section 3, for eligibility information.

In addition to criteria listed in Attachment 1, Section 3, the multifamily program provides joint residential and commercial energy services to condominiums and apartment complexes for energy efficiency upgrades with no cost audits. The multifamily C&I program also serves customers like non-profits, group homes, and houses of worship that traditionally do not fit within the predefined program structure.

6.3 Implementation and Delivery

See Attachment 1, Section 3, for implementation and delivery.

In addition to what is listed in Attachment 1, Section 3, note that the program coordinates with the Residential New Construction Program, Multifamily Programs, and the Small Business Program.

6.4 Changes for 2023

6.5 Other Considerations

See Attachment 1, Section 3, for customer feedback and program changes.

7. Finance as an Enabling Strategy

Many customers face challenges in bringing energy efficiency projects to fruition. These may include structural limitations within a business, information overload, cultural resistance within companies, and access to capital. The Company’s plan deals with the first three barriers in various ways, but this section of the plan focuses on mechanisms that can help customers afford to carry out energy efficiency upgrades and/or perceive costs differently.

Mechanisms Offered

RI Energy and its partners have developed four primary finance mechanisms to help customers afford energy efficiency upgrades, each with unique attributes. Some may only be available or apply to certain customers, building, or ownership types.

7.1 On Bill Repayment (OBR) - Electric

Customer type	Commercial customers who consume less than 1,000 MWh per year
Loan size	\$1,000 to ~\$100,000 (may be larger for SEMP’s)
Maximum Tenor	5 years for commercial accounts, 7-10 years for State facilities
Loan Volume	Variable, between \$5MM to \$10MM per year

Customer type	Commercial customers who consume less than 1,000 MWh per year
Benefits to customer	No formal credit check/ rapid approval, on bill repayment, zero interest
Limitations	Maximum tenor too short for many comprehensive upgrades
More information	RI Energy’s most recent Small Business revolving loan fund projections are illustrated in Attachment 5, Table E-10.
Relevant notes	The Company is requesting a \$2,000,000 infusion into this revolving loan fund as the Company is projecting a negative balance in this fund by the end of 2023. This includes estimated repayments made by customers in 2023.

7.2 On Bill Repayment (OBR) - Electric Small Business

Customer type	Commercial customers who consume less than 1,000 MWh per year
Loan size	\$500 to \$50,000
Maximum Tenor	5 years
Loan Volume	Variable, between \$1.8MM and \$3.0MM per year
Benefits to customer	No formal credit check/ rapid approval, on bill repayment, zero interest
Limitations	Maximum tenor too short for many comprehensive upgrades, cannot be used to support upgrades customers may desire such as windows and roofs as they have a B/C ratio less than 1.0
More information	RI Energy’s most recent Small Business revolving loan fund projections are illustrated in Attachment 5, Table E-10.

7.3 On Bill Repayment (OBR) – Gas

Customer type	All commercial gas customers
Max loan size	\$1,000 to ~\$100,000 (may be larger for SEMP’s or special projects)
Maximum Tenor	3 years for commercial accounts, 5 years for State facilities
Loan Volume	Variable, between \$1MM and 1.5MM per year
Benefits to customer	No formal credit check/ rapid approval, on bill repayment, zero interest
Limitations	Maximum tenor too short for many comprehensive upgrades, cannot be used to support upgrades customers may desire such as windows and roofs as they have a B/C ratio less than 1.0
More information	RI Energy’s most recent Gas revolving loan fund projections for 2021 are illustrated in Attachment 6, Table E-10.
Notes	

7.4 Efficient Buildings Fund (EBF)

Customer type	State agencies, quasi-state agencies, and municipalities
Max loan size	More than \$5MM
Maximum Tenor	Up to 20 years
Loan Volume	Variable, over \$60MM in loans closed to date
Benefits to customer	Below market rate interest, long tenor, loan amounts can be large enough to make comprehensive building wide improvements
Limitations	Appropriate customers must file applications and be ranked against other potential loan applicants
More information	More detail on this program can be found at the RI Infrastructure Bank webpage (https://www.riib.org/ebf) and the RI Office of Energy Resources webpage (http://www.energy.ri.gov/RIEBF/)
Description	The Efficient Buildings Fund (EBF) is a long-term, below-market financing option for municipalities and quasi-public agencies to complete energy efficiency and renewable energy projects. EBF is administered in partnership with RI Office of Energy Resources (OER) and the Rhode Island Infrastructure Bank (The Bank, Infrastructure Bank, or RIIB). OER is responsible for determining project eligibility, reviewing project applications, and producing a Project Priority List (PPL). The Infrastructure Bank only finances projects that are listed on the PPL.
2023 Actions	The Infrastructure Bank and OER will administer the program and RI Energy will continue to provide technical, logistical, incentive support to municipal customers.
Notes	

7.5 Public Sector Revolving Loan Fund

The Public Sector Revolving Loan fund was a predecessor of the Efficient Buildings Fund. It was funded by Regional Greenhouse Gas Initiative (RGGI) funds controlled by the RI OER. This fund no longer makes loans. As funds are repaid from previous disbursements, they are periodically transferred back to RI OER to be used at their discretion. More detail on this fund can be found in Attachment 5, Table E-9.

7.6 Commercial Property Assessed Energy (C-PACE)

Customer type	Owners of non-residential property
Max loan size	Limited only by the financial health of the building
Maximum Tenor	Average measure life of all upgrades, can exceed 15 years
Loan Volume	Variable
Benefits to customer	Can be structured to be cash flow positive, no personal guarantees, financing can be used to finance a wide variety of improvements related to energy, may be considered an operating expense.
Limitations	Minimum transaction value of ~\$50,000, preferred \$100,000+

7.7 Ascentium Rental Agreement

Customer type	Owners of non-residential property
Max loan size	No stated limit
Maximum Tenor	Variable
Loan Volume	Variable
Benefits to customer	Rapid preliminary approval, rental product is considered an operating cost
Limitations	Specific terms of the agreement may not be attractive to some customer types, including any that are reluctant to take on debt.

8. Marketing to C&I Customers

Beginning in the second half of 2022 and continuing in 2023, RI Energy is launching a new campaign for all commercial customers, with messaging that will focus on helping customers connect with the resources, financing, and expertise they need. The new campaign will include messaging about how energy efficiency can help address high energy prices.

For customer targeting and media planning, the Company continues to utilize its existing market research insights data and customer personas (see Figure 3. Commercial Customer Persona Research) for business customers. The Company aims to represent the voice of the customer in all campaign planning. The Company will continue to utilize commercial customer persona research to inform our key messages and marketing channel selection. RI Energy will pay close attention to how economic conditions impact customers and maintain a nimble approach. These conditions include inflation, labor market shortages, long-term market changes resulting from COVID-19, and a potential recession.

Figure 3. Commercial Customer Persona Research

★ Lean & Green	Small & Seamless	★ Seeking Solutions
<ul style="list-style-type: none"> • Smallest customers based on usage • Most environmentally conscious, interested in green-related products • Among the most open to purchasing from NG 	<ul style="list-style-type: none"> • Small customers • Interested in tools to manage accounts • Skew to Real Estate • The least open to purchasing from NG 	<ul style="list-style-type: none"> • Medium customers • Interested in bill and usage information, financing options • Skews to Retail/Food • The most open to purchasing from NG
No Frills	★ Big Business	
<ul style="list-style-type: none"> • Medium customers • Most interested in the basics of customer service and emergency response • Among least open to purchasing from NG 	<ul style="list-style-type: none"> • Largest customers • More interested in advice, tools to track usage and savings • Lowest level of barriers to energy improvements • Skews to Industrial, Public Sector 	

In 2023, the Company will continue to leverage digital marketing, paid search and social media marketing, print advertising, email campaigns as well as public relations. Earned media/PR is an integrated component of the marketing strategy, including media relations and influencer engagement.

RI Energy’s paid media primarily targets direct decision-makers for capital budgets and facilities projects, C-suite executives, facility managers, and small business owners. A portion of advertising and communications are also dedicated to targeting other key influencers who influence energy project go-forward decisions, such as distributors, PEX’s, engineers, and architects who may have existing relationships with customers.

In 2023, the Company will adjust tone and messaging as appropriate to remain sensitive to our customers’ needs. RI Energy has continued to update its website and campaign landing pages to

reflect key messages, strategies, and general core values and has also increased focus on providing industry-specific messaging and information wherever possible.

Finally, the Company will tie its marketing activities to the energy efficiency program priorities described elsewhere in this plan. This includes:

- Promoting planned Workforce Development activities, potentially via social media.
- Developing fact sheets to explain program focus areas such as Building Analytics, ESPO, or lighting controls.
- Developing case studies to highlight efficiency opportunities in specific market sectors.

9. Commercial and Industrial Measures and Incentives

Table 3 below lists the planned measures for the electric C&I programs, by program, along with the estimated annual net savings, incentives per unit of savings and total incentives. The C&I ConnectedSolutions program is planned at the net kW level. All other electric C&I programs are planned at the gross kWh level. Table 4 shows planned costs in non-incentive cost categories for each program that are not allocated at the measure level. Table 5 and Table 6 show the same information for the planned Gas programs, respectively.

Table 3. Planned Measures for Electric C&I Programs

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Commercial ConnectedSolutions	C&I Daily Dispatch (Savings)	15,000	\$300.00	\$4,500,000
	C&I Targeted Dispatch	21,000	\$40.00	\$840,000
Large Commercial New Construction	Advanced Building	397,575	\$0.45	\$178,909
	COMP DESIGN	397,575	\$0.44	\$174,933
	BLD SHELL	3,847	\$0.50	\$1,924
	CHILLER	479,329	\$0.53	\$253,565
	MOTOR	48,450	\$0.22	\$10,659
	HVAC	1,198,322	\$0.53	\$633,913
	REFRG COMM	973,949	\$0.46	\$448,017

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial New Construction	COMP AIR	2,344,012	\$0.39	\$916,509
	EMS	1,328,539	\$0.53	\$702,797
	PROC-COOLING	241,055	\$0.32	\$77,620
	PROCESS	940,940	\$0.34	\$319,920
	VSD-HVAC	48,450	\$0.22	\$10,659
	VSD-NON HVAC	102,602	\$0.22	\$22,572
	FOOD	32,126	\$0.39	\$12,561
	OTHER	46,153	\$0.39	\$18,046
	BLDG EXHAUST FAN	6,569	\$0.31	\$2,036
	BOILER FWATER PUMP	6,569	\$0.31	\$2,053
	BOILER-DRAFT FAN	6,569	\$0.31	\$2,053
	CHIL-WATER PUMP	6,569	\$0.31	\$2,053
	CT FAN	6,569	\$0.31	\$2,053
	D2 VFD SECONDARY	1,694	\$0.31	\$529
	HEAT-HW PUMP	13,138	\$0.31	\$4,106
	HVAC RETURN-FAN	13,138	\$0.31	\$4,106
	HVAC SUPPLY-FAN	13,138	\$0.31	\$4,106
	MAKE UP AIR FAN	1,694	\$0.31	\$529
	ODP-1200F	1,694	\$0.29	\$491
	ODP-1200N	1,694	\$0.29	\$491
ODP-1200S	1,694	\$0.29	\$491	
ODP-1800F	1,694	\$0.29	\$491	

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial New Construction	ODP-1800N	1,694	\$0.29	\$491
	ODP-1800S	1,694	\$0.29	\$491
	ODP-3600F	1,694	\$0.29	\$491
	ODP-3600N	1,694	\$0.29	\$491
	ODP-3600S	1,694	\$0.29	\$491
	PROC EXHAUST FAN	6,569	\$0.31	\$2,053
	MFHR_LIGHTING	5,232	\$0.39	\$2,040
	PROC-COOL PUMP	6,569	\$0.31	\$2,053
	TEFC-1200F	1,694	\$0.29	\$491
	TEFC-1200N	1,694	\$0.29	\$491
	TEFC-1200S	1,694	\$0.29	\$491
	TEFC-1800F	1,694	\$0.29	\$491
	TEFC-1800N	1,694	\$0.29	\$491
	TEFC-1800S	1,694	\$0.29	\$491
	TEFC-3600F	1,694	\$0.29	\$491
	TEFC-3600N	1,694	\$0.29	\$491
	TEFC-3600S	1,694	\$0.29	\$491
	WSHP-PUMP	6,569	\$0.31	\$2,036
	EXT-24/7	93,086	\$0.25	\$23,271
	EXT-DUSKDAWN	296,768	\$0.22	\$65,289
LGT-COMPACT	50,000	\$0.22	\$11,000	
LGT-CUST	50,000	\$0.22	\$11,000	

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial New Construction	LGT-FLUCENT	50,000	\$0.22	\$11,000
	LGT-LEDCASEREF	50,000	\$0.22	\$11,000
	LGT-LEDGENERAL	986,055	\$0.22	\$216,932
	LGT-LEDSIGN	90,000	\$0.22	\$19,800
	PL T1 Ext	121,491	\$0.22	\$26,728
	PL T1 Int	715,367	\$0.22	\$157,381
	PL T2&3 Ext	90,000	\$0.22	\$19,800
	PL T2&3 Int	90,000	\$0.22	\$19,800
	LEDS	111,186	\$0.35	\$38,359
	LGHT SYSTEMS	111,186	\$0.35	\$38,359
	LGHT-PERF	111,186	\$0.35	\$38,359
	MFHR_COOLING	5,232	\$0.39	\$2,040
	MFHR_HEATING	5,232	\$0.39	\$2,040
	TRNS	3,788	\$0.40	\$1,515
	DHW ECM Pump <= 1/8 HP	3,157	\$0.39	\$1,234
	DHW ECM Pump <=1/20 HP	4,195	\$0.39	\$1,640
	DHW ECM Pump 1/20 to 1/8 HP	4,195	\$0.39	\$1,640
	DHW ECM Pump 1/6 to 3/4 HP	4,195	\$0.39	\$1,640
	DHW ECM Pump 1/8 to 1/6 HP	4,195	\$0.39	\$1,640
	DHW ECM Pump 3/4 to 3 HP	4,195	\$0.39	\$1,640
	CODE OF STD	284,665	\$0.00	\$0
	ECM Pump <= 1/8 HP	68,411	\$0.30	\$20,674

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial New Construction	ECM Pump <=1/20 HP	22,803	\$0.30	\$6,891
	MFHR_DHW	5,232	\$0.39	\$2,040
	HECU-FHPC	104,689	\$0.29	\$30,525
	HECU-SC	104,689	\$0.29	\$30,525
	ACPkg_to5.4T	60,111	\$0.25	\$15,028
	ACSplit_to5.4T	69,132	\$0.25	\$17,283
	AirAC_11.25-20T	59,161	\$0.25	\$14,790
	AirAC_20-63T	39,077	\$0.25	\$9,769
	AirAC_5.4-11.25T	228,383	\$0.25	\$57,096
	AirAC_over63T	18,992	\$0.25	\$4,748
	CONVECTION OVEN	61,314	\$0.23	\$14,300
	Conveyor Broiler, >28" wide	3,161	\$0.98	\$3,100
	COOKING-COMBO OVEN 1	60,380	\$0.18	\$10,868
	COOKING-FRYER-1000	2,976	\$0.09	\$275
	COOKING-GRIDDLE 1	3,380	\$0.31	\$1,050
	COOKING-STEAMER-1000	90,468	\$0.08	\$6,900
	Deck Oven	112,785	\$0.30	\$33,750
	Dishwasher - High Door Type	33,208	\$0.22	\$7,400
	Dishwasher - High Multi Tank Conv	9,630	\$0.10	\$925
	Dishwasher - High Pots and Pans	3,096	\$0.90	\$2,775
Dishwasher - High Single Tank Conv.	12,729	\$0.36	\$4,575	
Dishwasher - High Under Counter	46,566	\$0.29	\$13,650	

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial New Construction	Dishwasher - Low Single Tank Conv.	11,685	\$0.01	\$150
	Dishwasher - Low Under Counter	4,356	\$0.15	\$650
	FREEZ-GL1	427	\$0.53	\$225
	FREEZ-GL2	681	\$0.48	\$325
	FREEZ-GL3	1,062	\$0.19	\$200
	FREEZ-GL4	1,486	\$0.20	\$300
	FREEZ-SD1	2,120	\$1.06	\$2,250
	FREEZ-SD2	7,290	\$0.67	\$4,875
	FREEZ-SD3	17,312	\$0.37	\$6,400
	FREEZ-SD4	589	\$0.51	\$300
	FREEZ-ULT	145,433	\$0.40	\$58,183
	Fryer - Large	2,841	\$0.10	\$275
	Hand Wrapper	3,130	\$0.07	\$220
	Hot Food Holding Cabinet - 1/2	32,850	\$0.59	\$19,500
	Hot Food Holding Cabinet - 3/4	5,475	\$0.73	\$4,000
	Hot Food Holding Cabinet - Full	13,685	\$0.35	\$4,750
	Ice Machine - Cont. Remote	5,202	\$0.09	\$450
	Ice Making Head	46,914	\$0.25	\$11,550
	Ice Remote/Split	7,282	\$0.06	\$450
	Ice Self Contained	3,220	\$0.28	\$900
Refrigerated Chef Base 35" to 54"	1,051	\$0.52	\$550	
Refrigerated Chef Base 74" to 89"	1,986	\$0.28	\$550	

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial New Construction	REFRIG-GL1	3,675	\$0.92	\$3,375
	REFRIG-GL2	11,666	\$0.57	\$6,650
	REFRIG-GL3	22,680	\$0.42	\$9,450
	REFRIG-GL4	3,660	\$0.61	\$2,250
	REFRIG-SD1	2,550	\$1.32	\$3,375
	REFRIG-SD2	8,160	\$0.69	\$5,600
	REFRIG-SD3	4,410	\$1.33	\$5,850
	REFRIG-SD4	1,880	\$1.00	\$1,875
	Spray Valve - Electric HW	20,334	\$0.58	\$11,692
	High Perf Contact Conveyor			
	Toaster UPSTR	1,000	\$0.70	\$700
	DEEC	2,722	\$0.09	\$250
	Vending Miser - Refrigerated Beverage Vending Machines UPSTR	1,000	\$0.70	\$700
	Vending Miser - Non-Refrigerated Snack Vending Machines UPSTR	1,000	\$0.70	\$700
	Vending Miser - Glass Front Refrigerated Coolers UPSTR	1,000	\$0.70	\$700
	Room Air Cleaner_K-12	8,423	\$0.26	\$2,228
	Room Air Cleaner_Office	8,423	\$0.26	\$2,228
	Room Air Cleaner_Retail	8,423	\$0.26	\$2,228
	PEI H2O PUMP-COMM-C	150,500	\$0.12	\$18,060
	WaterHP	2,100	\$0.45	\$945
VRF HP 11.25T-20T	326,972	\$0.31	\$102,374	
VRF HP 5.4T-11.25T	738,207	\$0.27	\$195,716	

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial New Construction	VRF HP over 20T	13,266	\$0.23	\$3,011
	CNTRL-INTEGRATED	90,000	\$0.22	\$19,800
	AirHP_11.25-20T	2,958	\$0.13	\$370
	AirHP_5.4-11.25T	4,568	\$0.15	\$680
	AirHPPkg_to5.4T	250,000	\$0.40	\$100,000
	AirCChiller_IPLV	28,693	\$0.26	\$7,460
	AirCChiller_Peak	28,693	\$0.26	\$7,460
	AirCChiller150to300T	28,693	\$0.26	\$7,460
	AirCChillerto150T	28,693	\$0.26	\$7,460
	Sensors	8,423	\$0.26	\$2,190
	WCChil_over300T_IPLV_CEN	1,400	\$0.30	\$420
	WCChil_over300T_IPLV_SCR	1,400	\$0.30	\$420
	WCChil_over300T_PkkW_CEN	1,400	\$0.30	\$420
	WCChil_over300T_PkkW_SCR	1,400	\$0.30	\$420
	WCChil_to150T_IPLV_CEN	1,400	\$0.30	\$420
	WCChil_to150T_IPLV_SCR	1,400	\$0.30	\$420
	WCChil_to150T_PkkW_CEN	1,400	\$0.30	\$420
	WCChil_to150T_PkkW_SCR	1,400	\$0.30	\$420
	WCChil150-300T_IPLV	1,400	\$0.30	\$420
	WCChil150-300T_IPLV_CEN	1,400	\$0.30	\$420
	WCChil150-300T_IPLV_SCR	1,400	\$0.30	\$420
	CNTRL-DIMM	119,190	\$0.22	\$26,222

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial New Construction	CNTRL-SENSOR	104,466	\$0.22	\$22,983
	EXT-CNTRL	90,000	\$0.22	\$19,800
	EXT-SLCNTRL	90,000	\$0.22	\$19,800
	LGHT CNTRLS	49,500	\$0.35	\$17,078
	WCChil150-300T_PkKW	1,400	\$0.30	\$420
	WCChil150-300T_PkKW_CEN	1,400	\$0.30	\$420
	WCChil150-300T_PkKW_SCR	1,400	\$0.30	\$420
	WCChil300-1000T_IPLV	1,400	\$0.30	\$420
	WCChil300-1000T_PkKW	1,400	\$0.30	\$420
	WCChil30-70T	1,400	\$0.30	\$420
	WCChil70-150T	1,400	\$0.30	\$420
	CAIR NOZZLE	6,250	\$0.28	\$1,750
	DRYER_CAT<100	17,318	\$0.28	\$4,849
	DRYER_CAT>400	17,318	\$0.28	\$4,849
	DRYER_CAT-200	17,318	\$0.28	\$4,849
	DRYER_CAT-300	17,318	\$0.28	\$4,849
	DRYER_CAT-400	17,318	\$0.28	\$4,849
	LOADCOMP-25HP	87,288	\$0.28	\$24,441
	LOADCOMP-75HP	87,288	\$0.28	\$24,441
	LOW PRESS DROP FLTR	6,250	\$0.28	\$1,750
	VARICOMP-75HP	69,830	\$0.31	\$21,647
VSDCOMP-75HP	69,830	\$0.22	\$15,363	

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
	ZERO LOSS DRAIN	19,683	\$0.28	\$5,511
Large Commercial Retrofit	BLD SHELL	242,916	\$0.69	\$167,612
	MOTOR	42,853	\$0.30	\$12,856
	VSD-HVAC	60,632	\$0.32	\$19,402
	VSD-NON HVAC	75,491	\$0.32	\$24,157
	PROC COOLING	119,618	\$0.24	\$28,708
	PROCESS	475,388	\$0.21	\$99,832
	REFRG-COMM	776,894	\$0.44	\$341,834
	FOOD	25,666	\$0.35	\$8,983
	HVAC	1,507,188	\$0.50	\$753,594
	EMS	1,505,280	\$0.40	\$602,112
	OTHER	1,712,150	\$0.25	\$428,038
	OPER_MAIN	701,767	\$0.17	\$119,300
	COMP AIR	1,525,775	\$0.15	\$228,866
	BLDG EXHAUST FAN	71,090	\$0.38	\$27,014
	BOILER FWATER PUMP	71,090	\$0.38	\$27,014
	BOILER-DRAFT FAN	71,090	\$0.38	\$27,014
	CHIL-WATER PUMP	71,090	\$0.38	\$27,014
	CT FAN	71,090	\$0.38	\$27,014
	EI MTVFD SECONDARY	28,889	\$0.38	\$10,978
	EI VFD SECONDARY	28,889	\$0.38	\$10,978
HEAT-HW PUMP	94,786	\$0.38	\$36,019	

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial Retrofit	HVAC RETURN-FAN	94,786	\$0.38	\$36,019
	HVAC SUPPLY-FAN	94,786	\$0.38	\$36,019
	MAKE UP AIR FAN	49,285	\$0.38	\$18,728
	MTVFD-BLDG EXHST FAN	38,740	\$0.38	\$14,721
	MTVFD-BOIL DRAFT FAN	38,740	\$0.38	\$14,721
	MTVFD-BOIL FWTR PUMP	38,740	\$0.38	\$14,721
	MTVFD-CHIL WATER PMP	38,740	\$0.38	\$14,721
	MTVFD-CT FAN	38,740	\$0.38	\$14,721
	MTVFD-HEAT HW PUMP	38,740	\$0.38	\$14,721
	MTVFD-HVAC RET FAN	38,740	\$0.38	\$14,721
	MTVFD-HVAC SUP FAN	38,740	\$0.38	\$14,721
	MTVFD-MK UP AIR FAN	38,740	\$0.38	\$14,721
	MTVFD-PROC COOL PUMP	38,740	\$0.38	\$14,721
	MTVFD-WATER/WST PUMP	38,740	\$0.38	\$14,721
	MTVFD-WSHP PUMP	38,740	\$0.38	\$14,721
	PROC EXHAUST FAN	71,090	\$0.38	\$27,014
	PROC-COOL PUMP	71,090	\$0.38	\$27,014
	WATER/WASTE PUMP	71,090	\$0.38	\$27,014
	WSHP-PUMP	71,090	\$0.38	\$27,014
	TRNS	177,129	\$0.35	\$61,995
FUEL CELL	16,653,344	\$0.10	\$1,665,334	
BOC	104,683	\$0.00	\$0	
Cooler Miser	76,911	\$0.50	\$38,455	

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Large Commercial Retrofit	EMS40k-80ksqft	263,262	\$0.40	\$105,305
	EMS5k-40ksqft	263,262	\$0.40	\$105,305
	EMS80k-200ksqft	263,262	\$0.40	\$105,305
	Snack Miser	66,879	\$0.50	\$33,440
	Vending Miser	66,879	\$0.40	\$26,752
	LGHT_CNTRLS	1,512,840	\$0.51	\$771,548
	LGT-LEDHLUPSTREAMCTR	2,862,482	\$0.33	\$944,619
	LGT-LEDCNTRLUPSTREAM	1,299,197	\$0.55	\$714,558
	LGT-LEDHLUPSTREAM	9,616,755	\$0.22	\$2,115,686
	UPSTR OutdoorCntrl LED	1,090,650	\$0.17	\$185,411
	LGT-DNSTR-LinearLED	3,541,460	\$0.34	\$1,204,097
	LGT-LEDDOWNSTREAM	6,491,754	\$0.34	\$2,207,196
	LGT-LEDREPLACEMENT	3,511,493	\$0.34	\$1,193,908
	LGT-UpstreamSTRWLED	56,216	\$0.50	\$28,108
	LGT-UPSTR-LinearLED	1,556,900	\$0.26	\$397,477
	Strt lght + CNTRL	2,338,195	\$0.29	\$678,076
	LEDS	4,181,506	\$0.34	\$1,421,712
	LGHT_SYSTEMS	4,181,506	\$0.34	\$1,421,712
	VARICOMP-25HP	145,161	\$0.12	\$17,419
	LGT-UPSTR OutdoorLED	3,421,538	\$0.11	\$376,369
Street Lights	1,336,111	\$0.24	\$320,667	
VARICOMP-75HP	145,161	\$0.13	\$18,871	

Electric C&I Programs				
Program	Measure	Gross Annual kWh or Net Annual kW	Incentive per Unit	Total Incentives
Small Business Direct Install	CUSTOM HVAC	12,942	\$0.60	\$7,765
	CUSTOM MOTORS/DRIVES - HVAC	92,117	\$0.60	\$55,270
	CUSTOM MOTORS/DRIVES - NON-HVAC	1,215	\$0.60	\$729
	Freezer Recycling	57,214	\$0.33	\$18,881
	PROGRAMMABLE THERMOSTATS	53,549	\$0.46	\$24,633
	Water Heating measures - Prescriptive	7,602	\$0.40	\$3,041
	VENDING MACHINES	6,608	\$0.29	\$1,916
	CUSTOM PROCESS	133	\$0.60	\$80
	OCCUPANCY SENSORS	228,933	\$0.60	\$137,360
	CUSTOM LIGHTING	1,285,117	\$0.60	\$771,070
	LED CASE REFRIG - PRESCRIPTIVE	6,352	\$0.50	\$3,176
	LED INTERIOR - HW	3,091,832	\$0.68	\$2,102,446
	LED INTERIOR - SI	4,521,192	\$0.69	\$3,119,622
	TIMECLOCKS	158	\$0.52	\$82
	LED EXTERIOR - HW	647,563	\$0.60	\$388,538
CUSTOM REFRIGERATION	200,568	\$1.20	\$240,682	

Table 4. Shared Costs for Electric C&I Programs

Program	Shared Costs			
	Program Planning & Administration	Marketing	Sales, Tech Assist & Training	Evaluation & Market Research
Large Commercial New Construction	\$233,394	\$214,213	\$1,865,401	\$418,495
Small Business Direct Install	\$273,389	\$164,852	\$347,196	\$104,148
Large Commercial Retrofit	\$781,171	\$159,752	\$4,911,818	\$775,518
Commercial ConnectedSolutions	\$177,859	\$6,830	\$19,377	\$0

Table 5. Planned Measures for Gas C&I Programs

Gas C&I Programs				
Program	Measure	Gross Annual MMBtu	Incentive per Gross MMBtu	Total Incentives
Commercial & Industrial Multifamily	HEATING_Custom	11	\$48,000.00	\$528,000
	Aerator_MF	180	\$5.00	\$900
	Air Sealing_MF	240	\$245.00	\$58,800
	CUSTOM CIRCULATOR	2	\$2,100.00	\$4,200
	INSULATION_MF	6,000	\$2.25	\$13,500
	Pipe Wrap DHW_MF	300	\$3.00	\$900
	THERMOSTAT_MF	400	\$125.00	\$50,000
	TSTAT_WIFI_HEATING	10	\$300.00	\$3,000
	TSV Showerhead_MF	10	\$40.00	\$400
Large Commercial New Construction	Comprehensive Design	1,000	\$40.00	\$40,000
	Gas Cooling	5,106	\$16.00	\$81,694
	Heat recovery - All	5,106	\$16.00	\$81,694
	Heat recovery - Seasonal	5,106	\$16.00	\$81,694
	Heat recovery - Year round	5,106	\$16.00	\$81,694
	HEATING CUSTOM STEAM BOILER	591	\$25.00	\$14,764
	OTHER	5,106	\$16.00	\$81,694

Gas C&I Programs				
Program	Measure	Gross Annual MMBtu	Incentive per Gross MMBtu	Total Incentives
Large Commercial New Construction	Other Gas - Seasonal	5,106	\$16.00	\$81,694
	Other Gas - Year Round	5,106	\$16.00	\$81,694
	BOILER RESET 1 STAGE	591	\$25.00	\$14,764
	Boiler95: 95% AFUE < 300 MBU	591	\$25.00	\$14,764
	Boiler96	591	\$25.00	\$14,764
	Codes and Standards	358	\$0.00	\$0
	COMBO COND BOIL/WTR HTR 95+	591	\$25.00	\$14,764
	Condensing boiler <= 300 mbh	591	\$25.00	\$14,764
	Condensing boiler 1000-1700 mbh	591	\$25.00	\$14,764
	Condensing boiler 1701+ mbh	591	\$25.00	\$14,764
	Condensing boiler 300-499 mbh	591	\$25.00	\$14,764
	Condensing boiler 500-999 mbh	591	\$25.00	\$14,764
	INFRARED HEATER - LOW INT	5,106	\$16.00	\$81,694
	CKG_SPRY_NZL_LOW UPSTR COND WATER HEATER	627	\$6.58	\$4,125
	90%MIN 75-800	1,661	\$29.01	\$48,185
	COOKING-COMBO OVEN UPSTR	3,861	\$11.79	\$45,500
	COOKING-CONVECTION OVEN UPSTR	2,678	\$30.81	\$82,500
	COOKING-CONVEYOR OVEN UPSTR	265	\$12.44	\$3,300
	COOKING-FRYER UPSTR	15,660	\$16.60	\$260,000
	COOKING-GRIDDLE UPSTR	76	\$14.51	\$1,100
COOKING-PASTA COOKER	981	\$16.05	\$15,750	
COOKING-RACK OVEN UPSTR	1,107	\$4.97	\$5,500	

Gas C&I Programs				
Program	Measure	Gross Annual MMBtu	Incentive per Gross MMBtu	Total Incentives
Large Commercial New Construction	COOKING-STEAMER UPSTR	1,483	\$4.86	\$7,200
	WATER HEATER - INDIRECT	291	\$21.03	\$6,120
	WATER HEATER - ON-DEMAND 90	1,478	\$7.79	\$11,515
	Water Heating Boiler - 92% TE	10,667	\$10.81	\$115,310
Large Commercial Retrofit	Low Pressure Steam Traps	4,436	\$12.50	\$55,444
	Steam Trap Repair or Replacement	4,430	\$12.50	\$55,375
	Thermostats	2,699	\$30.00	\$80,970
	WiFi Tstat-heat only	2,699	\$25.00	\$67,475
	CUSTOM - OTHER	4,575	\$40.00	\$183,000
	Drives on HVAC Systems	2,699	\$40.00	\$107,960
	Drives on non-HVAC Systems	3,630	\$40.00	\$145,200
	Heat recovery - All	3,635	\$40.00	\$145,400
	Heat recovery - Seasonal	3,635	\$40.00	\$145,400
	Heat recovery - Year round	3,635	\$40.00	\$145,400
	HVAC Controls and EMS	3,500	\$30.00	\$105,000
	HVAC Equipment	8,235	\$30.00	\$247,050
	Operation & Maintainance	15,000	\$12.50	\$187,500
	OTHER	4,360	\$34.00	\$148,240
	Ventilation reduction	2,700	\$25.00	\$67,500
	Verified Savings Project	3,050	\$25.00	\$76,250
	Builder Operator Certification	2,550	\$0.00	\$0
High Pressure Steam Traps	1,100	\$22.00	\$24,200	

Gas C&I Programs				
Program	Measure	Gross Annual MMBtu	Incentive per Gross MMBtu	Total Incentives
Large Commercial Retrofit	Low Pressure Steam Traps	1,100	\$22.00	\$24,200
	Thermostats	2,699	\$30.00	\$80,970
	Wi-Fi Thermostat - Gas Cooling and Htg	2,699	\$30.00	\$80,970
	WiFi Tstat-heat only	2,699	\$30.00	\$80,970
Small Business Direct Install	BSHL Door Upgrades	500	\$80.00	\$40,000
	Condensing Boiler - All	5	\$50.00	\$250
	Condensing Boiler - Seasonal	5	\$50.00	\$250
	Condensing Boiler - Year Round	5	\$50.00	\$250
	CUSTOM - OTHER	3,000	\$80.00	\$240,000
	DHW	400	\$30.00	\$12,000
	Drives on HVAC Systems	89	\$25.00	\$2,225
	Drives on non-HVAC Systems	89	\$25.00	\$2,225
	Heat recovery - All	89	\$25.00	\$2,225
	Heat recovery - Seasonal	89	\$25.00	\$2,225
	Heat recovery - Year round	89	\$25.00	\$2,225
	HVAC Controls and EMS	25	\$25.00	\$625
	HVAC Equipment	964	\$25.00	\$24,100
	Non-Condensing Boiler - All	5	\$50.00	\$250
	Non-Condensing Boiler - Seasonal	5	\$50.00	\$250
	Non-Condensing Boiler - Year Round	5	\$50.00	\$250
	Operation & Maintenance	10	\$15.00	\$150
OTHER	89	\$25.00	\$2,225	

Gas C&I Programs				
Program	Measure	Gross Annual MMBtu	Incentive per Gross MMBtu	Total Incentives
Small Business Direct Install	Other Gas - Seasonal	89	\$25.00	\$2,225
	Other Gas - Year Round	89	\$25.00	\$2,225
	Pipe/Tank/Duct/HVAC Insulation	100	\$30.00	\$3,000
	Ventilation reduction	25	\$28.00	\$700
	Verified Savings Project	89	\$25.00	\$2,225
	BOILER RESET 1 STAGE	5	\$50.00	\$250
	DEMAND CIRCULATOR	89	\$30.00	\$2,670
	FAUCET_AERATOR_0.5_DI	1,000	\$30.00	\$30,000
	INS_DUCT_SF	1,000	\$90.00	\$90,000
	INSUL_PIPE_DI_1.5IN_H2O	100	\$30.00	\$3,000
	INSUL_PIPE_DI_1.5IN_STM	100	\$30.00	\$3,000
	INSUL_PIPE_DI_2IN_H2O	100	\$30.00	\$3,000
	INSUL_PIPE_DI_2IN_STM	100	\$30.00	\$3,000
	LF_PRE_RINSE_SPRAY_NZL	788	\$25.00	\$19,700
	LF_SHWR_HD_1.75_GPM_DI	788	\$25.00	\$19,700
	SALON_NOZZLE	788	\$20.00	\$15,760
	Thermostats	1,000	\$40.00	\$40,000
	Wi-Fi Thermostat - Gas Cooling and Htg	25	\$28.00	\$700
	WiFi Tstat-heat only	25	\$28.00	\$700

Table 6. Shared Costs for Gas C&I Programs

Program	Shared Costs			
	Program Planning & Administration	Marketing	Rebates and Other Customer Incentives	Sales, Tech Assist & Training
Large Commercial New Construction	\$102,973	\$104,705	\$1,447,300	\$858,452
Large Commercial Retrofit	\$229,177	\$172,768	\$2,369,474	\$1,765,139
Commercial & Industrial Multifamily	\$38,347	\$25,359	\$659,700	\$162,261
Small Business Direct Install	\$14,302	\$16,193	\$598,580	\$60,271