2024 Commercial & Industrial
Energy Efficiency Solutions and Programs

1. Overview

Rhode Island is a nationally recognized leader in energy efficiency. The primary objective of the Company's Commercial and Industrial (C&I) programs is to drive the implementation of energy efficiency projects that minimize or reduce energy consumption and help Rhode Island businesses, industries, institutions, and government agencies save on their utility bills. Energy efficiency programs also help C&I customers reduce their operations and maintenance (O&M) costs, meet corporate sustainability goals, improve indoor air quality, and protect the environment by reducing greenhouse gas emissions and other air pollutants. The Company's C&I programs offer incentives, rebates, financing, and technical assistance to customers across the state who want to save money and reduce their building's overall energy consumption footprint.

The Company continuously evaluates customer needs and market dynamics to determine if program adjustments and enhancements are warranted and to drive market transformation across multiple end uses. This retrospection allows the Company to develop and evolve program design and efficacy, determine the value and potential of energy efficiency, and secure comprehensive energy savings.

1.1 Market Sector Approach

The state's C&I sector is diverse and complex; therefore, the Company has designed its energy efficiency programs to offer tailored solutions addressing the different subsectors and varying efficiency needs of building types and uses. Over the last decade, the Company has focused on a market sector approach for C&I customers. A customer's efficiency needs are shaped by the strategic and commercial pressures specific to their market sector, industry or communities served. Some C&I customers may need to improve the efficiency of their factory operations to maintain their competitive niche while others need to improve the comfort of customers through the installation of high efficiency heating, cooling, and ventilation (HVAC) systems. The Company offers a wide variety of customized solutions to empower customers to determine what energy efficiency measures or programs are the best fit for their needs. This process engages the C&I customer and often leads to more comprehensive projects with multiple energy efficiency measures.

Large C&I customers are the greatest opportunities for cost-effective savings. The Company operates its C&I programs primarily through an account management approach where each account manager focuses on one or more industry verticals. By focusing on specific markets and groups of related markets, the Company's account manager can identify the correct vertical initiatives with the programs (e.g., Grocery, Restaurant, Industry) that are supported by implementation vendors and through large-scale agreements (e.g., Strategic Energy Management Partnerships). These vertical initiatives enable the Company to tailor offerings to meet the specific needs of customers, identify and apply project learnings to customers in similar market sectors and facilities, and engage customers in energy efficiency. This

custom-tailored approach drives program participation and establishes a trusted relationship between the Company and customers.

Small businesses, industries and institutions are served primarily through the Small Business Direct Install Program. The turn-key services program offers audits, installation services, enhanced incentives and financing through the Company's implementation vendor or an alternate vendor of the customer's choice. The installation of energy efficiency measures helps lower smaller C&I customers' energy bills while improving the ambiance, comfort and operations of the establishment.

The Company designed its Upstream Program to help all C&I customers, regardless of size, purchase qualifying high efficiency HVAC, hot water, lighting, and commercial kitchen equipment. The program subsidizes measures to encourage distributors to stock, promote and sell high efficiency equipment.

This attachment provides detailed descriptions regarding the Company's C&I programs and how the Company plans to transform the 2024 Annual Plan's high-level goals and strategies into specific, concrete actions and activities for each C&I program. The Company provides these details for stakeholders, regulators and other interested parties so they can see the complex framework needed to integrate program implementation, incentive design, new standards and emerging technologies into flexible, innovative programs tailored to specific customer and building types.

1.2 What to Look for in 2024

The Company plans to make a number of modifications and enhancements to the C&I programs during the 2024 program year. Some of these changes will affect how the Company engages customers in energy efficiency while other modifications focus on providing more innovative efficiency measures and services to C&I customers to capture all energy-saving opportunities. Intertwined, all the modifications and enhancements are designed to engage C&I customers and drive energy efficiency across Rhode Island. In 2024, the Company plans to implement the following strategies for its C&I programs:

- Deploy a data-driven approach to increasing customer participation in the C&I sector.
- Analyze customer consumption data (e.g., kilowatt-hours, peak load and therms) and past energy efficiency participation to better target customers, especially nonparticipants.
- Expand the reach of the Strategic Energy Management Planning Initiative to support the increasing number of customers with climate and sustainability goals.
- Support more advanced system controls, energy management systems and building analytics through retro-commissioning, monitoring-based commissioning, equipment right sizing and the Upstream Initiatives.

- Develop prescriptive and custom offerings to promote commercial weatherization and greenhouse gas emission reductions through the installation of energy recovery ventilators, upstream heat pumps, and measures to prevent gas and refrigerant leak reductions.

- Work with the Office of Energy Resources (OER) to better understand electrification efforts funded through federal and state programs.

- Promote the Main Streets Initiative in Environmental Justice Focus Areas.[1]

- Enhance continuing education for building managers and facilities operators.

The implementation of these strategies will support continued innovation and accelerate the efficiency of Rhode Island businesses, industries, institutions and government agencies. These actions and activities and support the key strategic priorities set out in the Three-Year Plan and Annual Plan including increased customer outreach, programs delivered equitably, enhanced financing options, increased workforce capacity building, and targeted comprehensive efficiency upgrades to increase program participation. These strategies and planned activities reflect ideas and insights identified by the Company in 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 customers, program vendors, and trade allies.

A top priority for the Company is to develop an equity-driven approach to the design, implementation and marketing of C&I programs. To help ensure programs are delivered equitably to C&I customers across the state, the Company will hire multilingual small business auditors, conduct participant surveys in multiple languages, promote equitable hiring practices through vendor agreements, and focus on reaching small C&I customers with a specific focus on woman and minority-owned enterprises. The Company will utilize the Main Streets Initiative to promote the Small Business Direct Install (Small Business) Program to C&I customers located in Environmental Justice Focus Areas. The Company continues to monitor the Equity Working Group's progress and, where appropriate and prudent, will implement the group's recommendations within the C&I programs.

On January 27, 2021, President Joseph Biden issued Executive Order 14008 setting a goal that a minimum of 40 percent of the overall benefits of federal investments must flow to disadvantaged communities that are marginalized, underserved and overburdened by pollution. As federal funding for clean energy projects flows to state energy offices, it is critical that the Rhode Island energy efficiency

1 The Rhode Island Department of Environmental Management defines an Environmental Justice Focus Area" as a census tract that meets one or more of the following criteria: (1) annual median household income is not more than sixty-five percent (65%) of the statewide annual median household income, (2) minority population is equal to or greater than forty percent (40%) of the population, (3) twenty-five percent (25%) or more of the households lack English language proficiency, or (4) minorities comprise twenty-five percent (25%) or more of the population and the annual median household income of the municipality in which the proposed area does not exceed one hundred fifty percent (150%) of the statewide annual median household income.

programs are designed to equitably serve all customers and align with the Justice40 Initiative. This will ensure disadvantaged and historically marginalized communities are able to access and benefit from federal funding.

A key component to increasing program participation is to ensure there is a robust and skilled workforce to identify and implement energy efficiency projects. To build workforce capacity in 2024, the Company plans to collaborate and partner with educational and job training entities that have the existing resources to address workforce development issues.[2] In addition to these entities, the Company acknowledges that it will need additional public and private support to build capacity and plans to identify and partner with additional groups over the 2024-2026 term. The Company plans to target increased capacity to support Zero Net Energy buildings, Building Operator Certification, codes and standards compliance training and increased C&I weatherization projects. In 2024, the Company plans to sponsor training sessions to upskill the workforce in supporting high-performance buildings, including trainings on advanced HVAC and lighting controls. Workforce development efforts are further described in the Cross-Cutting Programs section.

The Company's C&I programs are implemented in a dynamic environment and the planning process must account for a variety of increasing economic pressures including continuing concerns regarding supply chain disruptions, workforce shortages and inflation. Inflation decreases the portion of customers' project costs covered by C&I program incentives and lengthens project payback periods. The cost of all materials has increased and customers who want to see a quick return on their investments are more likely to defer capital expenditures for efficiency projects. Interruptions in equipment delivery timelines and workforce shortages also continue to cause extensive delays. Throughout 2023, the Company saw several historically active customers scale back their spending on energy efficiency measures and it is expected that this issue will continue into this next program year.

1.3 Commercial & Industrial Programs

In 2024, the Company will implement four C&I energy efficiency programs. These programs are designed to serve a number of different market sectors, customers and building types.

Table 1. Commercial and Industrial Programs

Large Commercial and Industrial New Construction
Large Commercial Retrofit
Small Business Direct Install
C&I Multifamily Program

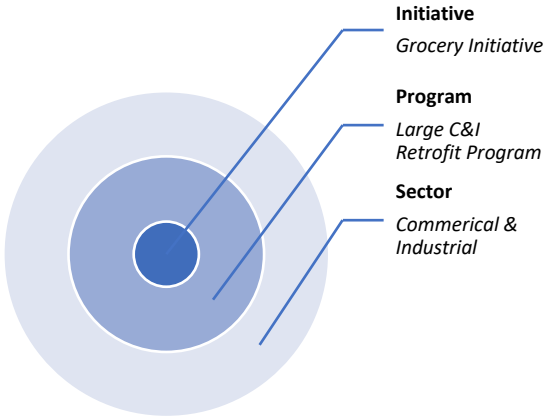
[2] This is in alignment with the LCP standard, which states: "The distribution company shall include wherever possible and practical, partnerships with existing educational and job training entities."

All C&I customers are eligible to participate in the Large Commercial and Industrial New Construction Program (New Construction Program) and Large Commercial Retrofit Program (Retrofit Program). However, eligibility for the Small Business Program is limited to customers that consume less than 1.5 million kilowatt-hours (kWh) per year. In cases where a small C&I customer's project demands larger or more complex efficiency measures than offered through the Small Business Program, the customer can participate in the New Construction Program or Retrofit Program.

The Company's market sector approach is reflected in is four C&I programs. Within a given program, there are one or more vertical initiatives that are designed to deliver a custom-tailored solution or targeted approach to a particular market sector, customer or building type. The Company defines initiatives as a go-to-market strategy within a C&I program that promotes a subset of energy efficiency measures or services within the program and targets a certain market segment. For example, the Retrofit Program has a Grocery Initiative and Industrial Initiative that have identified particular market pressures, energy consumption patterns and energy-saving opportunities for these market segments.

These customized initiatives allow the Company to more effectively and efficiently secure savings from target customers. Please note that estimated energy savings, program budgets and participants for each initiative are included in the program-level totals. All initiatives support both electric and natural gas measures, unless otherwise noted or self-evident (i.e., lighting initiatives only cover electric measures).

Figure 1. Relationship between Programs and Initiatives



1.4 Program Description Structure

In order to streamline review of program information in the Annual Plan, the Company has adopted the following structure for each of the C&I programs:

a. Description of offering,

b. Eligibility criteria,

c. Delivery,

d. Changes for 2024, and

e. Other considerations/research.

Enabling strategies for increased program participation, improved customer experience and efficient program delivery are detailed in the Financing and Marketing sections. Workforce development is addressed in the main text and in the Cross-Cutting Programs section. A list of measures and incentives can be found at the end of this Attachment. In 2024, the Company plans to continue to engage in pilots, demonstrations, and assessments (see Attachment 8 for a detailed scope and list for each pilot, demonstration, and assessment proposed for the 2024 Annual Plan). Financial mechanisms structures are described in Section 6 and in Table 3 below.

Table 2. 2024 Commercial and Industrial Programs

Program Name	Program Description
Large Commercial and Industrial New Construction and Building Energy Code Support *Funded by Electric and Natural Gas*	The New Construction Program offers financial incentives and technical assistance to customers, design professionals, developers, and vendors to encourage energy efficiency in new construction, major renovation, planned replacement of aging equipment, and replacement of failed equipment projects. C&I customers with an annual electric consumption greater than 1 million kWh per year are eligible. Through the program, design professionals are eligible to receive technical assistance to conduct energy modeling and analysis for new construction projects. Owner's design teams are offered incentives for their time and effort to meet program requirements. The program promotes and incentivizes the installation of high efficiency equipment in existing facilities during remodeling projects or for equipment failure and replacement. Since customers are more likely to install energy-efficient equipment at the time of construction or equipment replacement, the program offers incentives to ensure customers make the investment immediately rather than doing so at a greater cost later. The program also offers operations verification or quality assurance services to ensure that installed equipment and systems operate as intended. The program supports the State's Zero Energy Building goals through engagement and in developing future offerings. The program promotes compliance with the building energy code and increasing the use of the Stretch Code to support the State's goals and objectives. Technical assistance is provided for advancing the development and adoption of minimum efficiency standards for appliances and equipment.

Program Name	Program Description
Large Commercial and Industrial Retrofit *Funded by Electric and Natural Gas*	All commercial, industrial and institutional customers are eligible to participate in the Retrofit Program. The program incentivizes the replacement of existing equipment and systems with high efficiency alternatives such as lighting, HVAC systems, motors, thermal envelope measures and custom measures in existing buildings. Technical assistance is offered to customers to help them identify energy-saving opportunities. The program's incentives help C&I customers in defraying part of the material and labor costs associated with the installation of energy efficiency measures. In addition, the Company offers education and training, such as the Builder Operator Certification training, to support the adoption of energy-efficient equipment and practices.
Small Business Direct Install *Funded by Electric and Natural Gas*	The Small Business Program is a retrofit offering that provides turn-key efficiency solutions to customers who use less than 1.5 million kWh per year. Through the program, a free on-site energy assessment is performed, and customers receive a customized report detailing recommended energy-efficient improvements. From local pizzerias to small convenience stores, the Small Business Program serves mall businesses of all customer types, buildings and sizes. The program pays up to 70 percent of installation and equipment costs. Provided funds are available, customers can finance the remaining costs of the project for up to 60 months (typically 24) interest free on their electric bill using the Small Business Revolving Loan Fund.
Commercial and Industrial Multifamily *Funded by Natural Gas*	The C&I Multifamily Program provides comprehensive efficiency services for market-rate multifamily customers who reside in buildings with 5+ dwelling units. These coordinated services include energy assessments and incentives for weatherization and the replacement of heating and domestic hot water equipment and systems. The program's services are offered for all types of multifamily properties. To streamline the delivery of program services, the Company designates a primary point of contact for the multifamily property who will manage and coordinate the services offered. The measures and services are offered through the Company's existing Energy Efficiency Portfolio of C&I programs (C&I Retrofit) and Residential programs (Energy*Wise*, Income Eligible, Residential New Construction and ENERGY STAR® HVAC).

Table 3. Financial Mechanisms Structure

Mechanism	Description
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 (term) for which a customer can borrow funds
Loan volume	Shows the dollar volume of loans outstanding or the range of funds previously borrowed (or both)
Benefits to customer	Describes the benefits of a mechanism to a customer
Limitations	Describes the limitations of a mechanism to a customer
2024 Actions	This area is included for the Efficient Buildings Fund and C-PACE (Commercial Property Assessed Clean Energy) as the Company is currently working with the Rhode Island Infrastructure Bank and other stakeholders on integrating these mechanisms
More Information	This area describes where more information can be found regarding the mechanism, such as numerical tables. This area may include additional information such as justifications for On-Bill Refinancing fund injections (natural gas) or On-Bill refinancing rightsizing (electric)
Relevant Notes	This area contains note and will vary by mechanism

2. Large Commercial and New Construction Program

2.1 Offerings

The New Construction Program offers incentives and technical assistance to promote and support high performance building design, building operation and equipment selection. The incentives and technical services offered are based on the projected energy savings performance of the building and are designed to encourage design teams, building owners and developers to build beyond the current Rhode Island program energy baseline. The technical assistance provided by the program varies from simple plan review and efficiency upgrade recommendations to complete technical blueprint reviews. Additionally, the program offers incentives to building owners and design teams for Zero Net Energy certification and verification and post-occupancy verification of energy savings.

The program incentivizes both new equipment at existing sites and new construction and major renovation projects. Section 2.3 describes the baselines and eligibility guidelines for new equipment. Please note that though the C&I Retrofit initiatives apply to new equipment too, the savings and budgets for these retrofit measures are part of the New Construction Program.

In 2024, the Company will continue to offer two pathways for ground-up new construction or major renovation projects:

- Pathway 1: Energy Use Intensity / Zero Net Energy Ready
- Pathway 2: Streamlined / Systems

2.1.1 Pathway 1: Energy Use Intensity / Zero Net Energy Ready

This pathway focuses on high efficiency design as well as post-occupancy energy use intensity (EUI). EUI measures the total annual energy consumption per square foot throughout a whole building and a lower EUI means the building is more efficient. The offering is available to buildings 20,000 square feet or greater whose design teams and building owners engage with the Company early in the schematic design and development process. For this pathway, the Company has developed specific EUI targets for several market sectors including libraries, offices, public safety facilities and schools (elementary and high school). The specific EUI targets help to benchmark buildings with similar end-uses, systems, and equipment. For other building types, a site-specific EUI category will be available to ensure that any building type can participate in this pathway.

For Pathway 1, the Company has established EUI ranges for both Tier 1 and Tier 2 buildings. Tier 1 buildings are designed to achieve higher efficiency and are considered Net Zero Energy Ready, while Tier 2 includes high efficiency building that are d designed to achieve savings relative to energy code and industry standard practice. By offering a range of EUIs rather than one specific target, the Company can encourage a wider range of building types to participate in Pathway 1. The pathway encourages additional savings by offering higher incentives for buildings that reach below the Tier 1 EUI targets. For example, a building with a Tier EUI target of 30 will receive additional incentives if they realize an EUI of 25.

Pathway 1 offers comprehensive technical assistance and financial incentives for Zero Net Energy, Zero Net Energy ready and very low EUI projects. A Zero Net Energy building is an extremely energy-efficient building designed and operated to consume only as much energy as it produces annually. This pathway offers an optional verification incentive to measure building EUI post occupancy.

2.1.2 Pathway 2: Streamlined/Systems

This pathway is designed for smaller and simpler building designs and offers a variety of incentives and technical assistance services. The offering is available to buildings 20,000 square feet or greater regardless of when the design teams and building owners engage the Company. Pathway 2 has streamlined program process requirements, such as less stringent documentation guidelines and technical assistance procedures. This streamlined offering encourages increased participation for simpler building designs.

Pathway 2 provides incentives based on individual energy-saving measures implemented and the Company utilizes a spreadsheet analysis tool to estimate energy savings and incentives early in the project. This pathway is especially appropriate for major renovation projects, such as tenant fit outs, and for customers who lack the resources or time to pursue an EUI-based approach.

2.2 Large C&I New Construction Initiatives

2.2.1 Upstream Initiative

When "upstream" is referenced, the Company is referring to the practice of offering an incentive directly to a manufacturer or distributor of efficient equipment rather than offering an incentive directly to the customer through an application form and process after the sales transaction has been made. This allows manufacturers and distributors to sell the product for a lower price and makes the efficient option more appealing to a potential customer. For customers, the Upstream Initiative offers them the ability to purchase high efficiency equipment without the burden of paperwork or waiting for reimbursement. The following Upstream Initiatives are available to all C&I customers.

- **Upstream HVAC Initiative.** This initiative offers 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 pumps.

- **Upstream Gas Initiative.** This initiative offers discounted premium efficiency water heating equipment at the point of sale through qualified distributors. In 2024, the initiative will include water heaters (indirect and on-demand), water heating boilers and condominium water heaters.

- **Upstream Kitchen Equipment Initiative.** This initiative offers discounted premium efficiency electric and natural gas kitchen equipment at the point of sale at qualified distributors. The Company currently offers more than nine different types of energy-efficient cooking equipment across both fuels.

- **Upstream Lighting Initiative.** This initiative is primarily focused on Retrofit projects and offers discounted luminaires, luminaires with controls, lamps, and controls at the point of sale at qualified distributors.

All Upstream initiatives follow a similar implementation and delivery process. Distributors sell products directly to consumers or relevant intermediaries 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. The Company collaborates with qualified distributors to target market efforts to relevant customers.

2.2.2 Customer Eligibility

The New Construction Program is divided into two main categories to address new construction target markets:

- **New Buildings, Additions, Major Renovations and Tenant Fit-Ups Pathway**. This pathway is designed for customers that are pursuing ground up new construction or major renovation projects. These types of projects traditionally involve some level of design and are governed by building and energy codes.

- **New Equipment and End-of-Life Replacements Pathway**. This pathway is designed for customers that are purchasing new energy consuming equipment or replacing equipment that has reached the end of its useful life. Customers are incentivized to purchase and install energy-efficient equipment. Typically, there is no design component to these projects. Baseline energy use is considered to be the energy code or industry standard practice where applicable and energy savings are calculated using the baseline. If equipment has reached the end of its useful life, this pathway calculates energy savings from new equipment against the current codes and standards baselines (instead of against the old equipment). This pathway works similarly to the "systems approach" described below, whether through prescriptive or custom pathways.

2.2.3 Implementation and Delivery

As referenced in Section 2.1, the New Construction Program offers two pathways for ground-up new construction or major renovation projects. The Company also offers additional enhancements, with the goal of improving the customer experience and in turn driving repeat participation from customers and design teams.

2.2.3.1 Pathway 1: Energy Use Intensity / Zero Net Energy Ready

For Pathway 1, the Company's Energy Efficiency team reaches out to customers, owners and developers regarding new construction project opportunities. Over the years, several customers and design teams

have become repeat participants. 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 vendor is engaged to model the baseline project and proposed design project.

Zero Net Energy Projects

The Company's Energy Efficiency team must follow these steps for reviewing all potential Zero Net Energy projects:

- Vet the proposed project to ensure it meets basic New Construction Program requirements.
- Bring in a Zero Net Energy expert to assist the customer in assessing the project and identify services that may be needed to achieve the Zero Net Energy goal.
- Require the customer to engage a Zero Net Energy consultant, with the fee cost shared between the Company and the customer. The Zero Net Energy consultant is engaged from early in the project through the end of design development.
- Ensure the Zero Net Energy consultant provides a number of services including benchmarking EUI targets, conducting an energy charrette, performing load reduction analysis, and running HVAC selection analysis and model feedback.
- Require the customer to sign a Memorandum of Understanding (MOU) that outlines the EUI target, the post-occupancy EUI verification plan and other incentive details.
- Require the customer to sign an application that includes the energy efficiency measures and systems agreed upon. By signing the MOU and application, the customer commits to implementing the efficiency recommendations and accepts the associated incentives.
- Ensure a Company engineer creates a Minimum Requirements Document as part of the application process.
- Remain engaged during the design development and construction process to ensure energy efficiency measures and solutions are incorporated in the building project to achieve the EUI targets.
- Perform a visual inspection and review all construction design submittals after project completion. If any HVAC controls or variable-load energy efficiency measures have been incorporated in the project, the Company requires field measurements to verify operation standards, as described in the Minimum Requirements Document.

- Monitor the EUI measurements over a prescribed period and under the prescribed conditions before final incentive payment is made based on the savings achieved.

- Offer an optional verification incentive 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.

2.2.3.2 Pathway 2: Streamlined/Systems Approach

The Company's Energy Efficiency team works with and approaches customers, building owners and owner representatives regarding new construction or major renovation projects. If a customer decides to move forward with a project, they can choose to: (1) select a vendor of their choice to install energy efficiency measures or (2) to develop the project with technical assistance from the Company's Energy Efficiency team. Once the measures are installed, the Company performs an inspection and reviews design submittals. Once there are documented savings from the project, the customer can receive the incentive.

2.2.4 2024 Program Enhancements and Changes

As a result of the New Construction Program's newly simplified participation pathways, the Company anticipates these changes will result in additional program activity during the 2024-2026 term. Regarding building codes, in its 2023 session, the Rhode Island General assembly passed legislation requiring the state to adopt the 2024 International Energy Conservation Cost (2024 IECC) within 3 months of its release. Based on conversations with staff at the International Code Council (ICC), the 2024 IECC is expected to be released in mid-2024. The Company's standard practice is to not update a new construction baseline building code mid-program-year, and so the 2024 IECC will be used to update baseline assumptions for the 2025 program year. Regarding appliance standards, the Company will make changes to the Upstream Initiative's new construction baseline assumptions for food services and HVAC equipment as applicable.

2.2.5 Other Considerations

2.2.5.1 Customer Feedback

The Company regularly solicits customer feedback through its Energy Efficiency team's interactions with customers and design teams. These entities provide insights on what types of technical assistance and design support motivate builders, architects and customers to adopt high efficiency measures and design practices.

3. Large Commercial Retrofit Program

3.1 Offerings

The Company has several pathways by which customers can participate in the 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
-
- **Upstream Lighting Initiative.** This offering is described in Section 2.2 under the New Construction Program's Upstream Initiatives.

The Retrofit Program also offers initiatives targeting specific market segments, such as the Grocery and Industrial Initiatives that focus on the specific needs of that customer type. The Company also serves some of its largest customers through Strategic Energy Management Partnerships that are described in more detail below. Although sector-specific initiatives and Strategic Energy Management Partnerships are helpful in gathering more savings and completing measures beyond lighting, the Company recognizes that they do not cover the Company's entire C&I customer base.

The following areas that are specific to a technology or do not address a specific market sector are also included as part of the Retrofit Program and are included in this section of the plan:

- Building Operator Certification training
- Equipment & System Performance Optimization Initiative
- Performance Lighting Initiative
- Customer-owned streetlights
- Company-owned streetlights
- Combined Heat and Power and fuel cells

3.2 Initiatives Primarily Targeting Large Commercial Retrofit

3.2.1 Industrial Initiative

The Industrial Initiative is available to all manufacturing and industrial customers and provides incentives and technical assistance services including free facility audits, project management, installer and customer education sessions, production systems and line efficiency coordination. In addition, the Company provides support in identifying and implementing process-related improvements that increase the efficiency of business processes and energy consumption.

Historically, the Industrial Initiative has primarily targeted large C&I customers to ensure economies of scale. In 2024, the Industrial Initiative will continue to conduct outreach to customers in the 200-to-400-kilowatt (kW) range to encourage greater participation by medium-sized industrial facilities. The Company's intent is to improve parity among C&I customer sizes and capture projects with rapid paybacks such as variable frequency drive installations and enhanced controls.

The Industrial Initiative helps diversify the Electric Portfolio, with 66 percent of electric savings from January 2016 through July 2022 deriving from non-lighting measures including process equipment and controls (30 percent), compressed air (16 percent), HVAC (7 percent), and motors and drives (5 percent). For the Natural Gas Portfolio, the initiative contributes significant natural gas savings from process improvements.

3.2.2 Grocery Initiative

The EnergySmart Grocer Initiative serves commercial customers who sell food at the retail or wholesale level. The initiative 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 EnergySmart Grocer 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 now focuses on O&M measures submitted through the ESPO initiative, as well as advanced controls measures and leak detection and repair. Typically, refrigerant leak surveys are only performed when leaking refrigerant is visible to the naked eye or identified as a problem by the customer.

3.2.3 National and Regional Restaurant Initiative

The Serve Up Savings Initiative serves regional and national restaurant chains. Local restaurants with multiple locations within Rhode Island are served by the Small Business Direct Install Program. For franchisees, the initiative offers incentives, project management, technical assistance, and collaboration to develop an integrated package of efficiency measures that work for franchisors.

3.2.4 Strategic Energy Management Partnerships Initiative

The Strategic Energy Management Partnerships (SEMP) Initiative is available to the Company's largest C&I customers. This initiative targets customers who commit to achieving deeper energy efficiency savings, are motivated by corporate and institutional sustainability goals and who have the in-house expertise to make organizational changes and make multi-year efficiency plans. Participating customers agree to specific savings targets.

The initiative provides customers with customized support and offers them flexibility to address their corporate or institutional business needs while helping them meet sustainability, carbon reduction and efficiency goals. The SEMP Initiative helps customers think long term about their energy use, needs and equipment. This initiative allows a tailored approach to the site's or facility's specific needs and results in more comprehensive energy savings than traditional program offerings.

The Company has existing SEMP agreements in place with customers that operate in a number of different market sectors including chain restaurants, colleges and universities, health care, industries and municipal and state government. In 2024, the Company plans to continue partnering with large C&I customers to increase the number of SEMP agreements. In addition, the Company plans to continue promoting active demand response and clean transportation programs to serve as complementary efforts to traditional C&I offerings.

The Company plans to continue partnering with OER's Lead by Example program to help make state agencies, state colleges and universities and municipal buildings more energy efficient.

3.2.5 Building Operator Certification Training

The Company sponsors Building Operator Certification (BOC) training for facility engineers and maintenance staff. BOC training courses help operators make their buildings and facilities more comfortable and efficient. Many BOC participants also become aware of the C&I programs and actively seek out efficiency solutions for their facilities. As a result of these trainings, program participation and energy savings increase in the C&I programs.

3.2.6 Equipment & System Performance Optimization Initiative

The Equipment & Systems Performance Optimization (ESPO) Initiative helps C&I customers optimize the efficiency of their HVAC, refrigeration, compressed air, and steam systems. Energy efficiency solutions include operations and maintenance (O&M), retro-commissioning and monitoring-based commissioning. The initiative is available to all C&I customers averaging greater than 2,000 building operating hours a year. This initiative helps customers capture energy savings and may be delivered through other initiatives (e.g., SEMP Initiative or Industrial Initiative).

The ESPO Initiative covers several technologies and end-uses identified in the Market Potential Study, including boilers (steam and hot water), energy management systems, refrigeration, rooftop units, scheduling and set point optimization, and waste energy recovery. The ESPO Initiative provides multiple pathways for participation depending on a customer's energy-saving opportunities, building characteristics and the sophistication of existing control systems. These pathways are detailed below.

3.2.6.1 Low-Cost Tuning Pathway

This pathway offers prescriptive incentives to customers for making common tuning improvements to building equipment and systems. These improvements are often identified through facility audits or retro-commissioning efforts. Prior to a customer or outside party receiving an incentive for installation, pre-approval must be obtained from the Company. In an effort to streamline this pathway, the Company has developed guidelines for documentation baseline conditions to enable program participants to implement some low-cost tune-up measures without pre-approval.

The Low-Cost Tuning pathway offers incentives to customers whose baseline conditions and proposed building upgrades are documented through a simple data input which is used to determine savings at the measure level. Only selected compressed air, HVAC, refrigeration, and steam measures are eligible for the pathway's prescriptive incentives. Customers who are participating in the other ESPO Initiative pathways (see below) may elect to apply for Low-Cost Tuning pathway incentives, eliminating the need to submit custom savings calculations.

3.2.6.2 Targeted Systems Pathway

The Targeted Systems pathway offers customers a custom retro-commissioning approach. The pathway provides an in-depth investigation of specific processes or end-uses.

3.2.6.3 Whole Building & Process Tuning Pathway

The Whole Building & Process Tuning pathway delivers a comprehensive retro-commissioning approach for customers with a functional control system in place and whose electric usage is greater than 5 million kWh annually. The pathway offers investigation funds for system tuning and whole building and

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.

3.2.6.4 Monitoring-Based Commissioning Pathway

The Monitoring-Based Commissioning pathway is similar to the Targeted Systems and Whole Building & Process Tuning pathways; however, this offering assumes that identified measures and savings will persist for at least three years. Monitoring-based commissioning is a process designed to maintain and continuously improve building performance over time. This is achieved through building monitoring and analysis of large amounts of data. Known as real-time energy management, a monitoring-based commissioning approach requires the installation of a software platform and monitoring equipment to capture and analyze operational data from a building's or facility's building automation system.

Larger systems can provide continuous monitoring of hundreds of control points within a building and provide building operators with fault detection and diagnostics capabilities. This allows building operators to identify equipment that is not operated as intended due to many factors including faulty programming, systems in need of maintenance, incorrect settings (e.g., scheduling or setpoints) and even damaged equipment.

3.2.6.5 Building Analytics Pathway

This new pathway was introduced in late 2022 and funds system set-up costs for monitoring-based commissioning systems from a closed Qualified Service Provider list. This offering was designed to address historical barriers to monitoring-based commissioning adoption. The Building Analytics pathway helps customers identify sites that would benefit from monitoring-based commissioning, provides upfront support for the installation of systems that produce unknown savings and vets best in-class providers and makes sector-specific referrals regarding which Qualified Service Provider can best serve the customer's business needs.

The Building Analytics pathway helps improve measure persistence through a focus on long-lasting measures (e.g., physical repairs and reprogramming of control systems), training for facilities staff and long-term service contracts. There is a limited pool of Qualified Service Providers for this niche field. The pathway helps customers minimize their program transaction costs and the providers give upfront guidance regarding required documentation and savings calculations. In addition, the providers deliver ongoing service analysis to help customer facilities staff interpret monitored-based commissioning system output and improve system functionality.

3.2.6.6 Additional ESPO Offerings

The Company has developed a guidebook that standardizes the process of completing and documenting retro-commissioning savings calculations and classifying different energy efficiency measures; efforts

that have presented a significant challenge for prior ESPO Initiative participants and created an administrative burden for program implementation staff. This guidebook assists customers and trade allies who participate in the Monitoring-based Commissioning, Targeted Systems and Whole Building & Process Tuning pathways by answering common questions and eliminating points of confusion.

The Market Potential Study found that energy management systems realize the second-highest savings among electric non-lighting measures. While the ESPO Initiative is designed to improve the performance of existing equipment and systems, the monitoring-based commissioning and tuning investigations conducted very often lead to the installation of new energy management system equipment or the reprogramming of controls.[3] The ESPO Initiative also helps municipal customers improve the efficiency of unit ventilators and other gas measures located in school classrooms and other occupied zones (i.e., not heating and cooling equipment located in mechanical rooms) as this equipment frequently needs significant tuning or repairs.

3.2.7 Performance Lighting Initiative

This initiative is open to all customers with a commercial account. All projects that qualify under the Performance Lighting Initiative must meet the following criteria:

- Average a minimum of 2,000 lighting operating hours per year,[4]
- 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, and
- The customer must submit a copy of the manufacturer's technical specification sheets (cut sheets) for each type of eligible equipment to be purchased.

Performance Lighting Initiative incentives are 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.

The initiative offers lighting design incentives to design teams for qualifying projects in both new and existing buildings. The Company maintains a list of qualified lighting designers, engineers and architects who have demonstrated at least five years of lighting design experience. Lighting designers are not

[3] The reprogramming of controls is treated as an energy management system for C&I program purposes and is either assigned to the New Construction Program or Retrofit Program, depending on the situation.
[4] This criteria is before controls are implemented.

allowed to sell products for projects where they receive lighting design incentives. The Company markets the program to the new construction and design community.

Lighting designers must have at least one of the following qualifications to earn the incentive:

- **Lighting Certified.** This is granted to those designers who successfully complete the NCQLP (National Council on Qualifications for the Lighting Professions) Lighting Certification Examination.

- **Certified Lighting Energy Professional.** This is a certification awarded by the Association of Energy Engineers.

- **IALD Professional.** This is a professional membership status for the International Association of Lighting Designers.

- **Certified Lighting Designer.** This is a certification sponsored by the International Association of Lighting Designers. The guidelines for this certification are similar to those for the ESPO lighting design incentive.

The incentive must go directly to the lighting design team to fund their efforts to achieve lighting energy savings while maintaining quality lighting design. These incentives have been recalibrated to encourage projects to achieve higher tiers in Performance Lighting. The lighting design incentive must equal 20 percent of the customer's lighting incentive for Performance Lighting Tier 2 projects, 15 percent of the incentive for Performance Lighting Tier 1 projects and 10 percent of the incentive for all other projects. The Company has established a $15,000 maximum incentive per project.

3.2.8 LED Streetlight Initiatives

3.2.8.1 Customer-owned LED Streetlight Initiative

This initiative is available to any city or town in Rhode Island serviced by the Company for electric service on the customer-owned equipment S-05 tariff,[5] 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. The initiative offers incentives for qualifying LEDs and/or controls associated with either dimming or part-night run hours. The majority of Rhode Island's municipal and state streetlights have been converted to LEDs already, although opportunities remain to implement

[5] Rate S-05 is the customer-owned equipment tariff.

advanced controls. This is a success story, due in large part to efforts by the Company and actors within state government.

To be eligible for incentives, customers must be on one of the three unmetered streetlight tariffs (S-06, S-10 and S-14) and replace an existing roadway or post-top style, incandescent, mercury vapor or high-pressure sodium vapor sourced luminaire with 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 operate on a dusk-to-dawn schedule. This is a success story, due in large part to efforts by the Company and actors within state government.

3.2.8.2 Company-owned Streetlight Equipment Initiative

This initiative is available to any customer on one of the three unmetered streetlight tariffs (S-06, S-10 and S-14) who replaces an existing roadway or post-top style, incandescent, mercury vapor or high-pressure sodium vapor sourced luminaire with 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 operate on a dusk-to-dawn schedule.

3.2.9 Combined Heat and Power Initiative

Combined heat and power (CHP) is the simultaneous production of electricity and thermal energy from a single fuel source. The CHP Initiative offers incentives and technical assistance to customers who install new construction and retrofit installations.

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 . requirement. System efficiency is calculated as Annual Useful Energy/Annual Natural Gas Input where:

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

  Annual natural gas input = 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.

- CHP projects must reduce carbon emissions related to overall site energy use by a minimum of 30%, 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
- 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 30%; the amount of carbon reductions may be achieved through other simultaneous energy efficiency installations to achieve the site carbon reduction goal.

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. [6]

Table 3. Determination of Non-Variable Incentive Level for CHP Projects

System	Incentive
Fuel cell	$700 per net kW
Combustion-Based CHP with total system efficiency ≥60%	$800 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	$1,050 per net kW

.

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 theses 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.

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.

Customer and Vendor Feedback:

Stakeholders including vendors and installers provided feedback at the 20232 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.

Participation and Savings:

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.[7] 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.

3.3 Eligibility

The program serves the needs of existing buildings in their pursuit to lower energy consumption. All C&I customers are eligible for the Retrofit Program.

3.4 Implementation and Delivery

The Retrofit Program offers customers a variety of pathways to participate. Typically, a Company sales representative is assigned to cover any large C&I account, defined as a customer with at least 1 million kWh or 100,000 therms of annual energy usage. The general customer journey through the Retrofit Program is:

- A facility audit or walk-through by the Company, customer or a third-party vendor identifies one or more energy efficiency opportunities.
- In most cases, especially custom measures, the Company provides an offer letter committing to a specific incentive and laying out the project's requirements. The customer signs and submits the offer letter.
- Once the energy efficiency measure is implemented, the customer notifies the Company. The Company's staff or vendors (often engineers) verify that the measure has been implemented in accordance with project requirements.
- Company staff (administrators, engineers, and sales staff) work with the customer to ensure complete documentation and to pay the incentive.

[7] 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.

Prescriptive Application

Customers can complete prescriptive applications by printing or submitting them online. Prescriptive incentives are available for a wide variety of standardized energy efficiency measures with "deemed" savings values, such as lighting equipment, air compressors, variable speed drives and steam traps.

Upstream Process

The Upstream Initiatives offer instant discounts (i.e., incentives) to customers for the purchase of qualified, high efficiency products including luminaires, kitchen equipment, water heating equipment and high efficiency heating and cooling technologies at participating distributors. By offering discounts through distributors, the Company obviates the need for individual customers to submit incentive applications, a significant barrier for non-managed and smaller customer accounts. Customers no longer need to submit applications for incentives, which drives far greater program participation and more equitable distribution of incentive funds. The Upstream Initiatives impact the market by reducing the cost of energy-efficient products compared to less efficient alternatives and by encouraging distributors to stock and promote high efficiency products. Note: The Upstream Lighting Initiative's savings and budget are captured within the Retrofit Program and the Upstream HVAC and Food Service Initiatives are captured within the New Construction Program.

Custom Application

A Company sales representative or project expeditor assists customers and their vendors with the completion of the Retrofit Program's custom applications. These are applications for the installation of any energy efficiency measure not incentivized through the Prescriptive or Upstream Initiatives. A custom measure typically requires a Minimum Requirements Document that provides details regarding project guidelines 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 Minimum Requirements Document.

Project Expeditors

The Company utilizes project expeditors to provide turnkey services for Retrofit and New Construction Program projects. A project expeditor is an authorized vendor who serves as a customer's main point of contact and personal guide to energy cost savings. Several project expeditors work closely with the Company's account management team to evaluate energy efficiency opportunities and determine incentives. A project expeditor 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, and
- Gas heating and hot water system upgrades,
- Compressed air solutions, including air compressors, dryers, drains and engineered air nozzles.

3.5 2024 Program Enhancements and Changes

Building Analytics Initiative

In 2024, the Company will scale up the Building Analytics Initiative to help customers optimize the performance of HVAC equipment and other systems. The Building Analytics Initiative launched in 2022, with the selection and onboarding of Qualified Service Providers, finalization of program materials, and initial outreach to customers. In 2024, 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 2024.

Technical Processes

In 2024, the Company will implement multiple improvements to technical processes and also develop streamlined savings calculators for target measures. The Company will launch a Heat Pump Hot Water Heater calculator, an Energy Management System prescriptive calculator, a C&I weatherization tool and other custom express tools. These efforts are likely to yield savings in 2024.

The Company will also look to deploy a data-driven approach to increasing customer participation in the commercial and industrial sectors. This includes analyzing customer consumption data (kWh, peak load, and therms) and past energy efficiency participation to better target customers, especially non-participants. 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 program.

Company engineers often conduct site visits when validating project installations and savings calculations. Going forward, engineers will leverage these site visits not only to validate installed measures but to identify additional energy-saving opportunities.

Trade Ally Engagement

In 2024, the Company will seek to better engage trade allies (primarily contractors) with expertise in HVAC, controls, refrigeration, and other technologies to participate in the C&I programs. Broader program participation from these trade allies is critical to diversifying the Company's Energy Efficiency 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.

Additional Program Enhancements

In 2024, the Company will introduce new services supporting more advanced system controls, energy management systems, and building analytics to the Retrofit Program. This includes retro-commissioning, monitoring-based commissioning, equipment right-sizing and the Upstream Initiatives. The Company will offer enhanced incentives to customers who commit to implementing comprehensive energy efficiency projects.

The Company plans to expand the reach of the SEMP Initiative to support the increasing number of customers with climate and sustainability goals. This includes expanding services supporting more advanced system controls, energy management systems and building analytics. In 2024, the Company will develop a host of prescriptive and custom offerings to promote commercial weatherization and greenhouse gas emissions reductions. Additionally, the Company will work with OER to better understand electrification efforts being funded through state and federal programs.

In 2024, the Company will continue to enhance its continuing education offerings for building managers and facilities operators, including the BOC trainings.

3.6 Other Considerations

Workforce Development

The Company is 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 (e.g., project expeditors, 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 energy efficiency technologies. In addition to the direct benefits of these trainings, the events can serve to drive program participation by increasing awareness of energy efficiency incentives and services. Likewise, events help Company 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 energy efficiency projects.

Supply Chain Disruption

The Company 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 energy efficiency projects. However, these phenomena affect the entire global economy. By and large, there is no easy fix, and the Company has limited control over the situation.

Code Changes for 2024

Regarding building codes, in its 2023 session, the Rhode Island General assembly passed legislation requiring the state to adopt the 2024 International Energy Conservation Cost (2024 IECC) within 3 months of its release. Based on conversations with staff at the International Code Council (ICC), the 2024 IECC is expected to be released in mid-2024. The Company's standard practice is to not update a new construction baseline building code mid-program-year, and so the 2024 IECC will be used to update baseline assumptions for the 2025 program year.

Regarding appliance standards, the Company will make changes to the Upstream Initiative's new construction baseline assumptions for food services and HVAC equipment as applicable. These strengthening standards help lower overall energy consumption at a macro level, however they lessen the claimable savings potential for affected measures as they close the gap between high-efficiency options and the least-efficient options available on the market. As baseline standards continue to rise, the Company will continue to identify and support appliances which still have significant claimable savings potential.

4. Small Business Direct Install Program

4.1 Offerings

The Small Business Program offers a no-cost site assessment conducted by a Small Business Energy Specialist to understand the customer's energy-related needs and goals. This site assessment identifies energy efficiency measures including lighting systems and controls, cooler/refrigeration controls, water saving measures, HVAC controls, motor controls, weatherization/insulation and custom measures. The Small Business vendor offers turn-key installation and on-bill refinancing to support the adoption of the recommended energy efficiency measures to the customer.

The program also offers a Customer Directed Option pathway. In this pathway, customers may use their own electrician to install measures while the Small Business vendor processes and submits all necessary paperwork to the Company.

4.2 Eligibility

Commercial customers who have less than 1.5 million kWh in annual usage may participate in the Small Business Program. K-12 schools, national and regional chain restaurants, and small grocery stores who consume less than 1.0 million kWh per year are excluded from this program as they are served through other pathways or initiatives.

4.3 Implementation and Delivery

If a customer is interested in participating in the Small Business Program, they can sign up for an energy assessment by either calling, emailing or using an online form to express interest in the program. After this initial contact, the customer is connected to a dedicated Small Business Program representative to learn details about the program's processes and next steps. The program vendor schedules an assessment with the customer and an Energy Specialist will meet the customer at the scheduled time. The Energy Specialist performs an energy assessment, identifies strategies to pursue opportunities, reviews design considerations with the customer, and incorporates the energy efficiency measures identified into a proposal. The proposal reflects the installed costs, the expected energy savings and the applicable program incentives.

4.4 2024 Program Enhancements and Changes

4.4.1 Equity

4.4.1.1 Multilingual Outreach

In 2024, the Company will continue to incorporate two equity-related initiatives. The Company and its Small Business implementation vendor deploy bilingual auditors who speak either Spanish or Portuguese – the two most widely spoken languages besides English in Rhode Island. The program will continue to target its marketing directly to Woman and Minority Owned Enterprises (WME). This effort extends beyond the WME businesses registered with the state and seeks to develop long-term relationships with groups such as the Rhode Island Black Business Association and the Rhode Island 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 Progresso Latino.

4.4.1.2 Main Streets Initiative and Microbusinesses

Finally, the Communities Initiative includes equity elements, including a focus on microbusinesses, as described in the Main Text of the 2024 Plan. The Company continues to integrate its program outreach efforts with the Main Streets Initiative to increase adoption of direct install energy efficiency measures among hard-to-reach microbusinesses in Rhode Island. In 2024, through its turnkey vendor, the Company will continue to 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 2024 are Pawtucket, Providence, Cranston, West Warwick and Middletown/Newport. These communities contain Environmental Justice areas and are also targeted for enhanced outreach through the Company's Income Eligible programs.

4.4.2 Decarbonization

In 2024, the Company will look to develop a host of prescriptive and custom offerings to promote commercial weatherization and greenhouse gas emissions reductions. This will include the development of prescriptive weatherization and air sealing offerings for the Small Business Program and Retrofit Program. The Company also plans to work with OER to better understand electrification efforts being funded through state and federal programs.

4.4.3 Increase Program Participation

In 2024, the Company will integrate Small Business Program outreach efforts with its Main Streets Initiative Ito reach more small businesses located in Environmental Justice Areas. In addition, the Company plans to deploy multilingual marketing materials and program materials in an effort to increase participation in the Small Business Program.

5. C&I Multifamily Program

5.1 Offerings

See Attachment 1: Multifamily Program.

5.2 Eligibility

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

5.3 2024 Program Enhancements and Changes

See Attachment 1, Section 3, for 2024 program enhancements and changes.

6. 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.

6.1 Mechanisms Offered

The Company 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.

6.1.1 On Bill Repayment – Electric

On-Bill Repayment – Electric, for commercial customers who consume less than 1.0 million kWh per year	
Loan Size	$1,000 to ~$100,000 (may be larger for SEMP Initiative)
Maximum Tenor	5 years for commercial accounts, 7-10 years for State facilities
Loan Volume	Variable, between $5.0M to $10M per year
Benefits to Customer	No formal credit check/ rapid approval, on bill repayment, zero interest
Limitations	Maximum tenor too short for many comprehensive upgrade
More Information	The Company's most recent Small Business revolving loan fund projections are illustrated in Attachment 5, Table E-10
Relevant Notes	

6.1.2 On Bill Repayment – Electric Small Business

On-Bill Repayment – Electric Small Business, for commercial customers who consume less than 1.0 million kWh per year	
Loan Size	$500 to $50,000
Maximum Tenor	5 years
Loan Volume	Variable, between $1.8M and $3.0M per year
Benefits to Customer	No formal credit check / rapid approval, on-bill repayment, zero percent interest
Limitations	Maximum tenor too short for many comprehensive upgrades, cannot be used to support upgrades customers may want, such as windows and roofs as they have a benefit-cost ratio less than 1.0
More Information	The Company's most recent Small Business revolving loan fund projections are illustrated in Attachment 5, Table E-10
Relevant Notes	

6.1.3 On Bill Repayment – Natural Gas

On-Bill Repayment – Natural Gas, all commercial gas customers	
Loan Size	$1.000 to ~$100,000 (may be larger for SEMP Initiative or special projects)
Maximum Tenor	3 years for commercial accounts, 5 years for State facilities

On-Bill Repayment – Natural Gas, all commercial gas customers	
Loan Volume	Variable, between $1.0M and $1.5M per year
Benefits to Customer	No formal credit check / rapid approval, on-bill repayment, zero percent interest
Limitations	Maximum tenor too short for many comprehensive upgrades, cannot be used to support upgrades customers may want, such as windows and roofs as they have a benefit-cost ratio less than 1.0
More Information	The Company's most recent Natural Gas revolving loan fund projections are illustrated in Attachment 6, Table E-10
Relevant Notes	

6.1.4 Efficient Buildings Fund

Efficient Buildings Fund, state agencies, quasi-state agencies and municipalities	
Loan Size	More than $5M
Maximum Tenor	Up to 20 years
Loan Volume	Variable, over $60M in loans closed to date
Benefits to Customer	Below market rate interest, long tenor and 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 details on this program can be found online at the Rhode Island Infrastructure Bank webpage and the OER Resources webpage
Description	The Efficient Buildings Fund is a long-term, below-market financing option for municipalities and quasi-public agencies to complete energy efficiency and renewable energy projects. The fund is administered in partnership with OER and the Rhode Island Infrastructure Bank (RIIB). OER is responsible for determining project eligibility, reviewing project applications, and producing a Project Priority List. RIIB only finances projects that are listed on the Project Priority List
2024 Actions	RIIB and OER will administer the program and the Company will continue to provide technical, logistical and incentive support to municipal customers

6.1.5 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 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 details on this fund can be found in Attachment 5, Table E-9.

6.1.6 Commercial Property Assessed Energy (C-PACE)

C-PACE, owners of non-residential properties	
Maximum Loan Size	Limited 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+**

6.1.7 Ascentium Rental Agreement

Ascentium Rental Agreement, owners of non-residential properties	
Maximum 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

7. Marketing to C&I Customers

To be drafted.

8. Commercial and Industrial Measures and Incentives

Table 4 below lists the planned measures for the electric Commercial and Industrial programs, by program, along with the planned quantities (in kWh or MMBtu savings), incentives per quantity, total incentives, and annual and lifetime savings. Table 5 shows planned costs in non-incentive cost categories for each program that are not allocated at the measure level. Table 6 and Table 7 show the same information for the planned Gas program, respectively.

Table 4. Planned Measures for Electric Commercial and Industrial Programs

Program	Measure	Quantity (kWh)	Incentive / Quantity	Total Incentives	Net Annual Energy Savings (MWh)	Net Lifetime Energy Savings (MWh)	Net Annual Summer Capacity Savings (kW)	Net Annual Winter Capacity Savings (kW)	Annual Carbon Reductions (Short Tons)	Lifetime Carbon Reductions (Short Tons)
Large C&I New Construction	Advanced Building	477090	$0.45	$214,691	170.8	2733.2	47.7	6.4	67.3	1077.2
	Air Cooled AC - 11.25-20 T	41413	$0.25	$10,353	41.4	621.2	3.6	0.0	16.3	244.8
	Air Cooled AC - 20-63 T	27354	$0.25	$6,838	27.4	410.3	2.4	0.0	10.8	161.7
	Air Cooled AC - 5.4-11.25 T	159868	$0.25	$39,967	159.9	2398.0	13.8	0.0	63.0	945.1
	Air Cooled AC - over 63 T	13295	$0.25	$3,324	13.3	199.4	1.1	0.0	5.2	78.6
	AirCChiller - 150to300T	34431	$0.26	$8,952	37.2	854.5	10.2	1.9	14.6	336.8
	AirCChiller - IPLV	34431	$0.26	$8,952	37.2	854.5	10.2	1.9	14.6	336.8
	AirCChiller - Peak	34431	$0.26	$8,952	37.2	854.5	10.2	1.9	14.6	336.8
	AirCChiller - to150T	34431	$0.26	$8,952	37.2	854.5	10.2	1.9	14.6	336.8
	AirHP - 11.25-20T	2366	$0.13	$296	2.5	29.8	0.3	0.0	1.0	11.8
	AirHP - 5.4-11.25T	3654	$0.15	$544	3.8	46.0	0.5	0.0	1.5	18.1
	AirHP - Pkg to5.4T	250000	$0.40	$100,000	262.5	3150.0	36.3	0.0	103.5	1241.5
	Boiler, Draft Fan	7883	$0.31	$2,463	4.8	72.7	0.4	0.4	1.9	28.6
	Boiler, Feedwater Pump	7883	$0.31	$2,463	5.6	84.1	0.4	0.4	2.2	33.2
	Building Exhaust Fan	7883	$0.31	$2,444	4.8	72.7	0.4	0.4	1.9	28.6
	Building Shell	4617	$0.50	$2,308	2.9	72.7	0.0	0.0	1.1	28.6
	Chiller	575195	$0.53	$304,278	362.3	8332.2	47.6	47.2	142.8	3283.9
	Chiller, Water Pump	7883	$0.31	$2,463	5.6	84.1	0.4	0.4	2.2	33.2
	CODES AND STANDARDS	341598	$0.00	$0	341.6	6832.0	0.0	0.0	134.6	2692.6
	Commercial Electric Combination Oven	24152	$0.18	$4,347	18.3	219.4	3.4	3.4	7.2	86.5
	Commercial Electric Convection Oven	45986	$0.23	$10,725	34.8	417.7	6.6	6.6	13.7	164.6
	Commercial Electric Fryer - Large	2273	$0.10	$220	1.7	20.6	0.3	0.3	0.7	8.1
	Commercial Electric Fryer - Standard	2381	$0.09	$220	1.8	21.6	0.3	0.3	0.7	8.5
	Commercial Electric Griddle	3380	$0.31	$1,050	2.6	30.7	0.5	0.5	1.0	12.1
	Commercial electric steamer	27140	$0.08	$2,070	20.5	246.5	3.9	3.9	8.1	97.2
	Commercial Refrigeration	973949	$0.46	$448,017	613.4	9201.2	63.0	72.4	241.8	3626.4
	Comprehensive Design	477090	$0.44	$209,920	170.8	2733.2	47.7	6.4	67.3	1077.2
	Compressed Air	2812815	$0.39	$1,099,811	1771.6	26573.7	213.0	224.4	698.2	10473.3
	Compressed Air Nozzle	7500	$0.28	$2,100	8.2	122.6	0.8	0.6	3.2	48.3
	Conveyor Broiler - >28" wide	3161	$0.98	$3,100	3.2	37.9	0.6	0.6	1.2	14.9
	Cooling Tower Fan	7883	$0.31	$2,463	5.6	84.1	0.4	0.4	2.2	33.2
	Custom HVAC	1557819	$0.53	$824,086	981.2	15698.4	128.9	127.9	386.7	6187.1
	Deck Oven	56393	$0.30	$16,875	42.7	512.3	8.0	8.0	16.8	201.9
	DHW ECM Pump - <= 1/8 HP	3788	$0.39	$1,481	3.8	75.8	0.8	0.8	1.5	29.9
	DHW ECM Pump - <=1/20 HP	5034	$0.39	$1,968	5.0	100.7	0.0	0.0	2.0	39.7
	DHW ECM Pump - 1/20 to 1/8 HP	5034	$0.39	$1,968	5.0	100.7	0.0	0.0	2.0	39.7
	DHW ECM Pump - 1/6 to 3/4 HP	5034	$0.39	$1,968	5.0	100.7	0.0	0.0	2.0	39.7
		5034	$0.39	$1,968	5.0	100.7	0.0	0.0	2.0	39.7

	DHW ECM Pump - 1/8 to 1/6 HP	5034	$0.39	$1,968	5.0	100.7	0.0	0.0	2.0	39.7
	DHW ECM Pump - 3/4 to 3 HP	9962	$0.22	$2,220	7.5	113.1	1.4	1.4	3.0	44.6
	Dishwasher - High Temperature Door Type	4815	$0.10	$463	3.6	72.9	0.7	0.7	1.4	28.7
	Dishwasher - High Temperature Multi Tank Conveyor	1548	$0.90	$1,388	1.2	11.7	0.2	0.2	0.5	4.6
	Dishwasher - High Temperature Pots and Pans	6365	$0.36	$2,288	4.8	96.4	0.9	0.9	1.9	38.0
	Dishwasher - High Temperature Single Tank Conveyor	32596	$0.29	$9,555	24.7	246.8	4.6	4.6	9.7	97.3
	Dishwasher - High Temperature Under Counter	8180	$0.01	$105	6.2	123.8	1.2	1.2	2.4	48.8
	Dishwasher - Low Temperature Single Tank Conveyor	3049	$0.15	$455	2.3	23.1	0.4	0.4	0.9	9.1
	Dishwasher - Low Temperature Under Counter	2722	$0.09	$250	2.1	20.6	0.8	0.0	0.8	8.1
	Dual enthalpy economizer controls	54729	$0.30	$16,539	54.7	1094.6	7.1	7.1	21.6	431.4
	ECM Pump - <= 1/8 HP	18242	$0.30	$5,513	18.2	364.8	3.3	3.3	7.2	143.8
	ECM Pump - <=1/20 HP	20334	$0.58	$11,692	15.4	77.0	2.9	2.9	6.1	30.3
	Electric HW Spray Valve	1727101	$0.53	$913,636	1087.8	16316.5	142.9	141.8	428.7	6430.8
	EMS	38552	$0.39	$15,074	24.3	267.1	0.0	0.0	9.6	105.3
	Food Service	427	$0.53	$225	0.4	5.1	0.1	0.1	0.2	2.0
	Freezer Glass Door - <15 ft3	1486	$0.20	$300	1.5	17.8	0.3	0.3	0.6	7.0
	Freezer Glass Door - >50 ft3	681	$0.48	$325	0.7	8.2	0.1	0.1	0.3	3.2
	Freezer Glass Door - 15 to 29.9 ft3	1062	$0.19	$200	1.1	12.7	0.2	0.2	0.4	5.0
	Freezer Glass Door - 30 to 49.9 ft3	2120	$1.06	$2,250	2.1	25.4	0.4	0.4	0.8	10.0
	Freezer Solid Door - <15 ft3	589	$0.51	$300	0.6	7.1	0.1	0.1	0.2	2.8
	Freezer Solid Door - >50 ft3	7290	$0.67	$4,875	7.3	87.5	1.4	1.4	2.9	34.5
	Freezer Solid Door - 15 to 29.9 ft3	17312	$0.37	$6,400	17.3	207.7	3.3	3.3	6.8	81.9
	Freezer Solid Door - 30 to 49.9 ft3	145433	$0.40	$58,183	110.1	1100.9	20.7	20.7	43.4	433.9
	Freezer, Ultra Low Temperature	3130	$0.07	$220	2.4	23.7	0.4	0.4	0.9	9.3
	Hand Wrapper	15766	$0.31	$4,927	11.2	168.3	0.9	0.9	4.4	66.3
	Heating Hot Water Pump	104689	$0.29	$30,525	104.7	1361.0	15.4	13.7	41.3	536.4
	High Efficiency Condensing Units - Floating Head Pressure Control	104689	$0.29	$30,525	104.7	1361.0	15.4	13.7	41.3	536.4
	High Efficiency Condensing Units - Scroll Compressor	1000	$0.70	$700	0.8	10.1	0.1	0.1	0.3	4.0
	High Performance Contact Conveyor Toaster	19710	$0.59	$11,700	19.7	236.5	3.7	3.7	7.8	93.2
	Hot Food Holding Cabinet - 1/2	4380	$0.73	$3,200	3.3	39.8	0.6	0.6	1.3	15.7
	Hot Food Holding Cabinet - 3/4	4106	$0.35	$1,425	3.1	37.3	0.6	0.6	1.2	14.7
	Hot Food Holding Cabinet - Full	15766	$0.31	$4,927	14.8	222.3	1.1	1.1	5.8	87.6
	HVAC Fan - Return	15766	$0.31	$4,927	14.8	222.3	1.1	1.1	5.8	87.6
	HVAC Fan - Supply	5202	$0.09	$450	5.2	41.6	1.0	1.0	2.1	16.4
	Ice Machine - Cont. Remote	46914	$0.25	$11,550	46.9	375.3	8.8	8.8	18.5	147.9
	Ice Machine - Ice Making Head	3220	$0.28	$900	3.2	25.8	0.6	0.6	1.3	10.2
	Ice Machine - Ice Self Contained	7282	$0.06	$450	7.3	58.3	1.4	1.4	2.9	23.0
	Ice Machine - Remote/Split	122305	$0.35	$42,195	88.3	1324.9	18.5	10.5	34.8	522.2
	LEDS	154947	$0.22	$34,088	146.9	1322.0	13.4	12.3	50.0	449.9
	Lighting Controls - Dimming	117000	$0.22	$25,740	110.9	998.2	10.1	9.3	37.7	339.7
	Lighting Controls - Exterior	117000	$0.22	$25,740	110.9	1220.1	10.1	9.3	37.7	415.2

	Lighting Controls - Integrated	135806	$0.22	$29,877	128.7	1158.7	11.8	10.8	43.8	394.3
	Lighting Controls - Sensor	117000	$0.22	$25,740	110.9	998.2	10.1	9.3	37.7	339.7
	Lighting Controls - Street Light Exterior	64350	$0.35	$22,201	46.5	418.2	9.7	5.5	18.3	164.8
	Lighting Controls, Custom	122305	$0.35	$42,195	88.3	1324.9	18.5	10.5	34.8	522.2
	Lighting Systems, Custom	104746	$0.28	$29,329	150.8	2262.5	14.1	11.5	59.4	891.7
	LOADCOMP-25HP	104746	$0.28	$29,329	150.8	2262.5	13.6	11.2	59.4	891.7
	LOADCOMP-75HP	7500	$0.28	$2,100	8.2	40.9	0.7	0.6	3.2	16.1
	Low pressure drop filter	2033	$0.31	$635	1.4	21.7	0.1	0.1	0.6	8.6
	Make Up Air Fan	6278	$0.39	$2,449	6.3	157.0	0.0	0.0	2.5	61.9
	MFHR - Cooling	6278	$0.39	$2,449	6.3	94.2	0.0	0.0	2.5	37.1
	MFHR - DHW	6278	$0.39	$2,449	6.3	157.0	0.0	0.0	2.5	61.9
	MFHR - Heating	6278	$0.39	$2,449	0.0	0.0	0.0	0.0	0.0	0.0
	MFHR - Lighting	58140	$0.22	$12,791	36.6	732.4	7.2	6.0	14.4	288.6
	Motor	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	ODP-1200F	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	ODP-1200N	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	ODP-1200S	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	ODP-1800F	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	ODP-1800N	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	ODP-1800S	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	ODP-3600F	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	ODP-3600N	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	ODP-3600S	55384	$0.39	$21,655	34.9	348.8	3.5	4.7	13.7	137.5
	Other	48089	$0.25	$12,022	26.4	396.7	2.3	0.0	10.4	156.4
	Packaged Terminal Air Conditioner	180600	$0.12	$21,672	182.4	2736.1	35.5	3.1	71.9	1078.4
	PEI H2O PUMP - COMM, C	133640	$0.22	$29,401	126.7	1900.4	11.6	10.6	43.1	646.7
	Performance Lighting - Tier 1 Exterior	786903	$0.22	$173,119	746.0	11189.8	68.2	62.4	253.9	3807.9
	Performance Lighting - Tier 1 Interior	99000	$0.22	$21,780	93.9	1407.8	8.6	7.9	31.9	479.1
	Performance Lighting Tier 2 & 3 Exterior	99000	$0.22	$21,780	93.9	1407.8	8.6	7.9	31.9	479.1
	Performance Lighting Tier 2 & 3 Interior	122305	$0.35	$42,195	88.3	1324.9	18.5	10.5	34.8	522.2
	Performance Lighting, Custom	55000	$0.22	$12,100	52.1	782.1	4.8	4.4	17.7	266.2
	Prescriptive Lighting - Compact	55000	$0.22	$12,100	52.1	782.1	4.8	4.4	17.7	266.2
	Prescriptive Lighting - Custom	111703	$0.25	$27,926	105.9	1588.4	9.7	8.9	36.0	540.5
	Prescriptive Lighting - EXT-24/7	284897	$0.22	$62,677	270.1	4051.2	24.7	22.6	91.9	1378.7
	Prescriptive Lighting - EXT-DUSKDAWN	55000	$0.22	$12,100	52.1	782.1	4.8	4.4	17.7	266.2
	Prescriptive Lighting - Fluorescent	55000	$0.22	$12,100	52.1	782.1	4.8	4.4	17.7	266.2
	Prescriptive Lighting - LED Case Ref	1084661	$0.22	$238,625	1028.3	15423.9	94.0	86.1	349.9	5248.8
	Prescriptive Lighting - LED General	99000	$0.22	$21,780	93.9	1407.8	8.6	7.9	31.9	479.1
	Prescriptive Lighting - LED Sign	1129128	$0.34	$383,904	711.2	10667.3	105.4	121.5	280.3	4204.2
	Process	289266	$0.32	$93,144	182.2	2732.8	27.0	31.1	71.8	1077.1
	Process Cooling	7883	$0.31	$2,463	5.6	84.1	0.4	0.4	2.2	33.2
	Process Exhaust Fan	7883	$0.31	$2,463	5.6	84.1	0.4	0.4	2.2	33.2
	Process, Cool Pump	20782	$0.28	$5,819	29.9	389.0	2.8	2.3	11.8	153.3
	Refrigerated Air Dryer - CAT<100	20782	$0.28	$5,819	29.9	389.0	2.8	2.3	11.8	153.3
	Refrigerated Air Dryer - CAT>400	20782	$0.28	$5,819	29.9	389.0	2.8	2.3	11.8	153.3
	Refrigerated Air Dryer - CAT-200	20782	$0.28	$5,819	29.9	389.0	2.8	2.3	11.8	153.3
	Refrigerated Air Dryer - CAT-300	20782	$0.28	$5,819	29.9	389.0	2.8	2.3	11.8	153.3
	Refrigerated Air Dryer - CAT-400	1051	$0.52	$550	1.1	12.6	0.2	0.2	0.4	5.0
	Refrigerated Chef Base - 35" to 54"	1986	$0.28	$550	2.0	23.8	0.4	0.4	0.8	9.4

	Refrigerated Chef Base - 74" to 89"	3675	$0.92	$3,375	3.7	44.1	0.7	0.7	1.4	17.4
	Refrigerator Glass Door - <15 ft3	3660	$0.61	$2,250	3.7	43.9	0.7	0.7	1.4	17.3
	Refrigerator Glass Door - >50 ft3	11666	$0.57	$6,650	11.7	140.0	2.2	2.2	4.6	55.2
	Refrigerator Glass Door - 15 to 29.9 ft3	22680	$0.42	$9,450	22.7	272.2	4.3	4.3	8.9	107.3
	Refrigerator Glass Door - 30 to 49.9 ft3	2550	$1.32	$3,375	2.6	30.6	0.5	0.5	1.0	12.1
	Refrigerator Solid Door - <15 ft3	1880	$1.00	$1,875	1.9	22.6	0.4	0.4	0.7	8.9
	Refrigerator Solid Door - >50 ft3	8160	$0.69	$5,600	8.2	97.9	1.5	1.5	3.2	38.6
	Refrigerator Solid Door - 15 to 29.9 ft3	4410	$1.33	$5,850	4.4	52.9	0.8	0.8	1.7	20.9
	Refrigerator Solid Door - 30 to 49.9 ft3	10950	$0.26	$2,896	10.6	31.9	1.6	1.6	4.2	12.6
	Room Air Cleaner - K-12	10950	$0.26	$2,896	10.6	31.9	1.6	1.6	4.2	12.6
	Room Air Cleaner - Office	10950	$0.26	$2,896	10.6	31.9	1.6	1.6	4.2	12.6
	Room Air Cleaner - Retail	10950	$0.26	$2,847	8.9	89.4	2.5	0.5	3.5	35.3
	Sensors	55306	$0.25	$13,826	29.3	439.7	2.5	0.0	11.6	173.3
	Split system AC to 5.4 tons	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	TEFC-1200F	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	TEFC-1200N	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	TEFC-1200S	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	TEFC-1800F	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	TEFC-1800N	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	TEFC-1800S	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	TEFC-3600F	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	TEFC-3600N	2033	$0.29	$590	1.9	28.7	0.1	0.1	0.8	11.3
	TEFC-3600S	3788	$0.40	$1,515	2.9	66.0	0.0	0.0	1.1	26.0
	Tranformers	83796	$0.31	$25,977	91.3	1370.2	8.3	6.8	36.0	540.0
	VARICOMP, 75HP	1200	$0.70	$840	1.0	5.2	0.1	0.1	0.4	2.1
	Vending Miser - Glass Front Refridgerated Coolers	1200	$0.70	$840	1.0	5.2	0.1	0.1	0.4	2.1
	Vending Miser - Non-Refridgerated Snack Vending Machines UPSTR	1200	$0.70	$840	1.0	5.2	0.1	0.1	0.4	2.1
	Vending Miser - Refridgerated Beverage Vending Machines UPSTR	2033	$0.31	$635	1.9	28.7	0.1	0.1	0.8	11.3
	VFD Secondary	261578	$0.31	$81,899	274.7	4669.2	23.1	0.0	108.2	1840.2
	VRF HP - 11.25T-20T	590566	$0.27	$156,573	620.1	10541.6	52.1	0.0	244.4	4154.7
	VRF HP - 5.4T-11.25T	10613	$0.23	$2,409	11.1	189.4	0.0	0.0	4.4	74.7
	VRF HP - over 20T	83796	$0.22	$18,435	91.3	1187.5	8.2	6.8	36.0	468.0
	VSD Compressor (15<=HP<=75)	58140	$0.22	$12,791	0.0	0.0	9.5	7.9	0.0	0.0
	VSD-HVAC	123122	$0.22	$27,087	102.4	1536.6	20.0	16.8	40.4	605.6
	VSD-Non HVAC	2520	$0.45	$1,134	2.0	24.0	0.0	0.0	0.8	9.5
	Water Source Heat Pump	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 150-300T_IPLV	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 150-300T_IPLV_CEN	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 150-300T_IPLV_SCR	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 150-300T_PkKW	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 150-300T_PkKW_CEN	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 150-300T_PkKW_SCR	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 300-1000T_IPLV	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 300-1000T_PkKW	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 30-70T	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - 70-150T	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - over300T_IPLV_CEN	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - over300T_IPLV_SCR	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - over300T_PkKW_CEN	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4

	WCChill - over300T_PkkW_SCR	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - to150T_IPLV_CEN	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - to150T_IPLV_SCR	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - to150T_PkkW_CEN	1680	$0.30	$504	1.8	41.7	0.5	0.1	0.7	16.4
	WCChill - to150T_PkkW_SCR	23620	$0.28	$6,613	25.7	386.2	2.3	1.9	10.1	152.2
	Zero loss condensate drain									
Large C&I Retrofit	Boiler, Draft Fan	85307	$0.42	$35,829	68.6	1028.4	5.2	5.3	27.0	405.3
	Boiler, Feedwater Pump	85307	$0.42	$35,829	68.6	1028.4	5.2	5.3	27.0	405.3
	Building Exhaust Fan	85307	$0.42	$35,829	68.6	1028.4	5.2	5.3	27.0	405.3
	Building operator certification	109917	$0.00	$0	109.9	549.6	0.0	0.0	43.3	216.6
	Building Shell	255062	$0.80	$204,049	138.8	2498.2	0.0	0.0	54.7	984.6
	Chiller, Water Pump	85307	$0.42	$35,829	68.6	1028.4	5.2	5.3	27.0	405.3
	Commercial Refrigeration	815739	$0.44	$358,925	678.7	8823.0	44.2	84.7	267.5	3477.4
	Cooling Town Fan	79620	$0.42	$33,441	64.0	959.9	4.9	4.9	25.2	378.3
	Custom Compressed Air	2734189	$0.09	$246,077	1487.7	2975.5	176.7	233.6	586.4	1172.7
	Custom HVAC	1688051	$0.60	$1,012,831	918.5	9185.2	167.1	84.5	617.3	6173.3
	Custom Motor	47996	$0.40	$19,198	26.1	391.7	3.9	2.6	10.3	154.4
	Custom Other	1917608	$0.19	$364,346	1043.4	5217.1	87.9	86.6	411.2	2056.2
	Custom process	546696	$0.22	$120,273	297.5	3867.1	44.0	58.0	117.2	1524.1
	EMS 40k-80ksqft	435962	$0.55	$239,779	451.7	4516.6	31.5	32.7	268.9	2688.8
	EMS 5k-40ksqft	544952	$0.60	$326,971	564.6	5645.7	39.4	40.9	336.1	3361.0
	EMS 80k-200ksqft	653943	$0.50	$326,971	677.5	6774.8	47.2	49.1	403.3	4033.2
	Energy management system, custom	1557965	$0.40	$623,186	847.7	5934.1	154.2	78.0	334.1	2338.8
	Food Service	28232	$0.35	$9,881	15.4	169.0	0.0	0.0	6.1	66.6
	Heating Hot Water Pump	106160	$0.42	$44,587	85.3	1109.2	6.5	6.5	33.6	437.2
	HVAC Fan - Return	106160	$0.42	$44,587	99.8	1496.9	7.6	7.7	39.3	590.0
	HVAC Fan - Supply	106160	$0.42	$44,587	99.8	1496.9	7.6	7.7	39.3	590.0
	LEDS	2860150	$0.34	$972,451	1784.5	10707.0	314.6	212.3	703.3	4219.9
	Lighting Controls, Custom	1401646	$0.57	$798,938	874.5	7870.6	174.7	117.9	344.7	3102.0
	Lighting Systems, Custom	3010684	$0.34	$1,023,633	1878.4	11270.5	375.2	253.3	498.3	2989.6
	Make Up Air Fan	55199	$0.42	$23,184	44.4	665.5	3.4	3.4	17.5	262.3
	Motor VFD Secondary	32356	$0.42	$13,589	30.4	456.2	5.2	5.2	12.0	179.8
	MTVFD-BLDG EXHST FAN	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-BOIL DRAFT FAN	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-BOIL FWTR PUMP	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-CHIL WATER PMP	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-CT FAN	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-HEAT HW PUMP	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-HVAC RET FAN	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-HVAC SUP FAN	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-MK UP AIR FAN	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-PROC COOL PUMP	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-WATER/WST PUMP	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	MTVFD-WSHP PUMP	43389	$0.42	$18,223	40.8	611.8	7.0	7.0	16.1	241.1
	Non-refrigerated snack vending machine	66879	$0.50	$33,440	59.2	296.2	4.1	4.3	35.3	176.3
	O & M	1375464	$0.18	$247,583	748.4	1496.9	0.0	0.0	295.0	589.9
	Prescriptive Lighting - LED - Downstream	4995405	$0.34	$1,698,438	4640.7	27844.4	1083.4	991.6	1549.4	9296.4
	Prescriptive Lighting - LED Replacement	2417663	$0.34	$822,005	2246.0	13476.1	524.3	479.9	749.9	4499.3
	Prescriptive Lighting - Linear LED - Downstream	2725154	$0.34	$926,552	2531.7	15190.0	591.0	540.9	845.2	5071.5
	Process Cooling	131580	$0.25	$32,895	71.6	930.8	7.1	9.3	28.2	366.8
	Process, Cool Pump	79620	$0.42	$33,441	64.0	831.9	4.9	4.9	25.2	327.9
	Process, Exhaust Fan	79620	$0.42	$33,441	64.0	831.9	4.9	4.9	25.2	327.9
	Refrigerated beverage vending machine	76911	$0.50	$38,455	68.1	340.6	0.0	0.0	40.6	202.8
	Street Lighting - Lighting	3297864	$0.24	$791,487	3146.2	15730.8	0.0	472.0	1240.0	6199.9
	Street lighting - Lighting w/ Controls	3093631	$0.31	$959,026	2951.3	17707.9	0.0	442.7	1163.2	6979.1
	Tranformers	177129	$0.35	$61,995	115.8	3127.7	0.0	0.0	45.7	1232.7
	UPSTR Lighting - High/Low Bay Controls	3686364	$0.42	$1,548,273	2087.2	16697.8	514.5	405.4	756.7	6053.5
	UPSTR Lighting - LED Controls	1638384	$0.42	$688,121	859.1	6014.0	211.8	166.9	299.4	2095.8

	UPSTR Lighting - LED Exterior	3481566	$0.10	$348,157	562.3	2811.4	193.8	110.4	221.6	1108.0
	UPSTR Lighting - LED High/Low Bay	10055582	$0.15	$1,508,337	5693.5	39854.4	1403.4	1105.7	2064.1	14448.6
	UPSTR Lighting - LED Outdoor Control	1126389	$0.17	$191,486	181.9	1091.5	62.7	35.7	71.7	430.2
	UPSTR Lighting - LED Stairwell	51200	$0.33	$16,896	31.6	189.7	2.8	2.5	12.4	74.5
	UPSTR Lighting - Linear LED	440316	$0.08	$35,225	172.5	1034.8	16.9	13.3	60.1	360.6
	VARICOMP - 25 HP	155322	$0.08	$12,426	219.0	2847.1	16.3	11.0	86.3	1122.1
	VARICOMP - 75 HP	152419	$0.08	$12,194	214.9	2793.8	20.0	16.4	84.7	1101.1
	VFD Secondary	32356	$0.42	$13,589	30.4	456.2	5.2	5.2	12.0	179.8
	VSD-HVAC	66696	$0.35	$23,343	0.0	0.0	8.2	5.5	0.0	0.0
	VSD-Non HVAC	83040	$0.35	$29,064	69.1	898.2	10.2	6.8	27.2	354.0
	Water Source Heat Pump	79620	$0.42	$33,441	64.0	959.9	4.9	4.9	25.2	378.3
	Water/Waste Pump	79620	$0.42	$33,441	64.0	959.9	11.0	11.0	25.2	378.3
Small Business Direct Install	CUSTOM LIGHTING	1028094	$0.68	$699,104	938.5	5631.1	74.0	67.7	369.9	2219.4
	Custom Motors/Drives, HVAC	900000	$0.75	$675,000	521.0	6772.6	56.2	46.3	205.3	2669.3
	Custom Motors/Drives, Non-HVAC	200000	$0.75	$150,000	115.8	1505.0	12.5	10.3	45.6	593.2
	Freezer Recycling	57214	$0.33	$18,881	40.7	325.9	3.6	2.9	16.1	128.4
	Hot Water, Custom	240000	$0.75	$180,000	138.9	1806.0	15.0	12.4	54.8	711.8
	HVAC, Custom	900000	$0.75	$675,000	521.0	6772.6	56.2	46.3	205.3	2669.3
	LED - Exterior HW	518050	$0.70	$362,635	518.1	3108.3	42.3	38.7	204.2	1225.1
	LED - Interior HW	2473466	$0.70	$1,731,426	2552.6	15315.7	194.0	177.5	836.4	5018.2
	LED - Interior SI	3616954	$0.66	$2,387,189	3732.7	18663.5	283.6	259.6	1223.0	6115.0
	OCCUPANCY SENSORS	228933	$0.66	$151,096	201.9	1817.3	15.4	14.1	67.3	606.0
	PROGRAMMABLE THERMOSTATS	53549	$0.60	$32,129	38.1	571.9	3.3	2.8	15.0	225.4
	Refrigerated case LED	6352	$0.50	$3,176	5.3	31.6	0.5	0.4	2.1	12.5
	TIMECLOCKS	158	$0.52	$82	0.1	1.3	0.0	0.0	0.0	0.4
	VENDING MACHINES	6608	$0.29	$1,916	4.7	23.5	0.4	0.3	1.9	9.3
	Water Heating	7602	$0.40	$3,041	5.4	37.9	0.5	0.4	2.1	14.9

Table 5. Shared and Other Costs for Electric Commercial and Industrial Programs

Program	Program Planning & Administration	Marketing	Sales, Tech Assist & Training	Evaluation & Market Research
Large C&I New Construction	$237,892	$214,131	$1,720,557	$635,537
Large C&I Retrofit	$723,975	$158,920	$4,316,097	$665,142
Small Business Direct Install	$269,190	$164,680	$265,259	$394,526

Table 6. Planned Measures for Gas Commercial and Industrial Programs

Gas Commercial and Industrial Programs								
Program	Measure	Quantity (MMBtu)	Incentive / Quantity	Total Incentives	Total Annual Gas Savings (MWh)	Total Lifetime Gas Savings (MWh)	Annual Carbon Reductions (Short Tons)	Lifetime Carbon Reductions (Short Tons)
C&I Multifamily	Air Sealing	235	$245.00	$57,575	239.7	4794.0	14.0	280.4
	Demand Circulator	2	$2,100.00	$4,200	233.0	3495.0	13.6	204.5
	Faucet aerator	177	$5.00	$885	29.6	88.9	1.7	5.2
	Heating, Custom	11	$48,000.00	$528,000	3290.5	49358.1	192.5	2887.4
	Low Flow Showerhead w/ Thermostatic Valve	9	$40.00	$360	10.6	159.3	0.6	9.3
	MF Shell Insulation	5880	$2.25	$13,230	58.1	1452.1	3.4	84.9
	Participant	1470	$504.00	$740,880	0.0	0.0	0.0	0.0
	Pipe Wrap (Water Heating)	294	$3.00	$882	36.9	479.9	2.2	28.1
	Programmable thermostat	392	$125.00	$49,000	296.1	3848.8	19.6	254.5
	Wi-Fi programmable thermostat (controls gas heat only)	9	$300.00	$2,700	10.4	156.3	0.7	10.0
Large C&I New Construction	Boiler - 95% AFUE < 300 MBU	739	$36.00	$26,595	738.8	14775.0	43.2	864.3
	Boiler - 96% AFUE	739	$30.00	$22,163	738.8	14775.0	43.2	864.3

	BOILER RESET 1 STAGE	739	$36.00	$26,595	425.5	8510.4	24.9	497.9
	CODES AND STANDARDS	430	$0.00	$0	429.6	8592.0	25.1	502.6
	Combo Condensing Boiler/ Water Heater - 95% AFUE	739	$24.00	$17,730	738.8	14775.0	43.2	864.3
	Comprehensive Design	1250	$40.00	$50,000	698.4	11174.4	40.9	653.7
	Condensing Boiler - <= 300 mbh	739	$36.00	$26,595	738.8	14775.0	43.2	864.3
	Condensing Boiler - 1000-1700 mbh	739	$36.00	$26,595	738.8	14775.0	43.2	864.3
	Condensing Boiler - 1701+ mbh	739	$36.00	$26,595	738.8	14775.0	43.2	864.3
	Condensing Boiler - 300-499 mbh	739	$36.00	$26,595	738.8	14775.0	43.2	864.3
	Condensing Boiler - 500-999 mbh	739	$36.00	$26,595	738.8	14775.0	43.2	864.3
	Condensing Water Heater, 90%MIN 75-800	1661	$29.01	$48,186	481.7	7225.4	28.2	422.7
	ERV - Fixed Plate UPSTR	1400	$19.31	$27,031	1400.0	21000.0	81.9	1228.5
	ERV - Rotary Wheel UPSTR	2000	$16.55	$33,096	2000.0	30000.0	117.0	1755.0
	Fryer, Upstream	4698	$16.60	$77,987	2706.0	32472.6	158.3	1899.6
	Gas driven cooling	6229	$0.00	$0	2978.1	44671.7	174.2	2613.3
	Gas Oven Upstream - Convection Oven	1607	$30.81	$49,506	1606.8	19281.6	94.0	1128.0
	Gas Oven Upstream - Conveyor Oven	265	$12.44	$3,297	265.0	3180.0	15.5	186.0
	Gas Oven Upstream - Rack Oven	1107	$4.97	$5,502	1107.0	13284.0	64.8	777.1
	Gas Oven Upstream- Combination Oven	772	$11.79	$9,104	772.2	9266.4	45.2	542.1
	Griddle, Upstream	76	$14.51	$1,103	43.8	525.3	2.6	30.7
	Heat Recovery - All	6229	$16.00	$99,669	5170.3	77555.0	302.5	4537.0
	Heat Recovery - Seasonal	6229	$16.00	$99,669	5170.3	77555.0	302.5	4537.0
	Heat Recovery - Year Round	6229	$16.00	$99,669	5170.3	77555.0	302.5	4537.0
	INFRARED HEATER - LOW INT	6383	$19.20	$122,544	3676.3	62497.4	215.1	3656.1
	Low Flow Cooking Spray Nozzle, Upstream	627	$6.58	$4,126	361.2	2889.2	21.1	169.0
	Other Gas - All	6229	$16.00	$99,669	5170.3	77555.0	302.5	4537.0
	Other Gas - Seasonal	6229	$16.00	$99,669	5170.3	62044.0	302.5	3629.6
	Other Gas - Year Round	6229	$16.00	$99,669	5170.3	67214.4	302.5	3932.0
	Pasta Cooker, Upstream	981	$16.05	$15,745	565.1	6780.7	33.1	396.7
	Steam boiler	721	$25.00	$18,026	344.7	6894.1	20.2	403.3
	Steamer, Upstream	297	$4.86	$1,441	170.8	2050.1	10.0	119.9
	WATER HEATER - INDIRECT	291	$21.03	$6,120	104.8	1571.4	6.1	91.9
	Water Heater - On-Demand 90	1478	$7.79	$11,514	1478.0	25126.0	86.5	1469.9
	Water Heating Boiler - 94% TE	10667	$10.81	$115,310	10667.0	160005.0	624.0	9360.3
Large C&I Retrofit	Building operator certification	3060	$0.00	$0	3329.3	16646.4	194.8	973.8
	Custom Other	6040	$25.00	$150,990	5454.0	81810.0	319.1	4785.9
	Heat Recovery - All	4362	$30.00	$130,860	3620.5	54306.9	211.8	3177.0
	Heat Recovery - Seasonal	4362	$30.00	$130,860	3620.5	54306.9	211.8	3177.0
	Heat Recovery - Year Round	4362	$30.00	$130,860	3620.5	54306.9	211.8	3177.0
	HVAC - Controls and EMS	4550	$30.00	$136,500	3776.5	37765.0	220.9	2209.3
	HVAC - Equipment	9882	$30.00	$296,460	8202.1	123030.9	479.8	7197.3
	Operation & Maintenance	30000	$12.50	$375,000	27091.2	135456.0	1584.8	7924.2
	Other Gas - All	5232	$34.00	$177,888	4342.6	65138.4	254.0	3810.6
	Programmable thermostat	2969	$22.00	$65,316	3230.2	35531.8	189.0	2078.6
	Steam Trap HVAC - High Pressure	1320	$22.00	$29,040	1320.0	7920.0	77.2	463.3
	Steam Trap HVAC - Low Pressure	1320	$22.00	$29,040	1320.0	7920.0	77.2	463.3
	Steam Trap, Custom - Low Pressure	5316	$12.50	$66,450	5316.0	31896.0	311.0	1865.9
	Ventilation Reduction	3240	$22.00	$71,280	2925.8	35110.2	171.2	2053.9
	Verified savings	3660	$22.00	$80,520	3305.1	42966.6	193.3	2513.5
	VSDs - HVAC	4859	$30.00	$145,764	0.0	0.0	0.0	0.0
	VSDs - Non-HVAC	6534	$30.00	$196,020	5423.2	81348.3	317.3	4758.9
	WiFi Thermostat - Heat Only, Custom	2969	$25.00	$74,223	3230.2	48452.4	189.0	2834.5
	WiFi Thermostat Gas - Cooling and Heating	2969	$25.00	$74,223	2968.9	44533.5	173.7	2605.2
	WiFi Thermostat Gas - Heating	2969	$25.00	$74,223	2968.9	44533.5	173.7	2605.2
Small Business Direct Install	Building Shell	1200	$80.00	$96,000	899.4	16189.0	52.6	947.1
	DHW	400	$30.00	$12,000	332.0	3984.0	19.4	233.1
	Duct Insulation	1000	$90.00	$90,000	903.0	18060.0	52.8	1056.5
	Faucet aerator	1000	$30.00	$30,000	903.0	2709.0	52.8	158.5

	HVAC - Controls and EMS	25	$25.00	$625	20.8	207.5	1.2	12.1
	HVAC - Equipment	964	$25.00	$24,100	800.1	12001.8	46.8	702.1
	Insulation Pipe H2O - Diameter 1.5in	200	$30.00	$6,000	200.0	3000.0	11.7	175.5
	Insulation Pipe H2O - Diameter 2in	200	$30.00	$6,000	200.0	3000.0	11.7	175.5
	Insulation Pipe Steam - Diameter 1.5in	100	$30.00	$3,000	100.0	1500.0	5.9	87.8
	Insulation Pipe Steam - Diameter 2in	100	$30.00	$3,000	100.0	1500.0	5.9	87.8
	Low-flow showerhead	788	$25.00	$19,700	711.6	7115.6	41.6	416.3
	Other, Custom	3000	$80.00	$240,000	2248.5	33727.1	131.5	1973.0
	Pipe/Tank/Duct/HVAC Insulation	100	$30.00	$3,000	74.9	1124.2	4.4	65.8
	Pre-rinse spray valve	788	$25.00	$19,700	711.6	2134.7	41.6	124.9
	Programmable thermostat	1100	$40.00	$44,000	993.3	10926.3	58.1	639.2
	Salon Nozzle	788	$20.00	$15,760	711.6	2134.7	41.6	124.9
	WiFi Thermostat - cooling and htg	25	$28.00	$700	25.0	375.0	1.5	21.9
	WiFi Tstat-heat only	25	$28.00	$700	25.0	375.0	1.5	21.9

Table 7. Shared and Other Costs for Gas Commercial and Industrial Programs

Program	Program Planning & Administration	Marketing	Sales, Tech Assist & Training	Evaluation & Market Research
Large C&I New Construction	$109,142	$104,553	$446,245	$159,258
Large C&I Retrofit	$200,392	$171,999	$1,697,357	$130,041
Small Business Direct Install	$15,791	$16,073	$55,813	$23,519
C&I Multifamily	$41,333	$25,520	$156,487	$4,382