# 2021 Commercial and Industrial Energy Efficiency Solutions and Programs

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# 1. Overview

The Commercial and Industrial (C&I) programs consistently offer highly cost-efficient savings. The Company is continuously evaluating and responding to customer needs and market dynamics to develop enhancements that secure deeper, more comprehensive savings while strategically evolving program designs to drive market transformation across multiple end uses.

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

The detailed program descriptions provided in each Annual Plan provide snapshots and evidence of how programs are continuously evolving, building from one plan year to the next. They translate high level strategies into specific actions and activities that secure savings for customers; help to contextualize specific program innovations and enhancements described more briefly in the Annual Plan; and demonstrate how key strategies cross multiple program designs and end use targets.

The detail in this attachment is designed to allow stakeholders, the Public Utilities Commissioners and staff, and other interested parties to delve deeply into and fully explore the complex interplay between specific customer and building types, program implementation and delivery, incentive design, and high efficiency technologies.

**What to look for in 2021**

The Company has focused on non-lighting opportunities across all commercial programs and program enhancements that help drive progress toward deeper comprehensive measure adoption in every customer class. The specific priority measures vary by customer but are reflective of opportunities highlighted in the Market Potential Study. The innovations and enhancements also reflect many ideas and insights that have evolved from the close collaboration with the EERMC and the EERMC consulting team, OER, the Division, and our vendors, as well as customer feedback. There are new market segment designs under development to engage new customers with tailored approaches to comprehensive savings adoption (new Telecommunication, Lodgings and On Premise Laundry initiatives), enhancements that make participation easier or more attractive (see Equipment and Systems Performance Optimization, Small Business), and multiple enhancements that focus on reduction of barriers to comprehensive measure adoptions (ex: Whole Building Streamlined pathway in New Construction).

Equity and workforce development objectives have been applied across the commercial portfolio, resulting in program design shifts and investment prioritization to ensure our small businesses customers are given access to program opportunities and that we succeed in building the workforce infrastructure that can deliver on the vision of transitioning to high performing technologies while also building robust jobs and economic development opportunities for Rhode Islanders. The plan includes trainings to build a workforce to support high performance buildings with advanced technologies, including trainings on advanced controls for HVAC and lighting, as well as an effort to grow the commissioning workforce.

**Commercial & Industrial Programs**

There are five Commercial and Industrial energy efficiency programs.

*Table 1. Commercial and Industrial Programs*

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

All C&I customers are eligible to participate in the Large Commercial and Industrial New Construction Program and the Large Commercial Retrofit Program. The Small Business Direct Install (SMB/DI) Program, however, is restricted to customers who consume less than 1,000,000 kWh per year. Larger and more complicated measures not offered by the SMB/DI vendor can be accessed by small business customers through the New Construction or Retrofit Programs.

Programs have initiatives that offer a targeted approach or tailored delivery design to more effectively and efficiently attract and secure savings from target customers. An initiative is defined as a go to market strategy within a Program that promotes a subset of measures or services within that program and/or targets a certain segment of customers. Examples include the Indoor Agriculture Initiative within the New Construction Program and the EnergySmart Grocer Initiative within the Large Commercial and Industrial Retrofit Program.

This attachment provides detailed descriptions of C&I energy efficiency and active demand response programs and initiatives, including detail on the target market (customer/building types), eligibility requirements, offers, implementation and delivery, and changes for 2021, along with the rationale for changes, in a standardized table format.

Enabling strategies for efficient delivery, better customer experience, and participation in energy efficiency programs are covered in the Finance and Marketing sections. Workforce development is addressed in the main text and covers initiatives for training, education, and awareness. A list of measures and incentives can be found in Section 11. The Company will continue to focus on demonstrations and assessments; please refer to Attachment 8 for a

detailed scope and list for each pilot, demonstration, and assessment proposed for the 2021 Energy Efficiency Plan.

**Program Description Structure**

In order to streamline PUC, stakeholder, and reader access to the most pertinent program information in the 2021 Annual Plan, the Company has adopted the following structure for each of the programs and program initiatives:

| | |
|---|---|
| Eligibility Criteria | This section describes which customers and/or building types are eligible for participation in the program or initiatives. |
| Offerings | This section describes the offers available to customers under the program or initiative. It can include technical assistance, incentives, design support, verification services and financial offerings. This section also describes the various pathways by which a customer or building can participate in a program or initiative. |
| Implementation and Delivery | This section describes the process by which the Company engages the customer with energy efficiency programs and offerings. |
| Customer Feedback | Customer feedback can be received by the Company in various ways; via an implementation vendor, direct feedback from the customer, via surveys conducted by the Company. |
| Changes for 2021 | The section captures the changes proposed in the year stated. |
| Rationale for Changes | Captures the rationale for the changes proposed in the planning year. |
| Proposed Upcoming Evaluations | Evaluation information can be found in this section at the program level. Initiatives like the Grocery Initiative or the Industrial Initiative are typically not evaluated. The measures included in these initiatives are evaluated as part of larger evaluations for the programs. Hence at the initiative-level tables you will not see this “Proposed Upcoming Evaluations” section. |
| Notes | Additional notes related to the program, customer, offerings etc. |

**Financial Mechanisms Structure**

| | |
|---|---|
| Customer type | This section highlights the customer consumption in kWh or customer type for which the mechanism is best suited |
| Loan size | Shows maximum loan size |

| | |
|---|---|
| Maximum Tenor | Shows the maximum length of time for which a customer can borrow funds |
| Loan Volume | Shows the dollar volume of loans outstanding or the range of funds borrowed in the past years or both |
| Benefits to customer | Describes the benefits of a mechanism to a customer |
| Limitations | Describes the limitations of a mechanism to a customer |
| 2021 Actions | This area is included for EBF and C-PACE as the Company is working with RIIB and others on these mechanisms |
| More information | This area describes where more information can be found on the mechanism such as numeric tables. This area may also include additional information such as justifications for OBR fund injections (gas) or OBR rightsizing (electric) |
| Relevant notes | This area contains notes and will vary from mechanism |

**Electric Program Goals, Metrics, Budgets, Participation for 2021**

| Fuel | Lifetime MWh (Electric) | Annual MWh (Electric) | Annual Passive Demand Reduction kW (Electric) | Total Net Lifetime MMBtu (Electric Gas, Oil, Propane[1]) | Budget ($000) | Participation[2] |
|---|---|---|---|---|---|---|
| Electric | | | | | | |

**Gas Program Goals, Metrics, Budgets, Participation for 2021**

| | Lifetime MMBtu (Gas) | Annual MMBtu (Gas) | Budget ($000) | Participation |
|---|---|---|---|---|
| Gas | | | | |

[1] For a breakdown of program level energy savings goals see Attachment 5, table E6-A and Attachment 6, table G6-A for more details.
[2] For information on the metric used to measure participation by program, please reference the main text, section 4.5

The below figures compare the distribution of the commercial and industrials sector's energy savings goals when measured in annual savings compared to lifetime savings. The lifetime metric captures the long-term energy savings whereas the annual metric shows the first year savings only.

*Figure 1. 2021 Planned Distribution of Lifetime MWh Goals for C&I Electric Sector*

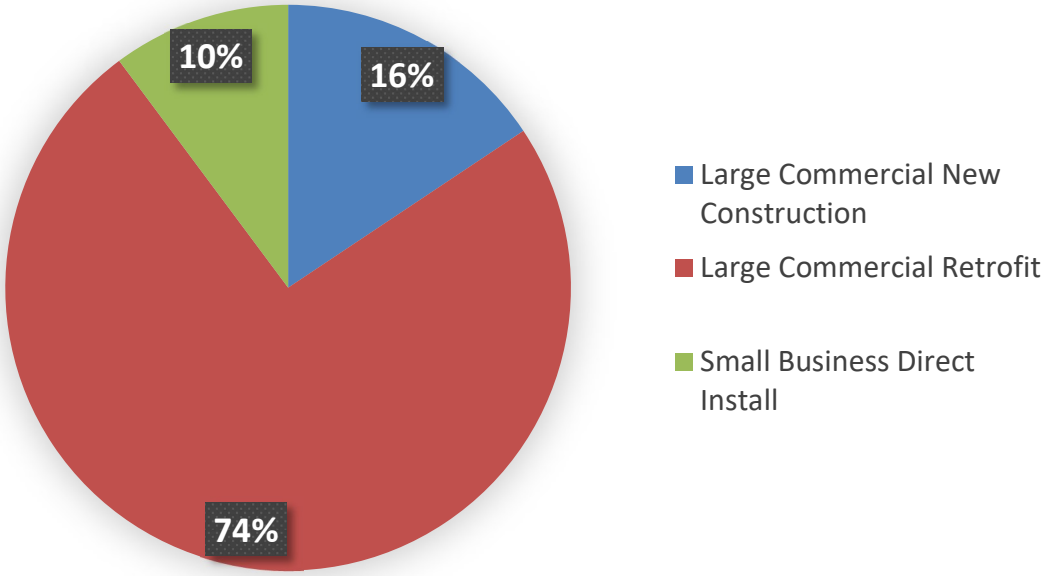



*Figure 2. 2021 Planned Distribution of Annual MWh Goals for C&I Electric Sector*

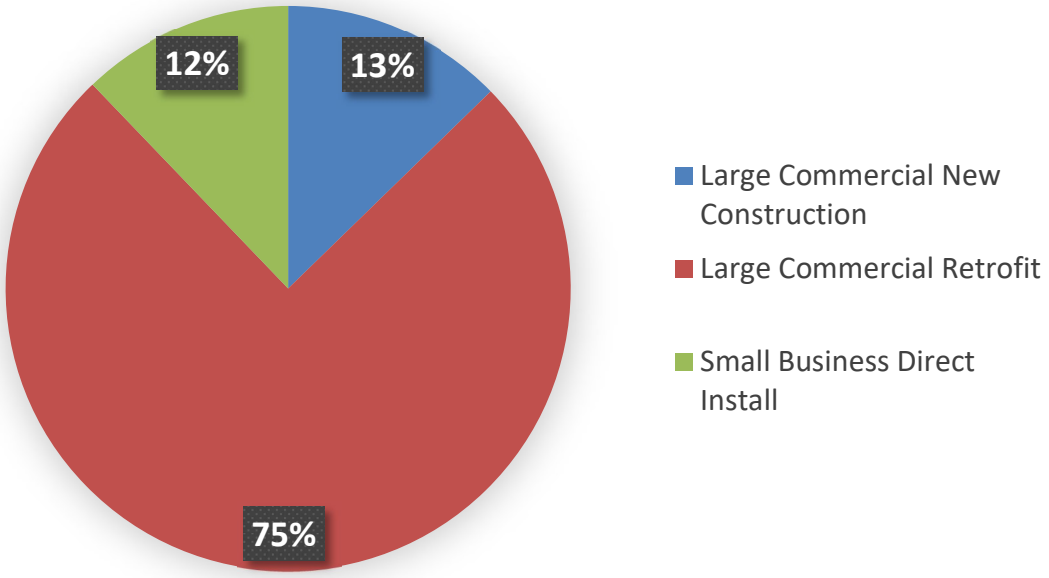


*Figure 3. 2021 Planned Distribution of Lifetime MMBtu Goals for C&I Gas Sector*

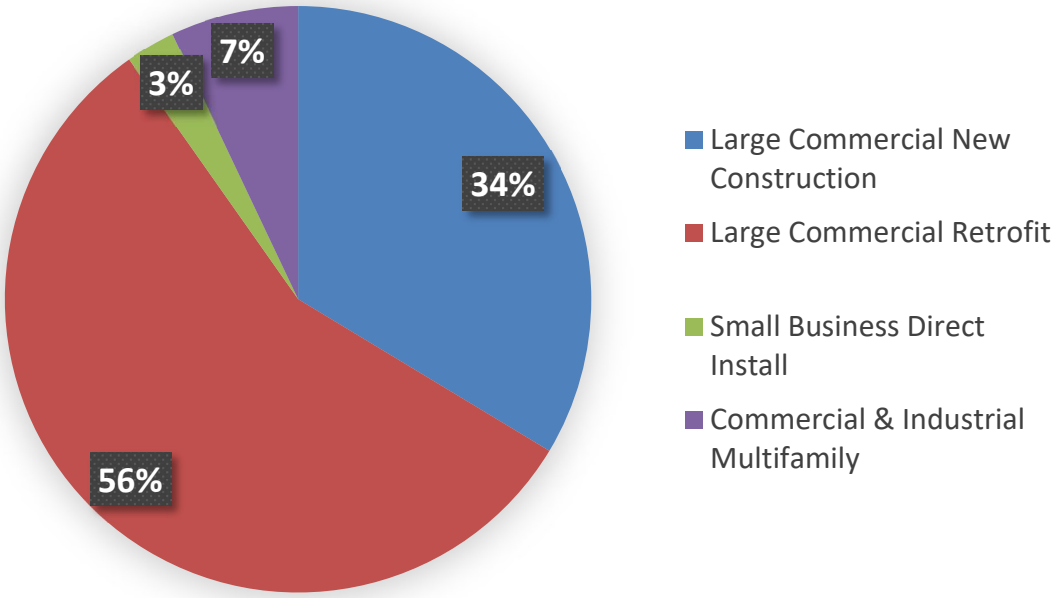
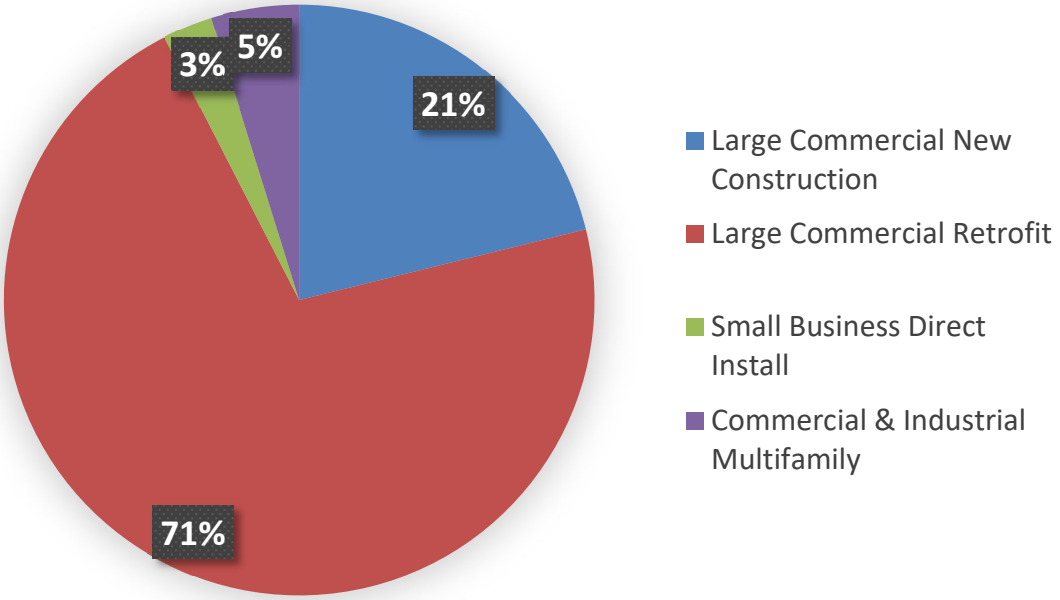



*Figure 4. 2021 Planned Distribution of Annual MMBtu Goals for C&I Gas Sector*



## 2. Large Commercial and Industrial New Construction Program

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| Eligibility Criteria | The New Construction Program is divided into two main categories to address the two primary new construction target markets: those pursuing ground up new construction and major renovations, and those investing in new equipment and major systems upgrades.<br><br>**New Buildings, Additions, Major Renovations and Tenant Fit-Ups**<br>This is specifically for projects that are ground up new construction or major renovations, all of which traditionally involve some level of design and are governed by code.<br><br>**End of Life Replacements**<br>Typically, there is no design component to these projects. Customers purchasing new energy-consuming equipment or replacing equipment that has reached the end of its useful life are incentivized to purchase and install energy efficient equipment. Customers are encouraged to make efficient choices with every category of equipment purchase. The baseline energy is considered to be the energy code; savings are calculated from the baseline energy. Where equipment has reached the end of its life, savings from new measures are calculated not from the old equipment, but assuming all new equipment against the current codes and standards baselines. This works the same way as the "systems approach" described below, whether through prescriptive or custom pathways. |
| Offerings | **New Buildings, Additions, Major Renovations and Tenant Fit-Ups**<br>The services and incentives offered are designed to promote and support high performance building design, equipment selection, and building operation. This program offers both technical assistance and financial incentives based on projected energy savings performance to incentivize building beyond the current RI program energy baseline. Technical assistance ranges from simple plan review and efficiency upgrade recommendations to complete technical reviews. Incentives are available for building owners, design teams, post occupancy verification, and Zero Net Energy certification and verification.<br><br>The Large Commercial and Industrial New Construction Program offers four pathways for ground up new construction or major renovation projects.<br>• **Path 1: Zero Net Energy Ready**<br>• **Path 2: Whole Building Energy Use Intensity Reduction** |

These two paths are based on achieving energy use intensity (EUI) project goals and are suitable for projects that engage early in the schematic design process.

- **Path 3: The Whole Building Streamlined**
- **Path 4: Systems Approach**

These pathways support projects that are in the design development stage and incorporate energy efficient equipment and energy conservation measures (ECMs).

*Table 2. Requirements and Eligibility for Large Commercial and Industrial New Construction Pathways*

| | | |
|---|---|---|
| **Zero Net Energy Ready** | Achieve 25 EUI or lower | Over 20,000 Square Feet |
| **Whole Building Energy use Intensity** | Achieve 10% better than RI Baseline EUI | Over 50,000 Square Feet |
| **Whole Building Streamlined** | Custom and Prescriptive ECM measures | 20,000 to 100,000 Square Feet |
| **Systems Approach** | Prescriptive rebates for installing energy efficient equipment and measures | No Square Foot requirement |

**Zero Net Energy Ready:** This path provides building owners and design teams with energy efficiency expertise and financial incentives to help achieve a very low EUI and Zero Net Energy projects. This path focuses on EUI outcomes during design modeling and in post occupancy. To qualify, the planned building must include a minimum of 20,000 square feet of heated and cooled spaces, commit to achieving an EUI of 25 or less, engage National Grid before 50% Schematic Design, and commit to commission the completed building. An exception to the EUI of 25 or less requirement may be sought based on the type of building or hours of operation.

**Whole Building Energy Use Intensity Reduction**: This path is based on achieving EUI project goals and is suitable for projects that engage before the end of design development. Buildings over 50,000 square feet (mid- to large-size building) are eligible. This pathway provides energy efficiency expertise to building owners and design teams early in the design process. Technical assistance supports setting aggressive EUI targets and providing financial incentives to meet the EUI goals. To be eligible for incentives in this pathway, projects need to achieve a

| | |
|---|---|
| | minimum 10% EUI reduction from the RI baseline. The RI baseline for 2021 will be based on the current RI building code.<br><br>**Whole Building Streamlined**: This pathway provides design teams and owners energy efficient expertise in selecting the most cost-effective energy conservation measures for small- to mid-sized buildings that are early in project design. This pathway is applicable for projects 20,000 square feet to 100,000 square feet. Incentives are provided based on savings achieved by the energy saving measures implemented (Custom and Prescriptive measures). A whole building spreadsheet analysis tool is used to estimate energy savings and incentives early in the project.<br><br>**Systems Approach**: This pathway provides incentives to building owners for incorporating energy efficient equipment into projects under 20,000 square feet and for major renovation projects that do not include the entire building (e.g. tenant fit outs). |
| Implementation and Delivery | **Zero Net Energy Ready:**<br>The sales team reaches out to potential customers and design teams that may be interested in building to a Zero Net Energy Ready (ZNE) standard. After vetting a project to ensure that it meets the program requirements, a ZNE expert is brought in to assist the customer in assessing the project and identifying services that may be needed to achieve the ZNE goal. The ZNE consultant will be engaged by the customer, with the fee cost-shared between National Grid and the customer. The ZNE consultant is engaged from early in the project through the end of design development. They provide services such as EUI benchmarking to help set EUI targets, conduct an energy charrette, load reduction analysis, and HVAC selection analysis and model feedback. The customer signs the program memorandum of understanding (MOU). The project incentives are paid out to the customer in two payments: the construction incentive and the post occupancy incentive. The first customer incentive payment (as well as any design team incentive) is paid based on review of the design teams' model and verification that the design achieves an EUI of 25 or less (or the expected EUI target if there is a special exception). The second customer payment is available when one year post-occupancy data demonstrates the building is achieving the target EUI, confirming that the building is performing as designed. Prior to the post occupancy payment, the customer must provide verification that the enhanced commissioning and envelop commission have taken place. |

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|---|---|
| | The ZNE certification fees will be reimbursed when a project becomes ZNE certified. An optional verification incentive is offered to assist customers in identifying and correcting issues that may arise in post construction to help achieve the EUI during building occupancy.<br><br>**Whole Building Energy Use Intensity Reduction:** The National Grid Energy Efficiency sales team reaches out to customers, owners and developers regarding new construction project opportunities. If the customer decides to participate in energy efficiency programs, the National Grid team engages with the customer project design team and facilitates a design charette to understand customer project goals. Based on the project goals, an EUI target range is established, and a technical assistance (TA) vendor is engaged to model the baseline project and proposed design project. The customer then signs a MOU that outlines the EUI target that is included in the project documents and the post occupancy EUI verification plan and the other incentive details. An application including the energy conservation measures and systems agreed upon is signed by the owner. The owner commits to implement the efficiency recommendations and accepts the associated incentives. A Minimum Requirements Document (MRD) created by the National Grid Tech Rep is created as part of the application process. The National Grid sales team remains engaged during the design development and construction process to ensure energy efficiency measures and solutions are incorporated in the building projects to achieve the EUI targets. After completion, the project undergoes a post inspection that includes a visual inspection and review of construction design submittals. If there are any HVAC controls or variable load ECMs that have been incorporated in the project, field measurements are required to verify operation standards, as described in the Minimum Requirements Document. The EUI measurements are then monitored over a prescribed period, under the prescribed conditions, before final incentive payment is made based on the savings achieved. An optional verification incentive is offered to assist customers in identifying and correcting issues that may arise in post construction to help achieve the EUI during building occupancy. Verification documents must be submitted to obtain the optional verification incentive.<br><br>**Whole Building Streamlined:**<br>The National Grid sales team reaches out to the customers who are engaged in new construction. Occasionally, the sales team may be |

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|---|---|
| | approached by the design team regarding a new building project. If the project meets the path requirements (small to mid-size buildings; between 20,000-100,000 sq.ft.), a technical vendor is brought in at no-cost to the customer to conduct an energy charrette and provide feedback on the building design to increase the project's energy efficiency. An MOU is signed. The technical vendor monitors the design progress and provides an estimate of energy savings and incentives at a mid-design review. A final technical report is provided at design completion that details the project savings and incentives to develop the incentive application and MRD. Once the building has been built, the customer and design team incentives are paid upon construction and MRD verification.<br><br>**Systems Approach:**<br>The National Grid sales team approaches customers, building owners, and owner representatives regarding new construction or major renovation projects. When a customer decides to move forward with a project, the customer has a choice to use their vendor of choice to install measures or to develop the project with technical assistance from the National Grid team. Once the project is installed, the project undergoes inspection of installed measures and review of design submittals. Incentives are paid out to the owner on documented savings from the project. |
| Customer Feedback | At this time no customer feedback is available for this program. |
| Changes for 2021 | The Company will **add two new pathways, Zero Net Energy Ready (ZNER) and Whole Building Energy Use Intensity** to drive deeper, more comprehensive savings by using EUI as a tool. For both new pathways, the Company will **offer technical assistance to building owners and design teams** to set EUI goals and assist with modelling projects at various stages of design including comparison to the RI baseline and predicted EUI. Customers are required to develop a plan for measurement and verification of projects' operational EUI. An optional post occupancy verification incentive is also available to projects. Incentives will be paid $/square foot on achieving EUI goals.<br><br>The Company will **set the EUI threshold for the two new pathways based on the MA Accelerate Performance demonstration and MA Program Administrators' experience with Zero Net Energy Buildings**. Buildings following the Zero Net Energy Ready pathway must achieve a threshold of 25 EUI or less. Buildings pursuing the Whole Building |

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|---|---|
| | Energy Use Intensity pathway must achieve a threshold of 10% better than the RI baseline EUI.<br><br>The Company will **modify and rename the Integrated Design pathway the Whole Building Streamlined pathway**, which is targeted to small and medium buildings. The goal is to simplify the process by using a streamlined spreadsheet methodology to calculate savings in to increase participation by smaller buildings.<br><br>In January 2021, **RI plans to adopt the 2018 IECC building code**. RI program baselines, where applicable, will then be based on the 2018 IECC Building code and savings calculations will be based upon achievements over this new higher baseline. This is an improvement from the 2019 adoption of the 2015 IECC building code, which meant that 2020 RI program-based savings were based on savings above 2015 IECC code. |
| Rationale for Changes | Realized savings in the existing New Construction program have declined. Thus, in the past two years, the Company tested the EUI target as a way to achieve deeper savings with new construction projects through the Accelerate Performance demonstration in both MA and RI. While in RI there was no participation in the program, in MA the Program Administrators have had success with the demonstration.<br><br>The rationale for introducing two new pathways – ZNER and Whole Building EUI – is to drive deeper, more comprehensive savings by using EUI as a tool. Incentives will be based on actual building performance verses modeled savings. The Company believes these changes in the program pathways will result in higher realized (actual) savings in new construction projects. |
| Proposed Upcoming Evaluations | |
| Notes | |

**Large Commercial and Industrial New Construction – Electric Program Goals, Metrics, Budgets, Participation for 2021**

| Fuel | Lifetime MWh (Electric) | Annual MWh (Electric) | Annual Passive Demand Reduction kW (Electric) | Total Net Lifetime MMBtu (Electric Gas, Oil, Propane) | Budget ($000) | Participation |
|---|---|---|---|---|---|---|
| Electric | 201,767 | 12,651 | 2,007 | 648,189 | 8,514 | 144 |

**Large Commercial and Industrial New Construction – Gas Program Goals, Metrics, Budgets, Participation for 2021**

| | Lifetime MMBtu (Gas) | Annual MMBtu (Gas) | Budget ($000) | Participation |
|---|---|---|---|---|
| Gas | 658,331 | 41,438 | 2,780 | 61 |

# 3. Initiatives Specific to Large Commercial and Industrial New Construction Program

## 3.1. Performance Lighting Plus

| | |
|---|---|
| Eligibility Criteria | Any customer with a commercial meter is eligible to participate in this initiative. All projects that qualify under this incentive must:<br>• Be a new construction or renovation project that includes the installation or new fixtures and qualifying lighting controls for commercial, industrial, educational, or municipal building(s).<br>• Be a code-dependent project or extensive/substantial renovation.<br>• Average a minimum of 2,000 hours per year.<br>• 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. |
| Offerings | **Incentives**<br>Incentives may be offered for reducing the code mandated Lighting Power Density from the IECC baseline. Additionally, design assistance will be made available to customers for the purpose of optimizing lighting design and lighting energy savings. The objective of the design assistance is to influence the lighting project at an early stage and to |

| | |
|---|---|
| | ensure that energy efficiency is considered and support throughout the implementation of the project.<br><br>**Tier 1 – Performance Lighting**<br>• Minimum 10% reduction in Lighting Power Density (watts/sq.ft. and/or watts linear ft.) better than mandated energy code<br>• Qualified LED products listed by Energy Star or the Design Lights Consortium must represent 50% or more of the connected load (Exceptions may be approved for alternative fixtures or for Lighting Designer Incentive projects)<br>• Code compliant lighting controls required<br><br>**Tier 2 – Performance Lighting with Smart LED Interior Fixtures with Luminaire Level Controls**<br>• 80% of the connected load must utilize at least two out of the five required and reported controls capabilities for controlled fixtures<br>  ○ Occupancy<br>  ○ High-End Trim ≤ 25%<br>  ○ Daylighting (with verifiable daylight apertures)<br>  ○ Scheduling (beyond operating hours)<br>  ○ Personal Control<br>• Exterior – 80% of the connected load must utilize at least three out of five required and reported controls capabilities<br>  ○ Occupancy Sensing and/or Traffic Sensing<br>  ○ High-End Trim ≤ 25%<br>  ○ Daylight/Photocell Control<br>  ○ Scheduling (beyond operating hours)<br>  ○ Continuous Dimming<br>• Tier 2 lighting controls must be DLC approved room or building level solutions<br><br>**Tier 3 – Performance Lighting with a Networked Lighting Control System**<br>• 80% of the connected load for the qualified space utilizes a Networked Lighting Control system as defined by the DLC. (Documentation can be found on the DLC website at http://www.designlights.org/content/CALC/SpecificationAndQPL.<br>• Confirm that the DLC qualified Networked Lighting Control system has the "Reported" capabilities of Energy Monitoring. To qualify for PL+ Tier 3 incentives, customers or vendors must commission the controls system and provide an initial 30-days of reported kWh |

saved and six months of lighting energy use data as reported by the system post-installation. A retainage amount equal to 20% of the approved incentive will be applied until the data is accepted. Required fixture or circuit level energy data reporting should be at least 15-minute intervals. Energy data reporting output can be in Excel or CSV file format.

- Tier 3 control systems must have the following capabilities:
  - Energy Monitoring
  - Device Monitoring/Remote Diagnostic
  - Type of Interface
  - Load Shedding
  - External Systems Integration (e.g. BMS, EMS, HVAC, Lighting API)
  - Start-up and Configuration Party
- Tier 3 control systems must utilize at least 3 of the 5 required and reported control capabilities for all controlled fixtures
  - Occupancy
  - Task Tuning ≤ 25%
  - Daylighting (with verifiable daylight apertures)
  - Scheduling (beyond operating hours)
  - Personal Controls
- Tier 3 control systems for exterior lighting must have the following capabilities
  - Networking of Luminaires and Devices
  - Daylighting Harvesting/Photocell Control
  - High-End Trim
  - Luminaire and Device Addressability
  - Continuous Dimming
  - Energy Monitoring
  - Device Monitoring/Remote Diagnostics
- All Tier 3 controls system must employ at least 3 out of 5 required and reported control capabilities for controlled fixtures
  - Occupancy Sensing and/or Traffic Sensing
  - High-End Trim ≤ 25%
  - Zoning
  - Scheduling (beyond operating hours)
  - Start-up and Configuration party

*Table 3. Incentive Tiers for New Construction and Retrofit*

| Tiers | New Construction | Retrofit |
|---|---|---|

<table>
<tr><td></td><td>
<table>
<tr><th></th><th>Interior</th><th>Exterior</th><th>Interior</th><th>Exterior</th></tr>
<tr><td>Tier 1</td><td>$1.50</td><td>$1.50</td><td>$2.00</td><td>$2.00</td></tr>
<tr><td>Tier 2</td><td>$2.00</td><td>$2.00</td><td>$3.00</td><td>$3.00</td></tr>
<tr><td>Tier 3</td><td>$3.00</td><td>$3.00</td><td>$4.00</td><td>$4.00</td></tr>
</table>
(Incentives are per watt saved)
</td></tr>
<tr><td>Implementation and Delivery</td><td>
Application Forms
<ul><li>Applications for Performance Lighting Plus incentives are made available through vendors, 3rd party implementers, and Customer Solution Sales Team. However, applications can also be created and submitted online using the Rhode Island Application Portal (RIAP).</li></ul>
Pre-Approval Requirements
<ul><li>The Customer must submit a copy of the Manufacturer's technical specification sheets ("cut sheets") for each type of eligible equipment to be purchased.</li><li>Once pre-approved, a "pre-approved incentive letter" will be issued.</li></ul>
Installation and Incentive Requirements
<ul><li>Once pre-approved, the customer must purchase and install the qualifying equipment within twelve (12) months of National Grid's pre-approval</li><li>Next, the Customer must return the following required information to National Grid within 30 days of the installation:<ul><li>A copy of the completed and signed pre-approval application</li><li>If there is a change in equipment, the customer must submit a new manufacturer's technical specification sheets ("cut sheets") for each type of eligible equipment purchased</li><li>A copy of the invoice indicating Proof of Purchase must indicate type, size, make, and model number of the equipment and date of purchase and installation</li><li>At the post-installation verification, the customer must sign the post-installation customer acknowledgement section of the original application</li></ul></li></ul>
Application Process and Requirement for National Grid Approval
<ul><li>The customer shall submit a completed application to National Grid. The customer may be required to provide National Grid with additional information upon request by the National Grid.</li></ul>
</td></tr>
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| | The customer will, upon request by the National Grid, provide a copy of the as-built drawings and equipment submittals for the facility after energy efficiency measures are installed. To the extent required by the National Grid or by applicable law, regulation or code, this analysis shall be prepared by a Professional Engineer licensed in Rhode Island.<br>• To be eligible for performance lighting plus incentives, a customer must have an active electric account.<br>• The National Grid reserves the right to reject or modify the customer's application. National Grid may also require the customer to execute additional agreements, or provide other documentation prior to National Grid approval. If National Grid approves the customer's application, National Grid will provide the customer with the Approval Letter.<br>• National Grid reserves the right to approve or disapprove of any application or proposed performance lighting plus incentive.<br>• The criteria listed under Application Process and Requirement for National Grid Approval do not apply in the event that the Program Materials explicitly state that no Approval Letter is required for the Program. In such an event, the customer must submit to National Grid the following:<br>  ○ Completed and signed Program rebate form<br>  ○ Original date receipts for purchase and installation of energy efficiency measures, and<br>  ○ Any other required information or documentation within such time as Program Materials indicate.<br><br>**Pre- and Post-Installation Verification; Monitoring and Inspection**<br>• The customer shall provide access to their facility and energy efficiency measures for National Grid's pre-installation and post-installation verifications. Such verifications must be completed to National Grid's satisfaction.<br>• National Grid may perform monitoring and inspection of the energy efficiency measures for a three-year period following completion of the installation in order to determine the actual demand reduction and energy savings. |
| Customer Feedback | At this time there is no customer feedback available for this program. |

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| Changes for 2021 | Performance Lighting will be heavily modified prior to the second draft to match the Massachusetts Program Administrators' approach. This is a small part of an overhaul to lighting. Due to the fact that they are on a different cycles, work is just beginning.<br><br>The Market Potential Study noted that C&I lighting savings will remain a large portion of portfolio throughout the term of the Three-Year Plan. Many of top ten measures in electric C&I were lighting and control related. The potential study has solidified the Company's strategy that we needed to push on lighting controls integration. |
| Rationale for Changes | The goal of these changes is to increase savings through this pathway by<br>• Simplifying the application and processing<br>• Ensuring that that incentives are calibrated correctly in relationship to the lighting portfolio<br>• Ensuring that vendors understand the benefits and proper installation of these systems. |
| Notes | Although this program is located in the New Construction section of this plan, it may also be utilized in Retrofit applications as well. |

# 4. Large Commercial Retrofit Program

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| Eligibility Criteria | The Large Commercial Retrofit Program serves the needs of existing buildings in their pursuit to lower energy consumption. All commercial and industrial customers are eligible for the Large Commercial Retrofit Program. |
| Offerings | The Company has several pathways by which customers can participate in the Large Commercial Retrofit program for energy efficiency in existing buildings. Customers can participate via the:<br>• **Prescriptive application** process;<br>• By working with a National Grid 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<br>• Via an **Upstream program**.<br><br>The retrofit program also has initiatives specific to Market sectors such as grocery and manufacturing/industrial initiatives that focus on specific needs of that customer type.<br><br>The Company serves some of its largest customers through Strategic Energy Management Plans (SEMPs). The company has Memorandums of Understanding (MOUs) with these customers that specify savings targets and resources. These are described in more detail in section 5.5.<br><br>The Company has found that although sector specific initiatives and SEMPs are helpful in gathering more savings and completing measures beyond lighting, they do not cover our entire 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 Large Commercial Retrofit program and are included in this section of the plan:<br>• Customer Owned Streetlights<br>• Company Owned Streetlights<br>• Equipment & System Performance Optimization<br>• Combined Heat and Power (CHP) |
| Implementation and Delivery | **Prescriptive Application**<br>Customers complete a prescriptive application through the Rhode Island Digital Application Portal (RIDAP; https://www.ridap.nationalgridus.com) for a wide variety of energy |

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| | efficient products such as lighting, air compressors, or variable speed drives (VSDs).<br><br>**Upstream**<br>Customers can purchase qualified products such as luminaires, kitchen equipment, water heating equipment, or more efficient heating and cooling technologies at participating distributors at a discount without needing to submit an application. These are collectively known as the Upstream Initiatives. These are described on more detail in section 5.16.<br><br>**Custom Application**<br>National Grid Sales Representatives or a Project Expeditor (PEX) assist customers to complete custom applications for any energy conservation measure that is not covered by Prescriptive or Upstream pathways. |
| Customer Feedback | Please see Initiatives sections for customer feedback. |
| Changes for 2021 | In 2021, the Company will **launch a new Telecommunications Initiative** to serve mobile, fiber optic, and cable data companies and their associated infrastructure through technical assistance, project management, and incentives, delivering savings from non-lighting as highlighted in the Market Potential Study. This initiative is described in more detail in section 5.17.<br><br>Specific changes to initiatives in 2021 are described in section 5. |
| Rationales for Changes | Changes in the Large Commercial Retrofit programs will help generate savings, address customer and vendor feedback, and provide more customized solutions and options. |
| Proposed Upcoming Evaluations | |
| Notes | |

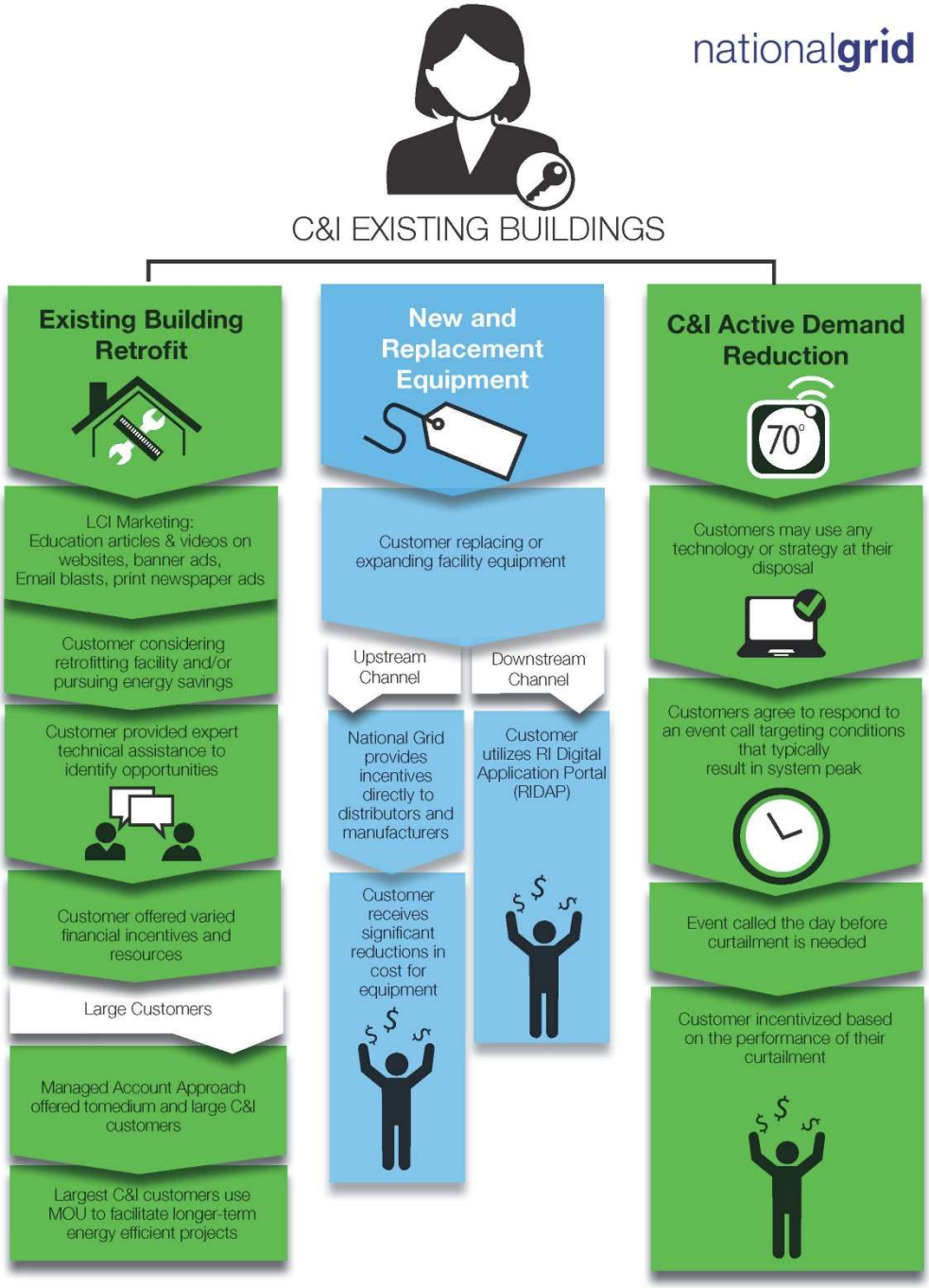
**Large Commercial Retrofit – Electric Program Goals, Metrics, Budgets, Participation for 2021**

| Fuel | Lifetime MWh (Electric) | Annual MWh (Electric) | Annual Passive Demand Reduction kW (Electric) | Total Net Lifetime MMBtu (Electric Gas, Oil, Propane) | Budget ($000) | Participation |
|---|---|---|---|---|---|---|
| Electric | 956,209 | 74,718 | 14,742 | 2,021,646 | 33,467 | 3,146 |

**Large Commercial Retrofit – Gas Program Goals, Metrics, Budgets, Participation for 2021**

| | Lifetime MMBtu (Gas) | Annual MMBtu (Gas) | Budget ($000) | Participation |
|---|---|---|---|---|
| Gas | 1,107,448 | 139,656 | 4,987 | 83 |

*Figure 5. Large Commercial Retrofit Program (Existing Buildings)*



# 5. Initiatives Specific to Large Commercial Retrofit Program

## 5.1. Grocery Initiative

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| Eligibility Criteria | EnergySmart Grocer (ESG) is an initiative that serves commercial customers who sell food at the retail or wholesale level. |
| Offerings | Technical assistance, project management, incentives, financing, installer and customer educations sessions. |
| Implementation and Delivery | This program is administered by the vendor. Company Account Managers associated with each vendor partner with the sales team to develop a relationship with the prospective customer. Once the relationship is established, EnergySmart Grocer (ESG) offers no-cost audits to the customer. This audit documents and identifies energy efficiency opportunities for the store's refrigeration, lighting, HVAC and kitchen equipment. Once the audit is complete, an Energy Savings Report is generated and presented to the customer.<br><br>EnergySmart Grocer works with the customer's contractor to obtain a quote for the work. If the customer decides to move forward with the project, EnergySmart Grocer will generate an application, collect all necessary paperwork, and submit to National Grid for pre-approval. Once the project is complete, ESG will collect all invoices and final signatures, and complete a post-inspection verification to ensure the measures are installed as intended. ESG will submit all paperwork to National Grid and notify the customer when the incentive check is in the mail.<br><br>ESG Account Managers maintain relationships with the customer. For smaller independent chains, the program uses an inform-to-invest strategy where the success of the first project is leveraged to pursue deeper and more expensive measures. For the regional and national chains, Account Managers schedule regular check-ins with the customer's Energy Manager to check-in on active projects and learn of future projects. |
| Customer/Vendor Feedback | Customer feedback flows through the ESG Initiative vendor to internal parties at National Grid. The Company's vendor has asked for financing support for small and mid-size independent grocers, as they believe this will allow such customers to commit to projects more quickly or increase the number of measures installed. The Company will provide this assistance through OBR or through an interest buy down mechanism in partnership with third party providers of debt capital. |

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| Changes for 2021 | **New measures will be deployed in 2021** including energy efficient hand dryers, anti-fog film, and adding doors to self-contained refrigerated cases to support "click and collect" customers.<br><br>The Company will **provide financing support for small- and medium-sized independent grocers** through OBR or through an interest buy down mechanism in partnership with third party providers of debt capital. |
| Rationale for Changes | See customer feedback for financing changes. New measures are offered to maintain savings within this sector and provide customers with more options to save energy. |
| Notes | The Company is investigating the energy savings and carbon reduction benefits of integrating leak detection and repair as a standard offering. Currently this work is done when leaking refrigerant is visible to the naked eye or identified as a problem by the customer. Savings/benefits and costs will be better understood by the final draft of this 2021 Annual Plan. |

## 5.2. Industrial Initiative

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| Eligibility Criteria | The Industrial Initiative offerings are available to all manufacturing and industrial customers. |
| Offerings | The following assistance and incentives are provided under the Industrial initiative: technical assistance; project management; measure incentives; installer and customer educations sessions; monitor-based commissioning; production systems and line efficiency coordination; and support in identifying and implementing process-related energy efficiency improvements that increase the efficiency of both energy use and business processes.<br><br>The ability to participate in the Strategic Energy Management Demonstration, now called the Continuous Energy Improvement demonstration, has been offered to industrial and manufacturing customers since 2019. These customers will continue to be able to participate through 2021, the final year of the demonstration. Please refer to Attachment 8 for details on the demonstration, which is implemented by a separate vendor from the Industrial initiative. |
| Implementation and Delivery | The National Grid Sales Representative is responsible for identifying customers or "leads" for the Industrial Initiative Vendor to pursue for participation in the Industrial Initiative. The |

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| | Company's trade allies also provide additional leads directly to the Industrial Initiative vendor.<br><br>Prior to the initial site visit, National Grid provides the Industrial Initiative vendor with customer billing and interval data. This allows for the following analysis, some or all of which are typically done by the Vendor: interval data analysis; peak day loads; average weekday load shapes; average weekend consumption; base load energy usage; and a review of electric and gas usage and weather correlations (heating/cooling).<br>In some cases, based on this analysis, the customer may be referred to the Company's demand response program.<br><br>A kickoff meeting is scheduled with the National Grid Sales Representative and the Customer. The National Grid Technical Representative is also notified and welcome to participate.<br>The kickoff meeting is typically followed by a site tour to identify potential energy efficiency measures. During the site tour, metering equipment may be deployed to assist with energy efficiency measure development.<br><br>After the initial site visit, the Industrial Initiative vendor provides the customer and National Grid a follow up report on the opportunities identified and next steps. The report is typically reviewed with the customer and the Sales Representative. The measures identified are tracked in the Industrial Initiative vendor's Customer Relationship Management (CRM) system.<br>The Industrial Initiative works closely with the customer's facility staff and vendors/contractors to develop "custom measure" workbooks to calculate potential savings and the incentives. A "Tech Check" is submitted to the National Grid Technical Representative and Sales Representative to validate the proposed savings calculation methodology before the workbook is developed. Once the Company approves the custom workbook, the Sales Representative communicates the incentive to the customer.<br><br>The Industrial Initiative Project Manager facilitates the application process from the earliest stage of measure through the completion of the project. The incentive application process may include formal status meetings with the Company's Sales Representative and the Industrial Initiative vendor. |

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| | To facilitate continuous improvement, the Technical Representative, the Sales Representatives and the Industrial Initiative vendor work together to continually engage and encourage the customer to realize more comprehensive energy savings. |
| Customer/Vendor Feedback | Customer feedback flows through the Industrial Initiative vendor and Sales Representative to internal parties at the Company. Feedback suggested using a service such as "DocuSign" to facilitate the application approval process, which the Company will implement in 2021. It was also recommended that the Company add business rules that account for savings accuracy when approving smaller "custom" projects so that the customer receives an approval quickly without excessive information requests, which is under consideration. |
| Changes for 2021 | The Company will **add a digital signature option to the application approval process**.<br><br>The initiative will **increase focus on customers in the 200-400 kW range** to encourage greater participation by small- and medium-sized commercial customers. |
| Rationale for Changes | The digital signature process was recommended by customers and the industrial initiative vendor to reduce administrative burden and expedite project sign-offs.<br><br>Small- and medium-sized commercial and industrial customers have not realized the same percent energy reduction via efficiency as their larger counterparts. The Company is working with the Industrial Initiative vendor to increase participation among this valuable customer segment. |
| Notes | The Industrial Initiative has installed and performed energy efficiency assessments on a number of the measures identified in the Market Potential Study including but not limited to: Boilers, Boiler Tune-Ups, Heat Recovery, HVAC Equipment and Systems, LED Lighting, Energy Management Systems, Demand Control Ventilation, System Controls, and Steam Traps. |

## 5.3. National and Regional Restaurant Initiative

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| Eligibility Criteria | The Serve Up Savings (SUS) initiative will serve regional/multi-state and national restaurant chains not currently engaged with Strategic Energy Management Partnership Agreements (SEMPs). |

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| | Restaurants with multiple locations within Rhode Island only will be served by the Small Business Program. |
| Offerings | Technical assistance, project management, incentives, work with franchisors to come up with a package of measures that will work for their franchisees |
| Implementation and Delivery | Serve Up Savings works hard to minimize the effort needed for the customer to participate in the program. The first interaction is a Serve Up Savings Account Manager reaching out to the customer to introduce the program and schedule an audit of their stores. Once the audits are complete, the program puts together an Energy Savings Report which details the energy efficiency upgrade opportunities. The program works with the customer's preferred contractor or recommends three if they don't have one. The program obtains a bid for the work, so the customer can decide to move forward based on their financial metrics.<br><br>The program will collect all required paperwork and submit to National Grid for pre-approval of incentives. Once pre-approved, the program will send the customer a commitment letter which details the financial incentives. The customer contracts directly with the contractor to complete the work. Once the work is finished, the program completes a post-inspection as well as collects all final paperwork. The program submits all paperwork to National Grid and a check is sent to the customer. The program leverages this check to push installation of the next set of measures to be installed at their stores. |
| Customer Feedback | |
| Changes for 2021 | No changes are anticipated for 2021. |
| Rationale for Changes | N/A |
| Notes | |

## 5.4. Lodging Initiative (including On Premise Laundry)

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| Eligibility Criteria | The Lodging Initiative (LI) is an initiative that will serve hotels, motels, and resorts. On Premise Laundry (OPL) includes commercial laundry facilities, hospitals, colleges, and lodging facilities. |
| Offerings | **Lodging** |

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| | Technical assistance, project management, incentives, installer and customer educations sessions.<br><br>**On Premise Laundry**<br>There are some on premise laundry solutions to reduce natural gas energy usage including ozone, condensing equipment and a retrofit for dryers. National Grid has some experience offering incentives to customers installing this equipment. There is a suite of product offerings associated with this initiative including Xeros polymer laundry solutions. This includes a commercial washing machine that uses 80% less water and a lower operating temperature than standard models, where polymer beads replace water and with DrySmart RMC™ (Residual Moisture Control). Due to the high costs associated with replacing commercial dryers, many times the units are repaired rather than replaced. This technology allows installation and monitoring of a moisture sensor retrofit at lower costs than replacement with a new energy efficient commercial dryer. The moisture sensor senses the level of dryness and stops the machine when a load is dry. This reduces gas that would otherwise be wasted. It has received good test results. Dry Smart RMC is coming out with a new version of their technology called DrySmart 2, that will have an improved dashboard. |
| Implementation and Delivery | **Lodging**<br>LI Account Managers partner with the National Grid sales team to develop a relationship with the prospective customer. Once the relationship is established, the LI offers no-cost audits to the customer. This audit documents and identifies energy efficiency opportunities for the hotels refrigeration, lighting and controls, HVAC and controls, and kitchen equipment. Once the audit is complete, an Energy Savings Report is generated and presented to the customer. The LI vendor works with the customer's contractor to obtain a quote for the work. If the customer decides to move forward with the project, the Lodging initiative vendor will generate an application, collect all necessary paperwork, and submit to National Grid for pre-approval. Once the project is complete, the LI vendor will collect all invoices, final signatures, and complete a post-inspection verification to ensure the measures are installed as intended. The LI vendor will submit all paperwork to National Grid and notify the customer when the check is in the mail.<br>The Lodging Initiative Account Managers will maintain relationships with the customer. For smaller hotels and motels, the program uses |

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| | an inform-to-invest strategy where the success of the first project is leveraged to pursue deeper and more expensive measures. Account Managers schedule regular check-ins with the customer's Energy Manager to check-in on active projects and learn of future projects.<br>**On Premise Laundry**<br>Once the target audience is identified, customer specific marketing materials will be designed and mailed to that audience. The initial call to action will be to contact your National Grid Sales representative. |
| Customer Feedback | Customers have lingering concerns about ozone leaks, fabric discoloration, and pathogen destruction. Customers are also concerned about the potential costs of ongoing maintenance. |
| Changes for 2021 | It has been difficult to find an existing vendor to serve these markets. Therefore, the Company employed Slipstream, which will continue to **research important areas of focus such as the savings and best practices for deployment of guest room energy management systems (GREMS), kitchen hood controls, and ozone laundry**, so that the Company can capture these opportunities without an unifying vendor. This effort will be complete by January 2021.<br><br>Slipstream will also assist the Company in **identifying key attributes of a successful future vendors and helping craft a scope of work**, as National Grid believes that a vendor can provide better customer experience and deeper savings than approaching individual technologies. |
| Rationale for Changes | Lodging and laundry are important areas to seek out additional non-lighting savings. |
| Notes | The Company will create marketing to address customer concerns regarding ozone laundry, especially safety. The Company believes customers concerns are valid, but may be based on outdated information. Nationwide, half of all ozone laundry units installed are not currently operational. The Company is investigating the reason(s) for this lack of continued use. |

## 5.5. Strategic Energy Management Planning (SEMP)

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| Eligibility Criteria | The Strategic Energy Management Plan (SEMP) Initiative is available to the Company's largest C&I customers, including chain restaurants. The SEMP initiative targets customers who have the potential to go deeper with energy efficiency, have a level of in-house |

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| | sophistication to make organizational changes to incorporate multi-year energy planning, and are motivated by corporate and institutional sustainability goals. |
| Offerings | SEMP provides customers with customized support allowing flexibility to address the energy efficiency and sustainability opportunities of the organization and its facilities in the context of the Company's self-identified business needs. Working with a SEMP gives the customer the opportunity to think long-term about their energy needs and equipment ,resulting in more comprehensive savings compared to the more traditional energy efficiency programs. Where appropriate and valued by the customer, automated benchmarking will be available to help demonstrate the impact installing energy efficiency measures can have on the energy usage of the facilities.<br><br>**Colleges and Universities**<br>These are currently served through either the Company's large commercial programs with a dedicated sales team or the Company's SEMP initiative. With a master-metered portfolio of buildings within the campus, most universities are tied to sustainability goals and climate action plans to reduce their greenhouse gas emissions. The Company's SEMP initiative allows enrolled university customers to engage in multi-year campus energy planning and assists them in identifying comprehensive and long-term energy efficiency opportunities. The Company has three SEMP agreements in place with colleges and universities and is currently engaged in conversations with three other college campuses in Rhode Island for SEMP agreements. The Company will continue to explore opportunities for further SEMP university customers and provide energy efficiency services to universities in Rhode Island outside the SEMP model for those universities not wishing to participate in a SEMP. |
| Implementation and Delivery | A Memorandum of Understanding (MOU) offers a way to document a commitment between the customer and the Company to work together to achieve mutually stated goals through specific actions that are tailored to the customer's facilities over a multi-year planning horizon. As such, an MOU (though non-binding in this case) can set the stage for achieving deeper and more comprehensive energy efficiency savings and is more likely to succeed than a "one measure" or "one year" approach. |

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| | Typically, MOUs include participation and a commitment by upper management, the establishment of specific, very aggressive energy efficiency saving targets, and measurement and verification strategies to document savings throughout the target facilities, supported by an incentive structure that meets the customer's financial criteria. To support customers setting aggressive kWh and therm savings goals under SEMP, there are several items that are reviewed:<br>• Customer's total kwh and therm usage on all accounts<br>• Customer's percentage of energy reduction over the last 5 years through EE measures<br>• Customer's capital project plan<br>• High level measure identification by the Company's TA vendor for potential savings over the 3-year SEMP<br><br>This offering goes far beyond energy efficiency into sustainability and branding support for the customer. The Company also engages SEMP customers with non-energy efficiency solutions, such as renewables, storage, electric vehicles, and distributed energy resources and technologies.<br><br>The Company currently has six SEMP MOUs. Three are large university campuses, one is with a large chain restaurant, and one with a large commercial customer. In addition, a State SEMP focused on State facilities has been in place since 2016. Projects and savings vary by year. As an example of the electric savings, the 2021 annual goal for 3 colleges/universities combined is approximately 2,011 MWh and 73,334 Therms. |
| Customer Feedback | One customer commented that the MOU process is streamlined and easy to work with. |
| Changes for 2021 | In 2021, the Company **will ramp up efforts to engage more customers with SEMP initiatives**. Potential customers include colleges and universities in Rhode Island not yet engaged with SEMPs, cities, industrial customers, and chain restaurants.<br><br>In 2021, **educational SEMP customers will have access to specialty services from an energy solutions provider** who specializes in campus energy infrastructure from energy efficiency to mechanical/electrical infrastructure needs. |
| Rationale for Changes | The changes proposed for the SEMP initiative will allow for more comprehensive services for customers as well as increase participation in the SEMP initiative. |

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| Notes | |

## 5.6. Municipal and State Buildings SEMP

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| Eligibility Criteria | The Company currently has in place a three-year State SEMP. This SEMP includes municipalities, State buildings, Quasi State buildings, water and waste water facilities, State Colleges, State Universities and public K-12 Schools. |
| Offerings | Following a successful joint MOU signed by the Company, OER, the Department of Administration (DOA) and the Department of Capital Asset Management and Maintenance (DCAMM) designed to integrate strategic energy planning across State and Quasi State facilities from 2016 to 2019, the State SEMP was renewed for another 4 years in 2020. The 2020-2023 MOU has a goal of achieving a 10% energy use reduction by end of 2023.<br><br>The Company provides specific support to State and Municipal buildings through project management, implementation support, technical support and financial mechanisms to achieve energy efficiency in State, Quasi-State and municipal buildings. This is in addition to incentives available through Energy Efficiency programs.<br><br>**Project/Energy Management Support:** The time and expertise required to identify, develop, and oversee these projects can be beyond the resource capacity of many towns and cities. The Company provides this support as part of the State and Municipal initiative and via a SEMP.<br><br>**Implementation Support:** The Company provides support for energy efficiency project implementation via previously successful vendors. Municipalities recognize the value of this support, as it provides a trusted partner to bring the time and expertise they lack to identify, develop and oversee complex projects. To continue to serve this sector, there are several support mechanisms in place:<br><br>• URI Energy Fellows support municipalities as they learn to use Portfolio Manager as well as meet the EBF's energy reporting and energy management plan development requirements. National Grid also has an automated process by which customers can authorize upload of utility data onto Portfolio Manager. This system is used for benchmarking via Portfolio Manager (see section 9.3.1). |

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| | • The Company supports municipal engagement in OER and programs like vendor selection, engineering support, and implementation of upgrades through the energy efficiency programs.<br>• The Company provides energy audits to select municipal/school/wastewater customers to support energy efficiency applications. In the past few years the Company has provided approximately 50 energy audits annually.<br><br>For financing in this sector, the Company will continue to offer On-Bill Repayment for electric and gas measures. Schools and municipalities will have access to the same processes that were developed for the State, including consulting for procurement and product selection, retro commissioning, incentive calculations, new construction support and other services to ensure successful project installation. |
| Implementation and Delivery | The process of participating in the State SEMP is the same as described above for other SEMPs. |
| Customer Feedback | The initiative has received feedback regarding some challenges with the additional of schools to the SEMP including funding, timing, and collaboration among multiple stakeholders. |
| Changes for 2021 | The SEMP will **target a 10% reduction in energy use by the above stated facilities by 2023.**<br><br>The Company will **work with multiple State agencies on exterior lighting projects.** |
| Rationale for Changes | By targeting an additional 10% reduction in energy use by 2022, these facilities will save money that can be used for additional energy efficiency projects in the future. The addition of K-12 public schools to the State SEMP in 2020 is one of the most efficient ways to work with this sector. |
| Notes | Building Operator Certification classes sponsored by National Grid in the Rhode Island and Massachusetts service areas are available to schools and many school facility managers have taken advantage of this program and follow up by actively engaging in energy efficiency solutions at their facilities. |

## 5.7. Equipment & System Performance Optimization

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| Eligibility Criteria | The Equipment & Systems Performance Optimization (ESPO) Initiative is available to all C&I customers averaging greater than 2,000 building operating hours a year. The ESPO initiative offers three pathways (Low Cost Tune-Up, Targeted Systems Tuning, and Whole Building and Process Tuning) to accommodate different customer segments and building needs. The ESPO initiative is designed to optimize equipment and systems, and includes optimizing building energy controls and process system operations. The systems optimization may include retro-commissioning (RCx), operations & maintenance (O&M), and Monitoring Based Commissioning. This initiative falls under the Large Retrofit Program. |
| Offerings | ESPO provides three pathways for participation depending on the customer's energy efficiency opportunity, building type, and age and sophistication of existing control systems. The vendor and technical support team will work with the customer to select the best pathway for participation and energy savings. The three pathways are:<br>**Low-Cost Tune-Up:** The Low-Cost Tune-Up offers technical support and prescriptive energy conservation measures to customers that have isolated items in need of standard tuning. In addition to identifying standard tuning, the technical support will help to identify easy to install efficiency measures that can be implemented by the customer's facility staff, maintenance contactors, or retro-commissioning vendors. Pre-approval for implementation is required before the customer or outside party can receive an incentive on the installation. Incentives are provided to sites where the baseline condition and the proposed upgrade are documented through a simple data input, requested in the application, which is used to determine savings at the measure level. Only selected HVAC, steam, refrigeration, and compressed air measures are eligible for prescriptive incentives. An additional performance incentive of $0.03 per kWh and $0.20 per therm is available to customers that reduce at least 2.75% of the facility's annual electric consumption and 1.5% of the facilities annual gas consumption.<br><br>**Targeted Tuning:** The Targeted Tuning approach offers an in-depth investigation and tuning process for building systems and process lines. Rather than looking at the whole building, the Targeted Tuning looks for a specific process or end-use energy efficiency upgrades. A proactive approach to energy savings can be achieved through |

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| | Monitoring-Based Commissioning. Monitor-Based Commissioning is similar to the Whole Building and Process Tuning approach; however this pathway assumes that identified measures will be implemented and that customer will be committed to energy monitoring and on-going energy tracking for a minimum of three years. Through the Monitor-Based Commissioning pathway, the customer installs a software package linked to the Building Management System. Monitor-Based Commissioning software uses AI and advanced analytics to constantly monitor the system and determine when a set point or system has breached an upper or lower control limit. The system identifies areas of improvement over time and alerts facilities personnel to faults in the system. The incentive for Monitor-Based Commissioning is $0.17/kWh and $1.20/therm on a pay-for-performance basis.<br><br>**Whole Building & Process Tuning:** The Whole Building and Process Tuning offers a comprehensive, full building or process approach to retro-commissioning for customer's with a functional control system in place and electric usage greater than 5,000,000 kWh annually. Manufacturing or industrial customer can also use this pathway to apply a comprehensive tuning approach for their systems. Typically, the customers facility staff is involved in the Whole Building and Process Tuning given the broader scope and longer timeline associated with the installation and commissioning. Up to $30,000 can be provided for the tuning investigation to determine energy conservation measures under this pathway. The implementation incentives are provided on a $0.17/kWh and $1.20/therm saved basis for approved energy savings. An additional performance incentive of $0.03 per kWh and $0.20 per therm is available to customers that reduce at least 2.75% of the facilities annual electric consumption and 1.5% of the facilities annual gas consumption. |
| Implementation and Delivery | A customer begins the process for ESPO by contacting their National Grid Sales representative. In advance of undertaking an ESPO project, as with all custom projects, account and technical representatives will work closely with the customer and their implementers to identify the appropriate pathway.<br>If needed, a retro-commissioning consultant will be brought in to provide an investigative report, the results of which are shared with the customer. The ESPO process may also identify additional capital |

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| | projects that increase energy savings and can secure additional incentives.<br><br>The Company may also facilitate the transfer of information from the controls vendor to third party retro-commissioning vendors or technical assistance vendors with expertise in building controls. The Rhode Island Products and Growth team continues to work with our Massachusetts counterparts to encourage development of workforce expertise in this area. |
| Customer Feedback | The Company will work with ESPO customers and vendors to solicit feedback on participation barriers, program enhancements, and incremental modifications. The feedback will be reviewed by the Company and improvements based on customer input will be developed and implemented during the spring and summer of 2021. |
| Changes for 2021 | In 2021, the ESPO initiative will **include heat exchanger coil cleaning to the prescriptive low-cost tune-up measures.** |
| Rationale for Changes | The Company aims to increase participation in the ESPO program in 2021. The heat exchanger coil cleaning provides a relatively quick payback period that should result in greater participation and increased program awareness. |
| Notes | The ESPO initiative includes a number of technologies and end-uses identified in the Market Potential Study, including boilers (steam and hot water), waste energy recovery, refrigeration, scheduling and set point optimization, energy management systems, and rooftop units. |

## 5.8. Lighting Designer Incentives (LDI)

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| Eligibility Criteria | LDI is offered to lighting design teams for qualifying New Construction/Major Renovations or Existing Buildings Performance Lighting projects, or projects qualifying under Sustainable Office Design (SOD) program.<br><br>National Grid maintains a list of qualified Lighting Designers, as well as Engineers and Architects who have demonstrated at least 5 years of lighting design experience. National Grid markets the program to the construction and design community. Lighting designers cannot sell product for the project that they are receiving LDI.<br><br>Lighting designer must have at least one of the following qualifications: |

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| | • Lighting Certified (LC) – granted to those who successfully complete the NCQLP (National Council on Qualifications for the Lighting Professions) Lighting Certification Examination;<br>• CLEP – certification from the Association of Energy Engineers (AEE);<br>• IALD – International Association of Lighting Designers Professional Membership status; or<br>• CLD – the IALD sponsored Certified Lighting Designer, certification. |
| Offerings | This incentive goes directly to the lighting design team to fund their efforts to achieve lighting energy savings while maintaining quality lighting design.<br><br>LDI is a sum equal to 20% of the customer lighting incentive offered for a project, up to a maximum of $15,000 per project that goes directly to the lighting designer. |
| Implementation and Delivery | **Lighting designer submits LDI application for a project**<br>LDI will be paid in two installments: National Grid will pay 50% upon pre-approval of the customer application, and 50% upon confirmation of installation, at the same time the National Grid makes the customer incentive payment. National Grid will make the payment to the lighting design team lead. The lighting design lead may choose to split the incentive with additional parties.<br><br>For the first LDI installment, the lighting design team shall submit the Lighting Designer Incentive Worksheet and an invoice in the amount of 50% of the total anticipated LDI. The invoice should reference the project name. For the second LDI installment, the lighting design team shall submit a second invoice, again referencing project name. |
| Customer Feedback | LDI needs marketing to the customer to inform them about the benefits of hiring a lighting designer. |
| Changes for 2021 | Revision to this initiative description will be made as part of restructuring of Performance Lighting in the final draft of the 2021 Annual Plan. |
| Rationales for Changes | |
| Notes | LDI is not available for projects that participate in the RI New Construction Program's Whole Buildings Approach – whether participating in the Large Buildings or Small Buildings incentive path. A |

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| | separate Design Team Incentive is available for project teams of qualifying Whole Building projects. |

## 5.9. Customer Owned Streetlight Equipment

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| Eligibility criteria | The customer owned LED streetlighting initiative is available to any city or town in Rhode Island serviced by National Grid for electric service on the Customer Owned Equipment S-05 tariff (Rate S-05), as well as fire districts, municipal water utility boards, Kent County Water Authority, Rhode Island Commerce Corporation, Narragansett Bay Commission and the State of Rhode Island. |
| Offerings | Incentives of $0.15 per kWh of first-year savings for qualifying LEDs and $0.25 per kWh of first-year savings for qualifying controls associated with either the dimming or part-night run hours as set forth in the streetlighting tariff. |
| Implementation and Delivery | A customer begins the process for purchasing their leased streetlights from National Grid by contacting their National Grid Community & Customer Manager. A suggested first step would be to indicate they are interested in getting an inventory of the streetlights and an estimated purchase price. This inventory is a non-binding opportunity for the customer to begin the decision-making process. If the customer opts to pursue the purchase of the streetlight assets, a notice to purchase is submitted to the Company and to the PUC as required by the legislation. A final value of the assets is calculated, and sale agreements are executed. Once the closing process is complete, the ownership of the assets is transferred from National Grid to the customer. Once the customer owns the streetlights, they can replace the older technology with LED lighting and controls. The municipal energy efficiency sales representative from National Grid will assist the customer in determining the energy savings and amount of incentive they can expect once the process is completed. The customer fills out an application form and once the lights have been installed, contacts National Grid for a post inspection. Once the post inspection is satisfactorily completed, the incentive can be mailed to the customer. Notification to the Community & Customer Manager with the completed location listing of the LED conversions is required for the billing system updates to realize any energy consumption savings. |
| Changes for 2021 | No changes are anticipated for 2021. |

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| Rationale for Changes | N/A |
| Notes | In addition to the incentives provided by the systems benefit charge mentioned above, OER provides grant funding to communities for LED street lighting. There is a $300,000 cap on the funding to individual cities and towns from OER. |

## 5.10. Company Owned Street Light Equipment

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| Eligibility Criteria | Eligibility for the incentive for company owned LED streetlighting is dependent on service on the 3 unmetered streetlight tariffs, S-06, S-10 and S-14 with exchange of an existing roadway or post-top style, Incandescent, Mercury Vapor or High Pressure Sodium Vapor sourced luminaire to one of the Company's LED offerings. The tariffs allow LED street or post-top fixtures to be available to all customer groups. |
| Offerings | Incentives of $0.15 per kWh of first-year savings for qualifying LEDs are available. All company owned street and area lights are operating at a dusk-to-dawn schedule. |
| Implementation and Delivery | The customer contacts their Community and Customer Manager with their interest. The Company returns a billing inventory and estimated cost savings analysis for the customer to review. If the customer opts to move ahead with the lighting exchanges, a letter of intent is sent to the Community and Customer Manager. Accompanying the letter should be the billing inventory with the customer's LED options by location indicated. The Company will issue the replacement orders and install the lights. The energy efficiency sales representative will contact the customer and assist in the incentive application and payment process.<br><br>About one hundred LED streetlights have been installed to date. Of the 21 towns mentioned above under customer owned, 4 of them are also considering the Company Owned option. |
| Changes for 2021 | No changes are anticipated for 2021. |
| Rationale for Changes | N/A |
| Notes | Currently, no energy efficiency incentive is available for the Company-owned controls option as the Company does not offer adjustable controls for billing other schedules such as part-night or dimming. A majority of street lighting customers in Rhode Island have either purchased their own street lights or indicated a preference for |

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| | purchasing their street lights. Therefore, the volume of company-owned street lighting is on the decline. As a result, the number of company-owned street lights that would be eligible for controls if controls were made available is a small number. Additionally, the controls associated with street lighting represents only a small piece of a Company-wide Advanced Metering Infrastructure (AMI) system which would be designed to handle the core business of electric and gas metering. Although the Company is keeping a watchful eye on advancing technologies, the capital investment on the system will be prompted by other customers.<br><br>However, the Company has a demonstration project in Schenectady NY to evaluate street lighting controls and their viability. Before networked lighting control advances at National Grid, decisions need to be made regarding selection of the control, the network provider, as well as integration into the current and/or future billing system.<br><br>Like a multifamily building or leased commercial space where the tenant pays the electric bill, as long as the landlord (in this case, National Grid) approves the replacement, the customer leasing the street light will receive the energy efficiency incentive directly. |

Table 4 below reflects some of the similarities and differences between the two ownership options available to customers for solid state street lighting.

*Table 4. Customer- versus Company-Owned Street Lighting*

| Distinction | Customer-Owned | Company-Owned |
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| **LED Fixture** | Customer owns the equipment and is responsible for the purchase, financing, and maintenance | National Grid owns, installs, and maintains the equipment. The customer requests the exchange of existing or installation of new lighting |
| **Energy Efficiency Incentive** | Customer receives a one-time incentive payment for the installation of LED equipment (after satisfactory post-inspection by National Grid) | Customer receives a one-time incentive payment for the installation of LED equipment (after satisfactory post-inspection by National Grid.) |
| **Purchase/Lease** | Customer purchases the equipment | National Grid leases the equipment to the customer |

| Distinction | Customer-Owned | Company-Owned |
|---|---|---|
| **Outreach** | League of Cities and Towns, Annual Department of Public Works (DPW) meeting with Company, and various other meetings | League of Cities and Towns, Annual DPW meeting with Company, and various other meetings |
| **Technical Support** | Customer is responsible | Customer is responsible |

## 5.11. Commercial Real Estate and Offices

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| Eligibility Criteria | Commercial Office Spaces |
| Offerings | It is unknown how COVID-19 will change this market. Due to this uncertainty, the Company is pausing the development of a commercial real estate initiative. However, a National Grid salesperson will continue to cover this market and monitor conditions in this segment. |
| Implementation and Delivery | The Commercial Real Estate (CRE) sector has specific challenges and barriers linked to the split incentive between building owners and tenants, and difficulty accessing decision makers. The Company serves this customer segment with specific services to engage customers, like benchmarking and finance tools, as well as specific incentives tied to office performance-based design approach that benefits both building owners and tenants.<br><br>**Benchmarking**<br><br>The Company provides automated benchmarking services for commercial office spaces that allows building owners to be aware of their buildings energy use and compare it with that of its peers. After a facility has been benchmarked, National Grid has various resources to help its owners achieve lower energy consumption per square foot.<br><br>**Commercial Property Assessed Clean Energy (C-PACE)**<br><br>C-PACE is an ideal tool for some commercial real estate owners and developers. It allows them to finance energy and related improvements in a way that is widely considered “off book” and can be passed through to renters in many types of leases. To advance the use of this unique mechanism National Grid works with the Rhode Island Infrastructure Bank (RIIB) and Sustainable Real Estate Solutions (SRS) to bring awareness to commercial building owners.<br><br>**Sustainable Office Design** |

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| | The Company markets the "Sustainable Office Design" (SOD) initiative to address Class A type office spaces. The Sustainable Office Design (SOD) initiative promotes high-performance office lighting and controls for quick turnaround tenant fit-outs. This is an easy to use, performance-based design approach that benefits owners or tenants with energy savings depending upon the lease arrangements. A fixed incentive per square foot along with a pre-set design criteria and lighting designer incentives will provide easy participation for the tenant fit-out projects.<br><br>The Company will begin the year with a combination of email and direct mail outreach making sure both tenants, landlords, and property managers are aware of the suite of services we can provide to them to help them improve their spaces. We encourage customers to reach out to a resource who will assess their needs and decide which actions they should take in which sequence.<br><br>The Company will ensure that both tenants and landlords statewide are aware of the wide variety of resources available to them though the Green Lease Leaders program, including one on one coaching, from the Institute of Market Transformation (IMT). Marketing pieces and "leave behinds" will be created for National Grid commercial sales professionals, landlords, and vendors. The Company will also work with IMT to host a "green lease" information session.<br><br>The Company will continue to refine its automated benchmarking capabilities in 2020. National Grid will work with partners such as the City of Providence, Chambers of Commerce, and other entities to ensure that customers are aware of this tool as well as its benefits.<br><br>The Company will ensure that both tenants and landlords statewide are aware of the wide variety of resources available to them though the Green Lease Leaders program, including one on one coaching, from the Institute of Market Transformation (IMT). Marketing pieces and "leave behinds" will be created for National Grid commercial sales professionals, landlords, and vendors.<br><br>The Company will continue to inform owner occupied buildings and landlords of multi-tenant spaces of the potential of Community Property Assessed Clean Energy (C-PACE) as a mechanism for financing building improvements. |

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| Customer Feedback | The Company has heard from long term tenants who would like to make EE improvements, but cannot do so in a way that is favorable to them due to lease terms. |
| Changes for 2021 | It is unknown how COVID-19 will change this market. Due to this uncertainty, the Company is pausing the development of a commercial real estate initiative. However, a National Grid salesperson will continue to cover this market and monitor conditions in this segment. |
| Rationale for Changes | N/A |
| Notes | |

## 5.12. Multifamily

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| Eligibility Criteria | See Attachment 1, Section 3, for eligibility information.<br><br>In addition to criteria listed in Attachment 1, Section 3, the multifamily program provides joint residential and commercial energy services to condominiums and apartment complexes for energy efficiency upgrades with no cost audits. The multifamily C&I program also serves customers like non-profits, group homes and houses of worship that traditionally do not fit within the predefined program structure. |
| Offerings | See Attachment 1, Section 3, for offerings.<br><br>In addition to what is listed in Attachment 1, Section 3, the C&I multifamily program specifically offers incentives for master metered gas measures that typically include boiler upgrades, reset controls and insulation and air sealing. The remaining areas are addressed through residential incentives via a common point of contact such as a property manager or building owner to comprehensively service the facility. |
| Implementation and Delivery | See Attachment 1, Section 3, for implementation and delivery.<br><br>In addition to what is listed in Attachment 1, Section 3, note that the program coordinates with the Residential New Construction Program, Multifamily Programs, and the Small Business Program. |
| Customer Feedback | See Attachment 1, Section 3, for customer feedback. |
| Changes for 2021 | See Attachment 1, Section 3, for program changes. |
| Rationale for Changes | See Attachment 1, Section 3, for rationale. |
| Notes | |

## 5.13. Extended Care Facilities (Nursing Homes/Assisted Living)

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| Eligibility Criteria | The extended care market sector includes nursing homes, assisted living facilities and rehabilitation facilities. |
| Offerings | Offering for this Initiative include lighting, HVAC improvements (including heat pumps), envelope improvements, energy management systems, energy efficient laundry systems, and Combined Heat and Power (CHP). Commercial Property Assessed Clean Energy (C-PACE) can be used as a financing tool. C –PACE, further defined in section 8.6, allows customers access to low cost private capital for terms that greatly exceed most conventional business loans. It also allows the customer to capitalize all costs related to the project. This means that the Company now has a potential solution to one of the barriers to moving forward with deeper and broader efficiency measures in this segment. |
| Implementation and Delivery | Interested customers contact the Channel Sales representative who handles energy efficiency sales for medium sized businesses. |
| Customer Feedback | The vast majority of these facilities either did not have the resources or did not want to prioritize the resources to investigate energy efficiency opportunities, even with a generous cost share, let alone act on them. Consequently, this market segment presents challenges to participate in comprehensive energy efficiency. |
| Changes for 2021 | As the majority of these facilities are small businesses, the Company will **work with the small business vendor and current salesperson to refine the initiative approach in 2021.** |
| Rationale for Changes | See customer feedback above. |
| Notes | |

## 5.14. Farm/Agriculture

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| Eligibility Criteria | The Farm and Agricultural Initiative is available to any farm or agricultural National Grid customers within the state of Rhode Island regardless of energy source including delivered fuels. National Grid will cover electric and natural gas energy efficiency incentives in accordance with the customer's eligibility and the program criteria. These energy conservation measures will be installed with prior approval of landlord, where appropriate. |

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| Offerings | Lighting, HVAC improvements (including heat pumps), envelope improvements (weatherization, air sealing, insulation), equipment upgrades including refrigeration, pumps and motors, and ventilation. Now Commercial Property Assessed Clean Energy (C-PACE) can be used as a financing tool. C –PACE, further defined in the "Affordability and Financing" section below, allows customers in participating communities to access low-cost private capital for terms that greatly exceed most conventional business loans. It also allows the customer to capitalize all costs related to the project. The Company recognizes that financial assistance can help small businesses, including agricultural ones, to move forward with energy efficiency projects and is committed to helping them access affordable options. In addition, farmers may be eligible to participate in the Rhode Island Agricultural Energy Program grant.[3] |
| Implementation and Delivery | National Grid engages with customers through targeted outreach, while also providing additional information via the Office of Energy Resources website.[4] By way of this initiative, participating customers will receive a no-cost, no-obligation energy audit in which a qualified vendor will visit the farm, perform an energy audit and provide the customer with a written list of recommended measures tailored to the customer's situation, including equipment focused on agriculture.<br><br>As of February 2020, twenty-six customers have either received or are pending an energy audits , with twenty-five of those customers having installed energy conservation measures. |
| Customer Feedback | Incentives have been critical to get customers to move forward with energy efficiency measures. The process took a long time from audit to installation. Customer awareness could be improved.<br><br>Feedback indicates customers lack awareness as to what qualifies for energy conservation measure incentives. However, those who have utilized incentives have seen significant savings and benefits to their operations. |
| Changes for 2021 | In 2021, the Company will **explore simplifying the initiative for customers with multiple meter types**, including a mix of residential and commercial accounts. |

[3] http://www.rifarmenergy.org/ri-ag-ep.htm
[4] http://www.energy.ri.gov/policies-programs/programs-incentives/feep.php

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| Rationale for Changes | The agriculture segment of the market has not embraced participation at the same levels as others. Therefore, the Company is working to simplify participation for customers while continuing targeted outreach and leveraging online resources to increase participation. Increasing participation will ensure equitable access to programs and incentives, which is a goal for both the Company and stakeholders. |
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## 5.15. Combined Heat and Power Initiative

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| Eligibility Criteria | To qualify for a Combined Heat and Power (CHP) energy efficiency incentive, a proposed project, no matter the size, must meet the following conditions:<br>• Host customers must be in the franchise service area of the Company.<br>• Proposed systems must either be (i) thermal leading and sized so the recoverable heat can be used to offset other facility thermal loads and generate electricity as a by-product, (ii) using waste energy or waste heat to generate electricity, or (iii) electric load following and meeting a total system efficiency greater than 55%.<br>• Both new construction and retrofit installations are eligible; in either case, the baseline system must be documented.<br>• The overall minimum total system efficiency of the proposed CHP units must be 55% or greater.[5] System efficiency is calculated as Annual Useful Energy/Annual Natural Gas Input where<br>*Annual useful energy = Net Annual kWh*3,413/100,000 + utilized thermal output (therms)*<br>*Annual natural gas input = CHP gas input in therms (HHV)*<br>• The equipment to generate electricity may be an internal combustion engine, gas turbine engine, steam turbine, or back pressure turbine and the facility will capture waste heat for use in the facility. |

[5] The RI DEM's Air Quality Regulations (http://www.dem.ri.gov/pubs/regs/regs/air/air43_12.pdf; Page 11) set a minimum system design efficiency of 55% for CHP to be eligible to apply for Emission Credits. As noted in the incentive levels section below, a higher energy efficiency incentive is available for systems with efficiencies of 60% or greater.

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| | • Any size wasted energy systems and back pressure or extraction turbines can qualify. While it is expected that most of these applications will be retrofit, both new construction and retrofit installations are eligible; in either case, the baseline system must be carefully documented.<br>• The project must pass cost effectiveness screening.<br><br>These systems are designed to take advantage of existing on-site wasted energy, rejected heat, opportunity fuels, renewable natural gas or inefficient processes. Therefore, there is no minimum total system efficiency requirement. |
| 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. An additional incentive tier will be available to CHP projects where the host customer also commits to implementing energy efficiency measures representing at least five percent of the site energy use or the maximum load reduction identified in the Technical Assistance Study, whichever is less.[6] A customer may be treated as having made this commitment to energy efficiency if they have made investments to achieve similar load reductions through energy efficiency within the previous five years. Please use the table below to determine the non-variable incentive levels available for CHP project.<br><br>*Table 5. Determination of Non-Variable Incentive Level for CHP Projects*<br><br>Wasted energy, back pressure turbines, and extraction turbines — $900 per net kW<br>CHP with total system efficiency ≥55% - <60% — $900 per net kW<br>CHP with total system efficiency ≥55% - <60% with customer implementing energy efficiency measure equal to 5% of site energy or maximum load reduction — $1,125 per net kW |

[6] If CHP facility sizing is determined by electric load (or not constrained by either electric or thermal load), the requirement will be 5% of electric usage; if the facility sizing is determined by thermal load, the requirement will be 5% of thermal energy usage. The energy efficiency measures will themselves be eligible for incentives, and are not part of the CHP incentive package cap described.

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| CHP that utilized between 25% -49% opportunity fuels, renewable natural gas, or biogas as a fuel source | $1,225 per net kW |
| CHP with total system efficiency ≥60% | $1000 per net kW |
| CHP that utilizes opportunity fuels, renewable natural gas, or biogas as the primary fuel source | $1,250 per net kW |
| CHP with total system efficiency ≥60% with customer implementing energy efficiency measure equal to 5% of site energy or maximum load reduction | $1,250 per net kW |

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

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| | output of the system during ISO-New England's on-peak periods averaged over each six-month period.<br><br>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.<br><br>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. |
| Implementation and Delivery | **Identification and Recruitment of Qualified CHP Projects**<br><br>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.<br><br>**Targeted Outreach and Support for Potential CHP Customers**<br><br>The Company believes that significant savings can be generated with this technology in the coming years. The Company is focused on developing a pipeline of projects for small, medium and large customers. The Company has a CHP program manager who helps customers navigate the technical and procedural aspects of bringing a CHP unit online. The Company also works with TA vendors that provides 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. Furthermore, in 2016, the Company introduced a CHP manual (http://ngrid.com/ri-chp) to assist customers who are deciding if CHP is |

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| | an option for their facilities. 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 or not the management of the system will be outsourced, and providing easier customer access to CHP unit performance data.<br><br>**Installation of Incremental or Additional Energy Efficiency Measures for Customers who have Previously Installed CHP**<br><br>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.<br><br>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.<br><br>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 |

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| | from a normally electrical energy efficiency measure and could be claimed in the Gas utility DSM programs<br><br>**Scoping Study/Qualification**<br><br>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:<br><br>• Monthly (or hourly, where available) electric, gas, and other fuel usage<br>• All site-specific forms of thermal energy end uses<br>• Coincidence of electric and thermal loads<br>• Proposed project cost<br>• 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<br><br>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.<br><br>**Technical Assistance Study**<br><br>Assuming a favorable screening during preliminary scoping, National Grid 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. National Grid 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 |

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| | greenhouse gas emissions by 80% below the 1990 levels, by 2050. (On-peak kW reduction = Net Output x Availability x % Loaded.) This kW load reduction should be used in the benefit-cost screening.<br><br>As indicated in the offering section, a larger incentive is available for CHP projects that include the implementation of energy efficiency measures at the host facility. If the customer wants to meet a higher tiered incentive and did not previously qualify for that higher tier, the company could include another review. This review would propose measures to fulfill that requirement with new energy efficiency opportunities. 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.<br><br>**Cost Effectiveness**<br><br>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.<br><br>**Other Contract Terms and Guidelines**<br><br>In order to ensure proper operation of the CHP facility and persistence of energy savings, the following terms and guidelines will be required:<br>• 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 |

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| | savings estimates developed in the TA study. Compliance with the MRD will be necessary to receive rebate payments.<br>• All systems greater than one MW will require electric, thermal and gas metering for commissioning and monitoring of system efficiencies.<br>• 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.<br>• 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.<br>• The customer must apply for interconnection service as soon as practical and not operate the unit until they receive the authorization to interconnect from the Company.<br>• 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.<br><br>**Qualification**<br><br>The cost of the project will be provided by a design/build or general contractor experienced with CHP projects and revised as necessary.<br><br>**Options for a CHP proposal that fails cost effectiveness testing**<br><br>If a CHP project does not pass the benefit-cost test, the Company will work with the customer to develop other solutions that may still support the CHP facility. Such other solutions may include one or all of the following:<br>• Re-analyzing the optimal size of the CHP unit, or the number of generators. A different sized CHP unit might provide better efficiencies and pass the benefit cost test.<br>• Identifying other load reduction opportunities at the facility. Benefits can be garnered from load reduction in lieu of achieving that load reduction through CHP.<br><br>**Attribution of CHP Energy Savings to the Company** |

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| | 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 35 kW, 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.<br><br>**Notification Process**<br><br>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:<br><br>• 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:<br>  • 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;<br>  • Documentation from the customer on all relevant leases, agreements or commitments related to the CHP system or incentive offer;<br>  • Estimated project budget.<br>• 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<br>• 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.<br><br>For any proposed CHP project greater than one MW:<br><br>• The Company will submit a project description to the Division, providing all the pertinent details relating to the project. |

| | |
|---|---|
| | • 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.<br>• 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.<br>• 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.<br>• To the extent that additional review time is required, the Division will provide notification to the Company.<br>• 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.<br><br>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/ Vendor Feedback | Vendors and customers provided feedback in advance of the 2020 Rhode Island Annual CHP Public Meeting. The vendors and customer noted that the incentive levels and interconnection remain the most significant barriers to CHP adoption. Customers and vendors also remarked on the financial and interconnection challenges associated with smaller CHP systems.<br><br>The Company is currently exploring options for a prescriptive pathway for micro-CHP systems. This process would simplify the interconnection process and expedite the installation time for smaller CHP systems. |

| | |
|---|---|
| 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. For 2020, the Company achieved 630kW of installed capacity, corresponding to approximately 4,089 MWh of savings. As of August 2020, the Company has knowledge of the following, estimated pipeline of CHP projects in Rhode Island (see Table 6) that have initiated a Technical Assistance Study and are expected to leverage energy efficiency incentives. The Company commits to updating this pipeline table in each annual Energy Efficiency Plan and reconciliation filing to the PUC going forward. Direct notification shall be sent to the Division of Public Utilities & Carries, 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.<br><br>*Table 6. Pipeline of RI CHP Projects with TA Study Initiated* |

| | | |
|---|---|---|
| **Customer Name or Company Name*** | | N/A |
| **Approximate Size of CHP (MW and annual MWh)** | | 630kW<br>4,089 Annual MWh |
| **Location Information** | Feeder | 59-53-20F1 |
| | Substation | Phillipsdale Substation |
| | Gas Line ID | 153-Providence, RI |
| **Current Status (Scoping, Study, Under Construction, Post-Inspection or Commissioning)** | | Under Construction |
| **Estimated Year(s) in which the Company will claim energy savings** | | 2020 |

*Customers and/or Companies may opt-out of disclosing their names in this table. If a customer or company has opted-out their names have been redacted in the table above. The Company will provide a confidential pipeline table without redacted names to the PUC, DPUC, and/or OER, if requested.

| | |
|---|---|
| Changes for 2021 | The Company will **provide an additional incentive tier to CHP systems that leverage biogas as a fuel source**. The Company will also **add an Optimal Operation and Maintenance Incentive for CHP systems that utilize biogas** as a fuel source. |
| Rationale for Changes | The proposed changes to the 2021 CHP Initiative are intended to reduce the additional economic barriers associated with the installation and operation and maintenance of biogas CHP systems. |
| Notes | The Company has established working groups to research and assess the barriers and opportunities for CHP at waste water treatment facilities and data centers. |

## 5.16. Products Offered Through "Upstream"

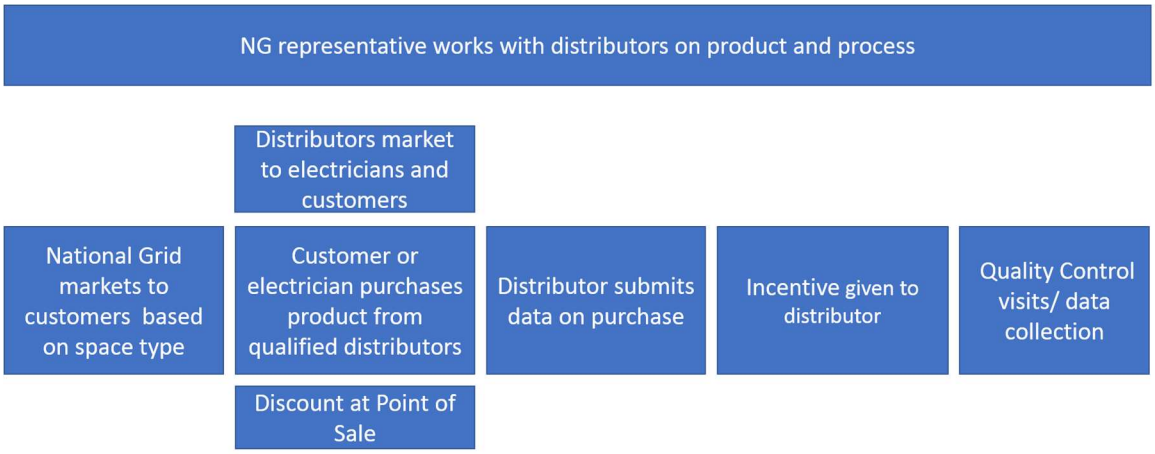
When the Company refers to an "Upstream" initiative it is referring to the practice of offering an incentive directly to a manufacturer or distributor (mainly distributors in Company initiatives) of efficient equipment instead of offering an incentive to the customer through an application form after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

### 5.16.1. Upstream Lighting

| | |
|---|---|
| Eligibility Criteria | The Upstream Lighting initiative is available to all commercial customers. |
| Offerings | Discounted luminaires, luminaires with controls, lamps, and controls at the point of sale at qualified distributors. |
| Implementation and Delivery | National Grid targets marketing to relevant customers and works in collaboration with qualified distributors, who also conduct marketing. Distributors sell products directly to consumers or relevant intermediaries (e.g. electricians) and provide discounts at the point of sale. The distributor then submits data on the purchase and the Company pays the incentive to the distributor and conducts quality control visits. See Figure 6 for more detail. |
| Customer Feedback | No direct customer feedback |
| Changes for 2021 | 2021 will feature **increased incentive support for Luminaire Level Lighting Controls (LLLCs).** |

| | |
|---|---|
| | The Company will **increase marketing of all lighting products to small businesses** who consume less than 20,000 kWh per year. |
| Rationale for Changes | Market transformation, increased savings, drive more participation among ultra-small small business |
| Notes | The Company will continue to investigate ways to increase stocking of luminaires with controls. Information will be collected through the Upstream vendor as well as two anonymous surveys developed by National Grid staff as well as the appropriate members of the EERMC Consultant team. |

*Figure 6. Implementation and Delivery Process for Upstream Lighting*




### 5.16.2. Upstream HVAC

| | |
|---|---|
| Eligibility Criteria | The Upstream HVAC initiative is available to all commercial customers. |
| Offerings | Discounted premium efficiency HVAC equipment and controls at the point of sale at qualified distributors including air-cooled air conditioning and heap pumps systems, water-cooled air conditioning and heat pump systems, ductless mini and multi split systems, variable refrigerant flow systems, as well as dual enthalpy economizer controls and electronically commutated motor (ECM) circulator pumps for hydronic heating or service hot water applications. |
| Implementation and Delivery | All upstream products follow a similar implementation and delivery process shown in Figure 6. National Grid targets marketing to relevant customers and works in collaboration with qualified distributors, who also conduct marketing. Distributors sell products directly to |

| | |
|---|---|
| | consumers or relevant intermediaries (e.g. electricians) and provide discounts at the point of sale. The distributor then submits data on the purchase and the Company pays the incentive to the distributor and conducts quality control visits. |
| Customer Feedback | No direct customer feedback |
| Changes for 2021 | Heat pumps will move to the downstream pathway to align with the Massachusetts PA's. |
| Rationale for Changes | |
| Notes | The savings from of the upstream HVAC products will be calculated from new construction baselines, not retrofit. |

### 5.16.3. Upstream Gas

| | |
|---|---|
| Eligibility Criteria | The Upstream HVAC initiative is available to all commercial customers. |
| Offerings | Discounted premium efficiency water heating equipment at the point of sale at qualified distributors. The 2021 offering will include water heaters (indirect and on-demand), water heating boilers, and condominium water heaters. |
| Implementation and Delivery | All upstream products follow a similar implementation and delivery process shown in Figure 6. National Grid targets marketing to relevant customers and works in collaboration with qualified distributors, who also conduct marketing. Distributors sell products directly to consumers or relevant intermediaries (e.g. electricians) and provide discounts at the point of sale. The distributor then submits data on the purchase and the Company pays the incentive to the distributor and conducts quality control visits. |
| Customer Feedback | No direct customer feedback. |
| Changes for 2021 | Currently in progress; will be described in the final draft of the 2021 Annual Plan. |
| Rationale for Changes | |
| Notes | |

### 5.16.4. Upstream Kitchen Equipment (Electric and Gas)

| | |
|---|---|
| Eligibility Criteria | The Upstream Kitchen Equipment initiative is available to all commercial customers. |
| Offerings | Discounted premium efficiency electric and gas kitchen equipment at the point of sale at qualified distributors. National Grid currently offers more than 9 different types of energy efficient cooking equipment across both fuels. |
| Implementation and Delivery | All upstream products follow a similar implementation and delivery process shown in Figure 6. National Grid targets marketing to relevant customers and works in collaboration with qualified distributors, who also conduct marketing. Distributors sell products directly to consumers or relevant intermediaries (e.g. electricians) and provide discounts at the point of sale. The distributor then submits data on the purchase and the Company pays the incentive to the distributor and conducts quality control visits. |
| Customer Feedback | No direct customer feedback. |
| Changes for 2021 | No changes are anticipated for 2021. |
| Rationale for Changes | |
| Notes | |

## 5.17. Telecommunications Initiative

| | |
|---|---|
| Eligibility Criteria | This is initiative is designed to serve mobile, fiber optic, and cable data companies and their associated infrastructure. |
| Offerings | Technical assistance, project management, and incentives |
| Implementation and Delivery | The Company is still in discussions with the vendor on exactly how the initiative will be delivered. Based on current deployments by this vendor in other locations it will closely resemble the Energy Smart Grocer Program. |
| Customer Feedback | Not applicable as this is a new initiative. |
| Changes for 2021 | Not applicable as this is a new initiative. |
| Rationale for Changes | Potential for increased savings predominately from non-lighting as highlighted in the Market Potential Study. Additionally, the Company |

| | |
|---|---|
| | believes that this is an equitable use of ratepayer funds as this market has not been served in previous years. |
| Notes | |

## 6. Small Business Direct Install Program

| | |
|---|---|
| Eligibility Criteria | Commercial customers who have less than 1,000,000 kWh in annual usage may participate in the Small Business Direct Install Program. K-12 schools, national and regional chain restaurants, and small grocery stores who consume less than 1,000,000 kWh per year are excluded from this program as they are served through other pathways or initiatives. |
| Offerings | The Small Business Program begins with a no-cost site assessment conducted by a Small Business Energy Specialist to understand the customer's energy-related needs and goals. The assessment keys in on energy efficiency measures such as lighting systems and controls, cooler/refrigeration control, water saving measures, HVAC controls, motor controls, weatherization/insulation, and custom measures. Turn-key install and OBR is offered to support the adoption of the recommended measures to the customer.<br><br>A Customer Directed Option (CDO) is also available. In this pathway, customers are able to use their own electrician to install measures while the Small Business program vendor processes and submits all necessary paperwork to National Grid. |
| Implementation and Delivery | A customer begins the process for a Small Business energy assessment by either calling, emailing, or using an online form to express interest in the program. The customer is connected to a dedicated, internal Small Business program staff to learn more details about the process and the next steps. The assessment is scheduled with the customer, and the Energy Specialist meets the customer at the scheduled time. The Energy Specialist performs the assessment, identifies strategies to pursue opportunities, reviews design considerations with the customer, and incorporates this detail into a proposal describing appropriate energy efficiency measures. The proposal reflects the installed costs, the expected energy savings, and the applicable program incentives.<br><br>Once the customer decides to proceed, the Energy Specialist hands off the project to a Project Coordinator who works with the customer to |

| | |
|---|---|
| | set a convenient installation schedule that will not interrupt their business. After installation, a certificate of install is signed off on by the customer indicating their satisfaction with the work provided. There is dedicated support staff to address any post-install issues that may arise. This support structure is designed to smoothly execute projects and allow the customers to remain focused on their daily tasks. |
| Customer/Vendor Feedback | Outgoing direct mail and phone outreach have increased in volume and the program vendor is employing more direct canvassing from its field staff to meet its yearly goals. Consequently, the cost of acquiring a customer is increasing. |
| Changes for 2021 | In 2021, there will be **increased focus on non-lighting opportunities, such as hood controls and other HVAC controls**.<br><br>The program will save energy and prepare customers for the future by substantially **increasing the amount of gas weatherization provided to small businesses.**<br><br>The program will **work to achieve its goal of 30% percent of installed luminaires and retrofit kits with integrated controls**. In previous years, lighting controls have represented approximately two-to-three percent of the program's electric savings.<br><br>Frequently, very small businesses (under 25,000 kWh consumed per year) do not need an energy audit to realize that they can make energy improvements to their spaces. To that end, in 2021 National Grid will **run segmented marketing campaigns** directed at these customers and local electricians to market the various Upstream energy efficiency products that can be purchased at a discount to decrease energy. |
| Rationale for Changes | Capture more non-lighting savings per the Market Potential Study, provide more savings and benefits to SMB customers during a financial downturn, and prepare for the future of heating. |
| Proposed Upcoming Evaluations | There are no scheduled evaluations for this program. |

**Small Business Direct Install – Electric Program Goals, Metrics, Budgets, Participation for 2021**

| Fuel | Lifetime MWh (Electric) | Annual MWh (Electric) | Annual Passive Demand Reduction kW (Electric) | Total Net Lifetime MMBtu (Electric Gas, Oil, Propane) | Budget ($000) | Participation |
|---|---|---|---|---|---|---|
| Electric | 131,414 | 12,116 | 1,409 | 342,434 | 9,019 | 545 |

**Small Business Direct Install – Gas Program Goals, Metrics, Budgets, Participation for 2021**

| | Lifetime MMBtu (Gas) | Annual MMBtu (Gas) | Budget ($000) | Participation |
|---|---|---|---|---|
| Gas | 53,352 | 5,335 | 333 | 99 |

## 7. Connected Solutions (Active Demand Response)

| | |
|---|---|
| Eligibility Criteria | Large Commercial and Industrial customers with interval meters. |
| Offerings | The Company implemented an active demand reduction program in 2019 based on demonstrations done in 2017 and 2018. Under this program, customers agree to reduce their electric use during the system peak. Customers participating in the demand response (DR) program are free to curtail their energy use by any means possible, as this program is technology agnostic.<br><br>**Targeted Dispatch** *(One to eight DR events per summer)*<br><br>This option calls on customers to curtail their electricity use or discharge energy from generators only a few times per summer. Typical technologies or strategies used to curtail load include building management systems to control HVAC systems, lighting control systems, and manual or automated changes to manufacturing processes. The customer's performance is calculated using either the Company's electric meter where available (typically G-32 customers) or third party metering (typically G-02 customers). Please refer to the program materials available on the Targeted Dispatch page of the Company website for a detailed explanation of the baseline method used and examples.<br><br>This initiative uses Curtailment Service Providers (CSPs) to assess curtailment opportunities at a facility and deliver curtailment services to |

enrolled customers. CSPs identify curtailment opportunities for deployment under the Company's initiative, as well as demand charge and Installed Capacity (ICAP) tag[7] management opportunities and present a complete curtailment proposal to the customer. The demand charge and ICAP tag management provide opportunities for direct bill savings to customers.

Customers and CSPs respond to dispatch signals or criteria specified by the Company. Events are called the day before curtailment is needed. The core model remains focused on reducing demand during summer peak events, typically targeting fewer than twenty hours per summer. The program is structured to avoid interfering with the ISO-NE programs or penalizing customers for participating in both programs.

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

**Daily Dispatch** *(40 to 60 DR events per summer)*

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

Implementation and Delivery

**Targeted Dispatch** *(One to eight DR events per summer)*
Enrollments and performance for 2020 have proceeded as expected so far. Due to this success, the company proposed increasing the goal to 40 MW-performed for 2021.

*Table 7. Targeted Dispatch Participation*

| | Historic Numbers | | | Estimated Number | Proposed Number |
|---|---|---|---|---|---|
| | **2017** | **2018** | **2019** | **2020** | **2021** |
| **Average MW of** | 11 | 27 | 32 | 45 | 54 |

[7] Installed Capacity Tag is a capacity payment that is set for a customer by using their peak demand during the peak day/hour on the NEPOOL grid

| | | | | | |
|---|---|---|---|---|---|
| **Curtailment over all events** | | | | (vs. 35 planned) | (20% increase) |

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

Customers have the option to receive their incentives directly from the Company, or have the Company send the incentive to the customer's curtailment service provider. Please see the program materials and the customer application available on the Targeted Dispatch page of the Company website for more details.

**Daily Dispatch** (*40 to 60 DR events per summer)*

Enrollments and performance for 2020 have proceeded as expected so far. Due to this success, the company proposed increasing the goal to 5 MW-performed for 2020.

*Table 8. Daily Dispatch Participation*

| | **Historic Numbers** | **Estimated Number** | **Proposed Number** |
|---|---|---|---|
| | **2019** | **2020** | **2021** |
| **Average MW of Curtailment over all events** | 0 | 8<br>(vs. 0 planned) | 10<br>(25% increase) |

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

Customers have the option to receive their incentives directly from the Company, or have the Company send the incentive to the customer's curtailment service provider. Please see the program materials and the customer application available on the Daily Dispatch page of the Company website for more details.

| | |
|---|---|
| Customer Feedback | At the time of writing, no consequential customer feedback is available for the summer 2020 demand response performance season. |
| Changes for 2021 | At this time, there are no anticipated program changes related to Targeted or Daily Dispatch for 2021. However, evaluation of summer 2020 performance may generate opportunities to improve the program in 2021. The design of the Energy Storage Demand Response Initiative remains consistent with the program design proposed in 2019. |

| | |
|---|---|
| | **Coordination with other Company Energy Storage programs**<br>The Company is developing two Energy Storage Initiatives in 2021, as detailed in Docket Nos. 4770/4780 Amended Settlement Agreement:<br>• One behind-the-meter (BTM) system co-located with a DCFC site, which will consist of an approximate 250 kW two-hour energy storage system, supporting approximately two to six DCFC ports.<br>• One front-of-the-meter (FTM) storage system, which will consist of an approximate 500 kW three-hour energy storage system for the primary purpose of realizing distribution system value, with the exact storage size and capacity to be determined by system need and location.<br><br>The Docket Nos. 4770/4780 demonstrations primarily focused on testing grid-connected systems to mitigate the load impact associated with EV charging, whereas the Energy Storage Initiative in the 2019 Plan was a storage-enabled DR program focused on incentivizing the use of customer-owned behind-the-meter (BTM) storage to shift peak load at traditional end-use customer facilities. These efforts are separate from the Energy Storage Demand Response Initiatives specifically targeted to facilitating BTM storage to be used for DR.<br><br>The Company's intent is to test storage use cases in both FTM and BTM in order to identify all applications that are beneficial to customers and to the grid as a whole. A secondary benefit of testing both categories of storage applications is that it will help spur the development of a robust storage market in Rhode Island, where the contributing parties may differ between large grid connected applications and smaller BTM applications. |
| Rationale for Changes | The Company's other efforts related to storage are complementary to the ConnectedSolutions program's goal of reduce electric use during system peaks. Routine coordination with other Company programs helps leverage opportunities for further savings while minimizing duplication of efforts that could otherwise confuse customers. |

**ConnectedSolutions – Electric Program Goals, Metrics, Budgets, Participation for 2021**

| Fuel | Lifetime MWh (Electric) | Annual MWh (Electric) | Annual Passive Demand Reduction kW (Electric) | Budget ($000) | Participation |
|---|---|---|---|---|---|
| Electric | 0 | 0 | 48,448 | 4,231.5 | NA |

Connected Solutions (Active Demand Response)

# 8. Finance as an Enabling Strategy

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

**Mechanisms Offered**

National Grid 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.

## 8.1. On Bill Repayment (OBR) - Electric

| Customer type | Commercial customers who consume more than 1,000 MWh per year |
|---|---|
| Loan size | $1,000 to ~$100,000 (may be larger for SEMPs) |
| Maximum Tenor | 5 years for commercial accounts, 7-10 years for State facilities |
| Loan Volume | Variable, between $5MM to $10MM per year |
| Benefits to customer | No formal credit check/ rapid approval, on bill repayment, zero interest |
| Limitations | Maximum tenor too short for many comprehensive upgrades, cannot be used to support upgrades customers may desire such as windows and roofs as they have a B/C ratio less than 1.0. |
| More information | National Grid's revolving loan fund projections for 2021 are illustrated in Attachment 5, Table E-10. |
| Relevant notes | |

## 8.2. On Bill Repayment (OBR) - Electric Small Business

| Customer type | Commercial customers who consume less than 1,000 MWh per year |
|---|---|
| Loan size | $500 to $50,000 |
| Maximum Tenor | 5 years |
| Loan Volume | Variable, between $1.8MM and $3.0MM per year |
| Benefits to customer | No formal credit check/ rapid approval, on bill repayment, zero interest |
| Limitations | Maximum tenor too short for many comprehensive upgrades, cannot be used to support upgrades customers may desire such as windows and roofs as they have a B/C ratio less than 1.0 |
| More information | National Grid's Small Business revolving loan fund projections for 2020 are illustrated in Attachment 5, Table E-10 |

## 8.3. On Bill Repayment (OBR) – Gas

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

## 8.4. Efficient Buildings Fund (EBF)

| Customer type | State agencies, quasi-state agencies, and municipalities |
|---|---|
| Max loan size | More than $5MM |
| Maximum Tenor | Up to 20 years |

| Customer type | State agencies, quasi-state agencies, and municipalities |
|---|---|
| Loan Volume | Variable, ~$18MM loans outstanding to date |
| Benefits to customer | Below market rate interest, long tenor, loan amounts can be large enough to make comprehensive building wide improvements |
| Limitations | Appropriate customers must file applications and be ranked against other potential loan applicants |
| More information | For 2021 the Company is not proposing an allocation of funds for the Rhode Island Infrastructure Bank (RIIB). |
| Notes | |

## 8.5. Public Sector Revolving Loan Fund

The Public Sector Revolving Loan fund was a predecessor of the Efficient Buildings Fund. It was funded by Regional Greenhouse Gas Initiative (RGGI) funds controlled by the RI OER. This fund no longer makes loans. As funds are repaid from previous disbursements they are periodically transferred back to RI OER to be used at their discretion. More detail on this fund can be found in Attachment 5, Table E-10.

## 8.6. Commercial Property Assessed Energy (C-PACE)

| Customer type | Owners of non-residential property |
|---|---|
| Max loan size | Limited only by the financial health of the building |
| Maximum Tenor | Average measure life of all upgrades, can exceed 15 years |
| Loan Volume | Variable |
| Benefits to customer | Can be structured to be cash flow positive, no personal guarantees, financing can be used to finance a wide variety of improvements related to energy, may be considered an operating expense. |
| Limitations | Minimum transaction value of ~$50,000, preferred $100,000+ |
| Changes for 2021 | In 2021, National Grid will continue to work with the Rhode Island Infrastructure Bank (RIIB) and its partners to promote C-PACE. Specific examples include a marketing piece and a case study that will be included in packets of RI customers at future events and re-engaging Commerce RI to promote this mechanism to businesses seeking information about moving to or expanding in Rhode Island. There will also be a marketing effort for non-profits who own their space. |

Finance as an Enabling Strategy

### 8.7. Ascentium Rental Agreement

| Customer type | Owners of non-residential property |
|---|---|
| Max loan size | No stated limit |
| Maximum Tenor | Variable |
| Loan Volume | Variable |
| Benefits to customer | Rapid preliminary approval, rental product is considered an operating cost |
| Limitations | Specific terms of the agreement may not work for all customer types |

# 9. Other Enabling Strategies for Customer Engagement

## 9.1. Improving Quality and Efficiency in Project Cycle Times

The Company is committed to providing customers with a more expedited project initiation and incentive application (transactional) experience. The Company continues to look for process improvement relative to processing applications, and the building Technical Assistance (TA) review process.

## 9.2. Energy Management Framework Platform

In the Fall of 2021, the Company will begin to explore how to collect, catalog, and store specific nameplate information from the customers facility. The Energy Management Framework Platform will be used to facilitate the decision-making processes via advanced insights and data processing. The platform has the potential to help better inform the Company as to what specific energy conservation measures are needed, when such measures should be proposed, and with what level of financing. The tool will be developed with the intent to iterate, modify, and build upon useful data fields, analytic capabilities, and advanced customer insights and trends.

## 9.3. Tools for Customers' Management of Energy Usage

The Company intends to help customers access their energy data to allow for greater awareness of energy consumption. The Company will seek to achieve this through the various methods described below:

### 9.3.1. Automated Benchmarking Systems

National Grid has developed a path towards automating data uploads into Energy Star's Portfolio Manager. Automated transfer of usage data to customers helps customers better understand and manage their energy use, supports prior OER commitments to state and

municipal facilities improvements, and is an important tool in the future for building labeling. Customers can automatically upload aggregate, whole building energy usage data, both electric and gas, onto Portfolio Manager, allowing building owners and stakeholders to benchmark energy usage and performance and compare usage to similar buildings nationally. In Rhode Island, properties that have three active accounts or less per fuel (electric and/or gas) are required to submit consent forms for each tenant.

The Company will support benchmarking efforts with customer support on automating data uploads as well as provide access to EPA training on Portfolio Manager. Additionally, the Company will send marketing and informational emails to customers to inform them of the automated benchmarking process. Company support is now available to National Grid customers in RI, MA and NY.

Additionally, the Company will continue to support the White House and DOE Green Button initiative. The Green Button initiative allows customers to securely download their own digital energy usage with a simple click of a literal "Green Button" on electric utilities' websites. This initiative is available to both electric and gas customers.

### 9.3.2. Building Labeling

The Company will continue to work with OER and other stakeholders to identify strategies for building labeling in the commercial and multifamily real estate sectors in Rhode Island. The Company will continue to work closely with OER to support property owner and tenant access to usage data.

## 9.4. Enabling Technologies

### 9.4.1. Removable Insulated Jackets for Big Steam Plants

For some of National Grid's largest customers, steam turbine insulation jackets improve both efficiency as well as safety in the plant. They are easily removed and replaced by any staff member. Both standard and custom sized jackets are available. A heat loss reduction of 135 BTUs per square foot per hour can result from using the jackets and one single turbine can save $9,500 in energy in a year. Touch temperature of the turbine can be reduced from $750^0$ F to $145^0$ F, improving safety. This product also has a five-year guarantee. This is a custom express gas measure that can save customers tens of thousands of therms annually. The measure will be aggressively implemented by the Company's energy efficiency sales teams in RI to all medium to large C&I customers who use steam and high temperature hot water for processes and space heating. It can also be used on all valves, fittings, steam traps, condensate tanks and uninsulated hot water tanks. The jacket has excellent synergies with general mechanical insulation on piping systems, steam system assessments and steam trap surveys. National Grid is providing training for these measures with targeted webinars on gas measures and Steam System Assessments. This has been successful at universities, colleges and hospitals and other large steam users in both Rhode Island and Massachusetts.

### 9.4.2. Heat Watch

The Company is also facilitating "Heat Watch" for Multifamily, small business and C&I programs. This service includes running boilers in conjunction with controlling and managing the whole boiler and heating systems for a facility. This service will save 10-15% of energy on steam systems by preventing overheating and improving temperature control of spaces, especially during spring and fall.

### 9.4.3. CozyTM Radiator Covers

The Cozy ™ Radiator covers are insulated enclosures with a room temperature sensor controlling a fan that introduces heat to the space when needed. It virtually makes each steam radiator its own controllable HVAC zone. One NY University was able to reduce boiler run times by 41%.[8] Non-energy benefits include increased asset value, improved tenant/occupant comfort, reduced emissions, and improved safety. One college in Rhode Island has had good results. This measure is available as a custom project.

### 9.4.4. Aeroseal

Aeroseal is for both heating and cooling. It provides duct sealing to seal up old leaks by blowing in atomized polymers. This measure has been successful at a Rhode Island college.

## 10. Marketing to Commercial and Industrial Customers

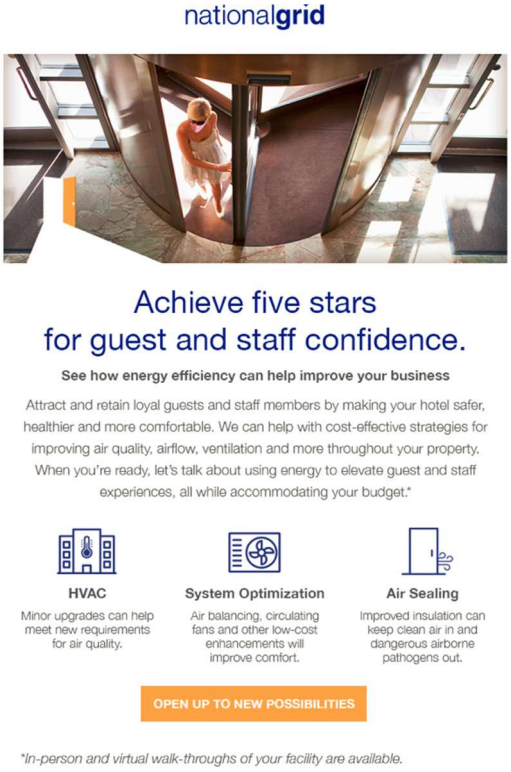
In 2020, the Company intended to continue to educate customers about energy efficiency and increase participation in its energy saving offerings for Rhode Island's business customers, which the Company did through mid-March of 2020. Once the COVID-19 Pandemic began, the Company decided to pause marketing communications related to energy efficiency programs in an effort to be sensitive to what our customers were experiencing during this difficult time. The Company kept our website up to date so that any customer who chose to seek out energy efficiency information on their own could still find it. The focus shifted to informing customers about the different resources available to businesses during the pandemic and informing customers about energy efficiency tips that they could perform on their own.

The Company was eventually able to offer virtual energy assessments in some cases and, slowly and cautiously, resumed marketing activities related to energy efficiency programs in July 2020. July featured the launch of the "Open Up to New Possibilities" campaign. This campaign's strategy is to relate to and understand what business customers are going through at this particular moment in time. The messaging does not sell or push any specific product, but instead

[8] https://www.radiatorlabs.com/wp-content/uploads/2016/08/CaseStudy-ColumbiaUniversity.pdf

offers help when customers are ready to discuss how energy efficiency can save them money. The messages also bear in mind the various stages of economic reopening and use language that can be applied to any stage. Visually, the campaign relies on large impactful imagery that adheres to proper social distancing and mask guidelines (see Figure 7).

*Figure 7. Open Up to New Possibilities Campaign Images*




For customer targeting and media planning, the Company continues to utilize its previously attained customer survey research insights data and customer personas (see Figure 8) for the business customer. The Company aims to represent the voice of the customer in all campaign planning. Prior to launching the "Open Up to New Possibilities" campaign, National Grid surveyed our Business Customer Council and utilized the insights from that survey to determine appropriate messaging and imagery.

The Company will continue to utilize commercial customer persona research to inform our key messages and marketing channel selection. However, we will gradually evolve the "Open Up to New Possibilities" campaign based on how business customers in our territory are able to operate and respond as they recover from the pandemic. National Grid will pay close attention to how the pandemic continues to impact customers and remain nimble with our approach.

*Figure 8. Commercial Customer Persona Research*

| Lean & Green | Small & Seamless | Seeking Solutions |
|---|---|---|
| • Smallest customers based on usage<br>• Most environmentally conscious, interested in green-related products<br>• Among the most open to purchasing from NG | • Small customers<br>• Interested in tools to manage accounts<br>• Skew to Real Estate<br>• The least open to purchasing from NG | • Medium customers<br>• Interested in bill and usage information, financing options<br>• Skews to Retail/Food<br>• The most open to purchasing from NG |

| No Frills | Big Business |
|---|---|
| • Medium customers<br>• Most interested in the basics of customer service and emergency response<br>• Among least open to purchasing from NG | • Largest customers<br>• More interested in advice, tools to track usage and savings<br>• Lowest level of barriers to energy improvements<br>• Skews to Industrial, Public Sector |

As National Grid develops 2021 campaign plans, paying close attention to the appropriate messaging and tone as business customers recover and re-open, the Company will dive into the characteristics of each segment and adjust messaging and targeting where appropriate. The goal is to enhance targeting and messaging, not to eliminate any commercial customer targets.

The hope is that over time the "Open Up to New Possibilities" campaign will naturally evolve into the "See the Possibilities" campaign message begun in 2019, which focused on getting business customers to see more of what energy efficiency upgrades and incentives can do for their business. The "See the Possibilities" campaign was developed to serve as an overarching campaign that provides a unified message for large commercial customers, small business customers, and multifamily customers. In 2021, the Company will continue to utilize a fully integrated strategy that leverages digital marketing, paid search and social media marketing, print advertising, email campaigns as well as public relations.

In 2019, the Company began leveraging earned media/PR as a truly integrated part of our marketing campaign (see Figure 9). This includes media relations and influencer engagement and National Grid will continue this strategy moving forward.

*Figure 9. Earned Media/PR Strategy*

## Earned Media/PR Strategy

**NEW FOR ALL: Implement a News Bureau Program** which allows us to proactively build awareness of National Grid's incentives to all the key stakeholders in each market and across al business segments & verticals through:

- Media Relations - ongoing, proactive pitching of trade and business media
- Influencer Engagement
- Event Management
  - Speaking opportunities for National Grid SMEs (subject matter experts) at strategic events
  - Focus on trade events for outreach to plumbers, electrician associations, etc.
  - Press kit generation to development background information, fact sheets, press releases, images, etc.
  - Considering over 14 events for NYS 2019
- Partnerships with Trade Associations
- Content development and editorial calendar for social media, case studies and more
  - Tie into seasonal and relevant engagements (i.e. small business week social blitz)
  - Promote key topics like new construction, manufacturing, green building in NYS, etc.
    - Allows us to really dig deeper and provide more relevant content to key focal areas
      - Ex: Specifically for UNY property managers, developing content that drives home ways National Grid can help mitigating risk and tenant complaints, provide financial solutions, and improve tenant retention.
  - Business segment specific research studies (i.e. multi-family landlord/tenant research) to build out additional case studies and renter email campaign

While National Grid's paid media primarily targets people directly involved in the decision-making process for capital budgets and facility improvements/projects, C-Suite & Facility Managers, and Small Business owners, the Company does have some advertising and communications dedicated to its secondary audience of key influencers. These are the people/firms that influence energy project go-forward decisions, for example, Distributors, Project Expeditors, Engineers, Architects, etc. who may have an existing relationship with the customer.

In planning for 2021, the Company will continue to focus on the key strategies that have proven successful in 2019 and in the early part of 2020, but will continue to evolve and adjust tone and messaging as appropriate to remain sensitive to our customers' needs. National Grid has continued to work to update our website and campaign landing pages to reflect key messages, strategies, and general core values and has also increased focus on providing industry specific messaging and information wherever possible.

# 11. Commercial and Industrial Measures and Incentives

*Table 9. Electric Programs*

| Electric Programs | | | | | |
|---|---|---|---|---|---|
| **Program** | **Subprogram** | **Net Annual kWh Tracker by Subprogram** | **Incentive / Net Annual kwh** | **Total Incentives** | **Shared Costs** |
| Large Commercial New Construction | D2 CAIR | 381,990 | $0.15 | $57,433 | |
| | C&I Codes | 289,000 | $0.00 | $0 | |
| | D2 Upstream Food Service | 108,359 | $0.68 | $73,315 | |
| | D2 HVAC Prescriptive | 1,689,097 | $0.29 | $487,210 | |
| | Upstream Heat Pump - Ductless | 17,766 | $1.30 | $23,044 | |
| | Upstream Heat Pump - Packaged | 27,825 | $1.80 | $50,000 | |
| | Upstream HVAC Air Conditioners | 219,950 | $0.40 | $88,527 | |
| | Upstream HVAC Controls | 11,085 | $0.16 | $1,776 | |
| | Upstream HVAC ECM Pump | 11,085 | $0.46 | $5,090 | |
| | Upstream HVAC VRF | 136,343 | $0.49 | $67,018 | |
| | D2 Lights | 2,961,757 | $0.40 | $1,183,736 | |
| | Motors and VFD | 162,973 | $0.32 | $51,614 | |
| | Upstream HVAC Refrigeration | 10,978 | $1.00 | $11,000 | |
| | Comprehensive Design - Custom | 778,085 | $0.85 | $665,000 | |
| | Compressed Air - Custom | 1,290,145 | $0.50 | $649,024 | |
| | HVAC - Custom | 2,098,595 | $0.78 | $1,645,689 | |
| | Lighting - Custom | 352,688 | $0.26 | $92,000 | |
| | Motors & VFD - Custom | 287,241 | $0.28 | $80,750 | |
| | Process - Custom | 1,306,787 | $0.41 | $541,385 | |
| | Refrigeration - Custom | 374,362 | $0.56 | $210,484 | |
| | Other - Custom | 134,744 | $0.50 | $67,785 | |
| | Program Planning & Administration | | | | $222,978 |
| | Marketing | | | | $340,987 |
| | Sales, Technical Assistance & Training | | | | $1,740,784 |
| | Evaluation & Market Research | | | | $157,199 |
| Large Commercial Retrofit | CHP | 5,473,000 | $0.23 | $1,235,000 | |
| | Custom: SEM | 976,247 | $0.04 | $39,050 | |
| | EI HVAC | 1,129,234 | $0.32 | $360,419 | |
| | Custom: Street Lighting | 4,738,776 | $0.27 | $1,260,000 | |
| | EI Light: Prescriptive | 28,161,054 | $0.37 | $10,479,046 | |
| | EI Light: Upstream A-lines and Decoratives | 961,080 | $0.07 | $66,000 | |
| | EI Light: Upstream Exterior | 1,390,650 | $0.21 | $287,500 | |
| | EI Light: Upstream G24, G23, MR Lamps, PAR lamps | 961,080 | $0.21 | $200,000 | |
| | EI Light: Upstream High/Low Bay | 3,897,714 | $0.47 | $1,820,000 | |
| | EI Light: Upstream Linear Fixture w/ Controls | 431,797 | $1.22 | $525,000 | |
| | EI Light: Upstream Linear Luminaires | 1,381,750 | $0.39 | $532,800 | |
| | EI Light: Upstream Retrofit Kits | 1,297,458 | $0.19 | $240,300 | |
| | EI Light: Upstream Stairwell | 16,738 | $1.09 | $18,300 | |
| | EI Light: Upstream TLEDs | 2,015,052 | $0.07 | $147,000 | |
| | Motors and VFD | 2,528,030 | $0.26 | $654,832 | |
| | Compressed Air - Custom | 556,241 | $0.21 | $119,444 | |
| | HVAC - Custom | 2,169,726 | $0.76 | $1,648,625 | |
| | Lighting - Custom | 15,322,042 | $0.39 | $6,014,000 | |
| | Motors & VFD - Custom | 195,998 | $0.23 | $45,325 | |
| | Process- Custom | 443,159 | $0.35 | $153,723 | |
| | Refrigeration - Custom | 540,998 | $0.73 | $393,195 | |
| | Other - Custom | 130,194 | $0.50 | $64,517 | |
| | Program Planning & Administration | | | | $905,581 |
| | Marketing | | | | $266,089 |
| | Sales, Technical Assistance & Training | | | | $5,071,885 |
| | Evaluation & Market Research | | | | $838,451 |
| Small Business Direct Install | Lighting | 10,159,629 | $0.64 | $6,452,550 | |
| | Lighting controls | 932,388 | $1.06 | $983,719 | |
| | Non-Lighting | 1,024,232 | $0.66 | $672,399 | |
| | Program Planning & Administration | | | | $281,898 |
| | Marketing | | | | $282,968 |
| | Sales, Technical Assistance & Training | | | | $298,807 |
| | Evaluation & Market Research | | | | $46,746 |

| Program | Subprogram | Demand Response kW Goal | Incentive / Net Annual kW | Total Incentives | Shared Costs |
|---|---|---|---|---|---|
| Commercial Connected Solutions | Daily DR Resources | 4,250 | $300.00 | 1,275,000 | |
| | Peak Shaving DR (MW) | 44,198 | $48.78 | 2,156,000 | |
| | Program Planning & Administration | | | | $113,176 |
| | Marketing | | | | $9,346 |
| | Sales, Technical Assistance & Training | | | | $352,032 |
| | Evaluation & Market Research | | | | $96,940 |

*Table 10 Natural Gas Programs*

| Gas Programs | | | | | |
|---|---|---|---|---|---|
| **Program** | **Measure Groups** | **Net Annual MMBtu Tracker by Subprogram** | **Incentive / Net Annual MMBtu** | **Total Incentives** | **Shared Costs** |
| Large Commercial New Construction | Boilers | 5,399 | $46 | $249,978 | |
| | CODES AND STANDARDS | 358 | $0 | $0 | |
| | Combo Boiler/DHW | 1,373 | $88 | $120,652 | |
| | Non Boiler Heating | 211 | $47 | $9,941 | |
| | COND WATER HEATER 94%MIN 75-1 | 288 | $143 | $41,307 | |
| | COOKING-COMBO OVEN 1 | 170 | $10 | $1,720 | |
| | COOKING-CONVECTION OVEN 1 | 40 | $109 | $4,341 | |
| | COOKING-CONVEYOR OVEN 1 | 67 | $13 | $861 | |
| | COOKING-FRYER-1000 | 77 | $22 | $1,720 | |
| | COOKING-COMBO OVEN 1 - Upstrean | 476 | $11 | $5,283 | |
| | COOKING-CONVECTION OVEN 1- Up | 1,288 | $96 | $124,068 | |
| | COOKING-CONVEYOR OVEN 1- Upst | 89 | $11 | $1,000 | |
| | COOKING-FRYER-1000- Upstream | 9,495 | $24 | $232,283 | |
| | COOKING-GRIDDLE 1- Upstream | 89 | $11 | $1,000 | |
| | COOKING-RACK OVEN 1- Upstream | 89 | $11 | $1,000 | |
| | COOKING-STEAMER-1000- Upstream | 89 | $11 | $1,000 | |
| | WATER HEATER - Indirect Upstream | 314 | $73 | $22,797 | |
| | Water Heaters 94 and above | 534 | $74 | $39,594 | |
| | Custom | 16,961 | $18 | $307,184 | |
| | Water Heating Boiler - 94% TE | 4,033 | Up to 75% of Total Resource Cost | $58,414 | |
| | Program Planning & Administration | | | | $76,885 |
| | Marketing | | | | $190,011 |
| | Sales, Technical Assistance & Training | | | | $1,183,619 |
| | Evaluation & Market Research | | | | $105,528 |
| Large Commercial Retrofit | Controls | 11,984 | $22 | $264,176 | |
| | Custom: RCx | 2,994 | $20 | $60,000 | |
| | Behavior / Training | 2,495 | $0 | $0 | |
| | DHW | 599 | $16 | $9,500 | |
| | HVAC | 15,469 | $19 | $290,000 | |
| | Prescriptive Steam Traps | 51,530 | $11 | $542,147 | |
| | Custom: General | 54,044 | $22 | $1,163,222 | |
| | Custom: SEM | 541 | $30 | $16,238 | |
| | Program Planning & Administration | | | | $237,723 |
| | Marketing | | | | $315,364 |
| | Sales, Technical Assistance & Training | | | | $1,838,596 |
| | Evaluation & Market Research | | | | $175,095 |

| Gas Programs | | | | | |
|---|---|---|---|---|---|
| **Program** | **Measure** | **Net Annual MMBtu Tracker by Subprogram** | **Incentive / Net Annual MMBtu** | **Total Incentives** | **Shared Costs** |
| Small Business Direct Install | Small Business Gas | 5,335 | $45 | $239,274 | |
| | Program Planning & Administration | | | | $7,071 |
| | Marketing | | | | $40,632 |
| | Sales, Technical Assistance & Training | | | | $32,578 |
| | Evaluation & Market Research | | | | $913 |
| C&I Multifamily | Air Sealing_MF | 1,020 | Average Incentive based on measure mix | | |
| | CUST NON-LGT_MF | 7,669 | | | |
| | Faucet Aerator_MF | 56 | | | |
| | Insulation_MF | 10 | | | |
| | Pipe Wrap (Water Heating)_MF | 42 | | | |
| | Programmable Thermostat_MF | 437 | | | |
| | TSV Showerhead_MF | 149 | | | |
| | WiFi thermostat gas_MF | 61 | | | |
| | Participant_C&I | 1,459 | $518 | $756,000 | |
| | Program Planning & Administration | | | | $28,511 |
| | Marketing | | | | $22,427 |
| | Sales, Technical Assistance & Training | | | | $141,130 |
| | Evaluation & Market Research | | | | $15,677 |