



# Niagara Mohawk Power Corporation d/b/a National Grid System Energy Efficiency Plan (“SEEP”)

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Case 15-M-0252 - *In the Matter of Utility Energy Efficiency Programs*

Case 18-M-0084 - *In the Matter of a Comprehensive Energy Efficiency Initiative*

**2019 – 2025 ELECTRIC AND GAS SEEP**

**Revised October 1, 2024**

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## I. BACKGROUND

New York has one of the most ambitious climate laws in the United States, the Climate Leadership and Community Protection Act (“CLCPA” or “Climate Act”), that requires New York to reduce economy wide greenhouse gas (“GHG”) emissions 40% from 1990 levels by 2030 and achieve net zero GHG emissions by 2050. This statutory requirement complements and accelerates the clean energy approaches of NY’s Reforming the Energy Vision (“REV”) policies for supporting utility and clean energy industry innovation. The Climate Act also includes the statewide energy efficiency target of reducing 185 trillion British Thermal units (“TBtu”) of energy usage in the state,<sup>1</sup> which was previously adopted in the April 26, 2018, New York Department of Public Service Staff (“DPS Staff”) and New York State Energy Research and Development Authority (“NYSERDA”) white paper introducing a comprehensive energy efficiency strategy called New Efficiency New York (“NE:NY”). This aggressive goal represents nearly one-third of the overall state goal of 40% reduction in greenhouse gas emissions from 1990 levels by 2030.

Public Service Commission (“Commission” or “PSC”) Orders in 2018 and 2020<sup>2</sup> established targets and budgets for energy efficiency programs of the New York State utilities<sup>3</sup> for 2019 - 2025 to align with New York State’s clean energy goal of reducing energy use by 185 TBtu.<sup>4</sup> The overall goal of the January 2020 Order is to decrease the state’s energy consumption and reduce costs for customers with a focus on environmental, societal, and utility system benefits through energy efficiency and building electrification. In the 2020 Order, the Commission established an Interim Review Process to review the programs offered by NYSERDA and the Utilities and to consider the future of energy efficiency efforts. As part of this Interim Review process, DPS Staff issued its *Energy Efficiency and Building Electrification Report*<sup>5</sup> and took public comment on the findings included therein. In July of 2023, the PSC acted on the Report’s recommendations and

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<sup>1</sup> Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative*, New York Department of Public Service and NYSERDA, *New Energy: New York* (filed April 26, 2018) (“NE: NY White Paper”)

<sup>2</sup> Case 18-M-0084 *In the Matter of a Comprehensive Energy Efficiency Initiative*, Order Adopting Accelerated Energy Efficiency Targets (issued December 13, 2018)(“December 2018 Order”).

<sup>3</sup> Central Hudson Gas & Electric Corporation (“Central Hudson”), Consolidated Edison Company of New York, Inc. (“Con Edison”), KeySpan Gas East Corporation d/b/a National Grid (“KEDLI”), The Brooklyn Union Gas Company d/b/a National Grid NY (“KEDNY”), Niagara Mohawk Power Corporation d/b/a National Grid (“Niagara Mohawk, NMPC or “The Company”)(collectively “National Grid”), National Fuel Gas Distribution Corporation (“NFGDC” or “NFG”), New York State Electric & Gas Corporation (“NYSEG”), Orange and Rockland Utilities, Inc. (“Orange & Rockland”), and Rochester Gas and Electric Corporation (“RG&E”) (collectively, “New York Utilities” or “Utilities”).

<sup>4</sup> Case 18-M-0084 *In the Matter of a Comprehensive Energy Efficiency Initiative*, New York Utilities Report Regarding Energy Efficiency Budgets and Targets, Collaboration, Heat Pump Technology and Low- and Moderate-Income Customers and Requests for Approval (filed April 1, 2019)

<sup>5</sup> Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative*, New York Department of Public Service, *Energy Efficiency and Building Electrification Report* (“DPS Staff Report” or “Report”) (filed December 19, 2022).

established a strategic framework for the future of NE:NY energy efficiency and building electrification programs.<sup>6</sup>

The utilities report on their energy efficiency program plans to DPS Staff through the annual filing of a System Energy Efficiency Plan (“SEEP”) and provide quarterly updates by filing SEEP Record of Revisions (“ROR”). To support the development and framework of consistent and accessible utility SEEPs, DPS Staff issued SEEP reporting guidance for the utilities to follow<sup>7</sup>.

This document represents the Niagara Mohawk’s electric and gas SEEP for the years 2019 – 2025.

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<sup>6</sup> Case 18-M-0084, In the Matter of a Comprehensive Energy Efficiency Initiative, New York Department of Public Service, Order Directing Energy Efficiency and Building Electrification Proposals (Issued July 20, 2023)

<sup>7</sup> See CE-02 SEEP Content Guidance, Version 5.0, New York State Department of Public Service – Office of Markets and Innovation (dated September 1, 2020).

## II. NE:NY EE PORTFOLIO & PROGRAM DESCRIPTIONS

### EXECUTIVE SUMMARY

National Grid is fully committed to a clean energy future and helping New York achieve its energy and environmental goals under the CLCPA and has designed our energy efficiency programs under NE:NY in a manner that is consistent with these net zero efforts. As part of its commitment to a clean energy future, National Grid announced in October of 2020 our “Net Zero by 2050” plan and updated Responsible Business Charter<sup>8</sup>. In 2022, National Grid issued “Our Clean Energy Vision”<sup>9</sup>, which outlines a path forward for a fossil-free future for cleanly heating homes and businesses.

Across every community we serve, National Grid is deeply committed to the goal of net zero and has a long track record supporting the reduction of GHG emissions. We have helped New York achieve ranking in the top five most energy efficient states in the nation through our existing Energy Efficiency (“EE”) and Demand Response (“DR”) programs several years in a row, and these programs continue to grow. Under the state’s NE:NY transformation of utility energy efficiency programs, National Grid is committed to achieving nation-leading annual levels of efficiency savings by 2025.

To help drive clean energy innovation, the Company has also partnered with NYSERDA and the other NY Utilities to develop and implement statewide energy efficiency programs to support both the State’s and Company’s aggressive clean energy goals, with a focus on reducing energy consumption and lowering customer energy costs.

National Grid works closely with trade professionals and contractors to provide high-quality services to its customers. To strengthen this effort, National Grid is developing a central database of contractors for all programs within its service territories. By consolidating data on contractors and trade allies, National Grid aims to enhance coordination and ensure consistent program delivery, providing efficient and reliable energy services to all stakeholders. Furthermore, National Grid invites businesses to become Energy Solutions Partners, enabling them to offer comprehensive energy solutions. This network will give contractors and trade allies access to marketing materials, training, and tools to better serve customers, fostering lead sharing and project collaboration while maintaining industry standards.

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<sup>8</sup>The Company’s “Net Zero by 2050” plan and updated Responsible Business Charter affirm our commitment to: (i) reduce GHG emissions from our direct operations by 80% by 2030, 90% by 2040, and to net zero by 2050; (ii) reduce GHG emissions from the gas we sell to customers by 20% by 2030, and further reduce these emissions beyond 2030 consistent with New York’s targets as laid out in the CLCPA; and (iii) prioritize ten major focus areas to achieve Net Zero for our US operations and the energy we deliver to customers.

<sup>9</sup> <https://www.nationalgrid.com/us/fossilfree>

Additionally, National Grid has partnered with a vendor to provide thermal imaging data across the region to identify customers who could benefit from Strategic energy efficiency measures such as heat pumps and weatherization. This data will be used for targeted marketing to customers and will also enable internal staff to analyze data patterns. These patterns will help identify areas requiring concentrated efforts to deliver improved energy solutions, prioritizing heat pumps and weatherization, and highlight opportunities to boost program participation and enhance contractor recruitment.

In collaboration with the NY Utilities and NYSERDA, the Company launched the Statewide Low-to-Moderate-Income (“LMI”) Program<sup>10</sup>. As part of this state-wide plan, we will spend 20% of the available NE:NY funding through 2025 on income-eligible customers (such as no-cost home weatherization), with 40% of that program spending targeted to affordable multi-family buildings.

The Company also has established internal processes to track and report on our clean energy investments in Disadvantaged Communities (“DACs”) in furtherance of the goals of NY’s Climate Act. Serving DACs will require consideration of community needs in the development of our customer products and services, from inception through delivery and in all market sectors, including residential and small business programs.

These statewide approaches also include the electrification of heat, or building electrification, with low-or-zero carbon electricity, a key component of the Company’s energy efficiency portfolio and the future of energy in New York. The Company is focused on educating customers about the benefits of electrifying heat in cold climates while reducing the dependency on fossil fuels. In collaboration with the other NY Utilities, The Company supports the New York State Clean Heat program <sup>11</sup>(“NYS Clean Heat”) which directly supports building electrification through incentivizing the installation of heat pump technologies, thereby reducing dependence on oil, propane, and natural gas to provide heat. This statewide initiative is designed to increase customer awareness and access to high-efficiency electric heating and water heating equipment while providing greater environmental benefits for the State.

Achieving net zero will require transforming New York’s electric and gas systems along with evolving our EE programs with new technologies and program models, some of which are still in the early stages of development. National Grid’s vision for our New York gas networks in 2050 is one in which the gas network delivers a smaller volume of fuels with a very low carbon intensity and is fully integrated with a very low-carbon electricity network. Reducing gas demand through

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<sup>10</sup> Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative*, Statewide Low-to-Moderate-Income Portfolio Plan (“Statewide LMI Plan”) (filed July 24, 2020)

<sup>11</sup> Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative*, NYS Clean Heat: Statewide Implementation Plan (“CHIP”) and NYS Clean Heat Statewide Heat Pump Program Manual (“Program Manual”) (filed on May 29, 2020)

energy efficiency, demand response, and non-pipeline solutions will be a crucial aspect to reaching net zero emissions and ensuring system reliability. In tandem with energy efficiency and building electrification programs, the Company's efforts include:

- Development of new strategies to employ energy efficiency and heat electrification as demand side management ("DSM") tools, Non-Wires Alternatives ("NWAs"), and Non-Pipe Alternatives ("NPAs").
- Integrating innovative technologies to decarbonize over time (e.g., heat electrification, hybrid gas electric heating systems, and geothermal district energy systems).

National Grid continues to develop new offerings and evolve existing offerings to align with the Commission's new strategic framework, including exploring geographically based programs, prioritizing investments in and benefits to DACs, and emphasizing whole building and building shell upgrades that can offer additional savings and pave the way for future building electrification in keeping with State climate goals.

## NE:NY PROGRAM DESCRIPTIONS

### ELECTRIC COMMERCIAL & INDUSTRIAL PROGRAM

#### Program Design

The Electric Commercial & Industrial (“C&I”) Program encourages customers to install a wide variety of energy-efficient electric saving measures. Program performance is continually monitored with offerings, delivery methods, and incentive levels adjusted to reflect technological advancements and changes in the Marketplace.

The Electric C&I Program consists of the following sub-initiatives that support large commercial and industrial customers. Below are brief details about each Sub-Initiative:

- *C&I Retrofit Sub-Initiative* – This program delivers financial incentives and technical support to large commercial and industrial customers to pursue a wide range of energy efficient technology installations. Some incentives are delivered through “prescriptive” approaches, in which incentive and savings levels are set based on the New York State Technical Resource Manual (“TRM”). Customers choose from a set menu of measures for prescriptive programs. The prescriptive approach is straightforward and simple for customers, allowing them to access rebates relatively quickly and easily. Other incentives are delivered through “custom” approaches, often involving energy studies and site-specific energy and economic analysis calculations. The Custom Sub-Initiative offers a wide variety of measures, specific to the customer’s needs and operations. National Grid offers technical support at all points of the process to help customers identify, develop, and determine optimal energy-saving options.
- *Utility Energy Service Contract Sub Initiative (“UESC Sub-Initiative”)* – The UESC Sub-Initiative is an energy services contracting program where the Company and customers, typically government agencies, enter limited-source contracts for energy management services, such as energy efficiency, water efficiency, and demand reduction. UESCs allow government agency customers to benefit from the Company’s energy expertise, creating a streamlined approach to contracting using a limited-source contract vehicle that meets public procurement process requirements.
- *Kitchen Point of Sale Sub Initiative (“Kitchen POS”)* – Through the Kitchen Point of Sale Sub Initiative, National Grid customers receive a rebate directly on their invoice when they purchase qualified electric and natural gas food service equipment and/or controls (and natural gas food equipment via the companion gas Kitchen POS sub initiative) from participating vendors.

- *On The Spot: Lighting Midstream Sub-Initiative* – This sub-initiative is offered in partnership with electrical supply houses and distributors to offer C&I customers incentives for the most efficient LED luminaires at the point of sale. This sub-initiative’s goals are to help businesses install high-efficiency lighting at comparable costs to conventional lighting products and to encourage distributors to stock the highest efficiency LEDs. Qualifying businesses can receive an incentive directly on their invoices when purchasing qualified luminaires from participating electrical distributors.
- *The Electric Non-Residential Commercial & Industrial (“C&I”) Weatherization Sub-Initiative* – This sub-initiative is designed to help enhance peak demand reduction on the gas system, while also providing long effective useful life (“EUL”), year-round energy savings, improving occupants’ comfort, and enhancing building readiness for potential future electrification. The Electric Non-Residential C&I Weatherization Sub-Initiative is comprised of any measures that improve building envelopes, including air sealing, insulation, and window replacements. Electric-only customers work with the Company’s sales professionals and energy engineers to identify needs and create an offer letter identifying the measure(s) being proposed to the customer along with projected annual electric savings and rebate amount(s) associated with the measure(s). Incentives are awarded to customers if there is a clear projection of savings; these incentives are offered to help cover a portion of the total cost of these projects.

## **2019-2024**

In 2019, the C&I Program had strong performance as it continued to evaluate new areas of growth. The “On-The-Spot” midstream lighting sub-initiative was launched, and it has grown steadily since then. Throughout 2020 and 2021, National Grid added more midstream lighting distributors to expand this offering.

In 2020, to assist in faster processing for incentives during the COVID-19 pandemic, the Company introduced virtual pre and post-installation inspections and continues to offer this option to customers. National Grid also established a relationship with a financing partner to allow for improved offerings to customers that may have financial constraints preventing implementation of new energy efficient measures. Through this program, the Company bought down the interest on these loans, which helped to break down the cost barrier for project uptake across the market. In 2022, the Company completed a request for proposals (“RFP”) process and selected a finance partner, Verdant Capital, to deliver a low-cost financing program to support our UNY Electric and Gas LCI EE Programs, Small Business EE Program, and Clean Heat Program. In 2023, the Company expanded the low-cost financing program to also support the DNY LCI EE Program.

Additionally, in 2023 and 2024, the Company continued efforts to increase trade ally participation in our programs by adding a total of 15 new partners to the trade ally network

for a total network of 72 partners. The National Grid team conducted regular outreach to contractors, helping them join the network, providing training, and offering ongoing support to help trade allies participate in our programs with high satisfaction.

The “On-The-Spot” Midstream Lighting Sub-Initiative has added distributors every year and has continued to do so in 2024. Participation in this sub-initiative has increased both as a function of the additional distributors and increased activity by distributors in the network. National Grid provided training and ongoing support to distributors to increase activity and satisfaction with participating in the sub-initiative.

The Kitchen Point of Sale sub-initiative was discontinued in Q4 2023. The Company determined that redirecting funds to other programs would be more cost-effective and better align with strategic priorities for the upcoming years of the NE:NY period. The Kitchen offering experienced baseline updates that made it more expensive to implement and would drive down customer interest.

## **2025**

National Grid is developing an online project portal for customers, contractors, and internal sales staff to streamline the application process and showcase various real-time incentives for energy efficiency measures. This intuitive platform will guide users to recommended programs based on collected building information. The portal aims to simplify the customer experience, collect more accurate project details, and promote programs tailored to the customer's needs.

National Grid will continue to investigate any potential partnership opportunities with NYSERDA, as well as strategically review any new products or services that could be offered in the Electric C&I Program.

The following measures within the Electric C&I Program are planned to be discontinued in 2025:

- Chiller tune-up offering – Ends Q3 2025
- Compressed air optimization offering – Ends Q4 2025
- Prescriptive Lighting offering – Ends Q4 2025
- New Construction Lighting offering – Ends Q4 2025
- On the spot midstream lighting offering – Ends Q4 2025

These measures are being discontinued in order to transition to the Strategic Framework outlined in the Public Service Commission’s Order Directing Energy Efficiency and Building

Electrification Proposals issued in July 2023. The Electric C&I Program is planned to continue under the Strategic Framework in 2026-2030.

### **Program Incentives & Delivery**

Prescriptive incentives are available for measures that provide predictable energy savings in virtually all applications where they replace a similar technology of lesser efficiency. The Company offers such incentives for a long list of electric technologies including, but not limited to, lighting equipment and controls, and energy management systems. The prescriptive path often serves as the customer's initial exposure to energy efficiency that may lead to more complex custom projects in the future.

The On-the-Spot Midstream sub-initiative (On-the-Spot) provides prescriptive incentives at the point of sale.

Custom incentives are available for larger or more complex projects, which generally deliver higher energy savings. To identify and quantify custom opportunities related to a specific process or unique building operations, National Grid provides customers with expert technical assistance, using both in-house technical staff and subject matter experts drawn from a pool of prequalified, expert private sector engineering consultants as well as collaboration with NYSERDA technical services.

To move customers to action once opportunities have been identified, the Company also offers incentives designed to offset the cost of implementing the energy efficiency project. The overarching goal is to instill customer confidence in the projected energy savings and the reliability of equipment performance, to make the financial investment attractive, and to provide a delivery process that makes the upgrade process as simple and seamless as possible.

The Electric C&I Program is testing new opportunities such as enhanced incentives for projects in areas that benefit an NWA location. The enhanced incentives offer a set dollar per kW of savings from an energy efficiency project that will be added to the customer's total incentive for the project. This is an effective way to signal to the market the value of an energy efficiency project as it relates to electric system benefits.

### **Program Collaborations**

The Company keeps an open dialogue for possible partnerships with NYSERDA, new market players, and peer New York utilities in areas where electric and natural gas service territories overlap (e.g., in Western New York).

National Grid leverages collaboration with market trade partners to assist with bringing large project leads and market-specific leads. Since its inception, this network has grown over 30% in upstate and more than doubled territory wide with the introduction of this network downstate.

National Grid also works with other areas (e.g., distributed generation, Economic Development, etc.) across the organization to investigate new and innovative offerings to add to our portfolio.

Our internal collaborations include working with various groups within the Company such as NWA, NPA, and planning teams to optimize various offerings and results from the Electric C&I Program.

### **Target Market**

Non-residential customers with average monthly demand greater than 250 kW are currently eligible to participate in the Electric C&I Program. If a Non-residential customer is below 250 kW there are still pathways to get incentives through the Electric C&I Program if the customer cannot be served by the Electric Small Business Service Program.

### **Quality Assurance/Quality Control Procedures**

The specific quality assurance measures for the Electric C&I Program include pre-inspections and post-inspections, along with creation of a “Minimum Requirements Document” used to determine whether equipment is installed and operated as designed and preapproved. In 2020, in response to the COVID-19 pandemic, National Grid began virtual pre-installation and post-installation inspections to further accommodate customer’s energy efficiency efforts. National Grid randomly selects up to 10% of the completed prescriptive incentive applications for post-inspection. Each application is reviewed for quality and thoroughness during the review and approval process.

For custom projects receiving incentives of \$10,000 or less, 10% are randomly selected for post-inspections, while all custom projects receiving incentives of more than \$10,000 require a post-inspection by internal staff or external vendors. National Grid reserves the right to adjust these inspection percentages based on experience and performance.

The Company has taken steps to improve the Quality Control process to ensure cycle time improvements, and documentable savings. Quality Control inspections confirm that incentivized equipment is installed and operational, as scoped in the project document.

### **Anticipated Project Timeframe**

Small to average size projects can take an estimated six (6) months to complete while larger projects can take an estimated one (1) to four (4) years to complete, depending on size and complexity.

## **REAL TIME ENERGY MANAGEMENT (“RTEM”) PROGRAM**

### **Program Design**

The Real Time Energy Management (“RTEM”) Program was formerly a sub-initiative of the Electric and Gas Commercial and Industrial (“C&I”) Program(s). This multi-year program is active through the end of 2025, with a chosen implementer resulting from an RFP. RTEM is a smart building technology offering that enables continuous equipment monitoring.

Current and historical energy performance data of a facility is pulled into a cloud-based system and can be integrated with an on-site energy management system. This type of monitoring allows a business to identify inefficiencies in their equipment or energy usage that can result in increases in their energy usage and subsequent increases in their energy bill. It can help a business strategically plan capital improvements as well.

In 2023, the Company launched its RTEM and Retro-Commissioning sub-initiatives. The selected program implementer curated a Vendor Network of 22 companies to implement the offerings. The RTEM program focuses on identifying Energy Conservation Measures (“ECMs”) and installing monitoring hardware and software to ensure the system is running optimally, as well as helping to identify areas where future capital improvement projects can be planned for full building optimization. The RCx sub-initiative operates in a similar way, however no continuous monitoring takes place.

- *Retro-Commissioning Sub-Initiative (“RCx”)* – RCx offers facility owners and operators a comprehensive assessment to identify and enact cost-effective ECMs. By enhancing the efficiency of crucial energy systems, this initiative reduces energy expenses while ensuring seamless facility operations. The minimum requirements for a commercial and industrial customer to be considered for participation is 110 kW demand or above.

#### **2019-2024**

In previous years, the RTEM Program was included as a sub-initiative of the Electric and Gas Commercial and Industrial Program(s). In 2023, National Grid along with the chosen implementer enrolled 27 companies into the Vendor Network. The program is currently running and engaging with customers. RCx launched in Q3 2023 and utilizes the same Vendor Network. The program has engaged customers with various facility types, including but not limited to, light industrial, academia, healthcare, and retail.

#### **2025**

National Grid will explore including multifamily customers in the RTEM/RCx program through 2025 in order to prepare for the Strategic Framework outlined in the Commission’s Order Directing Energy Efficiency and Building Electrification Proposals issued in July 2023. The Electric RTEM Program is planned to continue under the Strategic Framework in 2026-2030.

### **Program Incentives & Delivery**

National Grid offers upfront incentives for building surveys and system installs to help offset the cost of the projects and help eliminate barriers to participation. On confirmed installation of measures The Company pays additional incentives based on energy saved.

### **Program Collaborations**

National Grid has collaborated with NYSERDA in the development of RTEM. National Grid has also collaborated with the Massachusetts energy efficiency programs and released a joint RFP for the program implementer. The Company is coordinates with other Upstate NY utilities that have overlapping service territories with NMPC to offer the RTEM Program incentives where National Grid does not supply both electricity and gas to customers.

### **Target Market**

Large commercial and industrial electric customers with over 300 kW demand (with or without gas usage).

### **Quality Assurance/Quality Control Procedures**

The RTEM Program plans to follow a similar QA/QC process to the Electric C&I Program wherein the Company conducts a post inspection for up to ten percent (10%) of completed incentive applications. In addition, the program will continuously evaluate unique aspects of RTEM projects that may require a custom QA/QC approach to ensure accuracy and measure installation verification.

### **Anticipated Project Timeframe**

Based on historical knowledge from the NYSERDA programs, the duration of a RTEM system installation is unique to each project. While the duration is site specific, projects typically average three to six months to complete.

## **ELECTRIC SMALL BUSINESS SERVICES PROGRAM**

### **Program Design**

The Electric Small Business Services (“SBS”) Program strives to improve the energy efficiency of small, non-residential business customers by providing on-site energy audits, savings analyses, incentives, installation services, and financing options such as on-bill payment options for customer co-pays or third-party financing. The Company provides program design and oversight for the program, which is delivered by third-party vendors.

### **2019-2024**

The Electric SBS Program had a successful year in 2019. The Company used an RFP process to optimize the program from the three (3) regional direct install providers, which resulted in having one implementation vendor chosen as the primary Direct Install provider.

The Electric SBS Program also had a successful year in 2020. Despite the many challenges from the COVID-19 pandemic, savings achievements were within 5% of the program goal.

National Grid continued to offer advanced power strips to its small business customers through the vendor and Customer Directed Option (“CDO”) vendors at no cost to the customer.

In addition, in 2020, to assist struggling customers because of the national pandemic, the Company increased incentives from 18 cents per kWh to 25 cents per kWh to cover up to 85% of the total project cost, which was a significant increase from the program covering up to 60% of the total project cost in prior years.

In early 2021, the program had a strong pipeline of projects and incentives were gradually reduced to 18 cents per kWh mid-year. The program continued to do well in 2021. National Grid paid special attention to this sector in 2021 by performing market research on this segment to continue to investigate how to best serve them through energy efficiency, as well as offering energy efficiency bundled with other programs such as demand response.

Starting in fall 2021, National Grid offered enhanced incentives for small business customers located in DACs through the Environmental Justice initiative. This enabled DAC customer participation by providing program incentives that cover 100% of the total project cost.

In 2023, the Electric SBS Program increased the threshold of eligibility from the historic annual average of 110 kW to 250 kW, allowing more businesses to take part in this program and benefit from the more personalized service provided. The program continues to offer higher incentives for customers within DACs and has partners with the NWA team to offer a kicker incentive for demand reduction. This NWA adder is offered to customers who participate in the Electric SBS Program and are located in a constrained area of the electric network where the Company needs to reduce demand.

## **2025**

The Electric SBS Program is planned to continue in the 2026-2030 period. Therefore, during 2025, this program will begin to transition to the Strategic Framework in the Commission’s Order Directing Energy Efficiency and Building Electrification Proposals issued in July 2023. National Grid will continue to research new products to add to the program. A more comprehensive approach will be investigated to better serve this business sector. National Grid is also investigating new ways this program can partner with NYSERDA programs to offer new and innovative solutions to customers.

National Grid is working with SBS vendors to identify and investigate new opportunities for the customer such as offering Energy Management Services. The program will continue to

look for opportunities to incorporate equity into the program to ensure customers in DACs have access to our energy efficiency programs. National Grid will also develop a transition plan to minimize customer impact and ensure continued customer participation in the Electric SBS Program when lighting incentives are no longer offered in the 2026-2030 period.

### **Program Incentives & Delivery**

The Electric SBS Program is administered by National Grid and vendors selected through a competitive bidding process. The program offers two (2) main delivery channels for customers to participate; direct installation ("DI") with a program-approved vendor who conducts assessments and then installs the equipment, and the second channel which has a third-party Customer Directed Option ("CDO") Administrator contracted to the Company, who in turn manages independent trade ally contractors. The vendor and CDO administrators are required to coordinate each project, including the project audit, application, and pre-inspection through the incentive offer, product installation, post-retrofit inspection, and incentive payment process.

The Electric SBS Program offers prescriptive and custom energy savings opportunities. Some of the energy-efficient equipment available through this program includes lighting upgrades (e.g., LED technology), lighting occupancy sensors, and incentives for refrigeration measures. To further animate the market, the CDO also encourages independent contractors to bring larger electric and gas projects to our C&I program for consideration, as well as cross-promote other programs such as Electric Vehicle chargers and heat pump offerings through the Clean Heat Program.

### **Program Collaborations**

The Direct Install delivery option allows the implementation vendor to work closely with the customer in overcoming common barriers to participation, such as lack of awareness, time and capital, and perceived complexity of the technology. Customers who participate in the Electric SBS Program receive incentives for eligible equipment and projects that program requirements based on a dollar per kWh rate for achieved savings up to 70% of the total project cost.

Based on their bill payment history, eligible customers have the option of paying for their portion of the project costs through their electric utility bills in one lump sum, or twelve-monthly installments, or they can seek third-party financing options through the Company's strategic EE project financing partners. Additionally, customers may choose an upfront payment option and receive a discount on their project cost co-payment. Financing options help promote customer and vendor participation.

The Company continues to investigate and pursue additional third-party partnerships that will bring value to the customer and the system.

### **Target Market**

Small to mid-sized non-residential electric customers within the NMPC electric service territory with an average monthly demand of 250 kW or less are eligible to participate in the Electric SBS Program. These customers are generally served under National Grid's SC2D and SC2 service classifications. Certain non-residential customers in this target market may be on SC1 rates.

### **Quality Assurance/Quality Control Procedures**

Customers must certify satisfaction with installed measures prior to program vendors billing National Grid for incentive payment. Independent auditors are used to conduct post-inspections through a random sample of up to 10% of completed projects for both the Direct Install and CDO delivery channels. These auditors are primarily responsible for verifying the equipment and the counts of installed measures and determining if any issues require further attention or remediation from the Program Manager or vendor. In addition, as a means of quality control, the CDO Administrator also independently post-inspects trade ally projects. Finally, National Grid has retained an independent third-party engineering firm to provide monthly reviews of SBS applications to improve the QA/QC process.

### **Anticipated Project Timeframe**

Small to average size projects can take an estimated one (1) to two (2) months to complete, while larger projects taking longer depending on size and complexity.

## **LED STREET LIGHTING PROGRAM**

### **Program Design**

The Company established a Light Emitting Diode ("LED") Street Lighting Program as part of the Order Adopting Terms of Joint Proposal and Establish Electric and Gas Rate Plans (the "March 2018 Joint Proposal").<sup>12</sup> This program provides an energy efficiency incentive per fixture, based on the fixture wattage installed, for both customer-owned and company-owned street lighting assets. In 2021, this program became part of the Company's energy efficiency portfolio and was included in subsequent SEEP filings.

### **2021-2024**

In 2021 and 2022, the program's performance improved year-over-year. Early in the program, performance was driven by conversions for municipalities with company-owned lights. However, as more municipalities began purchasing their street lighting assets and closing on their asset sales, more conversions in 2022 - 2024 are taking place by municipalities that now own their street lighting assets.

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<sup>12</sup> Cases 17-E-0238 et al, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service, Order Adopting Terms of Joint Proposal and Establish Electric and Gas Rate Plans (issued March 15, 2018), Attachment 1(the "March 2018 Joint Proposal").

## **2025**

In 2025, there are still several small to medium-size municipalities that could participate in this program to convert their street lighting assets to LEDs. This program's achievement in this coming year and the years after will be representative of the limited number of municipalities that have not yet converted their lights within the NMPC service territory. The Company has proposed this program be considered Strategic in the ongoing EE/BE proceeding and plans to continue this program in 2026-2030 under the Strategic Framework.

### **Program Incentives & Delivery**

All municipalities are required to submit a letter of authorization to National Grid to confirm their desire to convert their current streetlights to LED along with their selection of the specific LED replacement lights. Based on those selections, the Company offers customers an incentive based on the type and quantity of LED fixtures identified by the customer. Following the removal of the existing High Intensity Discharge (“HID”) fixtures and after receiving confirmation from the field team that the fixtures have been installed and billing has been updated to reflect the new LED’s, the Company pays the customer the incentive.

### **Program Collaborations**

Currently, the Company does not have any established partnerships to administer this program but remains open for any potential collaborations to help better serve customers through the LED Street Lighting Program.

### **Target Market**

Customers eligible to participate in this Program are those served under P.S.C. No. 214 – Outdoor Lighting Tariff who meet the Company’s SC-2 and SC-3 service classifications.

### **Quality Assurance/Quality Control Procedures**

Inspections of the customer-owned installations are performed by National Grid Regional Account Services personnel as part of their process to verify installation prior to updating the municipality’s billing to LED’s. The incentive is not paid out until the municipality’s billing has been updated.

### **Anticipated Project Timeframe**

Streetlight conversion projects are scheduled on a first-come, first-served basis for Company-owned assets. Smaller to medium-size projects may take up to three (3) months to install after receiving payment from the customer. Large projects can take four (4) to twelve (12) months to complete.

## ELECTRIC RESIDENTIAL CONSUMER PRODUCTS PROGRAM

### Program Design

The Electric Residential Consumer Products Program is designed to increase customer awareness of the importance and benefits of purchasing energy efficient lighting and other efficient electric products through in-store marketing collateral<sup>13</sup>. The program partners with retailers to offer customers instant discounts at the point of sale for energy efficient electric products. This program seeks to expand the availability, customer acceptance, and use of energy efficient electric technologies.

The Electric Consumer Products Program includes the following sub-initiative. Below is a brief description of the sub-initiative.

- *New Product Implementation (“NPI”)* – National Grid is exploring adding energy efficient electric appliances to the program. These efforts will likely be needed to supplement lighting savings under new federal standards. Several electric appliances are currently under consideration such as heat pump clothes dryers, heat pump swimming pool heaters, induction cooking equipment, and clothes washers.

### 2019-2024

The Program was redesigned to focus on midstream lighting rebates and continued to focus on energy efficient lighting rebates through several retail chains. The program saw an increase in savings and engagement in 2022. Residential pool pumps were added to the program through an upstream delivery model. Additionally, the program began to offer Energy Recovery Ventilators (“ERVs”) in coordination with the NMPC Gas Residential Program.

In 2023, rebates for efficient dehumidifiers and air purifiers were added as in-store midstream offerings through the NPI sub-initiative. National Grid revised lighting savings based on new federal lighting standards and partially offset reduced lighting savings with new offerings through the NPI sub-initiative.

In 2024, rebates were added for advanced power strips, room and window air conditioning units, and refrigerators. The Company will continue to explore adding new, efficient appliances to in-store offerings.

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<sup>13</sup> The Company previously offered an incentive for heat pumps through a Sub Initiative referred to as the Electric Heat Initiative prior to the development of the statewide NYS Clean Heat Program. The Electric Heat Initiative was discontinued and replaced by the NYS Clean Heat Program in 2020.

## **2025**

In 2025, the program will continue evaluating new products and delivery models through the NPI sub-initiative to increase savings from strategic measures. The Company will also explore coordination with the gas in-store program to offer water savings measures to capture gas and electric savings.

The Electric Residential Consumer Products Program is planned to be offered through 2025 and discontinued in Q4 2025 as part of the Company's transition to the Strategic Framework. In-Store incentives for Strategic measures that are currently offered in this program are planned to continue in a Gas and Electric In-Store Residential Program proposed by the Company for 2026-2030. The Company has determined that redirecting funds to other programs that are planned to be offered in the upcoming 2026-2030 period aligns with the Strategic Framework in the Commission's Order Directing Energy Efficiency and Building Electrification Proposals issued in July 2023.

### **Program Incentives & Delivery**

The Electric Residential Consumer Products Program educates customers and vendors regarding the benefits of energy efficient lighting and other products to increase customer acceptance of these products and to encourage customers to purchase these products when they shop. Customers are offered an instant rebate at the point-of-purchase with collateral materials to inform their decision to buy efficient electric products. Distributors submit information about the efficient electric equipment they sell, and the program provides rebates to lower the cost to contractors and customers to promote energy efficient equipment purchases. The Company also coordinates with distributor promotions to leverage non-ratepayer funds, which further lowers upfront costs to customers.

### **Program Collaborations**

This program partners with retailers to offer customers instant discounts at the point of sale for efficient electric products. The benefits of these products are communicated to the customer via in-store marketing collateral. The program coordinates with the Gas Residential Program to account for electric savings associated with Energy Recovery Ventilators. The program partners with distributors for the upstream delivery model.

### **Target Market**

Residential electric customers in single family home or multifamily buildings with fewer than five units are currently eligible to participate in the Electric Residential Consumer Products Program.

### **Quality Assurance/Quality Control Procedures**

National Grid has memoranda of understanding for this program with retailers and manufacturers that are signed annually to ensure program requirements are met. The program implementation vendor verifies that the retail locations are within the service territory.

## **Anticipated Project Timeframe**

Not applicable

## **ELECTRIC & GAS MULTIFAMILY PROGRAM(S)**

### **Program Design**

The Electric & Gas Multifamily Program(s) (“Multifamily Programs”) are designed to increase the installation of energy efficiency measures in multifamily buildings (buildings with five (5) or more units) within the NMPC Electric and/or Gas service territories by working with property owners, managers, trade allies, and tenants. The programs offer free energy audits to identify energy saving opportunities for electric and/or gas measures. Multifamily buildings present opportunities for upgrades in common areas, building envelopes, and within living units. Available measures include, but are not limited to, a free energy audit, free low-flow shower heads, faucet aerators, as well as incentives for air sealing, lighting replacements, Wi-Fi-enabled thermostats, and hot water pipe insulation. The Multifamily Programs target all eligible multifamily buildings and condominiums with five or more units on a single property owned by a single firm or person.

### **2019-2024**

In 2019, the Multifamily Program(s) continued to build strong relationships with local contractors. The programs began strengthening partnerships with local weatherization agencies to better serve low and moderate income (“LMI”) customers. In 2020, the programs aligned the market rate program with the development of a statewide LMI Multifamily Program and continued exploring partnerships with local weatherization agencies. In 2021, the Company launched the Gas and Electric LMI - Existing Affordable Multifamily Program(s). The Company had been serving this customer segment through the Market Rate program but will now provide additional incentives to qualifying LMI customers through the Statewide Affordable Multifamily Energy Efficiency Program (“AMEEP”) program.

In 2022 The Company used this new segmentation to better serve both customer groups. In 2023, the Programs continued to refine our knowledge about the differences between the LMI and Market Rate multifamily market segments and tried new marketing methods to increase participation and better reach the decision makers for this customer segment. In 2024, the Company explored running Limited Time Offerings (“LTO”) for measures that were identified to be lucrative to customers. These LTOs will most likely continue in 2025. The implementation vendor for the Multifamily Programs experienced staffing shortages in 2022-2023 that were addressed in 2024 and now has sufficient labor and training for staff to administer the programs.

### **2025**

This program is planned to continue in the 2026-2030 period. Therefore, during 2025, this program will begin to transition to the Strategic Framework in the Commission's Order Directing Energy Efficiency and Building Electrification Proposals issued in July 2023. The Company will explore new measures to incorporate into the program and ways to strengthen their relationships with contractor networks. The Company will review measure offerings to phase out measures that will no longer be available in 2026 to avoid a sudden change to the program.

National Grid will evaluate and explore new ways to animate this highly segmented and complex market through delivering comprehensive energy efficiency measures and solutions. Opportunities to offer incentives for non-direct installation measures, such as building shell improvements, weatherization, appliances, and heating and cooling equipment, will be explored to achieve more comprehensive energy savings.

Potential coordination of program offerings with time-of-use rates and as well as adding a retro-commissioning option (in conjunction with third parties) will be evaluated.

### **Program Incentives & Delivery Overview**

The Multifamily Programs offer energy efficiency incentives in buildings with either residential or commercial meters and serve individual units as well as common areas. Customers receive marketing and outreach materials to alert them to the availability of this program. Customers may receive an energy audit to determine potential capital improvements with large energy efficiency opportunities, and they receive incentives and rebates for the installation of energy efficient lighting, low-flow showerheads, faucet aerators, as well as other measures. For prescriptive measures, incentives are provided to the customer after the measures are installed. Some measures are directly installed at no cost to the customer.

### **Program Collaborations**

In communities where National Grid does not provide both electric and gas service, opportunities will be explored to collaborate with peer utilities to coordinate leads, audits, and energy savings between the utilities. The Company will also collaborate with NYSERDA to avoid customer confusion and leverage complementary program offerings.

### **Target Market**

Homeowners' association representatives for condominium complexes, landlords or owners of multifamily buildings with five (5) or more units on a single property, or townhouses that are part of a complex containing five (5) or more units within the NMPC Electric and/or Gas service territories are eligible to participate in the Multifamily Programs if they are owned by a single firm or person.

### **Quality Assurance/Quality Control Procedures**

Quality assurance measures include pre-inspections and/or post-inspections to verify equipment is installed and operating as designed. Random post-inspections are performed for up to ten percent (10%) of installed projects. The Company is actively working to improve the quality assurance/quality control process and may include more projects beyond the 10% standard.

### **Anticipated Project Timeframe**

Most projects are completed relatively quickly because the most common measures offered through this program have simple installation processes such as lighting upgrades and faucet aerators. On average, multifamily project take approximately 2-3 months to complete.

## **ELECTRIC & GAS RESIDENTIAL AND NON-RESIDENTIAL ONLINE MARKETPLACE PROGRAM(S)<sup>14</sup>**

### **Program Design**

The Electric and Gas Residential and Non-Residential Online Marketplace Program(s)<sup>15</sup> (“Online Marketplace”) includes individualized customer education on specific energy efficiency opportunities for customers’ homes or businesses. The Online Marketplace provides an intuitive, visual, and interactive tool to engage the customer and to allow customers to take immediate action with instant financial incentives and rebates. The Online Marketplace drives action, education, and insights for customers to utilize for a more customized online experience. National Grid plans to tailor the platform to address specific needs and be more robust for specific building types.

The Online Marketplace includes the following Sub-Initiative:

- *Electric Residential Online Assessment* – This sub-initiative guides customers through a series of questions to collect information about their energy usage habits. The online assessment then generates a report that provides customers with a disaggregation of their energy usage and provides recommendations on how they can save energy.

### **2019-2024**

The program(s) substantially expanded marketing efforts throughout the territory over the past four years. Referrals to the Marketplace are driven by the Online Assessment. There has been increased traffic to the National Grid website through additional marketing to this offering. Engagement for the program(s) was continuously being developed and included video marketing, sponsor content, monthly blog posts, and media ads. The updated Online

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<sup>14</sup> Previously named the Residential and Non-Residential Efficiency Platforms.

<sup>15</sup><https://uny.home.Marketplace.nationalgrid.com/>

Marketplace 2.0 was launched in 2020 and the Non-Residential Marketplace launched in October 2020 to support customers impacted by the pandemic. Market-specific measures were introduced, as well as special offerings like no-cost thermostats to drive traffic to the platform. The Online Assessment saw increased engagement in early 2022 driven by an email campaign encouraging customers to take the assessment.

Additional recommendations were added based on user geography to highlight new programs and pilots. National Grid continued to research and add new measures as appropriate for this program offering. The Company issued an RFP for the Marketplace program(s) to incorporate additional features to serve customers. The program(s) transitioned to the new platform in 2022 and added new measures to the list of available products.

The Online Marketplace program underwent an evaluation study in 2023 led by the Company's Evaluation Measurement & Verification ("EM&V") team and an external vendor. This EM&V study resulted in a lower realization rate for the overall program and reduced savings potential and incentives for several popular measures such as thermostats. The program is currently evaluating all measures to understand savings potential and identify Strategic, Non-Strategic, and Neutral offerings for customers. The Company is implementing recommendations from the EM&V study, which includes changing the rules to allow only one thermostat per household.

The Gas Residential Online Marketplace and Gas Non-Residential Online Marketplace, Marketplace programs closed in Q4 2023. The Company determined that redirecting funds to other programs would be more cost effective and better align with strategic priorities for 2024 and 2025. In 2024, the Electric Residential Marketplace continues to provide new offerings to our customers, including the addition of window air conditioning units to the program. New marketing tactics and seasonal promotions were implemented to increase customer participation. During seasonal promotions, customers are offered an increased incentive on specific self-install offerings for a limited time. The Electric Residential Marketplace Program is planned to be offered through 2024 and discontinued in Q4 2024 as part of the Company's transition to the Strategic Framework.

## **2025**

The Residential Electric Online Marketplace program will be discontinued in Q4 2024. The Company has determined that redirecting funds to other programs that are planned to be offered in the upcoming 2026-2030 period better aligns with the Strategic Framework in the Commission's Order Directing Energy Efficiency and Building Electrification Proposals issued in July 2023.

## **Program Incentives & Delivery**

Residential customers complete an online energy assessment that will collect information about their homes and their energy usage habits. The online assessment then generates a report that provides customers with a disaggregation of their energy usage and details for a variety of recommendations on how they can save energy. These tips direct the customer to an online Marketplace website where they can purchase smaller, self-installed measures. National Grid provides an instant rebate for these measures. The Company also coordinates with distributor promotions to leverage any non-rate payer funds which further lowers upfront costs to customers.

For non-residential customers, traditional marketing and email campaigns are used to drive traffic to the platform. National Grid is tracking the effectiveness of these efforts and will adjust as necessary.

### **Program Collaborations**

National Grid has contracted with a single implementation vendor to deliver the Online Marketplace Programs in a coordinated manner. The Company currently does not have additional collaborators for the Online Marketplace Programs.

### **Target Market**

Residential and multifamily electric and/or gas customers are currently eligible to participate. Non-residential small to mid-sized electric customers with an average annual demand of 110 kW or less are currently encouraged to participate. Non-residential gas customers also are currently encouraged to participate.

### **Quality Assurance/Quality Control Procedures**

National Grid evaluates the success of the online assessment and the Marketplace tools using key performance metrics that include visits to the website, completion of online assessments, email information received, subsequent energy efficiency measures purchased, and non-instant energy efficiency measures researched. Regular tests of the website will be performed to ensure a seamless customer experience and fine tune the online process as needed to maximize the success of the online experience. Periodic evaluations are conducted on different aspects of the program, including program administration and operations, and reporting by third-party vendors to verify the effectiveness of the current program processes and validity of savings.

### **Anticipated Project Timeframe**

Not applicable.

## Program Design

The Electric & Gas Residential Engagement Program(s) (“Engagement Programs”) is a behavioral initiative to encourage residential customers to change their energy usage behavior to conserve energy. Behavioral initiatives seek to identify factors that motivate residential customers to take energy saving actions and/or participate in energy efficiency programs. The target market for the Engagement Programs includes residential electric and/or gas customers, and some individually metered multifamily customers.

The Engagement Programs consist of the following Sub-Initiatives that will further support electric and gas customers. Below are brief details about each Sub-Initiative:

- *Home Energy Reports* – Home Energy Reports (“HER”) are monthly and bimonthly reports sent to customers that are used as an informational and educational tool. These reports are sent to electric only, gas only and combined gas/electric customers via print (postal mail) or email. All HERs include personalized energy usage information, data insights, tip modules and references to other programs offered by the Company. Email reports have the benefit of directly linking customers to learn more about content in the report. Typically, print reports are sent bimonthly, while email reports are sent monthly.
- *Video Home Energy Reports* – Video Home Energy Reports (“VHER”) are video based reports sent to customers that are used as an information and educational tool. These reports contain personalized videos with information on energy usage, tips to reduce usage, and the option to learn more about energy efficiency in the home. This report will be sent during the winter, specifically targeting gas usage information during typically high usage months.
- *High Usage Alerts* – High Usage Alerts (“HUA”) are email notifications sent to customers who receive HERs and are forecasted to use 25% more energy in the current billing cycle compared to the previous month. This allows customers to have insight into their bill before the end of the billing cycle. HUAs include information on why the customer is receiving the notification, behavioral tips to reduce energy usage and marketing modules on other programs offered by the Company.

## 2019-2024

In 2020 and 2021, the Company continued to improve HERs after positive feedback on a 3.0 pilot, which was launched in summer 2020. This version included new energy insights, behavioral techniques and QR codes to the Marketplace to further engage the customer. Evaluations reported those who had received the pilot found this version more useful than previous versions, with an increase in click rates and web logins. HER version 3.0 version was released to all customers in fall 2021. The Company used the alternative delivery method of VHERs and used video media to distribute personalized messages to educate select customers on the benefits of heat pumps and the Company's heat pump offerings.

The Company expanded the program with the introduction of High Usage Alerts (HUAs) in summer 2022. HUAs were email alerts sent to customers who were forecasted to use 25% more energy in the current billing cycle compared to the previous month. These alerts support customer transparency by preventing bill shock via proactive notifications to educate and empower customers to change their behavior to reduce energy usage. HUAs include an explanatory statement with weather insights to inform customers on why they are receiving an alert, forecasts to compare their projected energy use to the previous billing cycle, marketing modules to promote other energy efficiency programs, and tips on how customers can reduce their energy use through behavioral changes.

In 2023, the Company continued to add new customers to the program through HER treatment groups. As smart meters are rolled out to customers across the Company's service territory, customers selected into the treatment group began receiving Weekly Energy Update and HUA emails. Customers without smart meter continued receiving the non-AMI version of HUAs. Electric and dual-fuel (gas and electric) customers will receive VHERs in the summer and winter of 2023.

In 2024, the Engagement Programs have served more customers by increasing the number of participants in the treatment group and explore the possibility of implementing a version of energy reports tailored to small business customers. If a "Small Business Energy Report" initiative is launched, a program description will be provided in future SEEP filings.

## **2025**

The Electric and Gas Residential Engagement Programs are planned to be discontinued in Q4 2025. Based on the Strategic Framework in the Commission's Order Directing Energy Efficiency and Building Electrification Proposals issued in July 2023, the Company has determined that this program is Non-Strategic and cannot be funded by energy efficiency portfolios in 2026-2030.

### **Program Incentives & Delivery**

The purpose of this behavioral mechanism is to provide customers with personalized energy information via an energy information Marketplace. The energy information Marketplace uses multiple channels (e.g., web, mail, email) to deliver personalized energy information to residential customers. The information motivates customers to take action to conserve energy use, reduce energy costs, and as an introduction to the Company's other energy efficiency programs.

### **Program Collaborations**

National Grid collaborates internally with the marketing team to coordinate modules in HERs to support other programs and potentially align marketing campaigns.

This program helps to promote other programs in the Company's residential portfolio such as the NYS Clean Heat Program and Gas Residential Marketplace through information on HERs, as well as tips to take advantage of these programs.

### **Target Market**

Residential electric and gas customers and some individually metered multifamily customers are currently eligible to participate in the Engagement Program(s).

### **Quality Assurance/Quality Control Procedures**

As part of our Quality Control procedures customers are assigned to treatment and control groups. The treatment groups receive mailer-based reports on an ongoing basis and have access to the same information on the National Grid website. Control groups are retained for the purposes of evaluation.

Periodic evaluations are conducted on different aspects of the program, including program administration, operations and reporting by third-party vendors to verify the effectiveness of the current program processes and validity of savings.

### **Anticipated Project Pipeline**

Not applicable

## **GAS COMMERCIAL & INDUSTRIAL PROGRAM**

### **Program Design**

The Gas Commercial & Industrial ("C&I") Program offers customers a range of options to encourage the installation of ECMs or "measures." Customers can choose from rebate programs, incentives on custom projects or no-cost heating and water savings measures installed in their facilities. These offers apply to existing buildings and new construction. Program performance is continuously monitored. Offerings and incentive levels are adjusted to reflect technological advancements and changes in the marketplace. The Gas C&I Program focuses on National Grid's non-residential natural gas customers.

The Gas C&I Program consists of the following Sub-Initiatives that support large commercial and industrial customers. Below are brief details about each Sub-Initiative:

- *Utility Energy Service Contract Sub Initiative ("UESC Program")* – The UESC Sub-Initiative is an energy services contracting sub-initiative where the Company and customers, typically government agencies, enter limited-source contracts for energy management services, such as energy efficiency, water efficiency, and demand reduction. UESCs allow government agency customers to benefit from the Company's energy

expertise, creating a streamlined approach to contracting using a limited-source contract vehicle that meets public procurement process requirements.

- *Benchmarking Sub-Initiative* – On December 13, 2018, the Commission, in its Order Adopting Accelerated Energy Efficiency Targets (“the December Order”), directed New York Utilities to prepare for statewide benchmarking of building energy performance. National Grid has implemented an automated and enterprise-wide process, as of January 1, 2019, that can upload customer aggregated usage data, upon request, to the Energy Star® EPA Portfolio Manager site. The Company has developed a companion offering for its customers that promotes action by building owners or decision makers to make upgrades that reduce overall building usage.
- *Prescriptive Sub-Initiative* – For customers looking to replace existing equipment with more energy efficient models, the prescriptive sub-initiative aids in the form of rebates to customers or their installation contractor allowing them to install equipment needed to reduce energy consumption and save money in the long term.
- *Custom Sub-Initiative* – This sub-initiative offers incentives to help customers target unique energy efficiency opportunities not covered by prescriptive offerings. Customers work with the Company’s sales professionals and energy engineers to identify needs and create a Minimum Requirements Document (“MRD”) that describes the minimum equipment specifications and operational requirements of the proposed system. Incentives are paid to customers if there is a clear projection of savings to help cover the total cost of these projects.
- *Direct Install Sub-Initiative* – National Grid’s Direct Install Sub Initiative offers C&I customers no-cost installation of high-efficiency water and energy saving measures. These upgrades use 30% less water than standard fixtures. Upgrades include aerators, showerheads, pre-rinse spray valves and salon valves.
- *Kitchen Point of Sale (“Kitchen POS”) Sub-Initiative* – Through the Kitchen Point of Sale Sub Initiative National Grid customers receive a rebate directly on their invoice when they purchase qualified natural gas foodservice equipment from participating vendors. Eligible equipment must be installed at an active, valid, non-residential National Grid natural gas service location.
- *Midstream Sub-Initiative* – Through this sub-initiative, the Company provides rebates to distributors for the sale of high efficiency equipment rather than traditional sub-initiatives that provide rebates to end-use customers. After signing a Distributor Participation Agreement, distributors can submit rebate applications for qualifying equipment. Rebates

are then processed and typically paid within two weeks of application approval. Midstream sub-initiatives leverage existing distributor-to-contractor networks by providing distributors rebates to stock and upsell more efficient equipment. Distributors influence 90% of all equipment sales, resulting in ease of participation for all customers as well as an increased awareness throughout the supply chain.

- *Financing Sub-Initiative* – National Grid offers financing to customers who need financial support to complete projects. For eligible projects, customers can receive zero percent (0%) interest rate buy-down financing for 24 or 36 months with \$0 down and pre-funding available if immediate cash flow is confirmed by the installation contractor.
- *The Gas Non-Residential Commercial & Industrial (“C&I”) Weatherization Sub-Initiative* – This sub-initiative is designed to help reduce peak demand on the gas system, while also providing long EUL year-round energy savings, improving occupants’ comfort, and enhancing building readiness for potential future electrification. The Gas Non-Residential C&I Weatherization sub-initiative is composed of any measures that improve the building envelope such as air sealing, insulation, and window replacements. Customers who heat with gas, including gas only or dual fuel (gas and electric) customers, work with the Company’s sales professionals and energy engineers to identify needs and create an offer letter identifying the measure(s) being proposed to the customer along with projected yearly therm savings and rebate amount(s) associated with the measure(s). Incentives are paid to customers if there is a clear projection of savings to help cover the total cost of these projects.

#### **2019-2024**

In 2020 and 2021, the Company continued to offer support to customers in response to COVID-19 pandemic-related hardships with financing and safety measure kits. National Grid continued its collaboration with NYSERDA on new offerings designed to avoid overlap of services, while continuing to meet the needs of customers as NYSERDA retired various programs. Additionally, the Company expanded its collaboration with NYSERDA and their technical assistance programs. New measures were added to the Kitchen Point of Sale sub-initiative to enhance customer participation in the program.

In 2021, the Company offered enhanced incentives for custom projects as a way for businesses to continue to meet their energy efficiency goals. New measures were also added to the Direct Install sub-initiative to combat market saturation.

In 2022, the Company saw the continuation of economic factors that contributed to a lack of customer participation. To further aid customers, the Company sought to raise the base incentive offered in the Custom sub-initiative. The Company also launched another offering within the Custom sub-initiative to provide customers with increased project funding based on a customers’ eligibility and business case. Midstream options were also considered. An

approach was selected that engaged the contractor network to increase customer outreach and awareness. New measures were also added to the Direct Install sub-initiative to broaden the types of measures offered.

The economic factors plaguing 2021 and 2022 seemed to improve as the program experienced an increase in projects entering the pipeline. Inflation continued to be a factor in high labor and material costs. As a result, for 2023 the Company kept incentives in line with 2022 rates to continue to aid customers with completing gas energy efficiency projects. Some incentives were raised in the Prescriptive and Kitchen Point of Sale sub-initiatives as well. Through research efforts, the Company found that market saturation was trending upward. The Company investigated this issue to find a way to engage customers that may not have been targeted previously.

The Direct Install offering was discontinued in Q4 2023. The Company determined that redirecting funds to other programs would be more cost-effective and better align with strategic priorities for the upcoming years of the NE:NY period. The vendor continued to see staffing shortages that caused issues with customer outreach and program participation. Additionally, the program no longer had strong customer interest.

The Kitchen Point of Sale sub-initiative was discontinued in Q4 2023. The Company determined that redirecting funds to other programs would be more cost-effective and better align with strategic priorities for the upcoming years of the NE:NY period. The Kitchen offering experienced baseline updates that made it more expensive to implement and would drive down customer interest.

A Midstream sub-initiative was added to the Gas Commercial & Industrial Program in Q1 2024. With the Midstream sub-initiative, the Company provides rebates to distributors for the sale of high efficiency equipment rather than traditional downstream incentive deliveries that provide rebates to end-use customers. Incentives are offered to customers if there is a clear projection of savings; the incentives help cover the total cost of these projects, bringing deeper energy efficiency within financial reach for a broader range of customers.

## **2025**

National Grid is developing an online project portal for customers, contractors, and internal sales staff to streamline the application process and showcase various real-time incentives for energy efficiency measures. This intuitive platform will guide users to recommended programs based on collected building information. The portal aims to simplify the customer experience, collect more accurate project details, and promote programs tailored to the customer's needs.

This program is planned to continue in the 2026-2030 period. Therefore, during 2025, this program will begin to transition to the Strategic Framework in the Commission's Order Directing Energy Efficiency and Building Electrification Proposals issued in July 2023.

Lessons learned from previous years are leading the Company to reevaluate the overall customer journey and designs of our various C&I programs. The idea that is being explored is to create a more holistic program offering that includes components of our current sub-initiatives. The Company is also evaluating our current incentive structure to meet our market needs and provide an offering that will empower our customers to invest in energy efficiency.

The Company will continue research and implementation of peak demand measures for the program.

### **Program Incentives & Delivery**

The Gas C&I Program promotes prescriptive, custom, point-of-sale, and direct install energy savings opportunities. Prescriptive incentives are available for measures that provide predictable energy savings in most applications where they replace a similar technology of lesser efficiency. National Grid offers such incentives for a variety of natural gas technologies including, but not limited to, space and water heating systems (along with associated controls), steam traps and pipe insulation. The prescriptive path often serves as the customer's initial exposure to energy efficiency that may lead to more complex custom projects in the future.

To identify and quantify custom opportunities related to a specific process or unique building operations, National Grid provides customers with expert technical assistance, using both in-house technical staff and subject matter experts drawn from a pool of prequalified expert private sector engineering consultants, as well as collaboration with NYSERDA's technical services and complementary programs.

The Company also offers incentives designed to offset the cost of implementing the energy efficiency measures. The overarching goal is to instill customer confidence in projections of project energy savings and the reliability of equipment performance, to make the financial investment attractive, and to provide a delivery process that makes the upgrade process as simple and seamless as possible.

### **Program Collaborations**

The Company keeps an open dialogue for possible partnerships with NYSERDA, new market players, and peer New York utilities in areas where electric and natural gas service territories overlap (e.g., in Western New York).

National Grid leverages collaboration with market trade partners to assist with bringing large project leads and market-specific leads. Since its inception, this network has grown in upstate NY and continues to grow statewide with the introduction of this network in downstate NY. The program also works with other areas (e.g., distributed generation) across the organization to investigate new and innovative offerings to add to the Gas C&I Program.

Lastly, as market needs evolve, the C&I Program may collaborate with other internal programs, including but not limited to, the Gas Multifamily Program and the Gas Small Business Services Program.

### **Target Market**

The targeted market for the C&I Program is all non-residential gas customers within the NMPC Gas service territory.

### **Quality Assurance/Quality Control Procedures**

Quality assurance measures include pre-inspections and/or post-inspections to verify equipment is installed and operating as designed. Quality assurance/quality control procedures and business practices are constantly reviewed. The specific C&I inspection procedures vary based on the type of measure installed and the size of the project, including 100% inspections on third-party payments.

The Company randomly selects up to ten percent (10%) of the completed prescriptive incentive and custom sub-initiatives where the incentive is less than \$10,000. All third-party payments, and custom projects where the incentive is greater than \$10,000 require a post-inspection. The Company has implemented a virtual pre and post inspection process to meet NY state safety guidelines. The information required is the same whether the inspection is completed in person or virtually.

### **Anticipated Project Timeframe**

Small to average size projects can take an estimated six (6) to twelve (12) months to complete, while larger projects can take an estimated one (1) to four (4) years to complete, depending on size and complexity.

## **GAS SMALL BUSINESS SERVICES PROGRAM**

### **Program Design**

In 2022, National Grid started offering direct install gas measures for small business customers adding to the suite of offerings already available in the Electric Small Business Services Program (“Electric SBS Program”). The program offers customers no-cost installation of high-efficiency water and energy savings measures. These upgrades use thirty percent (30%) less water than standard fixtures. The Gas SBS Program offers high-efficiency water measures and energy savings measures including aerators, pre-rinse spray valves (“PRSV”), steam traps, and thermostats. National Grid will continue to investigate new measures as appropriate for this program and target market.

National Grid worked closely with an implementation vendor to launch this new offering. The vendor trained their sales staff to sell these new measures, but market adoption was a challenge in 2022. National Grid continued to monitor the progress of this program and adjust as necessary. In 2023, customer participation increased due to growing awareness driven by the implementation vendor and the Company's internal marketing team's promotional efforts. In 2024, weatherization measures were added to the program to increase participation and support small business customer adoption of Strategic measures.

## **2025**

This program is planned to continue in the 2026-2030 period. Therefore, during 2025, this program will begin to transition to the Strategic Framework in the Commission's Order Directing Energy Efficiency and Building Electrification Proposals issued in July 2023. The Company will explore new opportunities and marketing strategies to increase customer awareness and participation in the program. The Company is currently targeting the launch of a weatherization program in 2025. The Company will also explore what additional measures could be added to the program to provide greater value to the customer.

## **Program Incentives & Delivery**

The Gas SBS Program is administered by National Grid and implementation vendor. Through direct installation, a program-approved vendor conducts energy audits and then installs eligible equipment.

## **Program Collaborations**

The implementation vendor works closely with the customer in overcoming common barriers to participation, such as lack of awareness, time commitment, availability of capital, and perceived complexity of the energy efficiency technology. National Grid continues to maintain open communication with NYSERDA on potential areas of collaboration on program offerings.

## **Target Market**

Small to medium size commercial gas customers within National Grid's service territory are currently eligible to participate in the Gas SBS Program.

## **Quality Assurance/Quality Control Procedures**

Customers must certify satisfaction with installed measures prior to program vendors billing National Grid to pay incentives. Independent auditors are used to conduct post-inspections through a random sample of up to ten percent of completed projects. These auditors are primarily responsible for verifying the equipment and the counts of installed measures and whether any issues require further attention from the Program Manager or vendor. Finally, National Grid has retained an independent third-party engineering firm to provide monthly reviews of SBS applications, to improve the quality assurance/quality control process.

## **Anticipated Project Timeframe**

Small to average size projects can take an estimated one (1) to two (2) months to complete, while larger projects can take longer to complete depending on size and complexity.

## GAS RESIDENTIAL PROGRAM

### Program Design

The primary objective of the Gas Residential Program is to overcome market barriers, increase market awareness, and promote adoption of high-efficiency gas space and water heating equipment and related controls. This includes, but is not limited to, furnaces, hot-water boilers, combination boilers, equipment tune-ups, water heaters, thermostats, pipe insulation and heating or energy recovery ventilators. Incentives are provided to customers to encourage investments in high-efficiency gas space and water heating equipment and offset installation costs.

The Gas Residential Program consists of the following sub-initiatives. Below are brief details about each sub-initiative:

- *Prescriptive* – The prescriptive sub-initiative offers customers incentives for high-efficiency gas space and water heating equipment, along with associated controls. Typically, offerings in this sub-initiative require a trade ally to complete installation. Offerings include furnaces, hot-water boilers, combination boilers, equipment tune-ups, water heaters, thermostats, and heating or energy recovery ventilators. To be eligible for an incentive, offerings must meet specific predetermined requirements.
- *In-Store Midstream* – The in-store midstream sub-initiative encourages customers to consider the most efficient gas related offerings when shopping. Offerings include low-flow aerators, showerheads, opaque shell insulation, pipe insulation, and water heaters. These gas-saving offerings are easy to install and can be completed by the customer. Eligible products must meet specific requirements to qualify for an incentive.

### 2019-2024

In 2019, the program offered enhanced summer incentives. The program also began development of a trade ally portal where trade allies could assist customers with filling out an online prescriptive incentive application.

In 2020, the program designed and launched a midstream delivery method. Leads generated from the Residential Online Assessment were used to directly market to customers and take advantage of opportunities to virtually connect with local trade allies to maintain relationships during the COVID-19 pandemic.

In 2021, the Company added prescriptive and multiple midstream measures to these sub-initiatives, expanding the current offerings in each. Exploration and evaluation of additional offerings in each sub-initiative was continuous throughout the year.

The program continued to expand its prescriptive and in-store midstream offerings through 2022. Prescriptive offerings were evaluated to understand how we can encourage customers to adopt the most efficient HVAC equipment. The program removed less efficient HVAC equipment from the delivery model to promote higher efficiency equipment with more attractive incentives. Some measures were moved from the prescriptive delivery model to the in-store midstream delivery model to encourage participation in these offerings. Along with this, the sub-initiatives utilized leads from the Residential Online Assessment to directly market offerings to customers.

In 2023, the program focused on expanding Strategic and Neutral offerings, reduced barriers for customers to participate and began efforts to foster a closer relationship with the trade ally community. Three new measures were added to the prescriptive sub-initiative, including two neutral offerings, learning thermostats and equipment tune-ups, and one strategic offering, heating recovery ventilators. These measures complement gas space heating equipment, ensuring the system is running as efficiently as possible. Along with new measures, overall prescriptive incentives were increased compared to 2022 incentive levels based on recommendations in the program's evaluation study. Customers were encouraged to take advantage of prescriptive offerings through marketing tactics and seasonal promotions. During seasonal promotions, customers are offered an increased incentive on specific prescriptive offerings, typically the highest efficiency space and water heating equipment, for a limited time.

An "Instant Discount" feature was added to the program in 2023 to reduce customer barriers to participate in prescriptive offerings. This feature began as the Trade Ally Support Services initiative and evolved to Instant Discount. Instant Discount reduces customer barriers for participation by allowing the customer to receive their incentive as an upfront discount on their total project cost by reassigning the full incentive amount to a Participating Trade Ally. Participating Trade Allies submit the prescriptive application and associated documentation, including the Instant Discount customer acknowledgement form, to receive reimbursement for offering the incentive via Instant Discount. Once the application is approved, an ACH direct deposit payment is sent to the Participating Trade Ally. Trade allies who are interested in offering this feature to customers must sign up to become a Participating Trade Ally.

Trade ally engagement was a focus for the program in 2023. The program held multiple virtual trade ally webinars, sharing program information and updates. During the 2023 program orientation, trade allies were updated on program changes, eligibility requirements and introduced to the new Instant Discount feature. In addition, trade ally newsletters were

launched. These newsletters are sent to the program's trade ally network with important program information, for example, new offerings and seasonal promotions. Newsletters were implemented to foster a closer relationship with the trade ally network and promote program transparency.

The program explored opportunities to expand in-store midstream offerings and increase the number of participating retail stores. Through 2023, the Company began the process of understanding historical and current participation in Disadvantaged Communities. This helped the program understand the barriers that are present for these customers and how we can support these customers and help them to participate.

In 2024, the Gas Residential Program relaunched the Prescriptive sub-initiative at the end of Q2 2024. The "In-Store" Midstream sub-initiative expanded by adding a new retail partner and local hardware stores.

## **2025**

The Gas Residential Program is planned to be offered through 2025 and discontinued in Q4 2025 as part of the Company's transition to the Strategic Framework. In-Store incentives for Strategic measures such as pipe and opaque shell insulation that are currently offered in the Gas Residential Program's In-Store Midstream sub-initiative are planned to continue in a Gas and Electric In-Store Residential Program proposed by the Company for 2026-2030. The Company has determined that redirecting funds to other programs that are planned to be offered in the upcoming 2026-2030 period aligns with the Strategic Framework in the Commission's Order Directing Energy Efficiency and Building Electrification Proposals issued in July 2023.

## **Program Incentives & Delivery**

The Gas Residential Program utilizes two different delivery models prescriptive and in-store midstream. Depending on the sub-initiative, customers can receive their incentives, or benefits associated with the offerings, in multiple ways.

Customers who take advantage of prescriptive sub-initiative offerings or trade allies that perform the installation, fill out an application for the incentive. The incentive is then processed and sent to the assigned incentive payee – either the customer or installation trade ally. Customers who take advantage of offerings in the in-store midstream sub-initiative do not need to fill out an application to receive the incentive. Instead, the incentive is received as a discount off the retail price when the item/equipment is purchased at participating retail stores.

## **Program Collaborations**

National Grid has well established trade ally networks in place. Through periodic training and virtual presentations, these trade allies are educated on the benefits of high-efficiency gas space and water heating equipment and controls, along with the current program offerings and

incentives. Trade allies are encouraged to sign up for Gas Residential trade ally newsletters and if interested, become a Participating Trade Ally to participate in the program's Instant Discount feature. The Gas Residential Program engages trade allies through virtual webinars, in-person visits and sponsorships. For example, the Company's sponsorship with NYS Builders Association leverages opportunities to expand the program's stakeholder network. This program also partners with retailers through the in-store midstream sub-initiative to buy down certain in-store items that save energy for customers.

### **Target Market**

Residential gas customers in single family homes or multifamily buildings with fewer than five units with a SC1 residential gas rate code are currently eligible to participate in the Gas Residential Program.

### **Quality Assurance/Quality Control Procedures**

Random post-inspection sampling, with a minimum of ten percent of approved incentive applications, will be conducted to verify the incentivized equipment is installed. The Company is actively working to improve the quality assurance/quality control process through constant review of procedures and business practices.

### **Anticipated Project Timeframe**

Project timeframes vary considerably depending on the measures installed. On average, a residential high-efficiency space or water heating project cycle is approximately two months.

## **GAS RESIDENTIAL WEATHERIZATION PROGRAM**

### **Program Design**

The Gas Residential Weatherization Program aims to overcome market barriers, increase customer and contractor awareness, and promote adoption of weatherization and building shell improvements in residential single-family homes and 1–4-unit buildings. The program supports residential homeowners by educating customers on the benefits of weatherization and offering incentives for the installation of air sealing, insulation, and other weatherization measures. Improvements to the building shell can enhance occupant comfort, provide year-round energy savings, and help prepare residential homes for electrification of space heating and cooling. Specific predetermined requirements must be met to be eligible for an incentive.

#### **2019-2024**

This program was not offered in the Company's Upstate New York gas service territory between 2019-2024.

#### **2025**

The Gas Residential Weatherization Program is planned to launch in Q1 2025. The program will aim to improve delivery from Program Partners, explore options to increase

access to financing, and partner collaboration on projects involving multiple weatherization measures. To maximize savings per project, the program will focus efforts on the highest-value measures.

Additionally, the program will evaluate the impact of adding measures and adjusting incentive levels and incentive structure design. The program will also need to monitor market conditions that may increase project costs and continued supply chain disruptions and adjust accordingly to avoid negative impacts to customers and Program Partners. The program requires customer and contractor engagement to maintain a steady pipeline of projects. This outreach and education will continue through a variety of proven marketing methods.

This program is planned to continue in the 2026-2030 period as building shell improvements are considered Strategic Measures under the Strategic Framework in the Commission's July 2023 Order.

### **Program Incentives & Delivery**

All program incentives are calculated based on a dollar amount specific to the type of eligible work, or measure, performed (e.g., wall insulation), and the associated energy savings. This is referred to as a dollar per therm incentive structure. As customers adopt more building shell and air sealing improvements for their home, they save more energy, resulting in a higher total incentive.

Customers can receive their incentive in one of two ways after the project is completed and documentation is approved: through a rebate check, or by reassigning the rebate to a participating Program Partner, (i.e., "Instant Rebate").

### **Program Collaborations**

The Gas Residential Weatherization Program is coordinating with other market-rate programs within the Company's EE portfolio such as the Gas Residential Program. The programs are complementary, but do not incentivize the same measures. Customers are made aware of complementary incentive offerings via collateral shared with contractors, cross-promotional digital marketing, program webpages, direct mail, and email.

### **Target Market**

Residential gas customers in single family homes or 1–4-unit buildings with a SC1 residential gas rate code are currently eligible to participate in the Gas Residential Weatherization Program.

### **Quality Assurance/Quality Control Procedures**

The Program post-inspects 100% of the first ten approved incentive applications for all new Program Partners, and, independent, contractors, virtually or in-person, to verify the

incentivized project scope has been installed. After the first ten projects, depending on rebate value, the Program post-inspects 20-100% of approved incentive applications. The Company is actively working to improve the QA/QC process through continual review of procedures.

Once a contractor's Program Partner application is approved, they will enter a trial period. During this trial period, Program Partners need to successfully complete five projects that meet the Program requirements. All projects completed by Program Partners will undergo both pre-inspection and post-inspection in-person (on-site) during the trial period. If a Program Partner fails more than 20% of the pre-inspections and/or post-inspections, their trial period will be reset with five new projects. If the partner fails more than 20% of the pre-inspections and/or post-inspections during the second trial period, they will be removed from the Program Partner network. The contractor will be ineligible to participate in the Program until they meet the requirements to reapply.

#### **Anticipated Project Timeframe**

Depending on project scope, availability of Program Partners or independent contractors to estimate and complete work, and any custom order materials, projects typically take one to three months to complete.

### **ELECTRIC & GAS PAY-FOR-PERFORMANCE PILOT PROGRAM(S) [CLOSED]**

#### **Program Design**

The Electric & Gas Pay-for-Performance Pilot Program ("P4P Pilot") is designed to reward delivered energy savings on an ongoing basis as the savings occur, by examining energy consumption data from a building's energy meter(s), rather than providing up-front payments on estimated energy savings. Based on this approach, the Company's proposed P4P Pilot was designed to incentivize partner energy efficiency service providers (referred to as "Portfolio Managers" or "PMs") on measured energy savings provided to a portfolio of customers and evaluate whether such a model increases the customer uptake of multi-measure energy efficiency in the residential sector. The P4P Pilot was also designed to evaluate whether such an approach can be scaled state-wide to deliver value to customers, PMs, and National Grid, while contributing to New York's statewide energy efficiency goals.

The Pilot(s) closed in Q4 of 2022

### **ELECTRIC RESIDENTIAL APPLIANCE RECYCLING PROGRAM [CLOSED]**

### **Program Design**

The Electric Residential Appliance Recycling Program (“Appliance Recycling Program”) was designed to increase customer awareness of the benefits of recycling old, inefficient appliances and investing in high-quality energy-efficient technologies. Participating customers received an incentive upon the Company’s retrieval of an older appliance from their residence. Eliminating inefficient appliances reduces electric system load and emission of greenhouse gases, such as CO<sub>2</sub>, into the environment. Qualifying appliances included primary and secondary refrigerators, primary and secondary freezers, and window air conditioners. Customers could turn in a maximum of two (2) refrigerator/freezer units per year and two (2) window air conditioners per year.

The program was officially closed in Q1 of 2020.

### III. SUPPLEMENTAL PROGRAMS

#### DYNAMIC LOAD MANAGEMENT (“DLM”) PROGRAMS

##### **Program Overview**

National Grid’s Dynamic Load Management (“DLM”) programs consist of the: Distribution Load Relief Program (“DLRP”) as described in Rule 61 of the Company’s PSC No. 220 Electricity – Schedule for Electric Service (“Tariff”); Commercial System Relief Program (“CSRP”) as described in Rule 62 of the Tariff; and the Term Dynamic Load Management and Auto Dynamic Load Management (“Term-DLM” and “Auto-DLM” programs as described in Rule 65, and Direct Load Control (“DLC”) Program, as described in Rule 63 of the Tariff.

National Grid offers four commercial Electric DR programs in New York: DLRP, CSRP, Term-DLM and Auto-DLM. In all C&I programs, aggregators or direct participants must contract to provide at least 50kW of load relief. DLRP is a contingency program to be called when identified or stressed electrical equipment exceeds certain limits or during any system emergency. In contrast, the CSRP is activated for peak-shaving needs when National Grid’s electrical system exceeds 92 percent of the system-wide 95/5 peak forecast, as defined in the Tariff. Term-DLM and Auto-DLM are generally activated for peak shaving when the day-ahead system electric load forecast reaches a Company-specified percent of its forecasted system peak, as specified in the Program Agreement.

Auto-DLM is a reliability and peak shaving program activated by the Company for the following conditions: (1) to prevent or mitigate overload situations on the utility’s electric grid; or (2) for peak shaving purposes using the same activation criteria as for Term-DLM. Dispatch of CSRP and Term-DLM events is handled by the Company’s Transmission Control Center (“TCC”) when the peak threshold is forecasted to be exceeded. Dispatch of Auto-DLM and DLRP events for local reliability purposes is handled by the Company’s Regional Control Center when local reliability conditions require an event to prevent or mitigate an overload or contingency scenario.

In contrast to CSRP and DLRP, which allow for open enrollments annually during the enrollment period, Term-DLM and Auto-DLM participation is contracted via a competitive procurement, where prospective participants bid curtailment capacity in exchange for a term contract for participation.

ConnectedSolutions is a system wide DLC Program that began in 2016. This full-system peak shaving program is implemented in coordination with the DR programs of National Grid’s affiliates in MA. Currently, ConnectedSolutions is a Bring-your-own-device (“BYOD”) program that supports eight (8) total Wi-Fi connected thermostat manufacturers. ConnectedSolutions is operated in partnership with EnergyHub, a Brooklyn-based company that works with National Grid to support the growth of the Company’s DLC Programs. EnergyHub is a Demand Response Management System (DRMS) that fulfills National Grid’s needs of allowing both residential and small commercial customers to sign up for DR programs through an automated registration process using a web-based interface.

### **Case/Matter#**

Case 14-E-0423, Proceeding on Motion of the Commission to Develop Dynamic Load Management Programs; Order Instituting Proceeding Regarding Dynamic Load Management and Directing Tariff Filings (issued December 15, 2014)

Case 15-E-0189, Tariff filing by Niagara Mohawk Power Corporation to Effectuate Dynamic Load Management Programs

### **Filing Schedule**

Monthly reports are due to be filed by the 15th day of the month, on a two-month delay (i.e., January data is filed by March 15th). The annual report is due to be filed by November 15th.

## **NON-WIRES ALTERNATIVES**

### **Program Overview**

The Company defines an NWA opportunity as an area of electrical need for which an NWA could potentially defer, remove, or reduce the scope of a traditional wires project. As part of its system planning process, National Grid considers system needs in relation to project type (e.g., asset condition, load growth, damage/failure, etc.), timeline, and cost, to determine whether an NWA solution may be appropriate.

If a system need passes the initial screening criteria for NWA suitability, the Company performs further evaluation to assess NWA potential. Identified NWA opportunities are sent to the vendor and developer community via Requests for Proposal. Proposals are reviewed for technical suitability then compared against each other and to a traditional wire-solution using a benefit cost analysis. Cost-effective and viable proposals are ones with a benefit cost ratio equal or greater than one (1) and may move forward to project development.

### **Case/Matter#**

Case 17-E-0238 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans (issued March 15, 2018).

Case 17-G-0239 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Gas Service, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans (Issued March 15, 2018)

### **Filing Schedule**

Quarterly Reports are filed 60 days after the end of the quarter.

## NON-PIPE ALTERNATIVES

### **Program Overview**

An NPA is the inclusive term for any targeted investment or activity that is intended to defer, reduce, or remove the need to construct or upgrade components of a natural gas system, or “pipeline investment.” An NPA can include any action, strategy, program, or technology that meets this definition and these requirements. Some technologies and methodologies that can be applicable as an NPA investment include demand-side measures, such as electrification, energy efficiency, and weatherization. This is not intended to be an exhaustive list of possible demand-side solutions. NPA projects can include these and other investments individually or in combination to meet the need in a cost-effective manner.

The projects that meet the screening criteria will be prioritized in consideration of projected capacity-constrained locations. Projected capacity-constrained refers to areas of the gas network where the future demand requirements to access natural gas is expected to be challenged when and where it is needed in sufficient quantities to meet customers’ peak demand. These capacity-constrained areas serve to greater benefit from the implementation of a Non-Pipe Alternative in their potential to reduce usage during timeframes of peak demand. The Company will prioritize NPA eligible proposed projects that are in or affect these regions or sections of the gas network.

The Company will also pursue NPA projects on gas pipeline segments that are at the end of service and requiring replacement in the next five years. In this scenario The Company will offer the avoided capital cost from the replacement project as an incentive to customers on the segment for full electrification. If 100% customer adoption is achieved, The Company will issue an RFP for contractors in the area to bid on the work and electrify the customers property.

Additionally, by the Company’s discretion, National Grid may propose to pursue a project that does not pass one or more of these criteria if there is reason to believe that a viable NPA opportunity exists, assuming the benefits of doing so justify the costs.

### **Case/Matter#**

Case17-E-0238 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans (issued March 15, 2018).

Case 17-G-0239 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Gas Service, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans (Issued March 15, 2018)

### **Filing Schedule**

Quarterly Reports are filed 60 days after the end of the quarter.

## GREEN BUTTON CONNECT MY DATA (“CMD”) PROJECT

### **Program Overview**

The Green Button Connect My Data (“CMD”) standard is the energy-industry standard for enabling easy access to, and secure sharing of, utility-customer energy- and water-usage data. Utilities providing standards-based Green Button customer-consumption and billing data can provide customers new data-driven services, programs, and marketplaces and digitally empower customers with the ability to securely transfer their data to third-party solution providers (Retail Energy, Solar, Energy Efficiency providers, etc.) who can further assist them in monitoring and managing energy or water usage.

The PSC has mandated all NY Utilities implement Green Button Connect My Data. It is vital to the success of the distributed energy resource (“DER”) market and valuable to the customer. Standardized accessibility allows the DER market to make data-informed decisions that will help the State achieve clean energy policy objectives. The Company continues to evaluate ways to leverage this program to improve our customer experience. The Company met the mandate that was outlined in the 2018 rate case (INVP# 4704C) by March 31, 2021, and launched Green Button Connect My Data for all residential Upstate New York customers.

To date The Company has over sixty-nine (69) third parties that are registered and qualified and have customers sharing their data. With the upcoming transition to Advanced Metering Infrastructure (AMI) smart meter technology in Niagara Mohawk territory, The Company is currently expanding Green Button Connect My Data to include AMI near real-time meter billing data and plan to have this available starting in 2024/2025 through 2026 to coincide with the AMI meter deployment.

### **Case/Matter#**

Case17-E-0238 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans (issued March 15, 2018).

Case 17-G-0239 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Gas Service, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans (Issued March 15, 2018)

### **Filing Schedule**

Required to provide updates annually.

## THE ENVIRONMENTAL JUSTICE EQUITY PLAN [CLOSED]

### Program Overview

The Environmental Justice Equity Plan was developed to support an Equity Program within the EE portfolios. The intent of these offerings is to break down barriers to participation in our programs created by systemic racism and economic inequality. Areas of investigation included barriers to weatherization, small businesses incentives, diversity goals for new EE contracts, and minority and women-owned business training and support.

The Equity Plan was implemented by National Grid from 2021-2023 and included the following in NMPC:

- **Small Business DAC initiative:** As discussed in the Program Performance Summary, above, the Small Business Services program continued its enhanced incentives, up to 100% project coverage for customers in DAC areas. This has allowed National Grid to help those customers who may have fewer resources to make energy efficiency improvements.

The Company is, however, continuing the efforts started by the Equity Plan with the initiative below:

- **NYSERDA-National Grid BPI Contractor Training Initiative:** in partnership with NYSERDA, National Grid will offer 225 Building Performance Institute trainings throughout National Grid's Upstate and Downstate New York service territories by the end of 2024. This initiative will help contractors and individuals offset the cost of training and certification to become qualified installers of energy efficiency measures and services. Eligible participants include employees of businesses that are an established New York State Minority or Women Owned Business Enterprise (MWBE), Veteran Owned Business (VOB), Service-Disabled Veteran Owned Business (SDVOB) and Indigenous-owned energy services companies operating in National Grid service territories, and/or individuals living in Disadvantaged Communities (DACs) within National Grid service territories who are already employed in, or wish to enter, the energy services field.

National Grid provides the funding to NYSERDA, which is then responsible for managing the relationship with the program administrator. The program administrator will connect students to relevant training centers in their designated locations. The training centers then will deliver both the trainings and certifications to the student. The student will be responsible for a \$150 co-pay at the time of registration. These trainings were included in the 2023 Residential Weatherization budgets for KEDLI and KEDNY and were included in the Electric Small Business budget for NMPC.

### Case/Matter#

There is no associated Case number with this program.

### Filing Schedule

There is no associated filing schedule with this program.

## COMMERCIAL GAS DEMAND RESPONSE PROJECT FOR EASTGATE [CLOSED]

### Program Overview

The Demand Reduction REV Demonstration Project in Clifton Park (the “Project”) was designed to provide residential customers in the Town of Clifton Park (“Clifton Park” or the “Town”) with price signals, tools and information, enabled by infrastructure investments and DER, to reduce electric demand during peak times.

The final compliance filing was submitted to the Commission for the Clifton Park Demonstration Project in May, 2022.<sup>16</sup> The Project was initially proposed to run for three years, following the AMI meter and gas module deployment. The Company extended the initial Project term, testing an additional two years of PTR in anticipation of potentially testing new innovative rate structures in Clifton Park.

However, in January 2022, National Grid submitted a letter to the Commission withdrawing its petition to test innovative rates due to the pending deployment of the enterprise-wide AMI solution approved by the Commission in November 2020. In February 2022, the Commission accepted the Company’s withdrawal of the innovative pricing petition, and National Grid initiated plans to wind down the Project. The Company will continue to operate the AMI meters in Clifton Park, as well as the associated customer portal, until customers are transitioned to the new enterprise-wide AMI solution.

The Project is now concluded.

### Case/Matter#

Case 17-E-0238 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans (issued March 15, 2018).

Case 17-G-0239 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Gas Service, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans (Issued March 15, 2018)

### Filing Schedule

Full report was filed after the close of the heating and cooling season.

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<sup>16</sup> See Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, National Grid Demand Reduction REV Demonstration Project in Clifton Park Final Report (filed May 2, 2022).

## CLIFTON PARK DEMAND RESPONSE REV DEMONSTRATION PROJECT [CLOSED]

### **Program Overview**

The Commercial Gas Demand Response Project implemented by National Grid was a customer-centric, voluntary gas demand response (“GDR”) program targeting large commercial, firm gas customers in the Eastgate gas territory. The Eastgate territory covers Warren, Saratoga, Albany, Rensselaer, Montgomery, Fulton, and Columbia counties. There are times throughout the winter when gas demand in the Capital Region reaches its highest levels. By reducing overall energy demand during events, National Grid demonstrated it can decrease our need for costly infrastructure upgrades and minimize carbon emissions.

This program concluded on May 31, 2021.

### **Case/Matter#**

Case 14-M-0101 Proceeding on Motion of the Commission in Regard to Reforming Energy Revision (“REV Proceeding”), National Grid Demand Reduction REV Demonstration Project in Clifton Park Implementation Plan (filed January 17, 2017)

### **Filing Schedule**

Quarterly Reports were filed 30 days after the end of the quarter.

## SMART CITY SCHENECTADY REV DEMONSTRATION PROJECT [CLOSED]

### **Program Overview**

In partnership with the City of Schenectady (City), the Company has researched and deployed innovative “smart city” technology solutions to evaluate the cost-effectiveness, efficiency enhancement and/or the expansion of public service-related solutions. In addition, the study will further assess the use of Company Street lighting infrastructure to facilitate these devices. Concurrently, the Company has converted approximately 4,275 street light luminaires to LED technology to promote greater illumination levels, enhanced visual acuity while providing customer savings through energy efficiency.

Smart City is an innovative solution in responding to the 21st century problems presented to the City of Schenectady to improve the quality of life for its citizens. The Company tested whether the Company’s outdoor lighting infrastructure can facilitate the adoption of smart city technologies by first deploying approximately 4,275 efficient LED outdoor lighting fixtures, network lighting control (“NLC”) nodes, and, along with the city, smart-city technologies.

These upgrades will effectively help turn Schenectady into a smart city, capable of saving energy, more efficiently providing municipal services, and opening the door to further innovation. The Company has concluded program installs and finished the evaluation stage of the demonstration project.

The program has concluded, and the final report was filed October of 2023.

**Case/Matter#**

Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming Energy Revision (“REV Proceeding”)

**Filing Schedule**

Required to file a quarterly report within 45 days following the end of each quarter.

## IV. BUDGET AND SAVINGS PLAN SUMMARY<sup>17</sup>

### ELECTRIC

TABLE 1: ACTUAL VS PLANNED PROGRAM SPEND

NE:NY Electric EE	Actual Spend 2019	Actual Spend 2020	Actual Spend 2021	Actual Spend 2022	Actual Spend 2023	Planned Spend 2024	Actual <sup>1</sup> Spend 2024	Total Spend 2019-2024 <sup>2</sup>
<b>Commercial &amp; Industrial Sector</b>								
<b>Electric Commercial &amp; Industrial Program</b>								
Incentives & Services	\$ 17,002,746	\$ 19,394,901	\$ 18,278,019	\$ 19,476,519	\$ 20,695,664	\$ 24,532,108	\$ 24,532,108	\$ 119,379,959
Program Implementation	\$ 350,652	\$ 383,360	\$ 477,782	\$ 1,587,186	\$ 2,708,028	\$ 6,060,567	\$ 6,060,567	\$ 11,567,575
<b>Total Budget</b>	<b>\$ 17,353,398</b>	<b>\$ 19,778,261</b>	<b>\$ 18,755,802</b>	<b>\$ 21,063,706</b>	<b>\$ 23,403,692</b>	<b>\$ 30,592,675</b>	<b>\$ 30,592,675</b>	<b>\$ 130,947,533</b>
<b>Electric Self-Direct Program<sup>3</sup></b>								
Incentives & Services	\$ 230,005	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 230,005
Program Implementation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Budget</b>	<b>\$ 230,005</b>	<b>\$ -</b>	<b>\$ 230,005</b>					
<b>Electric Small Business Services Program</b>								
Incentives & Services	\$ 10,867,335	\$ 10,866,125	\$ 15,154,732	\$ 9,292,366	\$ 9,142,375	\$ 13,000,000	\$ 13,000,000	\$ 68,322,934
Program Implementation	\$ 714,838	\$ 592,140	\$ 444,648	\$ 824,642	\$ 917,848	\$ 1,811,938	\$ 1,811,938	\$ 5,306,055
<b>Total Budget</b>	<b>\$ 11,582,173</b>	<b>\$ 11,458,266</b>	<b>\$ 15,599,380</b>	<b>\$ 10,117,009</b>	<b>\$ 10,060,223</b>	<b>\$ 14,811,938</b>	<b>\$ 14,811,938</b>	<b>\$ 73,628,989</b>
<b>Electric Non-Residential Online Marketplace Program<sup>4</sup></b>								
Incentives & Services	\$ -	\$ 55,032	\$ 31,382	\$ 38,433	\$ 46,198	\$ -	\$ -	\$ 171,045
Program Implementation	\$ -	\$ 40,966	\$ 35,000	\$ 379,608	\$ 310,350	\$ -	\$ -	\$ 765,924
<b>Total Budget</b>	<b>\$ -</b>	<b>\$ 95,998</b>	<b>\$ 66,382</b>	<b>\$ 418,042</b>	<b>\$ 356,548</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 936,969</b>
<b>LED Street Lighting Program</b>								
Incentives & Services	\$ 1,032,485	\$ 2,539,155	\$ 1,143,555	\$ 1,252,605	\$ 1,342,770	\$ 1,024,960	\$ 1,024,960	\$ 8,335,530
Program Implementation	\$ -	\$ -	\$ 144	\$ -	\$ -	\$ -	\$ -	\$ 144
<b>Total Budget</b>	<b>\$ 1,032,485</b>	<b>\$ 2,539,155</b>	<b>\$ 1,143,699</b>	<b>\$ 1,252,605</b>	<b>\$ 1,342,770</b>	<b>\$ 1,024,960</b>	<b>\$ 1,024,960</b>	<b>\$ 8,335,674</b>
<b>Electric Real-Time Energy Management Program</b>								
Incentives & Services					\$ 40,375	\$ 2,177,339	\$ 2,177,339	\$ 2,217,714
Program Implementation					\$ 550,115	\$ 949,108	\$ 949,108	\$ 1,499,223
<b>Total Budget</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 590,490</b>	<b>\$ 3,126,447</b>	<b>\$ 3,126,447</b>	<b>\$ 3,716,937</b>
<b>Residential Sector</b>								
<b>Electric Residential Engagement Program</b>								
Incentives & Services	\$ 7,202,200	\$ 6,758,331	\$ 7,457,901	\$ 7,121,755	\$ 4,321,500	\$ 8,785,920	\$ 8,785,920	\$ 41,647,608
Program Implementation	\$ 10,278	\$ 15,025	\$ 1,744	\$ 14,456	\$ 4,838	\$ 30,000	\$ 30,000	\$ 76,341
<b>Total Budget</b>	<b>\$ 7,212,478</b>	<b>\$ 6,773,356</b>	<b>\$ 7,459,645</b>	<b>\$ 7,136,211</b>	<b>\$ 4,326,338</b>	<b>\$ 8,815,920</b>	<b>\$ 8,815,920</b>	<b>\$ 41,723,949</b>
<b>Residential Appliance Recycling Program<sup>3</sup></b>								
Incentives & Services	\$ 1,024,550	\$ 33,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,058,350
Program Implementation	\$ 1,160,957	\$ 65,831	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,226,788
<b>Total Budget</b>	<b>\$ 2,185,507</b>	<b>\$ 99,631</b>	<b>\$ -</b>	<b>\$ 2,285,138</b>				
<b>Electric Residential Consumer Products Program</b>								
Incentives & Services	\$ 1,129,631	\$ 8,098,886	\$ 6,528,426	\$ 6,531,729	\$ 4,861,841	\$ 10,176,250	\$ 10,176,250	\$ 37,326,762
Program Implementation	\$ 87,967	\$ 133,410	\$ 201,134	\$ 363,389	\$ 503,388	\$ 1,052,613	\$ 1,052,613	\$ 2,341,901
<b>Total Budget</b>	<b>\$ 1,217,598</b>	<b>\$ 8,232,296</b>	<b>\$ 6,729,560</b>	<b>\$ 6,895,118</b>	<b>\$ 5,365,229</b>	<b>\$ 11,228,863</b>	<b>\$ 11,228,863</b>	<b>\$ 39,668,663</b>
<b>Electric Pay-For-Performance Pilot Program<sup>3</sup></b>								
Incentives & Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Program Implementation	\$ 547,106	\$ 22,485	\$ -	\$ 31,300	\$ -	\$ -	\$ -	\$ 600,891
<b>Total Budget</b>	<b>\$ 547,106</b>	<b>\$ 22,485</b>	<b>\$ -</b>	<b>\$ 31,300</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 600,891</b>
<b>Electric Residential Online Marketplace Program</b>								
Incentives & Services	\$ 1,172,362	\$ 1,190,676	\$ 1,223,398	\$ 441,653	\$ 305,385	\$ 581,620	\$ 581,620	\$ 4,915,093
Program Implementation	\$ 490,645	\$ 509,755	\$ 365,950	\$ 1,247,840	\$ 794,859	\$ 1,089,419	\$ 1,089,419	\$ 4,498,468
<b>Total Budget</b>	<b>\$ 1,663,007</b>	<b>\$ 1,700,431</b>	<b>\$ 1,589,348</b>	<b>\$ 1,689,492</b>	<b>\$ 1,100,245</b>	<b>\$ 1,671,039</b>	<b>\$ 1,671,039</b>	<b>\$ 9,413,562</b>
<b>Multifamily Sector</b>								
<b>Electric Multifamily Program</b>								
Incentives & Services	\$ 1,159,912	\$ 1,611,005	\$ 1,819,727	\$ 504,573	\$ 288,268	\$ 500,000	\$ 500,000	\$ 5,883,484
Program Implementation	\$ 279,498	\$ 373,107	\$ 313,872	\$ 682,682	\$ 322,721	\$ 1,090,613	\$ 1,090,613	\$ 3,062,493
<b>Total Budget</b>	<b>\$ 1,439,411</b>	<b>\$ 1,984,111</b>	<b>\$ 2,133,598</b>	<b>\$ 1,187,255</b>	<b>\$ 610,988</b>	<b>\$ 1,590,613</b>	<b>\$ 1,590,613</b>	<b>\$ 8,945,976</b>
<b>Total Portfolio</b>								
Portfolio Administration	\$ 4,158,371	\$ 4,165,455	\$ 4,123,768	\$ 1,038,032	\$ 665,753	\$ 672,176	\$ 672,176	\$ 14,823,555
Portfolio EM&V	\$ 1,008,245	\$ 1,303,260	\$ 845,822	\$ 856,236	\$ 785,504	\$ 1,809,775	\$ 1,809,775	\$ 6,608,842
<b>Total Actual Portfolio Expenditure</b>	<b>\$ 49,629,783</b>	<b>\$ 58,152,704</b>	<b>\$ 58,447,003</b>	<b>\$ 51,685,005</b>	<b>\$ 48,607,780</b>	<b>\$ 75,344,407</b>	<b>\$ 75,344,407</b>	<b>\$ 341,866,682</b>
<b>Commission-Authorized Total Budget</b>	<b>\$ 63,897,893</b>	<b>\$ 63,897,893</b>	<b>\$ 70,525,601</b>	<b>\$ 76,021,748</b>	<b>\$ 84,912,575</b>	<b>\$ 92,995,146</b>	<b>\$ 92,995,146</b>	<b>\$ 452,250,856</b>
<b>Budget Remaining/Unspent Funds<sup>4,5</sup></b>	<b>\$ 14,268,110</b>	<b>\$ 5,745,189</b>	<b>\$ (373,037)</b>	<b>\$ 3,141,626</b>	<b>\$ 36,304,795</b>	<b>\$ 17,650,739</b>	<b>\$ 17,650,739</b>	<b>\$ 76,737,422</b>

<sup>1</sup> Actual Spend is annual forecast until full year data is available

<sup>2</sup> Annual acquired savings are generally reflected in the year the energy efficiency work is completed and operational, even though expenditures for such work (i.e., incentives) may occur in the first quarter of the following calendar year.

<sup>3</sup> The Program is now closed.

<sup>4</sup> A portion of this portfolio's unspent funds from 2021 and 2022 was transferred to Clean Heat's planned 2024 and 2025 budgets as shown in Table 1A and 2A.

<sup>5</sup> Unspent funds in 2022 reduced by \$4M to supplement Planned LMI Portfolio Spend by \$2M in 2024 and \$2M in 2025

<sup>17</sup> The Portfolio Administration budget category includes all portfolio-level (non-program specific) costs other than portfolio Evaluation, Measurement and Verification ("EM&V") costs. Costs within the Portfolio Administration budget include, but are not limited to, labor, company overhead (i.e., supplies, computer and communication equipment, staff training and industry-related sponsorships and memberships), program literature, advertising, promotion, internal and external communication, and all forms of direct and broad media.

**TABLE 1A: ACTUAL VS PLANNED NYS CLEAN HEAT PROGRAM SPEND**

NE:NY NYS Clean Heat Program	Actual Spend 2019	Actual Spend 2020	Actual Spend 2021	Actual Spend 2022	Actual Spend 2023	Planned Spend 2024	Actual <sup>1</sup> Spend 2024	Total Spend 2019-2024
<b>Total Actual Portfolio Expenditure</b>		\$ 2,970,315	\$ 6,818,526	\$ 13,163,031	\$ 19,342,757	\$ 29,642,615	\$ 29,642,615	\$ 71,937,244
<b>Commission-Authorized Total Budget</b>		\$ 6,983,416	\$ 11,891,672	\$ 14,789,044	\$ 16,424,789	\$ 17,190,980	\$ 17,190,980	\$ 67,279,901
<b>2021-2022 Electric Portfolio Unspent Funds<sup>2</sup></b>						\$ 12,451,635	\$ 12,451,635	\$ 12,451,635
<b>Budget Remaining/Unspent Funds</b>		\$ 4,013,101	\$ 5,073,146	\$ 1,626,013	\$ (2,917,968)	\$ -	\$ -	\$ 7,794,292

<sup>1</sup> Actual Spend is annual forecast until full year data is available

<sup>2</sup> A portion of the NMPC Electric Market Rate portfolio's unspent funds from 2021 and 2022 was transferred to Clean Heat in 2024 and 2025 to support achievement of the program's annual savings targets in those years.

**TABLE 1B: ACTUAL VS PLANNED LMI PORTFOLIO SPEND**

NE:NY LMI Electric	Actual Spend 2019	Actual Spend 2020	Actual Spend 2021	Actual Spend 2022	Actual Spend 2023	Planned <sup>2</sup> Spend 2024	Actual <sup>1</sup> Spend 2024	Total Spend 2019-2024
Incentives & Services			\$ -	\$ 833,806	\$ 1,148,455	\$ 4,446,250	\$ 4,446,250	\$ 6,428,511
Program Implementation			\$ -	\$ 90,708	\$ 212,028	\$ 1,005,206	\$ 1,005,206	\$ 1,307,942
<b>Total Budget</b>			\$ -	\$ 924,514	\$ 1,360,484	\$ 5,451,455	\$ 5,451,455	\$ 7,736,453
Portfolio Administration			\$ -	\$ 53,879	\$ -	\$ 88,367	\$ 88,367	\$ 142,246
Portfolio EM&V			\$ -	\$ 17,934	\$ 44	\$ 52,098	\$ 52,098	\$ 70,076
<b>Total Actual Portfolio Expenditure</b>			\$ -	\$ 996,327	\$ 1,360,527	\$ 5,591,921	\$ 5,591,921	\$ 7,948,775
<b>Commission-Authorized Total Budget</b>			\$ 538,196	\$ 990,803	\$ 1,713,758	\$ 2,410,623	\$ 2,410,623	\$ 5,653,380
<b>2022 Electric Portfolio Unspent Funds<sup>3</sup></b>						\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
<b>Budget Remaining/Unspent Funds</b>			\$ 538,196	\$ (5,524)	\$ 353,231	\$ (1,181,298)	\$ (1,181,298)	\$ (295,395)

<sup>1</sup> Actual Spend is annual forecast until full year data is available

<sup>2</sup> Data ties to the LMI Implementation Plan to be filed in November 2024

<sup>3</sup> Budget for 2024 supplemented by \$2M in unspent funds from 2022 Electric portfolio

**TABLE 2: FORECAST PROGRAM PLANNED SPEND AND BUDGETS**

NE:NY Electric EE	Planned Spend 2025
<b>Commercial &amp; Industrial Sector</b>	
<b>Electric Commercial &amp; Industrial Program</b>	
Incentives & Services	\$ 32,287,441
Program Implementation	\$ 11,448,519
<b>Total Budget</b>	<b>\$ 43,735,960</b>
<b>Electric Self-Direct Program<sup>1</sup></b>	
Incentives & Services	\$ -
Program Implementation	\$ -
<b>Total Budget</b>	<b>\$ -</b>
<b>Electric Small Business Services Program</b>	
Incentives & Services	\$ 14,333,620
Program Implementation	\$ 2,837,163
<b>Total Budget</b>	<b>\$ 17,170,783</b>
<b>Electric Non-Residential Online MarketPlace Program<sup>1</sup></b>	
Incentives & Services	\$ -
Program Implementation	\$ -
<b>Total Budget</b>	<b>\$ -</b>
<b>LED Street Lighting Program</b>	
Incentives & Services	\$ 951,699
Program Implementation	\$ 174,769
<b>Total Budget</b>	<b>\$ 1,126,468</b>
<b>Electric Real-Time Energy Management Program</b>	
Incentives & Services	\$ 2,858,635
Program Implementation	\$ 1,285,822
<b>Total Budget</b>	<b>\$ 4,144,457</b>
<b>Residential Sector</b>	
<b>Electric Residential Engagement Program</b>	
Incentives & Services	\$ 8,785,920
Program Implementation	\$ 367,819
<b>Total Budget</b>	<b>\$ 9,153,739</b>
<b>Residential Appliance Recycling Program<sup>1</sup></b>	
Incentives & Services	\$ -
Program Implementation	\$ -
<b>Total Budget</b>	<b>\$ -</b>
<b>Electric Residential Consumer Products Program</b>	
Incentives & Services	\$ 14,217,574
Program Implementation	\$ 3,942,441
<b>Total Budget</b>	<b>\$ 18,160,015</b>
<b>Electric Pay-For-Performance Pilot Program<sup>1</sup></b>	
Incentives & Services	\$ -
Program Implementation	\$ -
<b>Total Budget</b>	<b>\$ -</b>
<b>Electric Residential Online MarketPlace Program</b>	
Incentives & Services	\$ 200,000
Program Implementation	\$ 100,000
<b>Total Budget</b>	<b>\$ 300,000</b>
<b>Multifamily Sector</b>	
<b>Electric Multifamily Program</b>	
Incentives & Services	\$ 1,359,506
Program Implementation	\$ 915,226
<b>Total Budget</b>	<b>\$ 2,274,732</b>
<b>Total Portfolio</b>	
Portfolio Administration	\$ 738,796
Portfolio EM&V	\$ 1,863,782
<b>Total Planned Portfolio Budget</b>	<b>\$ 98,668,732</b>
<b>Commission-Authorized Total Budget</b>	<b>\$ 102,710,395</b>
<b>Budget Remaining/Unspent Funds<sup>2</sup></b>	<b>\$ 4,041,663</b>

<sup>1</sup> The Program is now closed.

<sup>2</sup> Portfolio remaining unspent funds will be continually reviewed for new and expanding programs

**TABLE 2A: FORECAST NYS CLEAN HEAT PLANNED SPEND AND BUDGETS**

NE:NY NYS Clean Heat Program	Planned Spend 2025
<b>Total Planned Portfolio Budget</b>	<b>\$ 42,108,342</b>
<b>Commission-Authorized Total Budget</b>	<b>\$ 17,118,933</b>
<b>2021-2022 Electric Portfolio Unspent Funds<sup>1</sup></b>	<b>\$ 17,195,117</b>
<b>Budget Remaining/Unspent Funds<sup>2</sup></b>	<b>\$ (7,794,292)</b>

<sup>1</sup> A portion of the NMPC Electric Market Rate portfolio's unspent

<sup>2</sup> Remaining unspent from Actuals table 1A will be used to net out projected overdrive in 2025 to NE:NY budgetary limit.

**TABLE 2B: FORECAST LMI PORTFOLIO PLANNED SPEND AND BUDGETS**

NE:NY LMI Electric	Planned Spend 2025
Incentives & Services	\$ 3,862,995
Program Implementation	\$ 997,384
<b>Total Budget</b>	<b>\$ 4,860,378</b>
Portfolio Administration	\$ 36,615
Portfolio EM&V	\$ 54,311
<b>Total Planned Portfolio Budget</b>	<b>\$ 4,951,304</b>
<b>Commission-Authorized Total Budget</b>	<b>\$ 3,246,699</b>
<b>2022 Electric Portfolio Unspent Funds<sup>1</sup></b>	<b>\$ 2,000,000</b>
<b>Budget Remaining/Unspent Funds</b>	<b>\$ 295,395</b>

<sup>1</sup> Budget supplemented by \$2M in unspent funds from 2022 NMPC Electric portfolio

**TABLE 3: ACTUAL VS PLANNED PRIMARY AND SECONDARY PROGRAM SAVINGS**

NE:NY Electric EE	Actual Savings 2019	Actual Savings 2020	Actual Savings 2021	Actual Savings 2022	Actual Savings 2023	Planned Savings 2024	Actual <sup>1</sup> Savings 2024	Total Savings 2019-2024 <sup>2</sup>
<b>Commercial &amp; Industrial Sector</b>								
<b>Electric Commercial &amp; Industrial Program</b>								
MWh	134,689	154,457	145,262	145,190	134,297	109,978	109,978	823,872
<b>Electric Self-Direct Program<sup>3</sup></b>								
MWh	2,136	0	0	0	0	0	0	2,136
<b>Electric Small Business Services Program</b>								
MWh	46,419	41,222	55,189	39,917	32,767	40,000	40,000	255,514
<b>Electric Non-Residential Online MarketPlace Program<sup>3</sup></b>								
MWh	0	0	156	285	122	0	0	563
<b>LED Street Lighting Program</b>								
MWh	7,065	20,731	7,864	9,802	10,473	6,406	6,406	62,340
<b>Electric Real-Time Energy Management Program</b>								
MWh	0	0	0	0	0	4,500	4,500	4,500
<b>Residential Sector</b>								
<b>Electric Residential Engagement Program</b>								
MWh	116,056	132,032	114,223	114,767	110,168	124,300	124,300	711,546
<b>Residential Appliance Recycling Program<sup>3</sup></b>								
MWh	13,496	776	0	0	0	0	0	14,272
<b>Electric Residential Consumer Products Program</b>								
MWh	25,088	168,103	147,949	130,893	58,851	64,249	64,249	595,133
<b>Electric Residential Online MarketPlace Program</b>								
MWh	12,491	12,407	10,602	2,273	1,125	1,280	1,280	40,178
<b>Electric Pay-For-Performance Pilot Program<sup>3</sup></b>								
MWh	0	0	0	0	0	0	0	0
<b>Multifamily Sector</b>								
<b>Electric Multifamily Program</b>								
MWh	4,689	5,011	6,079	1,850	634	1,000	1,000	19,263
<b>Total Portfolio</b>								
MWh	<b>362,130</b>	<b>534,738</b>	<b>487,325</b>	<b>444,976</b>	<b>348,436</b>	<b>351,713</b>	<b>351,713</b>	<b>2,529,319</b>

<sup>1</sup> Actual Savings is annual forecast until full year data is available

<sup>2</sup> Annual acquired savings are generally reflected in the year the energy efficiency work is completed and operational, even though expenditures for such work (i.e., incentives) may occur in the first quarter of the following calendar year.

<sup>3</sup> The program is now closed.

**TABLE 3A: ACTUAL VS PLANNED PRIMARY AND SECONDARY NYS CLEAN HEAT SAVINGS**

NE:NY NYS Clean Heat Program	Actual Savings 2019	Actual Savings 2020	Actual Savings 2021	Actual Savings 2022	Actual Savings 2023	Planned Savings 2024	Actual <sup>1</sup> Savings 2024	Total Savings 2019-2024
<b>Total Portfolio</b>								
MMBtu		35,043	63,163	135,945	217,862	245,889	245,889	697,901

<sup>1</sup> Actual Savings is annual forecast until full year data is available

**TABLE 3A: ACTUAL VS PLANNED PRIMARY AND SECONDARY NYS LMI PORTFOLIO SAVINGS**

NE:NY LMI Electric	Actual Savings 2019	Actual Savings 2020	Actual Savings 2021	Actual Savings 2022	Actual Savings 2023	Planned <sup>2</sup> Savings 2024	Actual <sup>1</sup> Savings 2024	Total Savings 2019-2024
<b>Total Portfolio</b>								
MWh			0	7,985	4,020	10,783	10,783	22,788

<sup>1</sup> Actual Savings is annual forecast until full year data is available

<sup>2</sup> Data ties to the LMI Implementation Plan to be filed in November 2024

**TABLE 4: FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS**

NE:NY Electric EE	Planned Savings 2025
<b>Commercial &amp; Industrial Sector</b>	
<b>Electric Commercial &amp; Industrial Program</b>	
MWh	122,160
<b>Electric Self-Direct Program<sup>1</sup></b>	
MWh	0
<b>Electric Small Business Services Program</b>	
MWh	38,250
<b>Electric Non-Residential Online MarketPlace Program<sup>1</sup></b>	
MWh	0
<b>LED Street Lighting Program</b>	
MWh	5,280
<b>Electric Real-Time Energy Management Program</b>	
MWh	8,000
<b>Residential Sector</b>	
<b>Electric Residential Engagement Program</b>	
MWh	140,184
<b>Residential Appliance Recycling Program<sup>1</sup></b>	
MWh	0
<b>Electric Residential Consumer Products Program</b>	
MWh	67,300
<b>Electric Residential Online MarketPlace Program</b>	
MWh	0
<b>Electric Pay-For-Performance Pilot Program<sup>1</sup></b>	
MWh	0
<b>Multifamily Sector</b>	
<b>Electric Multifamily Program</b>	
MWh	700
<b>Total Portfolio</b>	
MWh	381,874

<sup>1</sup> The program is now closed.

**TABLE 4A: FORECAST PRIMARY AND SECONDARY NYS CLEAN HEAT SAVINGS PLANS**

NE:NY NYS Clean Heat Program	Planned Savings 2025 <sup>1</sup>
<b>Total Portfolio</b>	
<b>MMBtu</b>	<b>344,395</b>

<sup>1</sup> Target reflects planned savings with unspent funds applied to plan

**TABLE 4B: FORECAST PRIMARY AND SECONDARY LMI PORTFOLIO SAVINGS PLANS**

NE:NY LMI Electric	Planned Savings 2025
<b>Total Portfolio</b>	
<b>MWh</b>	<b>9,323</b>

**GAS**

**TABLE 1: ACTUAL VS PLANNED PROGRAM SPEND**

NE:NY GAS EE	Actual Spend 2019	Actual Spend 2020	Actual Spend 2021	Actual Spend 2022	Actual Spend 2023	Planned Spend 2024	Actual <sup>1</sup> Spend 2024	Total Spend 2019-2024 <sup>2</sup>
<b>Commercial &amp; Industrial Sector</b>								
<b>Gas Commercial &amp; Industrial Program</b>								
Incentives & Services	\$ 4,223,205	\$ 3,823,455	\$ 2,289,858	\$ 2,670,831	\$ 4,275,048	\$ 8,302,426	\$ 8,302,426	\$ 25,584,823
Program Implementation	\$ 877,359	\$ 600,247	\$ 767,054	\$ 1,275,605	\$ 1,862,877	\$ 1,217,934	\$ 1,217,934	\$ 6,601,076
<b>Total Budget</b>	<b>\$ 5,100,564</b>	<b>\$ 4,423,703</b>	<b>\$ 3,056,912</b>	<b>\$ 3,946,435</b>	<b>\$ 6,137,925</b>	<b>\$ 9,520,360</b>	<b>\$ 9,520,360</b>	<b>\$ 32,185,898</b>
<b>Gas Small Business Services Program</b>								
Incentives & Services	\$ -	\$ -	\$ -	\$ 59,034	\$ 453,223	\$ 1,700,000	\$ 1,700,000	\$ 2,212,257
Program Implementation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000	\$ 200,000	\$ 200,000
<b>Total Budget</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 59,034</b>	<b>\$ 453,223</b>	<b>\$ 1,900,000</b>	<b>\$ 1,900,000</b>	<b>\$ 2,412,257</b>
<b>Gas Non-Residential Online MarketPlace Program<sup>3</sup></b>								
Incentives & Services	\$ -	\$ 41,000	\$ 11,551	\$ 17,809	\$ 17,114	\$ -	\$ -	\$ 87,474
Program Implementation	\$ -	\$ 19,948	\$ 1,052	\$ 11,122	\$ 239,851	\$ -	\$ -	\$ 271,972
<b>Total Budget</b>	<b>\$ -</b>	<b>\$ 60,948</b>	<b>\$ 12,603</b>	<b>\$ 28,931</b>	<b>\$ 256,965</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 359,447</b>
<b>Gas Non-Residential Weatherization Program<sup>4</sup></b>								
Incentives & Services				\$ -	\$ 17,306	\$ 1,324,768	\$ 1,324,768	\$ 1,342,074
Program Implementation				\$ -	\$ 120	\$ 300,000	\$ 300,000	\$ 300,120
<b>Total Budget</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 17,426</b>	<b>\$ 1,624,768</b>	<b>\$ 1,624,768</b>	<b>\$ 1,642,194</b>
<b>Gas Real-Time Energy Management Program</b>								
Incentives & Services				\$ -	\$ 2,125	\$ 155,941	\$ 155,941	\$ 158,066
Program Implementation				\$ -	\$ 28,953	\$ 29,815	\$ 29,815	\$ 58,768
<b>Total Budget</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 31,078</b>	<b>\$ 185,756</b>	<b>\$ 185,756</b>	<b>\$ 216,834</b>
<b>Residential Sector</b>								
<b>Gas Residential Engagement Program</b>								
Incentives & Services	\$ 640,619	\$ 705,679	\$ 671,367	\$ 633,012	\$ 706,931	\$ 889,319	\$ 889,319	\$ 4,246,927
Program Implementation	\$ 1,888	\$ 85	\$ 1,764	\$ 6,094	\$ 4,761	\$ 4,715	\$ 4,715	\$ 19,308
<b>Total Budget</b>	<b>\$ 642,507</b>	<b>\$ 705,764</b>	<b>\$ 673,131</b>	<b>\$ 639,106</b>	<b>\$ 711,692</b>	<b>\$ 894,034</b>	<b>\$ 894,034</b>	<b>\$ 4,266,235</b>
<b>Gas Residential Online MarketPlace Program<sup>3</sup></b>								
Incentives & Services	\$ 615,357	\$ 818,245	\$ 693,854	\$ 414,626	\$ 114,037	\$ -	\$ -	\$ 2,656,119
Program Implementation	\$ 171	\$ 64,182	\$ 238	\$ 237,155	\$ 74,354	\$ -	\$ -	\$ 376,099
<b>Total Budget</b>	<b>\$ 615,528</b>	<b>\$ 882,427</b>	<b>\$ 694,092</b>	<b>\$ 651,781</b>	<b>\$ 188,391</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,032,219</b>
<b>Gas Residential Program</b>								
Incentives & Services	\$ 3,053,268	\$ 2,476,172	\$ 3,039,060	\$ 4,385,652	\$ 4,688,738	\$ 3,800,000	\$ 3,800,000	\$ 21,442,890
Program Implementation	\$ 504,069	\$ 446,264	\$ 343,980	\$ 614,736	\$ 699,399	\$ 1,425,000	\$ 1,425,000	\$ 4,033,448
<b>Total Budget</b>	<b>\$ 3,557,337</b>	<b>\$ 2,922,436</b>	<b>\$ 3,383,040</b>	<b>\$ 5,000,388</b>	<b>\$ 5,388,137</b>	<b>\$ 5,225,000</b>	<b>\$ 5,225,000</b>	<b>\$ 25,476,338</b>
<b>Gas Pay-For-Performance Pilot Program<sup>3</sup></b>								
Incentives & Services	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000
Program Implementation	\$ 29,750	\$ -	\$ -	\$ 3,419	\$ -	\$ -	\$ -	\$ 33,169
<b>Total Budget</b>	<b>\$ 33,750</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,419</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 37,169</b>
<b>Gas Residential Weatherization Program<sup>5</sup></b>								
Incentives & Services				\$ -	\$ -	\$ -	\$ -	\$ -
Program Implementation				\$ -	\$ -	\$ 350,000	\$ 350,000	\$ 350,000
<b>Total Budget</b>	<b>\$ -</b>	<b>\$ 350,000</b>	<b>\$ 350,000</b>	<b>\$ 350,000</b>				
<b>Multifamily Sector</b>								
<b>Gas Multifamily Program</b>								
Incentives & Services	\$ 737,347	\$ 559,811	\$ 1,134,934	\$ 442,840	\$ 29,100	\$ 500,000	\$ 500,000	\$ 3,404,032
Program Implementation	\$ 139,188	\$ 138,163	\$ 168,526	\$ 275,949	\$ 183,238	\$ 350,000	\$ 350,000	\$ 1,255,064
<b>Total Budget</b>	<b>\$ 876,535</b>	<b>\$ 697,974</b>	<b>\$ 1,303,460</b>	<b>\$ 718,789</b>	<b>\$ 212,338</b>	<b>\$ 850,000</b>	<b>\$ 850,000</b>	<b>\$ 4,659,096</b>
<b>Total Portfolio</b>								
Portfolio Administration	\$ 1,228,376	\$ 1,627,049	\$ 1,047,213	\$ 386,393	\$ 76,938	\$ 318,978	\$ 318,978	\$ 4,684,947
Portfolio EM&V	\$ 169,902	\$ 387,288	\$ 217,204	\$ 235,569	\$ 65,774	\$ 197,850	\$ 197,850	\$ 1,273,588
<b>Total Actual Portfolio Expenditure</b>	<b>\$ 12,224,499</b>	<b>\$ 11,707,589</b>	<b>\$ 10,387,655</b>	<b>\$ 11,669,846</b>	<b>\$ 13,539,887</b>	<b>\$ 21,066,746</b>	<b>\$ 21,066,746</b>	<b>\$ 80,596,221</b>
<b>Commission-Authorized Total Budget</b>	<b>\$ 14,014,262</b>	<b>\$ 14,014,262</b>	<b>\$ 14,562,502</b>	<b>\$ 15,101,120</b>	<b>\$ 15,849,691</b>	<b>\$ 17,058,646</b>	<b>\$ 17,058,646</b>	<b>\$ 90,600,483</b>
<b>Budget Remaining/Unspent Funds</b>	<b>\$ 1,789,763</b>	<b>\$ 2,306,673</b>	<b>\$ 4,174,847</b>	<b>\$ 3,431,274</b>	<b>\$ 2,309,804</b>	<b>\$ (4,008,100)</b>	<b>\$ (4,008,100)</b>	<b>\$ 10,004,262</b>

<sup>1</sup> Actual Spend is annual forecast until full year data is available

<sup>2</sup> Annual acquired savings are generally reflected in the year the energy efficiency work is completed and operational, even though expenditures for such work (i.e., incentives) may occur in the first quarter of the following calendar year.

<sup>3</sup> The Program is now closed.

<sup>4</sup> Program launched at the end of 2023

<sup>5</sup> Program launching at the end of 2024

**TABLE 1A: ACTUAL VS PLANNED NYS CLEAN HEAT PROGRAM SPEND**

Not Applicable

**TABLE 1B: ACTUAL VS PLANNED LMI PORTFOLIO SPEND**

NE: NY LMI Gas	Actual Spend 2019	Actual Spend 2020	Actual Spend 2021	Actual Spend 2022	Actual Spend 2023	Planned <sup>2</sup> Spend 2024	Actual <sup>1</sup> Spend 2024	Total Spend 2019-2024
Incentives & Services			\$ -	\$ 1,001,802	\$ 1,247,683	\$ 5,358,500	\$ 5,358,500	\$ 7,607,985
Program Implementation			\$ -	\$ 170,143	\$ 222,294	\$ 2,026,792	\$ 2,026,792	\$ 2,419,229
<b>Total Budget</b>			<b>\$ -</b>	<b>\$ 1,171,945</b>	<b>\$ 1,469,977</b>	<b>\$ 7,385,292</b>	<b>\$ 7,385,292</b>	<b>\$ 10,027,214</b>
Portfolio Administration			\$ -	\$ 94,186	\$ -	\$ 457,150	\$ 457,150	\$ 551,336
Portfolio EM&V			\$ -	\$ 94,186	\$ 18	\$ 285,246	\$ 285,246	\$ 379,449
<b>Total Actual Portfolio Expenditure</b>			<b>\$ -</b>	<b>\$ 1,360,317</b>	<b>\$ 1,469,995</b>	<b>\$ 8,127,688</b>	<b>\$ 8,127,688</b>	<b>\$ 10,958,000</b>
<b>Commission-Authorized Total Budget</b>			<b>\$ 1,255,791</b>	<b>\$ 2,311,875</b>	<b>\$ 3,998,769</b>	<b>\$ 5,624,786</b>	<b>\$ 5,624,786</b>	<b>\$ 13,191,221</b>
<b>Budget Remaining/Unspent Funds</b>			<b>\$ 1,255,791</b>	<b>\$ 951,558</b>	<b>\$ 2,528,774</b>	<b>\$ (2,502,902)</b>	<b>\$ (2,502,902)</b>	<b>\$ 2,233,221</b>

<sup>1</sup> Actual Spend is annual forecast until full year data is available

<sup>2</sup> Data ties to the LMI Implementation Plan to be filed in November 2024

**TABLE 2: FORECAST PROGRAM PLANNED SPEND AND BUDGETS**

NE:NY GAS EE	Planned Spend 2025
<b>Commercial &amp; Industrial Sector</b>	
<b>Gas Commercial &amp; Industrial Program</b>	
Incentives & Services	\$ 11,342,567
Program Implementation	\$ 1,890,904
<b>Total Budget</b>	<b>\$ 13,233,471</b>
<b>Gas Small Business Services Program</b>	
Incentives & Services	\$ 251,094
Program Implementation	\$ 25,655
<b>Total Budget</b>	<b>\$ 276,750</b>
<b>Gas Non-Residential Online MarketPlace Program<sup>1</sup></b>	
Incentives & Services	\$ -
Program Implementation	\$ -
<b>Total Budget</b>	<b>\$ -</b>
<b>Gas Non-Residential Weatherization Program</b>	
Incentives & Services	\$ 1,360,753
Program Implementation	\$ 765,998
<b>Total Budget</b>	<b>\$ 2,126,751</b>
<b>Gas Real-Time Energy Management Program</b>	
Incentives & Services	\$ 235,986
Program Implementation	\$ 23,845
<b>Total Budget</b>	<b>\$ 259,831</b>
<b>Residential Sector</b>	
<b>Gas Residential Engagement Program</b>	
Incentives & Services	\$ 889,319
Program Implementation	\$ 4,715
<b>Total Budget</b>	<b>\$ 894,034</b>
<b>Gas Residential Online MarketPlace Program<sup>1</sup></b>	
Incentives & Services	\$ -
Program Implementation	\$ -
<b>Total Budget</b>	<b>\$ -</b>
<b>Gas Residential Program</b>	
Incentives & Services	\$ 5,832,820
Program Implementation	\$ 1,059,704
<b>Total Budget</b>	<b>\$ 6,892,524</b>
<b>Gas Pay-For-Performance Pilot Program<sup>1</sup></b>	
Incentives & Services	\$ -
Program Implementation	\$ -
<b>Total Budget</b>	<b>\$ -</b>
<b>Gas Residential Weatherization Program</b>	
Incentives & Services	\$ 1,500,000
Program Implementation	\$ 550,000
<b>Total Budget</b>	<b>\$ 2,050,000</b>
<b>Multifamily Sector</b>	
<b>Gas Multifamily Program</b>	
Incentives & Services	\$ 1,134,404
Program Implementation	\$ 366,853
<b>Total Budget</b>	<b>\$ 1,501,257</b>
<b>Total Portfolio</b>	
Portfolio Administration	\$ 496,014
Portfolio EM&V	\$ 719,615
<b>Total Planned Portfolio Budget</b>	<b>\$ 28,450,246</b>
<b>Commission-Authorized Total Budget</b>	<b>\$ 18,491,074</b>
<b>Budget Remaining/Unspent Funds</b>	<b>\$ (9,959,172)</b>

<sup>1</sup> The program is now closed.

**TABLE 2A: FORECAST NYS CLEAN HEAT PLANNED SPEND AND BUDGETS**

Not Applicable

**TABLE 2B: FORECAST LMI PORTFOLIO PLANNED SPEND AND BUDGETS**

NE: NY LMI Gas	Planned Spend 2025
Incentives & Services	\$ 7,468,390
Program Implementation	\$ 1,365,775
<b>Total Budget</b>	<b>\$ 8,834,165</b>
Portfolio Administration	\$ 631,368
Portfolio EM&V	\$ 343,318
<b>Total Planned Portfolio Budget</b>	<b>\$ 9,808,852</b>
<b>Commission-Authorized Total Budget</b>	<b>\$ 7,575,630</b>
<b>Budget Remaining/Unspent Funds</b>	<b>\$ (2,233,222)</b>

**TABLE 3: ACTUAL VS PLANNED PRIMARY AND SECONDARY PROGRAM SAVINGS**

NE:NY GAS EE	Actual Savings 2019	Actual Savings 2020	Actual Savings 2021	Actual Savings 2022	Actual Savings 2023	Planned Savings 2024	Actual <sup>1</sup> Savings 2024	Total Saving 2019-2024 <sup>2</sup>
<b>Commercial &amp; Industrial Sector</b>								
<b>Gas Commercial &amp; Industrial Program</b>								
MMBtu	410,879	500,070	228,269	200,456	262,297	199,315	199,315	1,801,286
<b>Gas Non-Residential Online MarketPlace Program<sup>3</sup></b>								
MMBtu	0	0	967	1,846	2,993	0	0	5,806
<b>Gas Small Business Services Program</b>								
MMBtu	0	0	0	1,547	8,619	11,462	11,462	21,628
<b>Gas Non-Residential Weatherization Program</b>								
MMBtu	0	0	0	0	115	8,832	8,832	8,947
<b>Gas Real-Time Energy Management Program</b>								
MMBtu	0	0	0	0	0	1,207	1,207	1,207
<b>Residential Sector</b>								
<b>Gas Residential Engagement Program</b>								
MMBtu	228,799	185,326	184,520	184,881	224,988	192,800	192,800	1,201,315
<b>Gas Residential Program</b>								
MMBtu	191,656	171,843	123,396	163,252	163,583	111,839	111,839	925,569
<b>Gas Residential Online MarketPlace Program<sup>3</sup></b>								
MMBtu	12,615	15,049	18,744	11,975	6,344	0	0	64,727
<b>Gas Pay-For-Performance Pilot Program<sup>3</sup></b>								
MMBtu	0	0	0	0	0	0	0	0
<b>Gas Residential Weatherization Program</b>								
MMBtu	0	0	0	0	0	0	0	0
<b>Multifamily Sector</b>								
<b>Gas Multifamily Program</b>								
MMBtu	24,808	21,036	38,435	14,261	321	10,000	10,000	108,862
<b>Total Portfolio</b>								
MMBtu	868,757	893,325	594,331	578,219	669,260	535,455	535,455	4,139,347

<sup>1</sup> Actual Savings is annual forecast until full year data is available

<sup>2</sup> Annual acquired savings are generally reflected in the year the energy efficiency work is completed and operational, even though expenditures for such work (i.e., incentives) may occur in the first quarter of the following calendar year.

<sup>3</sup> The program is now closed.

**TABLE 3A: ACTUAL VS PLANNED PRIMARY AND SECONDARY NYS CLEAN HEAT SAVINGS**

Not Applicable

**TABLE 3B: ACTUAL VS PLANNED PRIMARY AND SECONDARY LMI PORTFOLIO SAVINGS**

NE: NY LMI Gas	Actual Savings 2019	Actual Savings 2020	Actual Savings 2021	Actual Savings 2022	Actual Savings 2023	Planned <sup>2</sup> Savings 2024	Actual <sup>1</sup> Savings 2024	Total Savings 2019-
<b>Total Portfolio</b>			0	2,924	6,900	36,045	36,045	45,870
	MMBtu							

<sup>1</sup> Actual Savings is annual forecast until full year data is available  
<sup>2</sup> Data ties to the LMI Implementation Plan to be filed in November 2024

**TABLE 4: FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS**

NE:NY GAS EE	Planned Savings 2025
<b>Commercial &amp; Industrial Sector</b>	
<b>Gas Commercial &amp; Industrial Program</b>	
MMBtu	263,886
<b>Gas Non-Residential Online MarketPlace Program<sup>1</sup></b>	
MMBtu	0
<b>Gas Small Business Services Program</b>	
MMBtu	5,002
<b>Gas Non-Residential Weatherization Program</b>	
MMBtu	4,459
<b>Gas Real-Time Energy Management Program</b>	
MMBtu	1,471
<b>Residential Sector</b>	
<b>Gas Residential Engagement Program</b>	
MMBtu	215,500
<b>Gas Residential Program</b>	
MMBtu	155,808
<b>Gas Residential Online MarketPlace Program<sup>1</sup></b>	
MMBtu	0
<b>Gas Pay-For-Performance Pilot Program<sup>1</sup></b>	
MMBtu	0
<b>Gas Residential Weatherization Program</b>	
MMBtu	7,500
<b>Multifamily Sector</b>	
<b>Gas Multifamily Program</b>	
MMBtu	20,505
<b>Total Portfolio</b>	
MMBtu	674,131

<sup>1</sup> The program is now closed.

**TABLE 4A: FORECAST PRIMARY AND SECONDARY NYS CLEAN HEAT SAVINGS PLANS**

Not Applicable

**TABLE 4B: FORECAST PRIMARY AND SECONDARY LMI PORTFOLIO SAVINGS PLANS**

NE: NY LMI Gas	Planned Savings 2025
<b>Total Portfolio</b>	
MMBtu	50,878

## V. EVALUATION, MEASUREMENT & VERIFICATION ("EM&V")

National Grid plans to conduct comprehensive evaluations of its program portfolio through 2025. The tables below outline National Grid's plan and schedule for EM&V activities for this time period. The tables identify the specific EM&V activities, forecasted expenditures, and the estimated timeframe in which EM&V information will be obtained to support the overall program cycle and ensure compliance with the EM&V Guidance<sup>18</sup> and Gross Savings Verification Guidance<sup>19</sup>. In addition, the Company will incorporate, as applicable, "real-time EM&V" approaches to provide timely feedback to the program implementation team as the evaluation is proceeding, and will explore new evaluation methods that utilize automation, smart devices, and/or software solutions. The EM&V plan will also assess energy efficiency markets to maximize feedback to the programs. The Company will aim to provide comprehensive evaluation of all offerings while prioritizing efforts on those technologies and program elements that haven't been studied before, as well as those that contribute the most to savings.

The EM&V plan includes the timeline and proposed approaches for determining Verified Gross Savings ("VGS") within Appendix A of this document. The VGS specifications plan includes the programs which will need to undergo this analysis through 2025. The Company will conduct evaluation, measurement, and verification activities necessary for the implementation of Earnings Adjustment Mechanisms ("EAMs") and will ensure that EM&V activities comply with the current Gross Savings Verification Guidance.

The EM&V plan also incorporates work needed to assist in maintaining the New York State Technical Resource Manual ("TRM")<sup>20</sup>, as well as activities to inform the benefit cost analysis ("BCA"). Factors such as energy efficiency measure costs, non-energy impacts, and impacts resulting from New York State building code changes may be explored as applicable. Efforts may be undertaken to assess the full range of benefits being realized in New York as a result of energy efficiency efforts (e.g., other resource benefits and non-resource benefits). In addition, the Company will continue to look for opportunities to perform some of the EM&V work collaboratively across the State, and to build upon existing studies to increase consistency and contribute to the TRM.

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<sup>18</sup> CE-05: *Evaluation Measurement and Verification Guidance*, New York State Department of Public Service, Office of Markets and Innovation, (issued Nov. 1, 2016).

<sup>19</sup> CE-08: *Gross Savings Verification Guidance*, New York State Department of Public Service, Office of Markets and Innovation, (issued Aug. 23, 2019).

<sup>20</sup> Case 15-M-0252, *In the Matter of Utility Energy Efficiency Programs*, New York Joint Utilities, New York Standard Approach for Estimating Energy Savings from Energy Efficiency Programs - Residential, Multi-Family, and Commercial/Industrial Measures ("Technical Resource Manual: Version 9") (filed Oct. 27, 2021, effective January 1, 2022).

## SUMMARY OF FILED EM&V REPORTS

### **NG-2008: Gas Residential Program Process & Impact Evaluation**

Guidehouse was hired to conduct an impact and process evaluation of the Gas Residential Program for the NMPC, KEDNY, and KEDLI territories for program year 2021. The primary objective for the impact evaluation was to verify gross savings through a rigorous impact analysis. The primary objective for the process analysis was to document participant satisfaction and determine the best methods to increase participation. The process study involved a program materials review, surveys and interviews with all stakeholders, and lifecycle mapping.

The study found the program is running well and identified that there was a significant improvement between the 2020 and 2021 programs that coincided with a change in implementing contractors. Participants, both applying contractors and homeowners, were happy with programmatic changes instituted during the study period. Recommendations relate to communicating the Program's benefits and improvements, ensuring incentive levels are correctly set, and improving rebate tracking.

This impact analysis involved all prescriptive measures active during the study period. As part of the impact analysis, Guidehouse conducted a tracking database review, a TRM and deemed savings review, and a desk review. The impact analysis identified opportunities to improve reported savings accuracy through additional data collection and incorporating additional quality control steps to ensure the correct input values are applied to the savings algorithms. The Gross Verified Savings ("GVS") Realization Rate developed for this program is 66%.

These recommendations have been incorporated into Program design changes and improvements.

### **NG-3002: Electric & Gas Residential & Commercial & Industrial Free Ridership/ Spillover Research**

DNV was hired to review the impact of free-ridership and spillover on National Grid's portfolio of programs in New York. The primary objective of this evaluation was to develop and implement methods for executing survey-based free-ridership and spillover analyses for National Grid's New York energy efficiency programs. Customer applications from 2019 and 2020 were used for this research.

The primary objective of this evaluation is to develop and implement appropriate methods for executing survey-based free-ridership and spillover analyses for each program in National Grid's service territories, to effectively address regulatory requirements to ensure

that utility programs are not primarily incentivizing free-riders and to ensure that programs and incentives are revised as needed to avoid excessive free-ridership. A secondary objective is to identify potential changes in program design and management that will enable National Grid to achieve goals on the key performance metric of VGS.

The DNV team conducted the following tasks to achieve these objectives: program review and prioritization based on National Grid program documents and data and interviews with program staff; Self-report surveys and In-Depth Interviews (“IDIs”), including participating, partially participating, non-participating end users, installation contractors, and retailer and manufacturer partners; retail lighting research, based on a regression model of national lighting sales data to estimate net impacts of National Grid’s program; and analysis and reporting of results by program, service territory, and measure type. This was benchmarked against similar programs and supplemented with explanatory analysis to identify recommendations for improvements.

Key results show free ridership/spillover ranging from 11% to 72%. Results were similar to other program administrators offering similar measures and programs.

### **NG-1001-A and NG-2004-A: Process Evaluation of Gas Commercial & Industrial Program, Electric Commercial & Industrial Program, and Electric Small Business Services Program**

DNV was hired to conduct a process evaluation of the Gas C&I Program, Electric C&I Program, and the Electric Small Business Services (SBS) Program to identify potential improvements that would lead to increased program participation and savings. The objectives of this study included evaluating the effectiveness of program administration and implementation and program marketing and outreach efforts; investigation of customer attitudes, motivation for participation, general satisfaction levels, and awareness of the programs; and assessment of market-level barriers and identification of opportunities for additional program savings.

Evaluation methods included program document and tracking data review; program staff interviews; surveys of participants, partial participants, and non-participants; trade ally (e.g., installation contractor) interviews; ride-along visits with program field staff; and benchmarking research comparing National Grid’s programs to other similar programs. DNV found all three programs to be well-run overall, but identified areas of possible improvement to increase savings, participation, and program effectiveness.

- The Electric C&I and Gas C&I Programs demonstrated high performance in cost-effectively achieving savings goals in 2020 and 2021, despite strong headwinds related to COVID-19. The programs had low cost per savings, high participant satisfaction, an effective and engaged trade ally network, and successful adaptation to

shifting customer needs in downstate territories where COVID impacts were especially acute.

- The SBS Program also demonstrated high performance in cost-effectively achieving savings goals in 2020 and 2021, despite strong headwinds related to COVID-19. SBS had low cost per savings and was managed and supported by collaborative in-house and implementation contractor program staff who helped drive program awareness and participation. Despite this, SBS relies overwhelmingly on lighting to achieve program savings goals, and is facing diminishing savings opportunities from lighting in the coming years.

DNV identified several recommended improvements for each program to expand offerings and increase participation and savings levels in coming years.

### **NG-1001-B and NG-2004-B: National Grid Gas Commercial & Industrial Program and Electric Commercial & Industrial Program Benchmarking Study**

DNV was hired to conduct a benchmarking study of National Grid New York's C&I offerings. The objective of this study was to identify potential gaps and overlap, as well as to understand how other program administrators design and implement C&I programs and how National Grid's programs could be modified or expanded to achieve greater levels of participation, savings, and customer satisfaction.

The DNV team selected seven other regulated utility C&I programs around the country as comparison programs, identified by selecting from states in the top ten of the ACEEE's state score card rankings, and focusing on programs that offered a mix of electric and gas measures in 2021 and used a range of program designs and technologies.

Relative to the other programs DNV reviewed, National Grid performed well in 2021 in cost to achieve savings, with the Electric C&I program having the lowest cost per kWh savings and the Gas C&I program having the lowest cost per MMBtu of gas savings among reviewed programs. National Grid also succeeded in achievement of savings relative to goals.

Relative to the other programs, National Grid's offerings were well-rounded and its incentives were generally in the middle of the range of other programs. Two areas for potential improvement were (1) increasing custom electric incentives, which were near the lowest among comparison programs, and (2) expanding offerings to mirror some of the unique supplemental offerings provided by comparison programs DNV reviewed, such as long-term continuous energy improvement partnerships.

### **NG-1001-C: National Grid Electric Small Business Services Program Benchmarking Study**

DNV was hired to conduct a benchmarking study of National Grid New York's Electric SBS Program offerings. The objective of this study was to identify potential gaps and overlap and to understand how other administrators design and implement C&I programs and how National Grid's programs could be modified or expanded to achieve greater levels of participation, savings, and customer satisfaction.

The DNV team selected six other regulated utility small business programs around the country as comparison programs, identified by selecting from states in the top ten of the American Council for an Energy-Efficient Economy (ACEEE)'s state score card rankings, and focusing on programs that target commercial customers with peak loads of 300 kW or less, have a similar climate and population, include some gas measures, and reflect a range of implementation models.

Relative to the other programs DNV reviewed, National Grid was a top performer in 2021 in cost to achieve savings, having the lowest program expenditures per electricity saved, at \$0.28 per kWh, and in performance against goals, achieving 138% of its goals. Relative to the other programs, National Grid could improve in the following areas:

- Expanding non-lighting electric offerings. National Grid acquired 99% of its electric savings from lighting in 2021—the second highest share among the programs reviewed. Although the program offers some non-lighting measures, these measures did not provide a meaningful amount of savings in 2021.
- Offer gas saving measures. National Grid was one of three programs reviewed that did not offer gas measures in 2021. Given overlapping electric and gas service territories, the program could be expanded to add gas saving measures that are commonly offered in other programs.
- Offer higher project incentives. National Grid's incentive of up to 60% of project costs was toward the lower end of the incentives offered by programs reviewed. Offering increased incentives, while maintaining program cost-effectiveness, could allow more customers to overcome cost barriers and participate in the program.

### **NG-1001-D AND NG-2004-C: Impact Evaluation Study for the Electric Commercial & Industrial Program and Gas Commercial & Industrial Program**

DNV was hired to conduct an impact evaluation for the Electric Commercial & Industrial Program non lighting offerings administered by Niagara Mohawk- KEDNY and KEDLI.

This impact evaluation studied non-lighting electric offerings for the Electric Commercial and Industrial (Electric C&I) program years (PY) 2018 and 2019 and the Gas Commercial and Industrial (Gas C&I) program year 2019. Sampling was performed, then desktop reviews for the full sample and then customer site visits were performed based on

customer consents for the site visits. The site visits evaluated the kWh and kW savings for the measures installed at each sampled site for electric and the therm savings for the gas programs. Realization Rates were determined based on the statistical findings from the sample and compared to the population. The analysis found the electric non lighting VGS kWh RR of 0.92 and kW of 0.88. The gas analysis resulted in an energy (therm) VGS RR of 111% for Gas C&I Custom and (therm) VGS RR of 65% for prescriptive from Q1 2019 through Q4 2022. The third-party evaluator recommended an APRR of 100% to be applied beginning on January 1, 2023, for the prescriptive gas measures dependent upon changes being incorporated into the program tracking system.

### **NG-3015: Online Marketplace & Electrical Residential Consumer Products Impact and Process Evaluation**

DNV was hired to conduct an impact evaluation of National Grid's Marketplace and Electric Products programs, and a process evaluation of the Electric Products program. The principal objectives of the Marketplace and Electric Products impact evaluation were to (1) calculate a VGS Realization Rate (RR) by measure impact category, and by program, and (2) make recommendations for increased accuracy of applicable parameters in the New York TRM. The principal objective of the Electric Products process evaluation was to develop actionable recommendations for program design and operational changes to cost-effectively improve program delivery.

Evaluation methods included program document and tracking data review; literature and TRM reviews to benchmark impact factors and identify best practices; in-depth interviews with program implementers and partners; a participant web-survey; lighting saturation and hours of use data modelling; and billing analysis of thermostat participants.

#### **Impact evaluation findings**

DNV found that National Grid's tracking savings generally adhered to the New York TRM assumptions and appropriately used the TRM's deemed savings approach in most cases, as the program's online and retail delivery channels do not facilitate collecting detailed customer-specific information that would be required as inputs for the TRM's engineering algorithms. DNV found TRM compliance RR—which measure the degree to which the program collected data and accurately applied TRM guidance to estimate savings—of 74% for Gas Marketplace, 95% for Electric Marketplace, and 96% for Electric Products.

The lowest compliance rates were for thermostats, due primarily to two factors: (1) the tracking system did not distinguish between Wi-Fi and learning thermostats, resulting in higher claimed savings for some models relative to the TRM; and (2) the tracking system claimed savings for every thermostat purchased, but the New York TRM limits savings to one unit per household for learning thermostats.

DNV found VGS RR—which represents the best estimate of actual program savings for the evaluated period—of 31% for Gas Marketplace, 88% for Electric Marketplace, and 86% for Electric Products. The Gas Marketplace VGS RR of 31% was heavily driven by the 28% realization rate for thermostats, which represented 90% of the verified natural gas savings for the program. These findings reflect low billing analysis savings relative to claimed savings, due in part to factors including (1) little to no additional billing savings for additional thermostats beyond the first that are installed in the same home; and (2) participants who delayed installing the thermostats purchased through the Marketplace.

The results also reflect some impacts from COVID-related changes in occupant behavior, although the extent and duration of these impacts was not conclusive from the billing analysis results. The overall VGS realization rate for the Electric Marketplace and Electric Products programs (88% and 86% respectively) were driven by the high RR for lighting, which represented most of the verified savings for the programs during the evaluated period.

DNV made several recommendations for program changes, some of which National Grid has already implemented, and additional changes for consideration both to the program and to the TRM. If the program or TRM were to change, DNV developed several measure-level Alternative Prospective Realization Rates (AP RR) to apply prospectively to account for such adjustments going forward.

### **Process evaluation findings**

Key findings of the Electric Products process evaluation were as follows:

- Participating retailers and manufacturers all rated the programs highly and said they would continue participating, despite the headwinds in 2020 due to COVID-19 impacts on retail sales.
- The program faced some recent challenges with participation barriers, but also face potential opportunities for increased participation by diversifying the mix of products offered and delivery channels employed.
- Increased marketing and customer awareness is a cross-cutting challenge interviewees identified. Successfully pursuing program opportunities will require accompanying efforts to increase marketing and customer awareness to drive uptake of any new offerings and channels the programs target.

DNV made several recommendations for the Electric Products program to address these findings, as follows:

- Plan to significantly modify or discontinue LED incentives, as LEDs become the market standard.

- Increase offerings of non-lighting products through retail or online channels to maintain program savings.
- Accelerate efforts to partner with independent, local retailers.
- Maintain a multichannel approach focusing on online sales.
- Take steps to improve thermostat installation rates, through informational materials or follow-up emails.
- Look to increase marketing through multiple channels, including social media and conspicuous in-store signage.

### **SEEP Activity NG-1013: Lighting Impact Evaluation Study for the Electric Commercial & Industrial Program**

National Grid filed an impact evaluation of the Electric C&I program offered by Niagara Mohawk. The Electric C&I Program provides technical services along with prescriptive, midstream, and custom incentives to encourage the installation of a wide variety of energy efficient electric measures. This study was the 2<sup>nd</sup> VGS study for this program.

The three components of the program that were evaluated were Custom Lighting, Midstream Lighting and Prescriptive Lighting. The period of investigation for each component is as follows: Custom Lighting 2022 Q1 to 2022 Q4, Midstream Lighting 2022 Q1 to 2022 Q4 and Prescriptive Lighting 2022 Q3 to 2023 Q2. The prescriptive lighting component provides incentives and savings for lighting retrofits using predefined measure choices that define the lighting specifications and incentives for various measures. Customers and lighting installers can choose from a list of choices that are appropriate for their given lighting project. The custom lighting component offers a path for lighting projects that are not covered by the prescriptive lighting component choices or options. The midstream lighting component is offered in partnership with electrical supply houses and distributors to offer C&I customers incentives for efficient LED luminaires at the point of sale.

The VGS kWh Realization rate was determined to be 0.869 for Custom lighting projects, 1.063 for Midstream Lighting projects and 1.011 for Prescriptive Lighting projects.

The study recommendations included:

- Ensure that the project tracking spreadsheets accurately reflect the kW savings for the project.
- Ensure that the project tracking spreadsheets accurately reflect the HVAC interactive effect multipliers.
- For Custom lighting projects ensure that project timelines are accurately reflected in the savings calculations.
- Ensure that midstream projects accurately reflect the coincident factors per the NY Technical Reference Manual

### **SEEP Activity NG-1013: Impact Evaluation Report for the LED Street Lighting Program**

National Grid filed an evaluation report for Niagara Mohawk's LED Street Lighting program. The LED Street Lighting program provides incentives for replacing inefficient street lighting lamps/luminaires, which include high pressure sodium, mercury vapor, and metal halide technologies, with high efficiency LED lamps/luminaires. This study was the first VGS study for this program.

Program years 2022 and 2023 were evaluated as a part of this study. The VGS kWh realization rate for 2022 was determined to be 0.9029 and for 2023 was determined to be 0.9623. The findings found several issues with data entry in the energy efficiency tracking system for a few projects which resulted in the VGS kWh RR's being lower than 1.00.

Recommendations focused mainly on the data entry and QC of National Grid's energy efficiency tracking system for this program's projects. Some recommendations included: ensure consistent use of annual hours of operation, ensuring that proper wattages used in the data entry and calculations, and improve communication between groups within National Grid to ensure accurate information is relayed.

## EM&V ACTIVITY DESCRIPTIONS

### ELECTRIC

EM&V Activity		Description	Sector
NG-1001	Electric C&I Process & Impact Evaluations	Formerly this activity was known as the "C&I Electric Process & Impact Evaluation". The process evaluation assessed the effectiveness of program processes and designs, marketing/outreach, explored customer satisfaction, and identified recommendations for program improvements. Methods used included data analytics, surveys, on-site and PA interviews. The impact evaluation measured program-level gross savings, calculated Gross Savings Verification Guidance, recommended cost-effective M&V techniques to improve the accuracy of future savings estimates, and made recommendations for increasing the accuracy of applicable parameters included in the NY TRM.	C&I
NG-1002	Evaluation Support - EM&V	Provides ongoing support in data analytics, evaluation results analysis and other EM&V support.	C&I
NG-1003	C&I Lighting M&V & Evaluation	Reviews and EM&V of the C&I Lighting track. Methods include desktop reviews, site M&V and testing advanced M&V methods.	C&I
NG-1004	SBS Impact Process Eval/Advanced M&V	Impact and Process Evaluations of C&I Electric Small Business. Methods used include desktop reviews, data analytics, site visits and testing advanced M&V methods.	C&I
NG-1005	Evaluation Support - TRM, BCA, Measure Costs & Savings	Provides ongoing support in data analytics, evaluation results analysis, and TRM/BCA/measure analysis support.	C&I
NG-1008	NY Electric Vehicle Evaluation	The purpose of this activity is to evaluate National Grid's New York Electric Transportation and Charging Program and includes analysis of program and station usage data, surveys of participating site hosts to gauge program effectiveness, assessment of the NY EV Program's outreach and education efforts, and analysis of barriers for non-participating site hosts.	C&I
NG-1009	Residential Consumer Products & Appliance Recycling Programs Process & Impact Evaluation	Formerly this activity was known as the "Residential Consumer Products & Recycling Process & Impact Evaluation". The process evaluation will assess the effectiveness of program processes and designs, marketing/outreach, explore customer satisfaction, and identify recommendations for program improvements. The impact evaluation will analyze measure-level and program-level gross savings, calculate Gross Savings Verification Guidance, recommend cost-effective M&V techniques to improve the accuracy of future savings estimates, and make recommendations for increasing the accuracy of applicable parameters included in the NY TRM.	Res
NG-1010	Electric C&I Process & Impact Evaluation Follow-on	Formerly this activity was known as the "C&I Electric Process & Impact Evaluation Follow-on". This activity will follow up on any issues or opportunities identified in NG-1001 requiring additional research and analysis.	C&I
NG-1011	Residential Heat Pump Process Evaluation	The process evaluation will assess the effectiveness of program processes and designs, marketing/outreach, explore customer satisfaction, and identify recommendations for program improvements.	Res/C&I
NG-1012	Market & Measure Evaluation Follow-on	This activity followed up on electric issues identified in NG-3007 requiring additional analysis.	Res/C&I
NG-1013	Electric C&I Lighting Impact Evaluation 2	This evaluation will determine measure-level and program-level gross savings in accordance with the VGS Guidance, calculate Gross Savings Verification Guidance, recommend cost-effective M&V techniques to improve the accuracy of future savings estimates, and if possible, make recommendations for increasing the accuracy of applicable parameters included in the NY TRM.	C&I
NG-1014	Residential Electrification Research	This activity includes research into existing upstate New York clean heat and heat pump program/pilot initiatives and their results to identify market opportunities for new or expanded residential electrification programs in upstate New York.	Res
NG-1015	Small Business Services Electric Impact Evaluation 2	Impact and Process Evaluations of C&I Electric Small Business. Methods that may be used include desktop reviews, data analytics, site visits and testing advanced M&V methods.	C&I

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NG-3001	Electric & Gas Residential & C&I EM&V Support	Formerly this activity was known as the "Residential and C&I Gas and Electric EM&V Support". Provides ongoing support in data analytics, evaluation results analysis and other EM&V support.	Res/C&I
NG-3002	Electric & Gas Residential & C&I Free Ridership/Spillover Research	Formerly this activity was known as the "Residential and C&I Gas and Electric Free Ridership/Spillover Study". This activity developed methods and surveys to consistently quantify free ridership and spillover for both the residential and C&I sectors; participation of other PAs in New York was sought to promote consistency across the state.	Res/C&I
NG-3003	Measure Research	Ongoing activity to gather cost and savings data for measures not yet included in National Grid's programs. For measures not included in the NY TRM, this project includes drafting TRM write-ups to present to the TRM Management Committee for review and approval. In 2020, a Validation of Measure Savings Calculations task was added. This task is to validate energy savings results from National Grid's program tracking database against energy savings results determined based on the published methods prescribed by the NY TRM.	Res/C&I
NG-3004	Multifamily Process & Impact Evaluation	This study conducted coordinated process and impact evaluations of National Grid's three NY multifamily energy efficiency programs. The process evaluation examined the effectiveness of delivery mechanisms and marketing, assessed customer satisfaction, and made recommendations to improve the programs. The impact evaluation determined measure-level and program-level gross savings, recommended cost-effective M&V techniques to improve the accuracy of future savings estimates, and made recommendations for increasing the accuracy of applicable parameters included in the NY TRM.	MF
NG-3006	Measure Cost Research & Analysis	The purpose of this ongoing activity is to periodically gather pricing information for product-related programs in a timely fashion.	Res
NG-3009	Residential Engagement Program Process & Impact Evaluation	Formerly this activity was known as the "Behavioral Program Process & Impact Evaluation". The process evaluation will seek to address customer satisfaction, program-induced behavioral changes and cross-program participation, the effectiveness of various methods of delivering the reports (e.g., mail, e-mail), barriers to program participation, remaining program potential, review of the program tracking data, and identification of any actionable recommendations for program improvement. The impact evaluation will include a review of the savings estimation methodology currently used by National Grid and the implementation contractor. We will verify those savings through independent analysis. We will also review the methodology for attributing savings to the Behavioral Programs and other programs offered by National Grid. The billing analysis will estimate energy savings and savings attributable to other programs.	Res
NG-3010	Residential Online Marketplace Process Evaluation	Formerly this activity was known as the "E-Commerce Program Process Evaluation". A multi-year process evaluation of the Residential Efficiency Platforms, designed to include periodic surveys and timely reporting in order to continually update program-related data from customers, program staff, and implementers. This allows for periodic updates on opinions, reactions, and decision making to allow for agile adjustments to program operations and processes. The impact evaluation assessed gross energy savings consistent with the VGS Guidance.	Res
NG-3011	TRM Vendor - Statewide Support	Vendor to provide technical and administrative support to the Technical Resource Manual Management Committee (TRM MC) in the revision and maintenance of the New York Technical Resource Manual (NY TRM), serving as the primary technical review contractor as well as filling the role of TRM MC Secretary.	Res/C&I
NG-3012	Validation of Measure Savings Calculations	Added to NG-3003.	Res/C&I
NG-3013	MF Process & Impact Evaluation Follow-on	This activity was withdrawn. In NG-3016 study will cover any additional research and analysis.	Res/C&I
NG-3015	Residential and Non-Residential Online Marketplace Impact Evaluation	Formerly this activity was known as the "E-Commerce Small Business & Residential Impact Evaluation". This impact evaluation assessed gross energy savings consistent with the VGS Guidance.	Res/C&I

NG-3016	Multifamily Process & Impact Evaluation 2	This study will conduct coordinated process and impact evaluations of National Grid's NY multifamily energy efficiency programs. The process evaluation will examine the effectiveness of delivery mechanisms and marketing, assess customer satisfaction, and make recommendations to improve the programs. The impact evaluation will determine measure-level and program-level gross savings in accordance with the VGS Guidance, recommend cost-effective M&V techniques to improve the accuracy of future savings estimates, and if possible, make recommendations for increasing the accuracy of applicable parameters included in the NY TRM.	Res/C&I
NG-3017	Portfolio Benefit Cost Analysis	This activity includes the setup of benefit cost testing for energy efficiency at the portfolio level for each of the four New York Companies, as well as ongoing analysis and updates.	Res/C&I
NG-3018	Low & Moderate Income (LMI) Evaluations	This activity includes the statewide evaluation of the Empower and Empower+ programs (residential one to four family homes) coordinated through the NYSERDA and the statewide evaluation of the Affordable Multifamily Energy Efficiency Program (AMEEP).	Res/MF

**GAS**

EM&V Activity		Description	Sector
NG-2004	Gas C&I Process & Impact Evaluation	Formerly this activity was known as the "C&I Gas Custom & Prescriptive Process & Impact Evaluation". This study consists of coordinated process and impact evaluations of National Grid's three NY C&I gas energy efficiency programs, including custom, prescriptive, and direct install components. The process evaluation examined the effectiveness of each program's delivery mechanisms and marketing, assessed the level of customer satisfaction, and provide recommendations to improve the programs. The impact evaluation confirm measure-level and program-level gross savings, calculated realization rates per the VGS guidelines, recommended cost-effective M&V techniques to improve the accuracy of future savings estimates, and made recommendations for increasing the accuracy of applicable parameters included in the NY TRM.	C&I
NG-2005	Gas Residential & C&I Market Assessment	Formerly this activity was known as the "Residential and C&I Gas Market Study". This evaluation will research the structure and functioning of the gas energy efficiency market, identifying the key market actors and their decision-making processes that affect the energy efficiency of homes and buildings in New York.	Res/C&I
NG-2008	Gas Residential Program Process & Impact Evaluation	Formerly this activity was known as the "HEHE Process and Impact Evaluation". The overall objective of the impact evaluation was to develop gas savings impacts based on measures installed by participants in the High Efficiency Heating and Water Heating Equipment Program and to calculate realization rates based on VGS guidelines. The process evaluation assessed the effectiveness of program design, processes, and customer satisfaction; identified any implementation issues; and made recommendations for program improvements.	Res
NG-2011	Gas C&I Process & Impact Evaluation Follow-on	Formerly this activity was known as the "C&I Gas Process & Impact Evaluation Follow-on". This activity will follow up on any issues or opportunities identified in NG-2004 requiring additional research and analysis.	C&I
NG-2012	Gas Residential Program Process & Impact Evaluation Follow-on	This activity was withdrawn. In NG-3020 study will cover any additional research and analysis.	Res
NG-2014	Building Simulation and Metering Study: Gas Peak Day Factor Analysis	This activity was formerly known as the Gas Peak Research Study and includes two phases of research: building simulations to develop peak day savings estimates and metering to verify assumptions.	Res/C&I/ MF
NG-2016	Residential Gas End-Use Consumption Load Shape Study	This activity is a billing analysis of New York residential gas load shapes.	Res

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NG-3001	Electric & Gas Residential & C&I EM&V Support	Formerly this activity was known as the "Residential and C&I Gas and Electric EM&V Support". Provides ongoing support in data analytics, evaluation results analysis and other EM&V support.	Res/C&I
NG-3002	Electric & Gas Residential & C&I Free Ridership/Spillover Research	Formerly this activity was known as the "Residential and C&I Gas and Electric Free Ridership/Spillover Study". This activity developed methods and surveys to consistently quantify free ridership and spillover for both the residential and C&I sectors; participation of other PAs in New York was sought to promote consistency across the state.	Res/C&I
NG-3003	Measure Research	Ongoing activity to gather cost and savings data for measures not yet included in National Grid's programs. For measures not included in the NY TRM, this project includes drafting TRM write-ups to present to the TRM Management Committee for review and approval. In 2020, a validation of Measure Savings Calculations task was added. This task is to validate energy savings results from National Grid's program tracking database against energy savings results determined based on the published methods prescribed by the NY TRM.	Res/C&I
NG-3004	Multifamily Process & Impact Evaluation	This study conducted coordinated process and impact evaluations of National Grid's three NY multifamily energy efficiency programs. The process evaluation examined the effectiveness of delivery mechanisms and marketing, assessed customer satisfaction, and made recommendations to improve the programs. The impact evaluation determined measure-level and program-level gross savings, recommended cost-effective M&V techniques to improve the accuracy of future savings estimates, and made recommendations for increasing the accuracy of applicable parameters included in the NY TRM.	MF
NG-3006	Measure Cost Research & Analysis	The purpose of this ongoing activity is to periodically gather pricing information for product-related programs in a timely fashion.	Res
NG-3009	Residential Engagement Program Process & Impact Evaluation	Formerly this activity was known as the "Behavioral Program Process & Impact Evaluation". The process evaluation will seek to address customer satisfaction, program-induced behavioral changes and cross-program participation, the effectiveness of various methods of delivering the reports (e.g., mail, e-mail), barriers to program participation, remaining program potential, review of the program tracking data, and identification of any actionable recommendations for program improvement. The impact evaluation will include a review of the savings estimation methodology currently used by National Grid and the implementation contractor. We will verify those savings through independent analysis. We will also review the methodology for attributing savings to the Behavioral Programs and other programs offered by National Grid. The billing analysis will estimate energy savings and savings attributable to other programs.	Res
NG-3010	Residential Online Marketplace Process Evaluation	Formerly this activity was known as the "E-Commerce Program Process Evaluation". A multi-year process evaluation of the Residential Efficiency Platforms, designed to include periodic surveys and timely reporting in order to continually update program-related data from customers, program staff, and implementers. This allowed for periodic updates on opinions, reactions, and decision making to facilitate agile adjustments to program operations and processes. The impact evaluation assessed gross energy savings consistent with the VGS Guidance.	Res
NG-3011	TRM Vendor - Statewide Support	Vendor to provide technical and administrative support to the Technical Resource Manual Management Committee (TRM MC) in the revision and maintenance of the New York Technical Resource Manual (NY TRM), serving as the primary technical review contractor as well as filling the role of TRM MC Secretary.	Res/C&I
NG-3012	Validation of Measure Savings Calculations	Added to NG-3003.	Res/C&I
NG-3013	MF Process & Impact Evaluation Follow-on	This activity will follow up on any issues or opportunities identified in NG-3004 requiring additional research and analysis.	Res/C&I
NG-3015	Residential and Non-Residential Online Marketplace Impact Evaluation	Formerly this activity was known as the "E-Commerce Small Business & Residential Impact Evaluation". This impact evaluation assessed gross energy savings consistent with the VGS Guidance.	Res/C&I

NG-3016	Multifamily Process & Impact Evaluation 2	This study will conduct coordinated process and impact evaluations of National Grid's three NY multifamily energy efficiency programs. The process evaluation will examine the effectiveness of delivery mechanisms and marketing, assess customer satisfaction, and make recommendations to improve the programs. The impact evaluation will determine measure-level and program-level gross savings in accordance with the VGS Guidance, recommend cost-effective M&V techniques to improve the accuracy of future savings estimates, and if possible, make recommendations for increasing the accuracy of applicable parameters included in the NY TRM.	Res/C&I
NG-3017	Portfolio Benefit Cost Analysis	This activity includes the setup of benefit cost testing for energy efficiency at the portfolio level for each of the four New York Companies, as well as ongoing analysis and updates.	Res/C&I
NG-3018	Low & Moderate Income (LMI) Evaluations	This activity includes the statewide evaluation of the Empower and Empower+ programs (residential one to four family homes) coordinated through the NYSERDA and the statewide evaluation of the Affordable Multifamily Energy Efficiency Program (AMEEP).	Res/MF
NG-3020	Gas Residential Program Process & Impact Evaluation	Measure level study to the midstream program.	Res

**TABLE 5: 2019 – 2025 EM&V ACTIVITY SCHEDULE**

**ELECTRIC**

EM&V Activity	Sector (1)	Expected Plan Submission Date	Expected Start Date	Expected Completion Date	Status (2)	
1. Evaluation, Measurement, and Verification						
NG-1001-A	Electric Commercial & Industrial Process & Impact Evaluation - Process Evaluation	C	Q2 2021	Q3 2020	Q1 2023	Complete
NG-1001-B	Electric Commercial & Industrial Process & Impact Evaluation - C&I Benchmarking	C	Q2 2021	Q3 2020	Q1 2023	Complete
NG-1001-C	Electric Commercial & Industrial Process & Impact Evaluation - SBS Benchmarking	C	Q2 2021	Q3 2020	Q1 2023	Complete
NG-1001-D	Electric Commercial & Industrial Process & Impact Evaluation - Impact Evaluation	C	Q2 2021	Q3 2020	Q2 2023	Complete
NG-1002	Evaluation Support	C	-	Q2 2017	-	Ongoing
NG-1003	Commercial & Industrial Lighting M&V & Evaluation	C	-	Q4 2017	Q4 2020	Complete
NG-1004	Small Business Services Impact & Process Evaluation & Advanced Measurement & Verification	C	-	Q4 2017	Q2 2021	Complete
NG-1013	Electric Commercial & Industrial Lighting Impact Evaluation 2	C	Q2 2023	Q2 2023	Q1 2024	Complete
NG-1015	Small Business Services Electric Impact Evaluation 2	C	Q4 2023	Q4 2023	Q1 2025	Upcoming
NG-3001	Electric & Gas Residential & Commercial & Industrial Programs Evaluation, Measurement, & Verification Support	B	-	Q4 2017	-	Ongoing
NG-3002	Electric & Gas Residential & Commercial & Industrial Free Ridership/ Spillover Research	B	Q1 2021	Q3 2020	Q4 2022	Complete

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NG-3004	Multifamily Process & Impact Evaluation	C	Q1 2021	Q3 2019	Q4 2021	Complete
NG-3009	Residential Engagement Program Process & Impact Evaluation	R	-	Q1 2018	Q4 2021	Complete
NG-3010	Residential Online Marketplace Process Evaluation	R	-	Q1 2018	Q2 2021	Complete
NG-3015	Residential and Non-Residential Online Marketplace Program(s) Impact Evaluation	B	Q2 2021	Q1 2021	Q2 2023	Complete
NG-3016	Multifamily Program Process & Impact Evaluation 2	C	Q4 2024	Q3 2024	Q2 2025	Upcoming
NG-3017	Portfolio Benefit Cost Analysis	B	-	Q1 2021	-	Ongoing
NG-3019	Residential and Non-Residential Online Marketplace Program(s) Follow-on	B	-	-	Q4 2024	Upcoming
NG-4005	Electric Self-Direct Program	C	Q1 2024	Q1 2024	Q1 2025	Upcoming
NG-4006	C&I LED Street Lighting Impact Study	C	-	Q3 2023	Q1 2024	Complete
<b>2. TRM, BCA, Measure Costs, &amp; Savings Impact Activities</b>						
NG-1005	Evaluation Support	C	-	Q2 2017	-	Ongoing
NG-1012	Market & Measure Evaluation Follow-on	B	-	Q4 2020	-	Complete
NG-3003	Measure Research	B	-	Q4 2016	-	Ongoing
NG-3006	Measure Cost Research & Analysis	R	-	Q4 2016	-	Ongoing
NG-3011	Technical Resource Manual Vendor - Statewide Support	B	-	Q2 2016	-	Ongoing
<b>3. Market Studies</b>						
NG-1007	Lighting Market Analysis	R	-	Q1 2016	-	Complete
NG-1014	Electrification Research	R	-	Q1 2022	-	In Progress
<b>4. Other</b>						
Unallocated Funds		-	Future Activities To Be Determined			Upcoming
<b>5. Statewide Evaluations</b>						
NG-3018-B	LMI 1-4 Family - LED Foodbank - Process and Impact Evaluation	R	Q3 2024	Q1 2024	Q3 2025	Ongoing
NG-3018-C	LMI Existing Affordable Multifamily ("AMEEP") UNY Process and Impact Evaluation	R	Q3 2024	Q1 2024	Q3 2025	Ongoing
NG-3018-E	LMI 1-4 Family - Empower+	R	TBD Based on statewide consensus			Upcoming
NG-1011	Residential Heat Pump Program Process Evaluation	R	-	Q3 2020	Q3 2021	Complete
NYS Clean Heat Program Statewide Evaluation		-	TBD based on statewide consensus			Upcoming

(1) C=Commercial & Industrial, R=Residential, and B= Both C&I and Residential

(2) Note: The status "Ongoing" is used for continuous, ongoing EM&V support activities that will not result in a filed report.

## GAS

EM&V Activity	Sector (1)	Expected Plan Submission Date	Expected Start Date	Expected Completion Date	Status (2)
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1. Evaluation, Measurement, and Verification						
NG-2004-A	Gas Commercial & Industrial Process & Impact Evaluation - Process Evaluation	C	Q2 2021	Q3 2020	Q1 2023	Complete
NG-2004-B	Gas Commercial & Industrial Process & Impact Evaluation - C&I Benchmarking	C	Q2 2021	Q3 2020	Q1 2023	Complete
NG-2004-C	Gas Commercial & Industrial Process & Impact Evaluation - Impact Evaluation	C	Q2 2021	Q3 2020	Q2 2023	Complete
NG-2008	Gas Residential Program Process & Impact Evaluation	R	Q1 2021	Q4 2020	Q4 2022	Complete
NG-2011	Gas Commercial & Industrial Program Process & Impact Evaluation APRR	C	Q2 2024	Q4 2023	Q4 2024	In Progress
NG-2014	Gas Peak Research - Building Simulations	B	-	Q4 2020	Q2 2022	Complete
NG-2014	Gas Peak Research - Metering	R	-	Q3 2022	Q1 2023	Complete
NG-2016	Residential Gas Program End-use Consumption (Loadshape) Study	R	-	Q1 2021	Q2 2022	Complete
NG-3001	Electric & Gas, Residential & Commercial and Industrial Programs Evaluation, Measurement, & Verification Support	B	-	Q4 2017	-	Ongoing
NG-3002	Electric & Gas Residential & Commercial & Industrial Free Ridership/ Spillover Research	B	Q1 2021	Q3 2020	Q4 2022	Complete
NG-3004	Multifamily Process & Impact Evaluation	C	Q1 2021	Q3 2019	Q4 2021	Complete
NG-3009	Residential Engagement Program Process & Impact Evaluation	R	-	Q1 2018	Q4 2021	Complete
NG-3010	Residential Online Marketplace Process Evaluation	R	-	Q1 2018	Q2 2021	Complete
NG-3015	Residential and Non-Residential Online Marketplace Program(s) Impact Evaluation	B	Q2 2021	Q1 2021	Q2 2023	Complete
NG-3016	Multifamily Program Process & Impact Evaluation 2	C	Q4 2024	Q3 2024	Q2 2025	Upcoming
NG-3017	Portfolio Benefit Cost Analysis	B	-	Q1 2021	-	Ongoing
NG-4003	Gas Non-Residential Online Marketplace	C	Q1 2024	Q4 2023	Q4 2024	Ongoing
NG-4004	Gas Small Business Service Program	C	Q2 2024	Q1 2024	Q4 2024	Ongoing
2. TRM, BCA, Measure Costs, & Savings Impact Activities						
NG-3003	Measure Research	B	-	Q4 2016	-	Ongoing
NG-3006	Measure Cost Research & Analysis	R	-	Q4 2016	-	Ongoing
NG-3011	Technical Resource Manual Vendor - Statewide Support	B	-	Q2 2016	-	Ongoing
3. Market Studies						
NG-2005	Gas Residential & Commercial & Industrial Market Assessment	B	-	-	-	Withdraw
4. Other						
Unallocated Funds		-	Future Activities To Be Determined			Upcoming
5. Statewide Evaluations						
NG-3018-D	LMI Existing Affordable Multifamily ("AMEEP") UNY Process and Impact Evaluation	R	Q3 2024	Q1 2024	Q3 2025	Ongoing
NG-3018-E	LMI 1-4 Family - Empower+	R	TBD Based on statewide consensus			Upcoming

(1) C=Commercial & Industrial, R=Residential, and B= Both C&I and Residential

(2) Note: The status "Ongoing" is used for continuous, ongoing EM&V support activities that will not result in a filed report.

**TABLE 6: 2019 – 2025 EM&V ACTIVITY FORECASTED EXPENDITURES**

**ELECTRIC**

EM&V Activity		2019 Expended	2020 Expended	2021 Expended	2022 Expended	2023 Expended	2024	2025
1. Evaluation, Measurement, and Verification								
NG-1001	Electric Commercial & Industrial Process & Impact Evaluation	\$49,218	\$429,047	\$86,251	\$256,455	\$0	\$0	\$0
NG-1002	Evaluation Support	\$53,712	\$4,242	\$6,062	\$3,006	\$0	\$0	\$0
NG-1003	Commercial & Industrial Lighting M&V & Evaluation	\$135,954	\$0	\$3,342	\$0	\$0	\$0	\$0
NG-1004	Small Business Services Impact & Process Evaluation & Advanced Measurement & Verification	\$307,279	\$49,746	\$6,640	\$0	\$0	\$0	\$0
NG-1008	New York Electric Vehicle Evaluation	\$0	\$123,241	\$0	\$0	\$0	\$0	\$0
NG-1009	Residential Consumer Products & Appliance Recycling Programs Process & Impact Evaluation	\$0	\$0	\$111,459	\$55,930	\$0	\$0	\$0
NG-1010	Electric Commercial & Industrial Process & Impact Evaluation Follow-on	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NG-1011	Residential Heat Pump Process Evaluation	\$0	\$66,318	\$8,220	\$0	\$0	\$0	\$0
NG-1013	Electric Commercial & Industrial Lighting Impact Evaluation 2	\$0	\$0	\$0	\$0	\$401,372	\$791,374	\$937,695
NG-1015	Small Business Services Electric Impact Evaluation 2	\$0	\$0	\$0	\$3,277	\$22,859	\$500,000	\$222,500
NG-3001	Electric & Gas Residential & Commercial & Industrial Programs Evaluation, Measurement, & Verification Support	\$20,566	\$12,982	\$3,342	\$17,612	\$32,127	\$0	\$0
NG-3002	Electric & Gas Residential & Commercial & Industrial Free Ridership/ Spillover Research	\$0	\$99,146	\$42,755	\$72,006	\$0	\$0	\$0
NG-3004	Multifamily Program Process & Impact Evaluation	\$24,626	\$188,132	\$0	\$0	\$0	\$0	\$0
NG-3009	Residential Engagement Program Process & Impact Evaluation	\$115,406	\$22,729	\$68,923	\$3,278	\$0	\$0	\$0
NG-3010	Residential Online Marketplace Process Evaluation	\$51,489	\$31,126	\$19,957	\$0	\$0	\$74,401	\$0
NG-3015	Residential and Non-Residential Online Marketplace Program(s) Impact Evaluation	\$0	\$0	\$84,313	\$43,280	\$41,963	\$0	\$100,000

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NG-3016	Multifamily Program Process & Impact Evaluation 2	\$0	\$0	\$0	\$0	\$0	\$40,000	\$60,000
NG-3017	Portfolio Benefit Cost Analysis	\$0	\$0	\$225,924	\$134,829	\$147,061	\$0	\$0
NG-4005	Electric Self-Direct Program	\$0	\$0	\$0	\$0	\$0	\$40,000	\$20,000
NG-4006	C&I LED Street Lighting Impact Study	\$0	\$0	\$0	\$0	\$0	\$144,000	\$100,000
NG-4008	Electric Residential Weatherization No Savings	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2. TRM, BCA, Measure Costs, & Savings Impact Activities								
NG-1005	Evaluation Support	\$85,847	\$87,563	\$34,300	\$16,038	\$0	\$170,500	\$156,887
NG-1012	Market & Measure Evaluation Follow-on	\$0	\$20,874	\$0	\$0	\$0	\$0	\$0
NG-3003	Measure Research	\$69,231	\$157,467	\$122,833	\$50,713	\$8,391	\$0	\$0
NG-3006	Measure Cost Research & Analysis	\$11,995	\$7,578	\$11,808	\$5,709	\$0	\$0	\$0
NG-3011	Technical Resource Manual Vendor - Statewide Support	\$47,478	\$26,202	\$17,913	\$168,633	\$23,487	\$49,500	\$54,450
3. Market Studies								
NG-1007	Lighting Market Analysis	\$11,238	\$0	\$0	\$0	\$0	\$0	\$0
NG-1014	Electrification Research	\$0	\$0	\$0	\$21,081	\$0	\$0	\$0
<b>Subtotal EM&amp;V Forecasted Expenditures</b>		<b>\$984,039</b>	<b>\$1,326,393</b>	<b>\$854,042</b>	<b>\$851,847</b>	<b>\$677,260</b>	<b>\$1,809,775</b>	<b>\$1,651,532</b>
4. Other								
Expenses		\$24,226	\$43,185	\$0	\$4,390	\$108,244	\$0	\$0
Unallocated Funds		\$0	\$0	\$0	\$0	\$0	\$0	\$212,250
<b>Subtotal EM&amp;V Forecasted Expenditures (including Unallocated Funds)</b>		<b>\$1,008,265</b>	<b>\$1,369,578</b>	<b>\$854,042</b>	<b>\$856,237</b>	<b>\$785,504</b>	<b>\$1,809,775</b>	<b>\$1,863,782</b>
5. Statewide Evaluations								
NG-3018-B	LMI 1-4 Family - LED Foodbank - Process and Impact Evaluation	\$0	\$0	\$0	\$0	\$0	\$9,732	\$29,195
NG-3018-C	LMI Existing Affordable Multifamily ("AMEEP") UNY Process and Impact Evaluation	\$0	\$0	\$0	\$0	\$44	\$13,078	\$13,078
NG-3018-E	LMI 1-4 Family - Empower+	\$0	\$0	\$0	\$17,934	\$0	\$29,289	\$12,038
NYS Clean Heat Program Statewide Evaluation		\$0	\$0	\$0	\$2,500	\$11	\$940,000	\$490,858
<b>Total EM&amp;V Forecasted Expenditures (including Statewide Evaluations)</b>		<b>\$1,008,265</b>	<b>\$1,369,578</b>	<b>\$854,042</b>	<b>\$876,671</b>	<b>\$785,559</b>	<b>\$2,801,873</b>	<b>\$2,408,951</b>

**GAS**

EM&V Activity		2019 Expended	2020 Expended	2021 Expended	2022 Expended	2023 Expended	2024	2025
1. Evaluation, Measurement, and Verification								
NG-2004	Gas Commercial & Industrial Program Process & Impact Evaluation	\$0	\$117,979	\$23,717	\$70,520	\$0	\$0	\$0
NG-2008	Gas Residential Program Process & Impact Evaluation	\$0	\$72,075	\$0	\$53,140	\$2,780	\$0	\$0
NG-2011	Gas Commercial & Industrial Program Process & Impact Evaluation APRR	\$0	\$0	\$0	\$0	\$0	\$25,000	\$0
NG-2012	Gas Residential Program Process & Impact Evaluation Follow-on	\$0	\$0	\$0	\$0	\$1,971	\$0	\$0
NG-2014	Gas Peak Research (Building Simulations & Metering)	\$0	\$0	\$12,480	\$2,500	\$0	\$0	\$0
NG-2016	Residential Gas End-use Consumption (Load Shape) Study	\$0	\$0	\$17,244	\$0	\$0	\$0	\$0
NG-3001	Electric & Gas Residential & Commercial & Industrial Programs Evaluation, Measurement, & Verification Support	\$18,943	\$27,437	\$776	\$9,381	\$5,320	\$30,600	\$75,410
NG-3002	Electric & Gas Residential & Commercial & Industrial Free Ridership/ Spillover Research	\$0	\$29,961	\$12,920	\$17,801	\$0	\$0	\$0
NG-3004	Multifamily Program Process & Impact Evaluation	\$4,283	\$32,719	\$0	\$0	\$0	\$0	\$0
NG-3009	Residential Engagement Program Process & Impact Evaluation	\$41,546	\$12,722	\$28,288	\$1,180	\$0	\$0	\$0
NG-3010	Residential Online Marketplace Program Process Evaluation	\$39,030	\$31,126	\$19,957	\$0	\$0	\$0	\$0
NG-3015	Residential and Non-Residential Online Marketplace Program(s) Impact Evaluation	\$0	\$0	\$28,104	\$14,427	\$13,988	\$0	\$0
NG-3016	Multifamily Program Process & Impact Evaluation 2	\$0	\$0	\$0	\$0	\$0	\$17,600	\$26,400
NG-3017	Portfolio Benefit Cost Analysis	\$0	\$0	\$0	\$9,628	\$0	\$0	\$0
NG-4003	Gas Non-residential Marketplace	\$0	\$0	\$0	\$0	\$0	\$20,000	\$22,000
NG-4004	Gas Small Business	\$0	\$0	\$0	\$0	\$0	\$50,000	\$0
2. TRM, BCA, Measure Costs, & Savings Impact Activities								
NG-3003	Measure Research	\$17,472	\$31,383	\$29,147	\$12,034	\$2,587	\$0	\$0

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NG-3006	Measure Cost Research & Analysis	\$23,419	\$14,796	\$19,916	\$11,146	\$0	\$0	\$0
NG-3011	Technical Resource Manual Vendor - Statewide Support	\$13,856	\$8,389	\$6,364	\$2,136	\$7,240	\$14,300	\$15,730
<b>3. Market Studies</b>								
NG-2005	Gas Residential & Commercial & Industrial Market Assessment	\$0	\$0	\$18,291	\$31,678	\$3,017	\$0	\$0
<b>Subtotal EM&amp;V Forecasted Expenditures</b>		<b>\$158,549</b>	<b>\$378,587</b>	<b>\$217,204</b>	<b>\$235,571</b>	<b>\$36,901</b>	<b>\$157,500</b>	<b>\$139,540</b>
<b>4. Other</b>								
Expenses		\$11,351	\$8,702	\$0	\$0	\$28,872	\$0	\$0
Unallocated Funds		\$0	\$0	\$0	\$0	\$0	\$40,350	\$580,075
<b>Subtotal EM&amp;V Forecasted Expenditures (including Unallocated Funds)</b>		<b>\$169,900</b>	<b>\$387,289</b>	<b>\$217,204</b>	<b>\$235,571</b>	<b>\$65,773</b>	<b>\$197,850</b>	<b>\$719,615</b>
<b>5. Statewide Evaluations</b>								
NG-3018-D	LMI Existing Affordable Multifamily ("AMEEP") UNY Process and Impact Evaluation	\$0	\$0	\$0	\$0	\$18	\$132,996	\$132,996
NG-3018-E	LMI 1-4 Family - Empower+	\$0	\$0	\$0	\$94,186	\$0	\$152,250	\$210,323
<b>Total EM&amp;V Forecasted Expenditures (including Statewide Evaluations)</b>		<b>\$169,900</b>	<b>\$387,289</b>	<b>\$217,204</b>	<b>\$329,757</b>	<b>\$65,791</b>	<b>\$483,096</b>	<b>\$1,062,934</b>

## VI. BENEFIT COST ANALYSIS (“BCA”)

The BCA tables below summarize the value of the electric and gas energy efficiency savings goals for 2019 – 2025 including associated budgets, benefit cost ratios for each offering from a Societal Cost Test (“SCT”) perspective, and the value of avoided external carbon dioxide (“CO<sub>2</sub>”). The table also includes a benefit cost ratio at the portfolio level, and each program.

### ELECTRIC

TABLE 7: 2019 – 2025 PRIMARY BCA

NE:NY Electric EE	2021	2022	2023	2024	2025
<b>Commercial &amp; Industrial Sector</b>					
<b>Electric Commercial &amp; Industrial Program</b>					
Benefits (2021\$)	\$106,066,666	\$87,301,245	\$64,364,257	\$60,457,150	\$66,603,549
Costs (2021\$)	\$36,489,940	\$42,670,951	\$32,351,357	\$37,525,128	\$48,904,887
BCR	2.91	2.05	1.99	1.61	1.36
<b>Electric Non-Residential Online MarketPlace Program</b>					
Benefits (2021\$)	\$126,948	\$113,552	\$108,925	\$0	\$0
Costs (2021\$)	\$776,764	\$1,060,422	\$1,124,865	\$0	\$88,618
BCR	0.16	0.11	0.10	-	-
<b>Electric Small Business Services</b>					
Benefits (2021\$)	\$29,288,023	\$31,911,327	\$25,704,142	\$23,680,152	\$22,458,413
Costs (2021\$)	\$19,706,927	\$18,495,488	\$16,121,613	\$16,458,454	\$17,426,369
BCR	1.49	1.73	1.59	1.44	1.29
<b>LED Street Lighting Program</b>					
Benefits (2021\$)	\$5,776,544	\$4,718,433	\$5,242,614	\$4,544,073	\$3,774,969
Costs (2021\$)	\$2,050,143	\$1,561,465	\$1,420,395	\$1,215,310	\$1,274,784
BCR	2.82	3.02	3.69	3.74	2.96
<b>Electric RTEM Program</b>					
Benefits (2021\$)	\$0	\$0	\$2,343,548	\$1,900,995	\$3,335,389
Costs (2021\$)	\$0	\$460,932	\$13,650,382	\$9,832,016	\$12,159,418
BCR	-	-	0.17	0.19	0.27
<b>Residential Sector</b>					
<b>Electric Pay-For-Performance Pilot Program</b>					
Benefits (2021\$)	\$0	\$73,301	\$0	\$0	\$0
Costs (2021\$)	\$443,387	\$20,861	\$0	\$0	\$0
BCR	-	3.51	-	-	-
<b>Electric Residential Consumer Products</b>					
Benefits (2021\$)	\$29,730,623	\$34,361,028	\$32,170,965	\$30,643,828	\$31,105,017
Costs (2021\$)	\$18,749,472	\$19,973,860	\$13,143,284	\$17,864,058	\$25,346,441
BCR	1.59	1.72	2.45	1.72	1.23
<b>Electric Residential Engagement Program (OPOWER)</b>					
Benefits (2021\$)	\$6,327,903	\$3,778,450	\$4,242,149	\$6,791,246	\$7,181,096
Costs (2021\$)	\$8,141,644	\$7,236,482	\$5,397,920	\$7,372,321	\$7,191,704
BCR	0.78	0.52	0.79	0.92	1.00
<b>Electric Residential Online MarketPlace Program</b>					
Benefits (2021\$)	\$3,404,015	\$2,866,523	\$303,527	\$377,332	\$0
Costs (2021\$)	\$10,595,828	\$8,693,639	\$3,456,640	\$2,628,949	\$598,000
BCR	0.32	0.33	0.09	0.14	-
<b>Multifamily Sector</b>					
<b>Electric Multifamily Program</b>					
Benefits (2021\$)	\$2,908,381	\$2,278,225	\$948,522	\$381,472	\$261,534
Costs (2021\$)	\$4,000,288	\$3,039,523	\$1,396,908	\$1,439,538	\$2,022,394
BCR	0.73	0.75	0.68	0.26	0.13
<b>NE:NYNYS Clean Heat Program</b>					
<b>Heat Pumps</b>					
Benefits (2021\$)	\$34,019,979	\$49,919,918	\$53,307,972	\$84,698,564	\$115,427,224
Costs (2021\$)	\$38,401,582	\$46,562,947	\$63,035,592	\$71,766,268	\$97,532,971
BCR	0.89	1.07	0.85	1.18	1.18
<b>Total Portfolio</b>					
Benefits (2021\$)	\$217,649,079	\$217,322,002	\$188,736,621	\$213,474,811	\$250,147,192
Costs (2021\$)	\$139,355,975	\$149,776,570	\$151,098,957	\$166,102,042	\$212,545,586
BCR	1.56	1.45	1.25	1.29	1.18

**TABLE 8: 2019 - 2025 PORTFOLIO BCA RATIOS**

NE:NY ELECTRIC EE	2021	2022	2023	2024	2025
Societal Cost Test Ratio	1.56	1.45	1.25	1.29	1.18
Utility Cost Test Ratio	1.44	1.41	1.36	1.10	0.99
Ratepayer Impact Measure Test Ratio	0.44	0.36	0.35	0.31	0.34

**GAS**

**TABLE 7: 2019 - 2025 PRIMARY BCA**

NE:NY GAS EE	2021	2022	2023	2024	2025
<b>Commercial &amp; Industrial Sector</b>					
<b>Gas Commercial &amp; Industrial Program</b>					
Benefits (2021\$)	\$36,049,139	\$40,843,438	\$34,038,843	\$31,484,491	\$41,670,908
Costs (2021\$)	\$9,154,751	\$10,364,160	\$11,390,550	\$12,641,241	\$16,220,242
BCR	3.94	3.94	2.99	2.49	2.57
<b>Gas Non-Residential Online MarketPlace Program</b>					
Benefits (2021\$)	\$77,624	\$61,944	\$56,087	\$0	\$0
Costs (2021\$)	\$38,365	\$37,750	\$179,520	\$0	\$0
BCR	2.02	1.64	0.31	-	-
<b>Gas Small Business Services Program</b>					
Benefits (2021\$)	\$273,437	\$1,650,787	\$1,614,993	\$2,046,304	\$891,666
Costs (2021\$)	\$155,500	\$860,199	\$2,368,667	\$9,610,016	\$1,325,700
BCR	1.76	1.92	0.68	0.21	0.67
<b>Gas Non-Residential Weatherization Program</b>					
Benefits (2021\$)	\$0	\$0	\$0	\$2,644,818	\$1,309,615
Costs (2021\$)	\$0	\$0	\$117,040	\$2,485,465	\$2,720,253
BCR	-	-	-	1.06	0.48
<b>Gas RTEM Program</b>					
Benefits (2021\$)	\$0	\$0	\$231,306	\$144,238	\$175,661
Costs (2021\$)	\$0	\$24,259	\$640,348	\$674,875	\$938,945
BCR	-	-	0.36	0.21	0.19
<b>Residential Sector</b>					
<b>Gas Residential Engagement Program</b>					
Benefits (2021\$)	\$1,336,551	\$1,063,909	\$980,927	\$1,738,679	\$1,737,675
Costs (2021\$)	\$894,313	\$867,374	\$756,800	\$758,769	\$713,060
BCR	1.49	1.23	1.30	2.29	2.44
<b>Gas Residential Online MarketPlace Program</b>					
Benefits (2021\$)	\$2,535,078	\$2,061,126	\$559,776	\$0	\$0
Costs (2021\$)	\$1,832,386	\$1,505,067	\$1,428,348	\$0	\$0
BCR	1.38	1.37	0.39	-	-
<b>Gas Residential Program</b>					
Benefits (2021\$)	\$22,636,523	\$22,837,943	\$13,590,847	\$18,718,630	\$26,110,476
Costs (2021\$)	\$8,635,924	\$7,511,417	\$6,070,670	\$5,812,964	\$7,325,997
BCR	2.62	3.04	2.24	3.22	3.56
<b>Gas Pay-For-Performance Pilot Program</b>					
Benefits (2021\$)	\$0	\$1,151,032	\$0	\$0	\$0
Costs (2021\$)	\$141,538	\$303,532	\$0	\$0	\$0
BCR	-	3.79	-	-	-
<b>Gas Residential Weatherization Program</b>					
Benefits (2021\$)	\$0	\$0	\$0	\$0	\$2,771,954
Costs (2021\$)	\$0	\$0	\$0	\$323,700	\$2,995,200
BCR	-	-	-	-	0.93
<b>Multifamily Sector</b>					
<b>Gas Multifamily Program</b>					
Benefits (2021\$)	\$2,328,868	\$1,282,468	\$1,609,633	\$1,438,798	\$2,965,818
Costs (2021\$)	\$2,358,767	\$1,141,971	\$1,335,372	\$1,013,706	\$1,760,870
BCR	0.99	1.12	1.21	1.42	1.68
<b>Total Portfolio</b>					
<b>Total Portfolio</b>					
Benefits (2021\$)	\$65,237,221	\$70,952,647	\$52,682,412	\$58,215,959	\$77,633,773
Costs (2021\$)	\$23,211,544	\$22,615,729	\$24,287,315	\$33,320,737	\$34,000,266
BCR	2.81	3.14	2.17	1.75	2.28

**TABLE 8: 2019 - 2025 PORTFOLIO BCA RATIOS**

<b>NE:NY GAS EE</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Societal Cost Test Ratio	2.81	3.14	2.17	1.75	2.28
Utility Cost Test Ratio	3.32	3.72	2.45	2.15	2.38
Ratepayer Impact Measure Test Ratio	0.92	1.08	1.06	1.38	1.51

## APPENDIX A: VGS SPECIFICATIONS

In compliance with Clean Energy Guidance documents *CE-02: SEEP Content Guidance* and *CE-08: Gross Savings Verification Guidance*, please find attached the Company’s verified gross savings specifications.

## VII. APPENDIX B: BCA SUPPORTING DOCUMENT

In compliance with Clean Energy Guidance documents *CE-02: SEEP Content Guidance* and *CE-07: Benefit Cost Analysis Filing Requirements Guidance*, please find attached the active BCA excel workbook detailing the inputs used for the Company’s BCA analysis.

## VIII. APPENDIX C: ACRONYM LIST

Acronyms	
AMI	Advanced Metering Infrastructure
API	Advanced Program Interface
B2B	Business-to-Business
BCA	Benefit-Cost Analysis
BYOD	Bring Your Own Device
C&I	Commercial and Industrial
CCVT	Coupling Capacitor Voltage Transformer
CDG	Community Distributed Generation
CEAC	Clean Energy Advisory Council
CEF	Clean Energy Fund
CEMP	Customer Energy Management Marketplace
CDO	Customer Directed Option
CLCPA	Climate Leadership and Community Protection Act
CMD	Connect My Data
CO2	Carbon dioxide
CSRP	Commercial System Relief Program
DAC	Disadvantaged Community

<b>DEEP</b>	<b>Delivered Efficiency Energy Program</b>
<b>DER</b>	<b>Distributed Energy Resource</b>
<b>DERMS</b>	<b>Distributed Energy Resource Management System</b>
<b>DG</b>	<b>Distributed Generation</b>
<b>DI</b>	<b>Direct Install</b>
<b>DLC</b>	<b>Direct Load Control</b>
<b>DLM</b>	<b>Dynamic Load Management</b>
<b>DLRP</b>	<b>Distribution Load Relief Program</b>
<b>DMS</b>	<b>Distribution Management System</b>
<b>DOE</b>	<b>U.S. Department of Energy</b>
<b>DPS</b>	<b>Department of Public Service</b>
<b>DR</b>	<b>Demand Response</b>
<b>DRMS</b>	<b>Demand Response Management System</b>
<b>DSM</b>	<b>Demand Side Management</b>
<b>Dth</b>	<b>Dekatherm</b>
<b>EAM</b>	<b>Earnings Adjustment Mechanism</b>
<b>EE</b>	<b>Energy Efficiency</b>
<b>EES</b>	<b>Energy Efficiency Surcharge</b>
<b>EM&amp;V</b>	<b>Evaluation, Measurement and Verification</b>
<b>EMS</b>	<b>Energy Management System</b>
<b>EPA</b>	<b>Environmental Protection Agency</b>
<b>ERT</b>	<b>Encoder Receiver Transmitters</b>
<b>ETIP</b>	<b>Energy Efficiency Transition Implementation Plan</b>
<b>EV</b>	<b>Electric Vehicle</b>
<b>FlexTech</b>	<b>Flexible Technical Assistance Program</b>
<b>GBC</b>	<b>Green Button Connect</b>
<b>GBD</b>	<b>Green Button Download</b>
<b>GDR</b>	<b>Gas Demand Response</b>
<b>GHG</b>	<b>Greenhouse Gas</b>
<b>HAN</b>	<b>Home Area Network</b>

<b>HERs</b>	<b>Home Energy Reports</b>
<b>HID</b>	<b>High Intensity Discharge</b>
<b>HVAC</b>	<b>Heating, Ventilation and Air Conditioning</b>
<b>IPWG</b>	<b>Interconnection Policy Working Group</b>
<b>JU</b>	<b>Joint Utilities</b>
<b>KEDLI</b>	<b>KeySpan Gas East Corporation</b>
<b>KEDNY</b>	<b>Brooklyn Union Gas Company</b>
<b>kW</b>	<b>Kilowatt</b>
<b>kWh</b>	<b>Kilowatt hour</b>
<b>LED</b>	<b>Light-emitting diode</b>
<b>LMI</b>	<b>Low-to-moderate-income</b>
<b>MF</b>	<b>Multifamily</b>
<b>M&amp;V</b>	<b>Measurement and Verification</b>
<b>MW</b>	<b>Megawatts</b>
<b>MWh</b>	<b>Megawatt hours</b>
<b>NENY</b>	<b>New Efficiency: New York</b>
<b>NG</b>	<b>National Grid</b>
<b>NMPC</b>	<b>Niagara Mohawk Power Corporation</b>
<b>NLC</b>	<b>Network Lighting Control</b>
<b>NPA</b>	<b>Non-Pipe Alternatives</b>
<b>NWA</b>	<b>Non-Wires Alternatives</b>
<b>NY</b>	<b>New York</b>
<b>NYC</b>	<b>New York City</b>
<b>NYS</b>	<b>New York State</b>
<b>NYSERDA</b>	<b>New York State Energy Research and Development Authority</b>
<b>P4P</b>	<b>Pay-For-Performance</b>
<b>PA</b>	<b>Program Administrator</b>
<b>PM</b>	<b>Portfolio Manager</b>
<b>PSC</b>	<b>Public Service Commission</b>
<b>PTR</b>	<b>Peak Time Rewards</b>

<b>QA/QC</b>	<b>Quality Assurance/Quality Control</b>
<b>REV</b>	<b>Reforming the Energy Vision</b>
<b>RFI</b>	<b>Request for Information</b>
<b>RFP</b>	<b>Request for Proposal</b>
<b>RPAs</b>	<b>Regional Program Administrators</b>
<b>RR</b>	<b>Realization Rates</b>
<b>RTEM</b>	<b>Real Time Energy Management Program</b>
<b>SBS</b>	<b>Small Business Services</b>
<b>SCT</b>	<b>Societal Cost Test</b>
<b>SEEP</b>	<b>System Energy Efficiency Plan</b>
<b>SEM</b>	<b>Strategic Energy Management</b>
<b>TBtu</b>	<b>Trillion British Thermal Units</b>
<b>TCC</b>	<b>Transmission Control Center</b>
<b>TRM</b>	<b>Technical Resource Manual</b>
<b>TRM MC</b>	<b>Technical Resource Manual Management Committee</b>
<b>TVR</b>	<b>Time Varying Rate</b>
<b>UTC</b>	<b>Utility Cost Test</b>
<b>VGS</b>	<b>Verified Gross Savings</b>