System Energy Efficiency Plan

PROGRAM YEARS 2019 THROUGH 2025

Submitted by: New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation

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CHAPTER ONE: EXECUTIVE SUMMARY AND PORTFOLIO DESCRIPTION

Full System Energy Efficiency Plan for Program Years 2019-2025

1.1 Executive Summary

For over a decade, New York State Electric & Gas Corporation ("NYSEG") and Rochester Gas and Electric Corporation ("RG&E") (hereinafter the "Companies"[1]) have delivered cost-effective energy efficiency programs to their residential, commercial, industrial, municipal, and multifamily customers. During the program years, the Companies continued to offer programs while also accelerating the deployment of new initiatives that promote energy-efficient technologies, equipment, and comprehensive building design. The Companies will continue to identify and implement programs going forward.

The Companies continue to align their Energy Efficiency Program Portfolios based on market sector. These programs are designed with flexible structures that can be modified quickly to address changing customer and marketplace needs, as well as integrate emerging technologies and new and/or pilot initiatives. This flexibility allows the Companies to develop and modify the programs toward greater efficacy while driving energy savings, greenhouse gas ("GHG") emissions reductions, customer engagement and satisfaction, and increased economic benefits.

The Companies continue to collaborate with the New York State Energy Research and Development ("NYSERDA") on the NY Clean Heat program and the development of a statewide framework for Low-to-Moderate ("LMI") income customers. The Companies are working closely with NYSERDA to research, design,

[11] NYSEG and RG&E are the New York-based utility subsidiaries of AVANGRID, the United States based diversified energy company that is majority owned by Iberdrola Group. Iberdrola Group has a goal of being carbon-neutral by 2050.

and deploy new energy efficiency program pilots in NYSEG's and RG&E's service territories.

1.2 Development of the 2019 – 2025 SEEP

The Companies hereby submit this comprehensive System Energy Efficiency Plan ("SEEP") for program years 2019 through 2025 ("2019-2025 SEEP"). The Companies are filing this updated 2019-2025 SEEP in compliance with the New York State Public Service Commission's ("Commission") December 13, 2018 "*Order Adopting Accelerated Energy Efficiency Targets*" ("December Order"[2]), the January 16, 2020 "Order Authorizing Utility Energy Efficiency and Building Electrification through 2025 ("January Order"[3]), and the September 1, 2020 revised fifth version of the New York Department of Public Service Staff's ("Staff") Clean Energy-02 ("CE") Guidance Document ("CE-02 Guidance Document").

The concepts detailed in the 2019-2025 SEEP align with prior Commission Orders[4] and the 2018 *New Efficiency: New York* White Paper ("NENY White Paper"), developed by Staff and the New York State Energy Research and Development Authority ("NYSERDA"). The NENY White Paper established an ambitious 2025 customer level energy reduction Target of 185 trillion British thermal units ("MMBtu") and identified a comprehensive set of actions to meet this energy reduction goal. This reduction in energy consumption is roughly equivalent to powering 1.8 million New York homes annually. These actions identified in the NENY White Paper are set forth in the Commission's December 2018 and January 2020 Orders[5] requiring investor-owned utilities in New York to accelerate the deployment of innovative and cost-effective energy efficiency programs. The Companies 2019-2025 Energy Efficiency Program Portfolios focus on innovation

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[2] Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative*. Order Adopting Accelerated Energy Efficiency Targets (issued Dec. 13, 2018).

[3] Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative.* Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025 (dated Jan. 16, 2020).

[4] Case 14-M-0094 – New York Public Service Commission, *Order Authorizing the Clean Energy Fund Framework* (issued Jan. 21, 2016) and New York Public Service Commission, *Order Adopting a Clean Energy Standard* (issued Aug. 1, 2016).

[5] Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative Order Adopting Accelerated Energy Efficiency Targets* (Dec. 13, 2018) and *Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025* (Jan. 16, 2020).

and investment from all market sectors and will look to leverage the potential of optimal technology or deployment alternatives for specific locations in the Companies' service territories (e.g., large commercial customers being encouraged to participate in the Non-Residential Programs to reduce electric demand along a busy circuit). Additionally, the Companies will continue to look for opportunities to streamline program processes and utilize their energy efficiency expertise to improve outcomes and cost-effectiveness.

As well as cost savings for customers, energy efficiency programs contribute to positive environmental benefits. The Companies' 2019-2025 Energy Efficiency Portfolios will greatly reduce greenhouse gas ("GHG") emissions across NYSEG's and RG&E's service territories. These reductions in GHG emissions are critical in helping the Companies meet energy savings targets as well as initiatives on energy efficiency and locally produced renewable energy, and the more recent Climate Leadership and Community Protection Act ("CLCPA"). The CLCPA codified New York State's goal to reduce GHG emissions 40 percent from 1990 levels by 2030, and 85 percent by 2050.[6] In addition to the regulatory guidance referenced above, the Companies considered several factors in the development of their 2019-2025 Energy Efficiency Program Portfolios. These include, but are not limited to, the following:

- Historical Energy Efficiency Program Portfolio participation and performance;
- Economic, market, and technical conditions which may affect future program participation;
- Evaluation, Measurement and Verification ("EM&V") reports and evaluation findings regarding an increase or decrease in energy-saving calculations and program implementation costs;
- Studies and evaluations regarding the future energy savings potential for programs, services, incentive structures, and emerging technologies;
- Discussions with other utility program administrators, NYSERDA, and industry experts; and

[6] CLCPA link: https://climate.ny.gov/

- Internal dialogues with the Companies' personnel who are actively engaged in REV and REV-related proceedings, including Non-Wire and Non-Pipe Alternatives and Demand Response.

1.3 2019 – 2025 Priorities

The Companies will build upon the successes and lessons learned from prior years' energy efficiency programs to improve program design, structure, cost-effectiveness, and efficacy. The Companies' Energy Efficiency Portfolios will continue to drive deep energy savings for the Residential, Non-Residential (commercial, industrial, and municipal customers), and Multifamily sectors, with a special emphasis on reducing the energy burden of low-and-moderate income customers as directed in the January Order.

The Companies have adjusted 2024-2025 planning to prepare customers for the change in landscape coming as a result of the recent Order directing Energy Efficiency and Building Electrification Portfolios.

In this latest plan, the Companies detail the approach to 2025. In our final year the intent of the plan is to bolster current programs with strategic measures while phasing out programs and measures considered non-strategic. This is being done to aid in the transition to the Strategic Framework outlined in the July 2023 Midpoint review. While not required, the Commission encourages Program Administrators to start shifting away from Non-Strategic Measures/Programs in advance of 2026, to the extent practicable.[7] The program specific descriptions in chapter 2 provides information on programs being retired early and/or measures (most notably lighting, appliances and combustion measures) that have been removed or closed out early to free us up to focus on more holistic solutions including air sealing, insulation and building shell.

The 2025 plan recognizes a relative increase in planned MMBTU savings and a corresponding decrease in MWh savings planned. This is due to the significant shift from measures historically promoted to the remaining measures available (and deemed strategic) as we described in detail in our 2026-2030 Proposal[8]

[7] NE:NY Proceeding July 2023, EE/BE Order, p. 35.

[8] Case 18-M-0084; NYSEG/RG&E EE/BE Proposal (filed: 1/16/24) pages 9-14

Moreover, initiating more programs (with focus on building shell) a year early allows us more time to refine program design, messaging, and outreach for 2026-2030 initiatives.

CHAPTER TWO: PROGRAM DESCRIPTIONS

2.1 Non-Residential Energy Efficiency Programs

The Companies deliver cost-effective energy efficiency programs to non-residential electric and natural gas customers across their service territories. The Companies' Non-Residential Energy Efficiency went through minor changes. A program was removed – Self-Direct. The Small Business program went through an overhaul and 3 new programs were added to this sector in 2024: Commercial & Industrial Rebate Program (CIRP)

- Small Business Program (SB)
- Energy Management Partnership Program (EMP)
- Retrocommissioning (RCx)
- Commercial Instant Discount Program (CIDP)

In the second quarter of 2024, the Companies launched, Commercial Instant Discount, Retrocommissioning and Energy Management Partnership. The addition of these programs is still in the very early stages. The program descriptions are listed below. The Companies are also looking to pilot an Energy Saving Trees program. The purpose of the Energy Saving Trees pilot program is to offer tree distribution to commercial customers who participate in the commercial and industrial program or the small business program. This pilot program is designed to engage and educate the customer on the importance of strategic tree planting for maximum energy savings and environmental value.

Through the Non-Residential programs, the Companies provide commercial, industrial, and municipal customers with a variety of energy efficiency services which vary by program. These include direct customer incentives (custom and prescriptive), point-of-sale incentives paid to equipment distributors and direct installation of measures. The Companies continue enhancement of existing programs by adding measures to drive more comprehensive energy savings.

2.1.1 Commercial and Industrial Rebate Program

Program Description

The Commercial and Industrial Rebate program (CIRP) was formally called Non-Residential Prescriptive and Custom program. The Companies decided for clarity and simplicity to change the program name to Commercial and Industrial Rebate Program. All parameters of the program remain the same. The Commercial and Industrial Rebate Program offer incentives to commercial and/or industrial (C&I)

customers for improving the efficiency of their facilities through the installation of new, high-efficiency technologies and equipment to replace existing, less efficient equipment.

The Companies operate the Commercial and Industrial Rebate program in the same manner, utilizing the same vendor for both utilities, and thus for the 2019-2025 SEEP, the programs are described collectively in the same section. The primary objectives of the Commercial and Industrial Rebate program are to: a) obtain cost-effective energy savings, b) improve commercial and industrial customers' bottom line, and (c) integrate sustainability into a customer's business and facility operations. There are two options for a customer to apply for the Commercial and Industrial Rebate program. The customer can choose prescriptive or custom, both are described below.

Prescriptive:
Prescriptive incentives are fixed, pre-determined rebates offered to commercial and industrial customers who install energy-efficient equipment models of commonly found technologies in their facilities.

Custom:
Custom incentives are calculated based on site-specific engineering and cost analysis for less commonly found equipment and/or situations which warrant detailed energy analysis.

Timeframe: Ongoing

Delivery Method and Target Market

Eligible Commercial and Industrial customers can select their own contractor to install energy-efficient equipment. The Companies have established a robust and growing trade ally network for the program. The customer can review a complete list of the trade ally network to choose from. If the customer does not already have a contractor of choice, they can select a contractor through the trade ally microsite and/or also through the Companies' websites which have pdf. versions of all participating contractors. There is no minimum or maximum kilowatt ("kW") or dekatherm ("Dth") criteria for customers wishing to participate in the program. NYSEG and RG&E have no customer caps or limits to the number of rebates redeemed or incentive dollars offered. Pre-approval is required for all custom incentive applications.

Commercial, Industrial, and Municipal customers with existing facilities or new

construction are eligible for the program if they are an active NYSEG or RG&E Commercial and Industrial customer who pays the Systems Benefit Charge (SBC) on their electric and/or natural gas bill or pay into the applicable cost recovery mechanism through base rates when that goes into effect. Common area portions of multifamily buildings or buildings which are not separately metered per dwelling unit are also eligible for the program.

Electric customers of NYSEG and RG&E are eligible for electric measure incentives, both custom and prescriptive. NYSEG and RG&E natural gas customers are eligible for custom and prescriptive natural gas measure incentives. If a commercial, industrial, or municipal customer is both an electric and natural gas customer of NYSEG and/or RG&E, they are eligible for both electric and natural gas measure incentives from the Company with whom they are a customer.

There is an opportunity to coordinate with Energy Management Partnership (EMP) and Retrocommissioning (RCx) programs. There will be opportunities to uncover savings that can funnel to the CIRP program from being uncovered through both programs. There is a coordination effort with CIRP, Small Business (SB) and Commercial Instant Discount Program (CIDP).

Quality Assurance/Quality Control (QA/QC)

The Companies provide QA/QC through a combination of implementation contractor activities and NYSEG/RG&E employee oversight and monitoring. The QA/QC processes and controls undertaken by the implementation contractor are designed to ensure proper project energy savings calculations and incentive payments are utilized within the Non-Residential Rebate program. Additionally, the QA/QC procedures ensure compliance with other program rules specific to the Companies' Non-Residential Energy Efficiency Program Sector. The Companies' staff monitor QA/QC compliance as part of their normal energy efficiency program management activities, including processing invoices, tracking/reporting (the Clean Energy Dashboard), and monthly project documentation audits. QA/QC compliance also includes Company staff and the Companies' evaluation contractor randomly selecting projects for intensive review and the accompaniment of implementation contractor QA/QC inspectors during their scheduled pre- and/or post-inspections to verify the contractor's compliance with the Companies' QA/QC procedures.

Planned Program Activities (through 2024)

For the 2023 program year, approximately 26,689 MWh NYSEG and 25,867 MWh RG&E electric incentives and 12,044 MMBtu NYSEG and 40,719 MMBtu RG&E gas incentives were issued to commercial customers.

Planned Program Activities (2024 - 2025)

Work with the implementation contractor to continue with the robust customer outreach and engagement which includes educational webinars on the programs; from general "program kick-off" webinars to more detailed webinars. Continue yearly trade ally advisor meeting. Add new measures to the program and remove measures that reach market saturation. Add new measures in 2025.

2.1.2 Small Business

Program Description

As of January 2024, the Small Business Program Direct Install and Small Business Customer Choice have merged into one. The Small Business (SB) program offers incentives to small business electric and gas customers for improving the efficiency of their facilities through the installation of new, high-efficiency technologies and equipment to replace existing, less efficient equipment. The Companies operate the Small Business Program in the same manner, utilizing the same vendor for both utilities, and thus for the 2019-2025 SEEP, the programs are described collectively in the same section. Just like the Commercial and Industrial Program the Small Business has the same objectives, just on a smaller scale. The primary objectives of the Small Business programs are to: a) obtain cost-effective energy savings, b) improve Small Business customers' bottom line, and (c) integrate sustainability into a customer's business.

Eligible small business customers can select their own contractor to install energy-efficient equipment. The Companies have established a robust and growing trade ally network for the program and have taken advantage of the network utilized by the Commercial and Industrial program. This has proven to be a great resource. Eligible customers of NYSEG or RG&E must be small commercial customers with an active NYSEG/RG&E account who pays the Systems Benefit Charge (SBC) on their electric and/or natural gas bill or pay into the applicable cost recovery mechanism through base rates when that goes into effect. Utility customers eligible for the Small Business rebates are further defined by their consumption patterns. Eligible accounts must meet one of the following sets of criteria:

1. Customers who receive BOTH electricity and natural gas delivered by NYSEG and/or RG&E must experience an average monthly peak demand less than or equal to 110kW on the primary electric account.

2. Customers who receive ONLY electricity from NYSEG/RG&E must experience an

average monthly peak demand less than or equal to 110kW on the primary electric account.

3. Customers who receive ONLY natural gas from NYSEG/RG&E must experience an annual gas consumption less than or equal to 5,000 therms on the primary gas account. These customers are only eligible for the HVAC measures. Pre-approval is required for incentive applications totaling more than $10,000. All applications over $25,000 will require approval from the Companies.

There is a coordination effort with CIRP and CIDP programs; CIDP will offer lower incentives to avoid competition between the other programs.

Quality Assurance/Quality Control (QA/QC)

The Companies provide QA/QC through a combination of implementation contractor activities and NYSEG/RG&E employee oversight and monitoring. The QA/QC processes and controls undertaken by the implementation contractor are designed to ensure proper project energy savings calculations and incentive payments are utilized within the Small Business program. Additionally, the QA/QC procedures ensure compliance with other program rules specific to the Companies' Non-Residential Energy Efficiency Program Sector. The Companies' staff monitor QA/QC compliance as part of their normal energy efficiency program management activities, including processing invoices, tracking/reporting (the Clean Energy Dashboard), and monthly project documentation audits. QA/QC compliance also includes Company staff and the Companies' evaluation contractor randomly selecting projects for intensive review and the accompaniment of implementation contractor QA/QC inspectors during their scheduled pre- and/or post-inspections to verify the contractor's compliance with the Companies' QA/QC procedures.

Planned Program Activities (through 2024)

For the 2023 program year, approximately $5,591,000 for NYSEG and $1,663,000 for RG&E in electric incentives, and $9,800 for NYSEG and $11,200 for RG&E gas incentives were issued to small business customers.

Planned Program Activities (2024 - 2025)

The Small Business Customer Choice (SBCC) pilot program merged with the former Small Business Direct Install (SBDI) Program in January of 2024 and become the Small Business Program. Franklin Energy continues to be the implementation contractor for the Small Business Program in 2024. Program activity will be coordinated with new programs to ensure alignment of incentives and measure offerings for customers.

2.1.3 Energy Management Partnership

Program Description

Energy Management Partnership (EMP) is a program shaped to collaborate with NYSERDA's Strategic Energy Management (SEM) Program. EMP's goal is to achieve ongoing energy savings by assisting facility managers in developing technical competency, implementing O&M improvements, and developing long-term plans to optimize consumption. The EMP program offers tools and training opportunities for the large and industrial sized customers to take advantage of strategically across their organization. This program will be run in collaboration with NYSERDA's existing SEM program. The NYSEG/RG&E customer will be offered end-to-end service which includes an energy team, cohort development and management, EMP coaching, event leadership, along with technical advice and assistance. The companies will also focus on outreach and recruitment efforts. This program aims to help the customers learn how their building operates and gives the customers the tools to manage energy within their organization. EMP has the potential to generate referrals to other NYSEG and RG&E Non- Residential Programs. The vendor will work with assigned NYSERDA implementation contractor SEM coach to identify on-site energy champion and internal stakeholders that will serve the customer. Assist EMP coach to develop change management strategies, establish sense of urgency, set goals, establish a team, and generate some quick wins.

Timeframe: Begins Q1 2024

Recruitment: Work with the existing NYSERDA program implementer to identify program sites. Identify a grouping of geographically clustered customers and size of facility. Help customers understand the level of commitment needed and assist with enrollment in the Energy Management Partnership (EMP). Set up a continuous recruiting mechanism to engage potential customers throughout the year to ensure timely start-up of EMP engagements and provide flexibility for customers and their timing needs. Will also leverage existing relationships built through the Commercial and Industrial program to begin recruitment efforts for EMP.

Workshops: Provide in person subject-matter experts (SMEs) to present and train during the regular cohort workshops. Tailor workshop presentations to the target audience, start organizing internal teams, teach teams how to look for opportunities, and facilitate peer learning to drive implementation. Leverage teams to develop technical skills and organizational manuals. Will Collaborate with NYSERDA and have customer go through some of NYSERDA workshops

Outreach and Project follow-up: Provide an in-person dedicated energy advisor that helps customers through implementation, performs project management assistance, and supports with ongoing installation of the recommended measures. Conduct ongoing discussions with customers to help overcome obstacles and demonstrate NYSEG and RG&E support. Summarize and publicize accomplishments, elevating change-makers, to demonstrate to group what is possible. Set goals and plan for continued growth.

Large Commercial and Industrial Electric customers with buildings sized with 100,000 square feet of conditioned space or more are eligible if they are an active NYSEG or RG&E Commercial and Industrial customer who pays the Systems Benefit Charge (SBC) on their electric and/or natural gas bill or pay into the applicable cost recovery mechanism through base rates when that goes into effect.

Energy Management Partnership (EMP) expects opportunities to uncover savings that customers may not be aware of otherwise that can funnel through the Commercial and Industrial Rebate Program.

Quality Assurance/Quality Control (QA/QC)

The Companies will provide QA/QC through a combination of implementation contractor activities and NYSEG/RG&E employee oversight and monitoring within the Energy Management Partnership program. Additionally, the QA/QC procedures ensure compliance with other program rules specific to the Companies' Non-Residential Energy Efficiency Program Sector. The Companies' staff monitor QA/QC compliance as part of their normal energy efficiency program management activities, including processing invoices, tracking/reporting (the Clean Energy Dashboard), and monthly project documentation audits. QA/QC compliance also includes Company staff and the Companies' evaluation contractor randomly selecting projects for intensive review and the accompaniment of implementation contractor QA/QC inspectors during their scheduled pre- and/or post-inspections to verify the contractor's compliance with the Companies' QA/QC procedures.

Planned Program Activities (2024 - 2025)

Work with the implementation contractor to continue with the robust customer outreach and engagement which includes educational webinars on the program; this includes general "program kick-off" webinars to more detailed customer contact which EMP requires.

2.1.4 Retrocommissioning

Program Description

Retrocommissioning (RCx) is a systematic process for investigating, analyzing, and optimizing an existing building's system performance through operational and facility improvement measures, and continually confirming the performance over time. The program secures comprehensive and persistent energy savings for customers through a full-service approach that offers low-cost and no-cost-facility improvement measures that result in energy saving and load management opportunities.

The Companies operate the RCx Program in the same manner, utilizing the same vendor for both utilities. The goal and intent of the RCx Program is to leverage existing building and process controls to apply low-cost energy measures that have a ROI (Return on Investment) of under two years.

Benefits of the RCx to the customer include cost savings, improved occupant safety and comfort, enhanced operational efficiency, reduced environmental impact, regulatory compliance, and increased occupant productivity.

Delivery Method and Target Market

The RCx program will secure comprehensive and persistent energy savings for NYSEG and RG&E customers through a full-service program that offers low-cost/no-cost facility improvement measures that result in energy saving and load management opportunities. Our approach provides a long-term path to savings and support to help customers achieve advanced energy management, while removing barriers to project funding, contracting, and implementation.

Commercial and Industrial customers with existing facilities sized greeted than 100,000 square feet of conditioned space, are eligible for the program if they are an active NYSEG or RG&E Commercial and Industrial customer who pay the Systems Benefit Charge (SBC) on their electric and/or natural gas bill or pay into the applicable cost recovery mechanism through base rates when that goes into effect. Customer must be willing to invest a minimum of $5,000 worth of projects.

Large Commercial and Industrial Electric customers of NYSEG and RG&E are eligible for RCx.
NYSEG and RG&E have no customer caps or limits to the number of rebates redeemed or incentive dollars offered. Pre-approval is required for all custom incentive applications.

Program began Q1 2024
The Retro Commissioning Program (RCx) expects opportunities to uncover savings that customers may not be aware of otherwise that can funnel through the Commercial and Industrial Rebate Program. The RCx Program is currently collaborating with the NYSERDA FlexTech Program to provide customers additional incentives to cover costly building study fees.

Quality Assurance/Quality Control (QA/QC)

The Companies will provide QA/QC through a combination of implementation contractor activities and NYSEG/RG&E employee oversight and monitoring within the Retro Commissioning program. Additionally, the QA/QC procedures ensure compliance with other program rules specific to the Companies' Non-Residential Energy Efficiency Program Sector. The Companies' staff monitor QA/QC compliance as part of their normal energy efficiency program management activities, including processing invoices, tracking/reporting (the Clean Energy Dashboard), and monthly project documentation audits. QA/QC compliance also includes Company staff and the Companies' evaluation contractor randomly selecting projects for intensive review and the accompaniment of implementation contractor QA/QC inspectors during their scheduled pre- and/or post-inspections to verify the contractor's compliance with the Companies' QA/QC procedures.

Planned Program Activities (2024)
No incentives have been paid yet, as this program is just starting to gain eligible customers with viable projects.

Planned Program Activities (2024 - 2025)
Work with the implementation contractor to continue with the robust customer outreach and engagement which includes educational webinars on the programs; from general "program kick-off" webinars to more detailed program information. Continue to collaborate with the NYSERDA FlexTech Program to optimize savings for our customers.

2.1.5 Commercial Instant Discount

Program Description

The Commercial Instant Discount Program (CIDP) is a midstream program designed to influence equipment-purchasing decisions that customers and trade allies make at the distributor point of sale. CIDP offers incentives directly to distributors and manufacturers. This enables cost reductions for customers through instant rebates on their equipment purchases at the point of sale without application paperwork and benefit from lifetime energy savings.

The Companies' CIDP utilizes the same implementation contractor for both utilities and the programs will run in the same manner. The CIDP Programs' goals are to eliminate the price gap between traditional and high efficiency equipment allowing customers to purchase higher quality and more efficient products at the checkout counter helping to overcome the initial cost barrier and to improve the process to increase distributor and customer participation by reducing market barriers to maximize savings and efficiencies.

Timeframe: Began Q2 2024

Delivery Method and Target Market

This is a point-of-sale commercial program. To minimize market confusion with distributors, the Companies align program design, measures, and incentives with the National Grid Midstream Program where applicable. As well, the Companies coordinate incentives offered within their own programs to prevent double-dipping or limits to the number of rebates redeemed or incentive dollars offered.

Electric customers of NYSEG and RG&E are eligible for electric measure incentives. There is no minimum or maximum kilowatt ("kW") criteria for customers wishing to participate in the program. NYSEG and RG&E have no customer cap.
Includes a wide variety of NY market participants targeting life sciences, pump energy index (PEI)-rated clean water pumps, foodservice equipment, and HVAC measures. The Companies engage distributors that sell to customers within the Companies' service territories.

There is a coordination effort with CIRP, SB and CIDP programs.

Quality Assurance/Quality Control (QA/QC)

Once this program is active, the Companies will provide QA/QC through a combination of implementation contractor activities and NYSEG/RG&E employee oversight and monitoring. The QA/QC processes and controls undertaken by the implementation contractor are designed to ensure proper project energy savings calculations and incentive payments are utilized within the Commercial Instant Discount program. Additionally, the QA/QC procedures ensure compliance with other program rules specific to the Companies' Energy Efficiency Program Sector. The Companies' staff monitor QA/QC compliance as part of their normal energy efficiency program management activities, including processing invoices, tracking/reporting (the Clean Energy Dashboard), and monthly project documentation audits.

2.2 Residential Energy Efficiency Programs

Since 2009, the Companies have delivered cost-effective energy efficiency programs to residential electric and natural gas customers across their service territories. The Companies' 2025 Residential Energy Efficiency Sector will consist of the following programs for residential customers:

- Residential Rebate Program
- Smart Solutions
- Behavior Program
- Multi-Family Program
- Affordable Multi-Family Energy Efficiency Program ("AMEEP")
- Home Insulation and Air Sealing Program (new pilot).
- Residential New Construction
- Panel Box Upgrade Pilot
- NY Clean Heat Statewide Heat Pump Program
- LMI 1-4 Family Homes (Empower)
- LMI Distribution Program
- Retail Products Program
- School Kits Program

2.2.1 Residential Rebate Program (planned shutdown 3rd quarter 2025)

Program Description

On July 1, 2009, the Companies launched the Residential Rebate program which motivated both installers and customers to choose high-efficiency natural gas boilers and furnaces and water heaters. Incentives were also added to customers who perform furnace and/or boiler tune-ups. More recently clothes dryers, induction cooktops, pool pumps, pool heaters and thermostats were added to the roster of product offerings. Rebates are offered to encourage customers to choose energy efficient products and reduce the purchase price of qualifying equipment and services.

Eligible participants include those who have an active NYSEG or RG&E residential natural gas and/or electricity account. Rebates are valid for any customer that replaces their existing equipment or installs in a new build, high-efficiency equipment that meets program standards. Natural gas furnaces, boilers, natural gas dryers and pool pumps must be certified using the Air Conditioning, Heating and Refrigeration Institute (AHRI) or ENERGY STAR® listed.

Additional program eligibility rules are designed to ensure the installation of new, high-efficiency equipment by qualified contractors. The installation of the Wi-Fi-

enabled thermostats, clothes dryers, induction cooktops and pool pumps may either be contractor or self-installed.

Design and Incentives

Contractors and customers are notified of incentive offerings through bill inserts, direct emails, and our website. Collateral material is also placed at local retail storefronts (such as The Home Depot and Lowes) where qualified product is sold. Customers are encouraged to complete an online application to receive a rebate check in the mail. A paper application is also still available should the customer require (or prefer) that option.

Delivery Method and Target Market

We target residential customers as well as installation professionals. The Companies utilize an implementation contractor to process rebate applications and payment processing, customer service (e.g., call center functions), reporting, and QA/QC activities including field verification inspections.

Program Activity and Budgets

Pool pump and pool heater promotions have been heavily focused on 1st and 2nd quarter when pool contracts are likely to be signed and installers are not out on the job. Smart thermostats, induction cooktops and clothes dryers are promoted year-round.

Furnaces, boilers, and tune ups will not be actively promoted in 2025 since they will be phased out mid-year 2025.

QA/QC Procedures

The Companies maintain QA/QC processes and procedures to ensure the high-quality of work performed and data accuracy, including:

- Rebate application processing quality checks, including customer and equipment eligibility and non-duplication of incentives.
- Sampling of installed equipment in the field to verify installation quality and savings veracity.
- Program reporting, including regular performance reports, data needed for impact and process evaluations, and maintenance of the tracking database.

The Companies' staff monitor QA/QC compliance during their normal energy efficiency program management activities, including invoice processing, tracking/reporting (the Clean Energy Dashboard), and monthly project documentation audits. Additionally, the Companies' staff randomly select

Residential Rebate program projects for periodic audits of program activities, such as customer installations and implementation contractor project documentation.

Planned Program Activities

Since the boilers and furnaces within this program are considered non-strategic the Companies plan to phase out the Residential Rebate program. The general trend will be to slowly reduce marketing of the rebates through the end of 2024 year and begin informing customers and contractors that the program will close mid-2025. Shutting down mid-year will ensure all remaining and pending incentives will be paid before 1/1/26.

Any electric measures (identified as strategic measures) will be transitioned to the Companies Retail Products program where customers will benefit from instant in-store discounts.

2.2.2 Smart Solutions Electric/Gas Programs

Program Description
The Companies' Smart Solutions Marketplace, (previously called Online Energy Marketplace), is an e-commerce platform designed to facilitate the purchase of energy-saving products while offering instant rebates to customers at the point of sale. Upon confirmation of their account number, customers can purchase and receive instant rebates on the following products: smart thermostats, air purifiers, smart window air conditioners, advanced power strips, water-saving products (e.g., low-flow showerheads and aerators), weatherization products (e.g., spray foam, window film, weather-stripping, caulk, pipe insulation), as well as bundled offerings. Rebates range from as little as $1 for weatherstripping to $75 for a smart thermostat. These offerings will be available to customers through 2025.

Delivery Method and Target Market

The Companies utilize an implementation contractor to deliver services for both NYSEG and RG&E's Smart Solutions Marketplaces, including making online portal design updates, working with manufacturers to secure existing and new inventory, customer service (e.g., call center functions), reporting, and QA/QC activities. The target market includes active residential electric and natural gas customers.

Coordination with other programs

Customers can access and enroll into other programs (e.g., Home Insulation and Air Sealing, Residential Rebates, NYS Clean Heat and Empower Programs) through the "Home Services and Rebates" section of the Smart Solutions Marketplace site. Customers can also enroll directly into the Smart Savings Rewards Demand

Response Program through links on each eligible thermostat product page. Eligible thermostats sold on the Smart Solutions Marketplace include Ecobee, Google Nest and Sensi thermostats.

Quality Assurance/Quality Control (QA/QC)

QA/QC processes and procedures are maintained to ensure data accuracy and a high-quality of work performed. This includes quality checks on rebates processed, verifying customer eligibility, and reviewing implementation vendor reporting and tracking (including regular requests for performance reports, periodic requests for data needed for impact and process evaluations, and ensuring the implementation vendor's tracking database is well maintained). The EM&V Manager supervises and coordinates with the evaluation vendor to perform quality assessments for a random sampling of the Smart Solutions program's project, such as equipment installations and implementation vendor project documentation.

Planned Program Activities

New products are continually added to encourage repetitive sales and meet savings goals. The weatherization product line was expanded to include weatherstripping, caulk and pipe insulation, and smart window air conditioners were added this year as well. To better serve our customers, a section called "Customer Solutions" was added to provide information on available digital solutions (e.g., eBill, Budget Billing, Auto-Pay, and the mobile app) to make it easier for customers to pay their bills and receive information from their utility.

2.2.3 Appliance Recycling Program (shut down 3rd quarter of 2023)

Program Description

The Appliance Recycling Program provided the convenience of free removal as well as rebates to customers who agreed to dispose of their old, inefficient refrigerators, freezers, and room air conditioners. In 2023 we experienced issues with our recycling vendor's ability to maintain adequate coverage and service of our territory.

Since recycling was deemed non-strategic (July 2023 Midpoint review,[9]) the companies elected to not seek an alternative vendor service and instead permanently closed the program. Funding previously dedicated to Appliance Recycling has been repurposed over to other programs/measures deemed strategic.

As part of the shutdown, mitigation plans were created to address all customers who were impacted. Incentive payments on the Companies' behalf were processed through the second quarter of 2024.

2.2.4 Behavioral Electric/Gas

Program Description

The Behavior program provides customized home energy reports ("HER") for program participants to access and track their energy usage and savings. The HERs encourage residential customers to save energy through targeted energy-saving tips and promote the Companies' traditional energy efficiency programs. Delivery Method & Target Market

Currently, the program has three customer treatment groups who were randomly selected to receive a combination of paper and digital HERs. These groups consist of dual, gas only and electric only fuel types. The control group also consists of randomly selected customers who do not receive HER reports. The monthly energy savings is measured by taking the difference in energy usage reduction between treatment and control groups. Customers who receive digital HERs are sent a report once a month for twelve months and paper HER recipients receive five-six HERs over a twelve-month period.

The free form text (FFT) section of the HERs provides an opportunity to cross promote other energy efficiency programs and customer incentives. The FFT section has been used to educate customers and provide direct access to the Smart Solutions Marketplace, Residential Rebate, Clean Heat, and the Smart Savings Demand Response programs utilizing a QR code.

[9] State of NY Public Service Commission: Case 14-M-0094/Case 18-M-0084 "Order Directing Energy Efficiency and Beneficial Electrification Proposals", 7/20/23 (page 36)

Quality Assurance/Quality Control

Monthly ongoing program management involves the following: monitoring of implementation vendor reporting and tracking including regular requests for performance reports, periodic requests for data needed for impact and process evaluations, and ensuring the implementation vendor's tracking database is well maintained. The EM&V Manager supervises and coordinates with the evaluation vendor to perform quality assessments, whereby, each cohort is treated annually using treatment and control group billing data in the pre and post period to estimate program impact and reporting accuracy for each wave.

Planned Program Activities

The program added an electric only customer wave in 2024 to achieve additional electric savings.

2.2.5 Multifamily Electric/Gas Programs

Program Description

The Multifamily (Market Rate) program is designed to reduce usage, while increasing the value and appeal of multifamily buildings with energy-efficient upgrades and provide a more comfortable environment for tenants in the NYSEG and RG&E territories. The program provides direct-install measures for in-unit and common areas at low-to-no-cost to the customer. These measures include LED hardwired or screw in lighting, Wi-Fi and programmable thermostats, exit sign lighting, lighting controls, low-flow faucet aerators and showerheads, insulation, and pipe wrap upgrades.

Delivery Method and Target Market

The program is administered and carried out by our Implementation Contractor (IC). Program services, including free energy assessments and financial incentives in the form of low- to no-cost upgrades, are provided to program Participants who implement upgrades that improve the energy efficiency of their building(s). The IC educates property managers/owners and maintenance staff on the benefits of the upgrades provided.

Buildings can consist of 5+ residential units under one roof. The Program is also available to certain other facilities and spaces meeting eligibility parameters, such as on or off campus Greek life student housing, college dormitories, and townhomes.

In the event a project does not meet the eligibility criteria established for the program, we refer the participant to other known programs that may be of assistance to the building. These options can include the NYSEG/RG&E commercial programs, Empower, the Affordable Multifamily Energy Efficiency Program ("AMEEP") and other LMI specific programs such as the Heating Energy Assistance Program or Weatherization Assistance Programs.

Rise Engineering is also the lead vendor for the AMEEP program. This allows them to maximize their outreach efforts and secure portfolio-wide participation assessments, and post-installation walkthroughs.

Quality Assurance/Quality Control (QA/QC)

To ensure data accuracy, our implementation contractor will schedule a site visit or will perform a desk review on a sampling of projects to verify that the work has been installed. Our installation contractor has a QC process which occurs throughout the lifecycle of the project. Elements of the ongoing QC process include pre-installation walkthrough, material verification, on-site implementation assessments, and post-installation walkthroughs.

Planned Program Activities

With the program utilizing the same IC for both the Market Rate program as well as the AMEEP program, we are continuing to see that more Market Rate buildings are qualifying for AMEEP, based on the rent roll tool used for eligibility purposes. This is resulting is a shift of Market Rate projects to AMEEP, impacting the overall spend and savings towards the Market Rate program.

Starting in 2026, many of the measures mentioned above will be phased out as they will be considered non-strategic. The future Market Rate program will focus on strategic measures, such as building shell (air sealing, insulation, windows).

In 2023, the Multifamily program began hosting webinars for members of the Trade Ally Network. This has been beneficial in educating the trade allies on the multifamily program and the incentives available in 2023 and 2024. These webinars will continue 2-3 times a year or on as-needed basis. This has prompted more trade allies to participate in the Multifamily and AMEEP programs.

The program added boiler/furnace tune up incentives for 2024. This measure was included to attract more property managers/owners to the program and would allow NYSEG and RG&E to assess more multifamily buildings.

2.2.6 Retail Products Electric Program

Program Description

The Companies engage directly with product manufacturers and retailers who agree to lower the purchase price of selected energy efficient products instantly at the cash register. This instant discount eliminates the obstacles associated with traditional downstream programs where customers are required to fill out a rebate application or use coupons to receive a utility incentive.

The program, originally called Retail Lighting, was renamed Retail Products in 2023 to represent the transition to more diversified (non-lighting) measures. Incentives on ENERGY STAR® certified light-emitting diode (LED) bulbs concluded at the end of 2023. The program has since added: advanced power strips, nightlights, water saving kits, spray foam insulation, door sweeps, window shrink kits, air purifiers, caulk, pipe wrap, batt insulation, dehumidifiers, showerheads, and windows. Additional products are being evaluated on a regular basis.

Delivery Method and Target Market

The target market includes all residential consumers of NYSEG and RG&E. Retail storefronts embedded within the NYSEG/RG&E territories have been identified and activated to participate. Retail storefronts are chosen based on their location within the utility service territory. Final selection is based on a geotargeted drive-time analysis. The program design is intended to partner with the sales channels that represent over 95% of the market share of products and where people purchase them.

Instant discounts are reflected on the on shelves for qualified energy saving products. That reduced price automatically rings in at the register when the consumer makes their purchase. Collateral materials are placed at point of sale calling out both the discounts and the product's value proposition. Retailers provide point of sale data each month documenting the type and quantity of qualified products sold.

Coordination with other programs

The Companies' use the Retail Products Program to supplement outreach to Low to Moderate Income/Disadvantage Community (LMI/DAC) customers by establishing increased focus toward retail channels that have a higher propensity to serve LMI customers – dollar stores and thrift stores. The program also works in conjunction with the LMI Distribution program by partnering with foodbanks and their associated food pantries. Details of those opportunities are further outlined in that programs section. As part of the Retail Products outreach, we also leveraged retail

outreach resources to cross promote the Residential Rebate Program. All rebates are promoted at the point of sale when targeted products are purchased. Strategic placement of collateral (such as Wi-Fi Thermostat tear-pads for the Residential Rebate Program) were done during program visits.

Quality Assurance/Quality Control (QA/QC)

QA/QC activities were developed to ensure protection of the program's integrity and of customer's brand; high realization of reported savings; accuracy in reporting and invoicing; and verification that projects are being reported honestly and accurately.

QA/QC was also conducted to ensure proper execution and performance by the field staff. QA/QC measures include conducting manager ride-alongs with representatives, reviewing photos to ensure compliance, and performing random in-depth audits as well as verify enforcement of maximum quantity purchase limits. Corrective actions are taken as necessary.

Planned Program Activities

As the measure mix continues to evolve, room A/C covers, weatherstripping and outlet and switch gaskets are currently close to being implemented. We continue to evaluate non-lighting measures, especially those with insulation and air sealing benefits. Our ability to proceed with those plans will ultimately be determined by the savings yielded compared to the costs required initiate.

2.2.7 Home Insulation and Air Sealing Program

Program Description

The Companies introduced a Home Insulation and Air Sealing Pilot program in the 2nd quarter of 2024, whereby residential, market-rate customers were offered instant rebates for various forms of insulation (attic, wall, cellar, etc.) and whole house air sealing. Through an open contractor and aggregator network, trade allies are encouraged to apply to become an approved contractor. They assist with customer outreach solicitation and initial inspection of homeowners' unique weatherization needs, provide an estimate, and install the appropriate measures. The Pilot is intended to provide the Company with best practices to evolve and establish a permanent program to launch in 2025-2030.

The Companies utilize a full-service implementation vendor to handle all aspect of the pilot. Responsibilities include program management, administration, reporting

and tracking, rebate processing & incentive fulfillment, customer care and quality assurance. They are also responsible for recruitment, training, and management of a network of certified trade alleys and aggregators. All active residential electric and natural gas customers who have their primary heating system with the Company and a central air conditioning system; or have electricity as a primary heating and cooling source are eligible for the program. All projects submitted through the pilot must have a whole house air sealing with ≥15% reduction measure and one insulation measure as a minimum for their project scope to be eligible for the incentive.

Coordination with other programs

The Company, the program's implementation contractor and NYSERDA meet monthly to collaborate on opportunities to collaborate, leverage each other's knowledge, and discuss the possibility for a complimentary program once state funded IRA incentives are released. In addition, participating contractors are provided messaging to inform customers about the Clean Heat program and the benefits of the complimentary service. Lastly, the Clean Heat program is cross promoted in our contractor newsletter and other marketing outlets when possible. There is discussion with Clean Heat of an added "kicker" to encourage program participation, however this is likely something that will be implemented in the full launch next year.

Quality Assurance / Quality Control

All inspection applications forms go through a quality desktop control review for eligibility, completeness, and accuracy. In addition to these reviews, all projects are subject to on-site inspections that can be conducted at any time upon notification of the homeowner. These are decided on a case-by-case basis for the pilot term. Following a batch of aggregator claims that are submitted and deemed eligible, the implementation contractor will randomly select projects (5% of projects per batch) for inspection. This is a random selection across aggregators and their participating contractors. In any case, the implementation contractor may choose to exercise the option to do more inspections on an individual contractor that had the failed inspection to ensure that additional false installations are not being submitted.

Planned Program Activities

The Company is currently involved in an RFP process to secure a full-service implementation vendor for a full launch program in 2025.

2.2.8 Residential New Construction

Planned Program Activities

The Residential New Construction Program motivates builders of single family (market rate) to incorporate measures that exceed current building codes. The targeted savings will meet/exceed ENERGY STAR Residential New Construction performance standards based on applicable ENERGY STAR requirements for NY. Contractor Incentives will be provided to the homes that meet or exceed these standards. Measures such as heating and cooling equipment, insulation, windows, doors, water heaters, thermostats, ductwork, lighting, and appliances would be included in this program.

NYSEG/RG&E will partner with an implementation contractor (IC), local home builders and HERS raters to provide technical assistance and promote builders to adhere to ENERGY STAR Residential New Construction performance standards. The IC and HERS raters will educate and work with the builders to ensure they are meeting these standards for the newly constructed homes to leverage program incentives the 45L tax credit.

Coordination with other programs

The final program design for New Construction is still under development. However, since there is an existing new construction incentive offered for heat pumps via the Clean Heat Program, we will need to coordinate both offers to avoid double dipping on incentives.

Quality Assurance/Quality Control (QA/QC)

To ensure data accuracy, the implementation contractor will perform a desk review for eligibility and quality assurance for each project that comes through. In addition, the QC process will select and review additional sample applications before final approval of rebates. The IC will conduct a % of field QA/QC inspections of the units in participating projects at various stages of construction. Homes will be assessed during the dry-wall stage and final inspection stage.

2.2.9 Panel Box Upgrade Pilot

Program Description

The Panel Box Upgrade pilot provides up to $4,000 per panel box to customers for electric panel box upgrades associated to geothermal and air-source heat pump systems. It is offered to help customers overcome the technical/first cost barrier

associated of homes needing a panel upgrade prior to installation of heat pumps in their home.

Delivery Method and Target Market

The Panel Box Upgrade pilot is being implemented by ICF. NYS Clean Heat registered contractors identify homes in need. They will submit all applications on behalf of the customers. The pilot will run from 4/1/2024 - 2/28/2025, or until the incentive dollars are exhausted.

The program is targeted toward residential electric customers of both NYSEG and RG&E. Customer qualifications are as follows:

- Must have an active NYSEG or RG&E Electric account.
- Customer must live in a single-family home or building.
- Customer is participant in the NYS Clean Heat Program.
- Existing panel box must not be able to handle the additional load of the heat pump being installed.

Quality Assurance/Quality Control

Contractors are required to provide all incentives as an instant discount to customers. Contractors are also required to pre and post instillation photographs at the time of the application. All panel installs must be inspected by a licensed electrician, and documentation of the inspection must be provided to receive the incentive.

Planned Program Activities

Contractors have been informed via email and webinars hosted by ICF. Customers will be notified via email sent by NYSEG and RG&E.

2.3 Low and Moderate Income ("LMI") Programs

The NENY White Paper proposed the companies should allocate at least 20% of incremental 2019-2025 energy efficiency budgets toward funding LMI programs for residential and multifamily customers. This proposal was adopted as part of the December 2020 Orders and the 20% allocation per utility is inclusive of a (statewide) 40% allocation mandate for 2019-2025 Multifamily Sector budgets.

As a result of collaborative efforts between the New York Utilities (Joint Utilities/" JU") and the New York State Energy Research and Development Authority ("NYSERDA") a joint LMI Implementation Plan ("Implementation Plan) for the statewide portfolio of energy efficiency programs and initiatives for LMI customers was filed on July 24, 2020. Since that Filing, an Annual Report was filed on April 1, 2024, which includes more details on each of the following LMI programs. An updated Statewide LMI Implementation Plan will be filed October 2024 providing the most comprehensive detailed updates on our 2025 plans coordinated in parallel with the JU and NYSERDA.

2.3.1 LMI-1-4 Family Homes (Empower+ Program)

The Companies collaborate with NYSERDA's Empower+ program as part of a statewide joint utility effort. Additional details on planned activities and overall performance, is available in the Statewide LMI Implementation Plan.

Program Description

The LMI program conducts outreach to single family homes offering free energy assessments and efficiency upgrades (such as lighting, aerators, power strips). The portfolio of programs and offerings outlined in the Plan was designed to create a more holistic and coordinated approach to the delivery of energy efficiency programs to LMI customers and communities in New York. Consideration and design of the plan also include ways to improve the experience of and ultimate benefit for LMI customers seeking to access clean energy services; plans to reduce administrative costs and increase impact of ratepayer funding; and provide consistent and streamlined participation for service providers. NYSEG/RG&E role for this program is quite unique from every other program in our portfolio. Rather than designing and implementing our own program (with oversight of support vendors and customer etc.) we are instead tasked with supporting NYSERDA who has that existing infrastructure in place already. Our primary role is to support NYSERDA by identifying qualified customers within our own service territory and providing referrals directly into the Empower+ pipeline.

The CLM team works collaboratively with our internal Low-Income Teams. That department tracks and records customers auto enrolled or self-certified into the Low-Income Rate Reduction Program (LIRR), we also get referrals from the Office of Temporary and Disability Assistance (OTDA). Customer representatives/Advocates flagging also can manually place LIRR coding on accounts as warranted so they are included in the Data File extract. Talking points are provided to Call Center Representatives to refer customers with inquiries on energy savings or difficulty with paying their bills, to the NYSERDA EmPower+

programs to determine if they qualify. This helps to identify the subset additional eligible income customers who may not qualify for HEAP type assistance but may still qualify for EmPower+ and other NYSERDA programs. Referrals are automatically uploaded to the NYSERDA SFTP site (sftp.nyserda.ny.gov) and are retrieved by CLEAResult for processing. CLEAResult then conducts outreach efforts (via their implementation contractor) to schedule appointments and/or enroll into the Empower Program.

Quality Assurance/Quality Control (QA/QC)

NYSERDA maintains QA/QC processes and procedures to ensure data accuracy and a high-quality of work performed for its programs. This includes, performing quality checks regarding how Applications are processed, including how customer and equipment eligibility is verified and ensuring non-duplication of incentives, sampling of installed equipment in the field to verify installation quality and savings veracity; and reviewing Implementation Vendor reporting and tracking, including regular requests for performance reports, periodic requests for data needed for impact and process evaluations, and ensuring the Implementation Vendor's tracking database is well-maintained. Evaluation and Measurement (EM&V) is conducted by NYSERDA. NYSEG/RG&E pays into this EM&V study as a line item in our contract with NYSERDA. Consequently, this program does not absorb any fees or costs associated with the in-house EM&V vendor(s).

2.3.2 Affordable Multifamily Energy Efficiency Program (AMEEP)

Pursuant to the Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios through 2025 (case 18-M-0084), The Affordable Multifamily Energy Efficiency Program (AMEEP) statewide program launched on November 3rd, 2021. AMEEP offers incentives for installing energy-efficient equipment and technologies, including whole-building retrofits that address multiple building system categories (e.g., heating and cooling, insulation, lighting, etc.) The upgrades can help affordable multifamily buildings with 5+ units reduce both electricity and natural gas usage and costs while increasing operating efficiency and tenant comfort.

The Companies collaborate with NYSERDA and all the other NY utilities as part of a statewide joint effort targeted at Low Income. Additional details on planned activities and overall performance, is available in the Statewide LMI Implementation Plan.

2.3.3 LMI Distributions Program

Program Description

The Companies' LMI Distribution Program conducts outreach in low-income communities. Based on customer surveys conducted in collaboration with NYSERDA and other utilities via the LMI Joint Management Committee ("LMI JMC"), customers indicated they were more likely to sign up for EmPower+ when referred by a peer, with reassurances that there is no financial disadvantage to participating.

Design and Incentives

Our outreach efforts and the survey demonstrate that direct community engagement is a very effective way to engage with these communities, as they build community awareness and allow customers to ask questions about available programs. The NYSEG/RG&E energy efficiency team also collaborates actively with our Customer Advocates[10] to target joint efforts in the community as well. To that end, we seek opportunities to provide education and distribute efficient products to low-income customers. Targeted venues include local foodbanks, and various community events where it's likely that low-income consumers would be present (most notably outreach to neighborhoods deemed Disadvantaged Community "DAC" by the Climate Justice Working Group criteria).

Delivery Method and Target Market

Products are delivered in person at foodbanks, and other special events. This outreach not only provides our most vulnerable customers access to immediate energy savings and education but also serves as a marketing and outreach tool to cross promote Empower+ and solicit enrollments in our statewide comprehensive program.

Planned Program Activities

In 2025 we plan to continue cross promotion to sign up for Empower+ as part of our engagement with our community outreach.

[10] Customer Advocates are NYSEG/RG&E employees who work proactively in their communities to serve customers in need to identify needs and provide available resources.

Quality Assurance/Quality Control

Energy savings is calculated by using the formulas and factors/parameters found in the Technical Resource Manual (TRM).

2.3.4 School Kit Program

Program Description

The school kit program provides 5th grade students and parents within New York State Electric & Gas ("NYSEG") and Rochester Gas & Electric ("RG&E") service territories with an award-winning education program. The program is an excellent delivery method for targeting residential NYSEG/RG&E customers to develop awareness, interest, and household participation in additional programs encompassed in NYSEG/RG&E's energy efficiency and demand response portfolio.

Design and Incentives

The program offers a variety of materials that serve to produce a successful program experience for the teachers, students, and their families. The program team provides free energy saving measures (with focus on small scale DIY air sealing). Also included in the kits are customized materials that captivate participants behavioral change-based educational components. Materials are engaging and organized, reinforcing measure installation and program completion. Step-by-step directions are provided for the teacher to ensure program milestones are achieved within an appropriate timeline.

Delivery Method and Target Market

The target market consists of Title 1 Schools and/or schools located within a DAC. The basic principles of Title 1 states that schools with large concentrations of low-income students will receive supplemental funds to assist in meeting student's educational goals. Low-income students are determined by the number of students enrolled in the free and reduced lunch program. Census Tracts will also be established by any school located within NYSEG/RG&E territory and within a DAC community. The teacher opts their classroom into the program. We then ship materials for each eligible teacher and student the teacher identified in their registration.

Quality Assurance/Quality Control

Energy savings is calculated by using the formulas and factors/parameters found in the Technical Resource Manual (TRM).

Planned Program Activities

In 2025 we plan to continue cross promotion to sign up for Empower+ as part of our engagement with our school's outreach.

2.4 NYS Clean Heat Statewide Heat Pump Program

There is a separate implementation plan and NYS Clean Heat Annual Report. Additional details on planned activities and overall performance is available in the aforementioned filed documents. In 2024, the Companies moved funding from unspent 2022 NYSEG Non-LMI Electric to NYSEG NY Clean Heat. The Companies also moved funding from unspent 2023 RG&E Non-LMI Electric to RG&E NY Clean Heat. Details will be published along with the 2023 final performance in the October 2024 SEEP filing.

2.5 Supplemental EE Projects/Programs

The Companies' Energy Efficiency group continues to collaborate with other company business areas that support programs for Smart Grids, REV Demonstration projects, Non-Wire Alternative ("NWA") or Non-Pipe Alternative ("NPA") projects, demand response, Street Light Dimming Pilot, and programs identified in the Joint Proposal.

2.5.1 Demand Reduction Programs

Program Description

Demand Reduction Programs - The Companies' existing distribution level demand response ("DR") programs are primarily focused on peak demand reduction benefits. The residual energy savings are unpredictable to forecast based on the number of events, length of events, and customer enrollment levels. However, energy efficiency and demand response continually seek to find ways to cross-leverage programs such as offering enrollment into the Companies' Direct Load Control ("DLC") thermostat program, Smart Savings Rewards, on both of the Companies' online marketplaces. The DLC thermostat program is available to residential and small-commercial electric customers. The Companies also offer demand response programs that cater towards commercial and industrial programs. These DR programs include the Commercial System Relief Program ("CSRP") and the Term- and Auto- Dynamic Load Management ("DLM") Program.

Planned Program Activities

The Companies will continue to offer the DLC program, CSRP, and solicit long-term DR resources through the Term- and Auto- DLM programs. The DR programs will continue to evolve as the Companies transition to an Advanced Distribution Management System ("ADMS") and fully integrate demand response management systems ("DRMS"), providing greater program optimization and active network management. The Companies will measure and conduct innovative pilots revolving around the introduction of potential DR programs and boosting current DR programs.

The Companies are scheduled to introduce a Residential Battery Storage Demand Response program starting Sumer 2025 to residential customers within the NYSEG and RG&E territories who have existing energy storage or looking to install energy storage.

Additional details can be found in the Distribution Level Demand Response Annual Report filed each November, which reviews program details and cost effectiveness from the current year, as well as any proposed changes for the following year.

Commission Proceedings:

Case 14-E-0423 – Proceeding on Motion of the Commission to Develop Dynamic Load Management Programs

Case 15-E-0188 – Tariff Filing by New York State Electric & Gas Corporation to Effectuate Dynamic Load Management Programs

Case 15-E-0190 – Tariff Filing by Rochester Gas and Electric Corporation to Effectuate Dynamic Load Management Programs

2.5.2 Non-Wire Alternative and Non-Pipe Alternative Efforts

Program Description

The Companies' NWA/NPA portfolio of projects allows NYSEG and RG&E to defer, reduce, or avoid conventional infrastructure investments while maintaining or improving system reliability, potentially lowering GHG emissions, and aiming to provide ratepayer cost savings by avoiding capital spend.

Program Activities (through 2024)

The Companies continue to look for energy efficiency opportunities in areas that are potential NWA/NPA candidates. NYSEG and RG&E consider energy efficiency as the first option when meeting customer demand. Energy efficiency actions that reduce demand during peak periods, as well as targeted Demand Response, are more likely to lead to long-term savings from capital investments or NWA/NPA contracts that are driven by peak demand or system constraints. Load reductions realized through energy efficiency, combined with a Request for Proposals ("RFP") seeking NWA/NPA solutions, will allow the Companies to address constrained areas with a portfolio solution approach. The Companies' Energy Efficiency and NWA/NPA teams communicate closely as projects arise and seek solutions that involve the Energy Efficiency team as part of both NWA/NPA portfolio approaches to address high load or capacity-constrained service areas.

Planned Program Activities (2024-2025)

NYSEG and RG&E will continue to consider NWA solutions as alternatives to traditional electric capital investments and NPA solutions as alternatives to traditional gas capital projects where there are appropriate and cost-effective solutions while supporting principles from the REV and Climate Leadership and Community Protection Act ("CLCPA") regulatory frameworks.

Descriptions and the status of current and upcoming NWA and NPA projects can be found on the NYSEG and RG&E websites as well as in quarterly NWA and NPA reports the Companies file with the New York Public Service Commission.

Commission Proceeding:

NWA was initiated in Case number 14-M-0101, "Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision" and updated through case number 16-M-0411 "In the Matter of Distributed System Implementation Plans." Further information regarding the Companies' NWA commitments can be found in the Joint Proposal approved in the Order Approving Electric and Gas Rate Plans in Accord with Joint Proposal, with Modifications, issued and effective November 19, 2020 in Case 19-E-0378 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of New York State Electric & Gas Corporation for Electric Service and Case 19-E-0380 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Rochester Gas and Electric Corporation for Electric Service.

The Companies initial NPA proposal was initiated in Case number 17-G-0432 "Petition of New York State Electric & Gas Corporation for Authorization to

Construct a Natural Gas Compressor Pilot Project in Tompkins County, NY" which the New York Public Service Commission subsequently approved with modifications on June 21, 2021, in the Order Approving Petition for Non-Pipe Alternative Project, with Modifications. Further information regarding the Companies' NPA commitments can be found in the Joint Proposal approved in the Order Approving Electric and Gas Rate Plans in Accord with Joint Proposal, with Modifications, issued and effective November 19, 2020 in Case 19-G-0379 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of New York State Electric & Gas Corporation for Electric Service and Case 19-G-0381 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Rochester Gas and Electric Corporation for Electric Service.

Further information regarding NYSEG/RG&E's commitment to NPA's was outlined in case number 23-G-0437 "In the Matter of a Review of the Long-Term Gas System Plan of New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation.

2.5.3 Energy Smart Community

Program Description

The Energy Smart Community (ESC) within NYSEG's Service Territory of Tompkins County, NY continues to be a testing ground for new technologies, processes related to system planning, grid operations and market services.

Project Objectives:

Testing utility of the future systems and concepts;
Listening to and learning from customers;
Creating an environment of collaboration; and
Launch pad for innovation.

Delivery method and Target market

The ESC Project Area covers four substations and fifteen circuits in the Ithaca / Tompkins County region. This footprint was designed to capture a diverse customer base that is broadly representative of the Company's service territory. The Advanced Metering infrastructure ("AMI") project deployed approximately 13,500 (electric) and 7,300 (gas) smart meters. Automation of the substations and circuits provided automated switches, protection devices, and increased grid visibility through a Supervisory Control and Data Acquisition ("SCADA") system. For both

AMI and distribution automation, a multi-service telecommunications network infrastructure was deployed. The architecture of this network was designed to be scalable to be used for other AVANGRID service areas in New York.

Quality Assurance / Quality Control

The ESC used the Project Quality Management Plan to document the necessary information required to effectively manage ESC Program and Project quality from project planning through closure. It defined a project's quality policies, procedures, criteria for and areas of application, roles, responsibilities, and authorities.

The goals of the ESC Project Quality Management ("QM") were to assure:

ESC project deliverables met their stated objectives; and
Program stakeholder's expectations were met or exceeded.
Program Management processes were followed.

Program Activities (2024-2025)

NYRC JPA includes continued operation of the ESC (in rates) until such time as AMI is fully implemented in the Companies' service territories, allowing pilot projects requiring AMI functionality. Since network wide AMI in the Ithaca and Tompkins County is activated, the Energy Smart Community pilot has officially ended. However, the Smart Grids Innovation team continues to explore various concepts related to the DSP via other sources of funding such as NYSERDA PONs, DOE, NSF, and other industry grants that are often interested in the test bed created in Ithaca. Pilots will be focused on modernizing the grid to enable New York's Clean Energy goals.

Commission Proceeding

Energy Smart Community was reported annually aligning to the rate year. At this time, the final report was submitted on May 18, 2023, in accordance with Cases 19-E-0378, et al.

2.5.4 REV Demonstration Projects

Program Description

Integration of emerging technologies, testing new business models, and enabling market opportunities that meet energy-related needs.

Program Activities (2024-2025)

The Company submitted final REV Demonstration reports in June 2023 for the Behind the Meter Battery Storage and Integrated EV & Battery Storage projects. The Companies have one ongoing REV Demonstration projects continuing into 2024 focused on new models for interconnection of Distributed Energy Resources (DER)s.

The Companies will continue to seek to test emerging technology solutions through partnerships and funding opportunities with universities, NYSERDA PONs, and DOE, and other third-party solutions providers.

The Companies' Energy Efficiency and REV demo project groups will continue working closely to identify specific areas in which a REV demo project could be most beneficial.

Commission Proceeding

Documents related to the Companies REV demonstration projects are filed with the Commission under Case number 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision.

2.5.5 Electric Vehicle Opportunities

Program Description

The number of Electric Vehicles ("EVs") in New York is growing rapidly with 241,248 on the road as of August 2024. As New York continues to electrify the transportation sector, the Companies recognize that EVs have the potential to be a significant source of new load. EVs provide a unique opportunity to increase system efficiency if they are charged during off-peak times and avoid charging at times of system peak. The Companies will continue to design and implement programs to support development of EV charging infrastructure and help improve system efficiency as EV adoption increases. Programs may include incentives for customers to install EV charging infrastructure, promotion of time-of-use rates, incentives for off-peak passive managed charging, incentives for active managed charging, and customer outreach and education.

Program Activities (through 2023)

Through 2023 the Companies have planned, designed, and initiated the implementation of multiple programs that support increased EV charging infrastructure. As part of the planning process, the Companies have worked closely

with the other NY Electric Utilities, NYSERDA, the New York Power Authority ("NYPA'), Department of Public Service (DPS), and other external stakeholders through formal statewide working groups and meetings.

Current programs include the Residential EV Time-Of-Use Rate, the Mass-market Managed Charging Program, the Level 2 Charger Make-Ready Program, the Direct Current Fast Charger Make-Ready Program, the Transit Bus Make-Ready Program, the Fleet Assessment Service, and the Medium/Heavy-Duty Make-Ready Pilot.

The Residential EV Time-Of-Use Rate encourages customers to charge their EVs during off-peak hours by offering a whole house rate that provides discounted pricing during designated off-peak periods. Customers now have an alternative to the EV Time-Of-Use Rate by participating in the Mass-market Managed Charging Program. This program offers two tiers of participation with tier one providing incentives if customers have at least 80% of charging during the designated off-peak period measured with either vehicle telematics or on-board vehicle telematics pr a smart charger. Participation in tier two requires the customer to identify a time by which they need their vehicle charged and required state of charge which allows the Company to optimize the overall charging load of the full portfolio of participants.

The Level 2 and DCFC Make-Ready Programs offer rebates to business and municipal customers who install qualifying EV chargers. The purpose of the rebates is to offset construction costs associated with the electrical infrastructure required to support new chargers.

Through the Transit Bus Make-Ready Program RG&E is supporting bus electrification at the Regional Transit Service in Rochester, NY by providing financial incentives supporting new electric bus charging infrastructure.

The Fleet Assessment Service provides interested fleet operators with an assessment of utility infrastructure impacts and rate impacts of fleet electrification.

The Medium/Heavy-Duty Make-Ready Pilot offers rebates toward the cost of EV charging infrastructure for fleet customers. The purpose of the rebates is to offset construction costs associated with the electrical infrastructure required to support new chargers.

The Demand Charge Rebate Program provides commercial EV charging customers with incentives up to 50% of their monthly demand charge.

Planned Program Activities (2024-2025)

The Companies will continue implementing the programs described above during 2024 and 2025. The Companies have proposed and are currently awaiting Commission action for an EV Load Management Technology Incentive Program, a proposed Commercial Managed Charging Program Implementation Plan, and an EV Phase-In Rate. Additionally, the Commission has established a proceeding considering Medium & Heavy-Duty Electric Vehicle Charging Infrastructure, as well as a proceeding considering Proactive Planning for Upgraded Electrical Grid Infrastructure.

The EV Load Management Technology Incentive Program would provide up-front incentives to off-set the cost of technologies that would allow the customer to reduce their peak coincident demand.

The Commercial Managed Charging Program would be like the Mass-market Managed Charing Program where it would offer incentives based on charging occurring during designated off-peak periods, or by allowing active managed charging. The EV Phase-In Rate would provide a kWh-based rate for EV charging stations with low load factor. Load factor under 10% would be billed only kWh charges and as load factor increases billed cost would include both kWh and kW with the customer returning to a regular demand-based rate as load factor surpasses 25%.

The Companies will continue to directly participate in the ongoing Commission Proceedings to identify, assess, and develop new opportunities to support electrification of the transportation sector.

The Companies will continue to collaborate with stakeholder to identify new opportunities, including leveraging additional federal, and state programs like the National Electric Vehicle Infrastructure Program (NEVI), to advance EV adoption, and support New York's clean energy goals.

Commission Proceeding

Documents related to the Companies Electric Vehicle programs are filed with the Commission under Case numbers 18-E-0138, Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure, Case number 22-E-0236. Proceeding to Establish Alternatives to Traditional Demand-Based Rate Structures for Commercial Electric Vehicle Charging, Case number 23-E-0070 Proceeding on Motion of the Commission to Address Barriers to Medium- and Heavy-Duty Electric Vehicle Charging Infrastructure, and Case number 24-E-0364 In the Matter of Proactive Planning for Upgraded Electric Grid Infrastructure.

2.5.6 Street Light Diming Pilot

As New York continues to prioritize the importance of conserving energy, the Companies recognize that dimming customer streetlights can save municipalities monetarily as well as through the conservation of energy and longevity of the lights. In this Pilot, the participating municipalities will install smart technology nodes on their fixtures prior to becoming a participant in the adaptive operating and billing portion of the Pilot. The participating municipality will report the energy savings; all questions related to reported savings will be directed towards the municipality. The duration of this Pilot will be five years with the option to propose a tariff if the Companies deem it necessary. The Companies have started contacting municipalities that own their streetlights to explain the program and initiate the application process.

Commission Proceeding: Documents related to the Street Lighting Dimming Pilot are filed with the Commission under Case number 22-E-0317 et al, Appendix O.

NYPA started outreach to municipalities in May 2024. To date, no municipalities have enrolled.

CHAPTER THREE: Budgets and Savings Plans

3.1 Overall Summary

The Companies have not met NENY targets in previous years but continue to strive to meet or exceed energy efficiency savings targets while remaining at or below allowed funding amounts for years 2024-2025.

3.2 Actual vs. Planned Program Spend

Appendix A includes 2019-2023 actual spend, 2024 actual spend and year-to-date actuals for NYSEG and RG&E respectively.

Table of Contents for APPENDIX A: NYSEG/RG&E ACTUALS/FORECASTS

NYSEG – Actual Vs. Planned (SPEND)

- A1. NYSEG Electric - ACTUAL VS. PLANNED PROGRAM SPEND
- A2. NYSEG Gas - ACTUAL VS. PLANNED PROGRAM SPEND
- A3. NYSEG LMI Electric - ACTUAL VS. PLANNED PROGRAM SPEND
- A4. NYSEG LMI Gas - ACTUAL VS. PLANNED PROGRAM SPEND
- A5. NYSEG Clean Heat - ACTUAL VS. PLANNED PROGRAM SPEND

RG&E – Actual Vs. Planned (SPEND)

- A6. RG&E Electric - ACTUAL VS. PLANNED PROGRAM SPEND
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- A8. RG&E LMI Electric - ACTUAL VS. PLANNED PROGRAM SPEND
- A9. RG&E LMI Gas - ACTUAL VS. PLANNED PROGRAM SPEND
- A10. RG&E Clean Heat - ACTUAL VS. PLANNED PROGRAM SPEND

3.3 Actual vs. Planned Program Savings

NYSEG - Actual Vs. Planned (SAVINGS)

- A11. NYSEG Electric - ACTUAL VS. PLANNED PRIMARY AND SECONDARY PROGRAM SAVINGS
- A12. NYSEG Gas - ACTUAL VS. PLANNED PRIMARY AND SECONDARY PROGRAM SAVINGS

- A13. NYSEG LMI Electric - ACTUAL VS. PLANNED PRIMARY AND SECONDARY PROGRAM SAVINGS
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RG&E - Actual Vs. Planned (SAVINGS)

- A16. RG&E Electric - ACTUAL VS. PLANNED PRIMARY AND SECONDARY PROGRAM SAVINGS
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- A19. RG&E LMI Gas - ACTUAL VS. PLANNED PRIMARY AND SECONDARY PROGRAM SAVINGS
- A20. RG&E NYS Clean Heat - ACTUAL VS. PLANNED PRIMARY AND SECONDARY PROGRAM SAVINGS

3.4 Forecast Program Planned Spend

The Companies continuously monitor program expenditures to ensure there are sufficient funds to cover program activities[11].

Primary and Secondary Plans

The CE-02 Guidance Document allows New York State's electric and natural gas utilities to propose Secondary Target Metrics to align with REV-like outcomes. For the 2019-2025 SEEP, the Companies have not submitted any Secondary Target Metrics. However, the Companies will continue to collect and track demand

[11] Program percentage allocations for NYSEG and RG&E programs are subject to change as new programs are added and designs are completed.

reduction, in megawatts (“MW”), in addition to their primary energy-saving metrics of megawatt-hours (“MWh”) for electric measures and one million British thermal units (“MMBtus”) for natural gas measures.

The Clean Energy Dashboard was developed by NYSERDA to track Primary and Secondary Target metrics. The Companies have adopted this tracking mechanism to prepare for future Commission Orders establishing Secondary Target Metrics. The Companies will integrate Secondary Target Metrics into their future SEEP filings.

Appendix A also depicts forecasted program planned spend for 2025 for NYSEG and RG&E respectively.

NYSEG –Forecasted (Spend)

- A21. NYSEG Electric - FORECAST PLANNED SPEND AND BUDGETS
- A22. NYSEG Gas - FORECAST PLANNED SPEND AND BUDGETS
- A23. NYSEG LMI Electric - FORECAST PLANNED SPEND AND BUDGETS
- A24. NYSEG LMI Gas - FORECAST PLANNED SPEND AND BUDGETS
- A25. NYSEG NYS Clean Heat Savings - FORECAST PLANNED SPEND AND BUDGETS

RG&E –Forecasted (Spend)

- A26. RG&E Electric - FORECAST PLANNED SPEND AND BUDGETS
- A27. RG&E Gas - FORECAST PLANNED SPEND AND BUDGETS
- A28. RG&E LMI Electric - FORECAST PLANNED SPEND AND BUDGETS
- A29. RG&E LMI Gas - FORECAST PLANNED SPEND AND BUDGETS
- A30. RG&E NYS Clean Heat Pump Program - FORECAST PLANNED SPEND AND BUDGETS

3.5 Forecast Program Planned Savings

Appendix A finally depicts the forecasted program planned savings for 2025 for NYSEG & RG&E Respectively.

NYSEG –Forecasted (SAVINGS)

- A31. NYSEG Electric - FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS
- A32. NYSEG Gas - FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS

- A33. NYSEG LMI Electric - FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS
- A34. NYSEG LMI Gas - FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS
- A35. NYSEG NYS Clean Heat Pump Program - FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS

RG&E –Forecasted (SAVINGS)

- A36. RG&E Electric - FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS
- A37. RG&E Gas - FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS
- A38. RG&E LMI Electric - FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS
- A39. RG&E LMI Gas -FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS
- A40. RG&E NYS Clean Heat Program - FORECAST PRIMARY AND SECONDARY PROGRAM SAVINGS PLANS

CHAPTER FOUR: EVALUATION, MEASUREMENT AND VERIFICATION (EM&V)

4.1 Objectives

Evaluation, Measurement, and Verification ("EM&V") is an integral component of the Companies' energy efficiency programs. EM&V achieves multiple objectives for the Companies, including verifying current program energy savings, estimating future energy savings from new programs or newly incentivized measures, and determining if energy efficiency program processes or procedures can be improved. The Companies utilize their EM&V activities to continuously improve program design and structure, cost-effectiveness, and efficacy.

There are five objectives for the EM&V activities covered by the 2020-2025 SEEP:

1. Process Evaluation and Verification of Portfolio Recordkeeping. Each process evaluation shall assess customer satisfaction, delivery system effectiveness, marketing effectiveness, barriers, and remaining potential to improve programs and increase savings. Each process evaluation will also include a review of the program's project tracking database to verify the accuracy of program and portfolio recordkeeping.
2. Verification of Measure Installations, Gross Savings Analysis (GSA), and Energy Savings Reporting. Based on the appropriate rigor, some impact evaluation activities will include on-site visits to verify energy-saving measure installations. Additionally, on-site metering of energy-saving measures and projects will be conducted to verify energy savings and demand reductions. The results from EM&V activity will be used to determine the verified gross savings realization rate (VGS RR) or alternative prospective realization rates (AP RR) for each evaluated program through gross savings analysis.
3. Measurement of Demand Reduction Coincident with the Utility System, and New York Independent System Operator ("NYISO") Demand Peaks. Individual measures, total program, and portfolio demand reductions will be important components of impact evaluations. All impact evaluations, where possible, will include site and measure time-stamped interval metering to

develop site and measure coincidence factors for the utility system peak and NYISO peak.

4. Periodic Assessment of Free-Ridership and Spillover. Select programs will be studied to verify the current levels of free ridership and participant spillover. The studies will aim to identify the quantity of savings that would have been achieved regardless of the presence of the program, and the spillover savings because of the program.
5. Ex-Post Benefit-Cost Testing of Programs and Portfolios. Both Evaluated Savings[12] and reported program costs will be used to perform the Societal Cost Test and the Utility Cost Test for each impact evaluation. Program test results will be rolled up to a single test result for each company (NYSEG and RG&E) and each portfolio (Electric and Natural Gas).

4.1.1 EM&V Activity Description

EM&V activities may include, but are not limited to, process evaluations that inform program design and implementation, impact evaluations, and measurement and verification activities that inform TRM revision, as well as other market research. This section provides descriptions of the EM&V activities conducted as well as when the results were filed. Results of the evaluation activities, including recommendations, can be found within Appendix C.

Our Companies' evaluation schedule is based on a defined number of activities which group program types and evaluation activities to be conducted from 2020-2025.

Activity 1: Ongoing Non-Residential Electric and Natural Gas Program Impact Evaluations. An evaluation of the 2019-2020 program years was completed for the Non-Residential Prescriptive and Custom, Gas and Electric programs (referred to

12 Evaluated Savings refers to the measure and program Realization Rate savings, not including Free Ridership or Spillover, determined by a review of implementation contractor databases, post-installation measure counts, verification of measure installation, operating hours verification, and savings calculation verification. A Realization Rate shall be developed for measures, programs, and portfolios.

collectively as the “Non-Residential” program below)[13] and the Small Business Direct Install (SBDI) programs in the first quarter of 2022.

Evaluation of the 2021-2022 program years commenced in Q3 of 2022. Continuous EM&V activity ensures that the programs maintain and improve upon the realization rates. This objective aligns with the DPS CE-08 Verified Gross Savings (VGS) guidance document issued on August 23, 2019, which encourages continuous gross savings analysis for large programs and programs that feature changes in program measures and technologies. Verification of savings is being achieved, through desk reviews and extensive on-site M&V activity. The evaluation is designed to: (a) verify measure and program energy and demand savings and subsequently determine the VGS RR, (b) verify the implementation of strategies to improve realization rates as proposed by the previous evaluation, (c) determine field-verified lighting measure operating hours for the most prominent facility types, and (d) verify program and portfolio record keeping. Verified demand reduction and verified annual energy savings calculations are based on on-site measured demand reductions for a statistically significant sample of measures and sites for each evaluation. Quarterly desk reviews of a sample of projects provide interim feedback for mitigation of evaluation risk.[14]

The evaluation of the 2021-2022 program years was completed in Q2 of 2023. The Companies plan to continue the evaluation of the program but with lower rigor M&V and semi-annual or annual reporting. Lower rigor is warranted as rolling realization rates have been relatively consistent and the program has not substantially changed in the last two years. If/when the program changes, EM&V will return to higher rigor. Continued evaluation will ensure that this program maintains high realization rates and that beneficial program changes that have been implemented are sustained. Evaluation will conduct a rolling sample approach starting in 2024 for the 2023 and 2024 program years.

13 The Non-Residential program was previously known as the C&I Rebate program

14 Interim feedback and rolling samples are encouraged per Evaluation, Measurement & Verification Guidance, NY DPS Office of Clean Energy, Clean Energy Guidance, November 1, 2016, pp. 3-4. Desired precision is 90% confidence/10% relative precision, p. 17.

Activity 2: Impact Evaluations for Programs with Alternative Prospective Realization Rates (AP RR). As outlined in the Gross Saving Verification Guidance[15] an AP RR is developed by the evaluator based on information gleaned through the Gross Savings Analysis and the demonstrated actions taken by the PA to improve the savings estimates. Since the use of a specific AP RR is limited to an 18-month time frame we have the need of additional Impact Evaluations for those programs that get an AP RR from the current Evaluation Cycle.

The evaluations are designed to determine measure-specific and overall energy and demand savings as well as VGS RR factors for retrospective and prospective application. The evaluation may also include research-based recommendations to improve NY TRM deemed savings; effectiveness of program delivery, measure implementation, tracking systems, and documentation; opportunities for increased savings; new potential measure offerings; best practices; and customer satisfaction and feedback. The results will be outlined in a report that will be submitted to the DPS.

Our companies 2019-2021 Evaluation Cycle evaluated most of the programs that were in our companies' portfolio during the years 2019 and 2020. Three of our programs elected an AP RR as results of improvements that were implemented during the 2019-2021 Evaluation cycle.

During 2022, impact evaluations were conducted to determine verified realization rates for the Appliance Recycling program (filed in Q4 of 2022), Residential Rebates Program (filed in quarter 1 of 2022), and Smart Solutions Program (filed in Q4 of 2022). Verification was conducted through participant surveys and engineering desk reviews of provided calculations. Programs rely on the New York State Technical Reference Manual for savings algorithms.

During 2023, an evaluation was conducted and filed in the fourth quarter for the Residential Rebates Program to replace the AP RRs filed in 2022 Q1. Additionally, a natural gas AP RR was generated for the Behavioral Program in the third quarter as natural gas savings results from the previous evaluation were inconclusive. As a new wave of Home Energy Reports (HER) was launched in 2023, another evaluation of the Behavioral Program will be conducted Q4 of 2024.

15 CE-08 Gross Savings Verification Guidance, NY DPS Office Of Clean Energy, Clean Energy Guidance, August 23, 0219.

In 2024, an impact evaluation of the Smart Solutions Program will be conducted due to significant program changes (elimination of lighting measures and addition of weatherization measures).

Activity 3: New Program Attribution Study. Program administrators are required to ensure responsible spending of ratepayer dollars. While neither gross verified savings or evaluated savings are expected to account for free ridership,[16] program administrators are expected to identify programs with low influence and improve or replace them. Attribution research will identify programs with relatively high or low net-to-gross ratios, following the best practices described in the EM&V Guidance Document.[17] Since the Companies' Energy Efficiency Program Portfolios are currently composed primarily of conventional resource acquisition programs, the Self-Report Approach ("SRA") is the principal technique being utilized.

NTG Results for SBDI and C&I programs were filed with the process evaluation reports for each program in Q4 of 2020. The Companies conducted a portfolio-wide attribution study in Q4 2021. Another portfolio-wide attribution study will be conducted in 2024 to account for market trends, new measure offerings, and new program offerings. Programs in which participation has not reached a sufficient level to assess free ridership or spillover will be studied within the initial impact evaluation.

Activity 4: Impact Evaluation of New Non-Residential Programs.

The Companies' Multifamily Gas and Electric program offers the direct installation of natural gas and electric energy efficiency upgrades to multifamily property owners and tenants. This impact evaluation assessed the program's savings

16 Gross Savings Verification Guidance, Development, Progress, Definitions, and Feedback, Discussion Draft, - Deliberative; Non-Final, Energetics for the NY DPS, Nov. 30, 2018, Slide 10.

17 *Evaluation, Measurement & Verification Guidance,* NY DPS Office of Clean Energy, Clean Energy Guidance, November 1, 2016, Appendix F.

performance through detailed desk reviews, online surveys with tenants, phone interviews with property owners, and on-site measurement and verification for a sample of the projects completed. Additionally, impact activities include targeted, M&V-based research for selected high-impact or high-uncertainty measure parameters of interest. Reports with the results for Program year 2019 were submitted to DPS in Q1 of 2021. The results including program years 2019 and 2020 were submitted to the DPS in Q4 of 2021.

The Companies launched one new non-residential energy efficiency program during 2022, Small Business Customer Choice (SBCC). An impact evaluation of the SBCC Program was completed in Q2 of 2023. The SBCC Program was relabeled as the Small Business Program in 2024. In 2022, the Multifamily Energy Efficiency Program underwent a reporting change, but it was determined that the program structure did not change and therefore the VGS RR filed in Q1 of 2022 are relevant.

In 2024, three new programs were created, the Commercial Instant Discount Program, the Retrocommissioning Program, the Energy Management Partnership Program. These programs will be evaluated in 2025.

Activity 5: Impact Evaluation of New Residential Programs.

For PY 2019-2020 the evaluators verified measure persistence as well as key TRM assumptions such as deemed savings values and algorithm factors for the Residential Energy Efficiency Portfolio. This evaluation focused on the following programs: The Energy Marketplace Program (EMP), the Appliance Recycling Programs (ARP), as well as the Energy Star Retail Products Platform (ESRPP), and Behavioral Gas and Electric Program[18]. The evaluators accomplished this through a combination of billing analysis, customer surveys, and potential onsite M&V. In addition to this objective, the evaluators conducted research tasks aimed at validating residential M&V via billing analysis and improving the marketing efficiency of the Residential Rebate Gas and Electric program by classifying and targeting high-energy usage customers. This expanded residential impact evaluation fulfilled the Companies' obligation to conduct a gross savings analysis (GSA) before the expiration of the Alternative Prospective Realization Rate (AP RR)

[18] *The Companies planned to launch the Behavioral Gas and Electric Program in Q1 of 2020, but the program was launched in April of 2021*

elected in the Companies' Verified Gross Savings (VGS) specification document[19]. The final report with VGS RRs was submitted in Q1 of 2022. In the same quarter, AP RRs were verified with improvements made to realization rates for peak demand and annual natural gas savings.

The Companies launched the Retail Lighting program in 2022. The Companies commissioned an impact evaluation under this Activity to (a) verify measure and program energy and demand savings and subsequently determine the VGS RR, (b) verify measure installation and (c) verify program and portfolio record keeping. The Evaluation work commenced in Q4 of 2022. In 2023, the program was relabeled as the Retail Products Program and the Retail Products Low-Moderate Income Program. An impact evaluation was completed in Q4 of 2023 to develop VGS RRs based on the electric measures in the program. Natural gas energy-saving measures were added in 2024 and therefore the program will be evaluated in 2025.

In 2023, the Companies launched a Low-Moderate Income (LMI) Distribution Program as a component of the LMI initiative to provide energy-efficient options to low-moderate income citizens within The Companies' service territory. An impact evaluation was completed in Q4 of 2023. Additionally, a School Kits Program was launched, distributing free energy-saving kits to students upon request who meet low-income qualifications. The program entails outreach to 5th grade students, teachers, and parents providing education on ways to save energy in the home. An impact evaluation is to be completed in Q3 of 2024.

Activity 6: Process Evaluation of New Programs.

This activity will provide process evaluations for each of the Companies' new Residential and Non-Residential Energy Efficiency programs. It is crucial to receive timely feedback on the effectiveness of the implementation process for these new programs. The goal of this activity will be to a) identify opportunities for improved program delivery b) assess customer engagement and to identify opportunities for increased participation c) highlight best practices to be reinforced d) relay customer and trade ally feedback and 3) ensure impact evaluability. Evaluation activities will include customer surveys, market actor telephone interviews, database reviews, sales data analysis, and assessment of lost opportunities.

[19] *The Verified Gross Savings (VGS) Specification document referred here was submitted to the DPS on September 1, 2020.*

Process evaluations may be conducted with impact evaluations such that primary data collection is completed concurrently.

The 2019-2020 Non-Residential and Small Business Direct Install process evaluations make use of customer and trade ally surveys, staff and implementation contractor interviews, and program documentation and tracking data reviews to assess the effectiveness of the program design and delivery processes. The evaluation team utilizes primary and secondary data collection efforts to provide the Companies with answers related to specific research questions posed by program staff: (1) is the program trade ally network right sized? (2) Are the trade allies technologically and geographically diverse? (3) is the lead referral process working effectively to leverage cross-program participation. The overarching objective of this evaluation is to assess if the current program design and delivery is effective and to identify opportunities for improvement that could result in greater participation and better engagement across different customer segments. The final reports of these evaluation studies were filed to the DPS in Q4 of 2020. The Companies will not elect to evaluate this program's processes in the next evaluation cycle unless its design substantially changes.

The 2019-2020 residential process evaluations included the Residential Energy Marketplace Gas and Electric programs[20], the Residential Rebate Gas and Electric programs, the Appliance Recycling Program (re-introduced to the market with a new implementation vendor after a substantial period without the program), and the Energy Star Residential Retail Products Platform (ESRPP) Program. For currently active and long-running programs, evaluation activities will focus on documenting current program practices and recommending areas for further optimization, especially regarding cross-program participation. The goal was to evaluate the effectiveness of new and existing programs, assess customer engagement and to identify opportunities for increased participation within and across programs. Evaluation activities include customer surveys, market actor telephone interviews, database reviews, sales data analysis, and assessment of lost opportunities. The evaluation also seeks to identify opportunities for improved program delivery, potential for new measures, best practices to be reinforced, and customer feedback. The final report for the Residential Process Evaluation was submitted in

[20] *Previously known as the Online Marketplace Program*

Q3 of 2021. The Companies will not elect to evaluate this program's processes in the next evaluation cycle unless its design substantially changes.

The Companies' Multifamily Gas and Electric program offers the direct installation of natural gas and electric energy efficiency upgrades to multifamily property owners and tenants. Process evaluation activities such as customer surveys, trade ally interviews, and tracking database reviews are interwoven with impact evaluation activities (e.g., both process and impact evaluation questions are included in surveys) to achieve efficiency. Since the program has seen steady participation over the past few years, process evaluation may also leverage non-participant research proposed under Activity 3 to assess measure saturation levels. Process evaluation activities explored new potential measures and will expand the lens of the evaluation to the entire multifamily building by assessing overlaps with other C&I programs in the portfolio. Other process evaluation activities included interviews of program managers and assessments of the measure implementation process. Reports with the results for Program year 2019 were summited to DPS in Q1 of 2021. The results including program years 2019 and 2020 were submitted to the DPS in Q4 of 2021.

No process evaluations were conducted during 2022. During Q3 and Q4 of 2023, process evaluations were conducted for programs recently launched, including the SBCC Program, Retail Products Program, Retail Products LMI Program, LMI Distributions Program, and Behavioral Program. Additionally, a process evaluation was conducted on the Market Rate Multifamily Program and Appliance Recycling Program (closed in 2023) to support program operations. In 2024, a process evaluation is to be completed on the School Kits Program.

Activity 7: Evaluation Technical Assistance.

As new programs are implemented, or existing programs are modified, it may be necessary to commission targeted EM&V, process evaluation, attribution studies and/or QA/QC activities that provide real-time feedback on program performance or assess the market. Tasks for this evaluation activity include, but are not limited to the following:

- Program Savings Audits. Each energy efficiency program (except the EmPower Program) will have auditing done periodically (Monthly or quarterly) throughout each year to ensure accurate tracking data and savings calculations as well as compliance with the NY TRM. Included in this effort is periodic benefit-cost analysis, follow-up support, answering questions, or meeting with the program implementor or NYSEG/RG&E for clarification or further information regarding audits. New York Technical Reference Manual Update Support. Technical support for TRM measure updates and additions includes a review of each batch

of measures and providing a quarterly impact report. The measure reviews include comments on the technical aspects of each measure and the impact report highlights the quantitative impact that each quarter's TRM updates will have on the programs once effective.

- Pre- Implementation Review. Projects in need of technical review may include high-impact savings projects or self-direct program projects. Technical reviews are conducted as requested to ensure accurate supporting documentation and analysis methodology. Technical reviews are expected to be conducted for the Commercial and Industrial Program, Market Rate Multifamily Program, AMEEP, and Clean Heat Program
- Benefit Cost Analysis Support. Technical support of the benefit-cost analysis includes the development and support of a BCA calculation tool and procedure document. This calculation tool is centrally maintained and updated as avoided cost inputs are provided and annually as administration rates are reviewed and recalculated. In addition, support is provided through the assistance of reviewing annual program data for year-end benefit-cost analyses. In addition to the compiled BCA, technical support is provided in determining or reviewing baseline cost information which is necessary for end of life/new construction measures.

Other activities may include the Companies reporting, program development support, program performance benchmarking, logic model development for market transformation type programs, and baseline and potential studies.

4.1.2 Plan and Schedule of EM&V Activities

Table 4a details the Companies' EM&V activities for 2019-2025 and identifies the following information: (a) purpose of, or information being sought through the EM&V activity, and (b) date by which it will be obtained to support the overall program and guidance cycle. EM&V activities span The Companies' Electric and Gas Energy Efficiency Programs.

Table 4a: 2019-2025 EM&V Activity Schedule

EM&V Activity (Electric or Natural Gas)	Expected Plan Submission Date	Expected Start Date	Expected Completion Date	Status
Activity 1: Ongoing Non-Residential Electric and Natural Gas Program Impact Evaluations	Plans Submitted Q2 2019 and Q2 2022	Commenced Q1 2020 and Q1 2022	Q3 2020, Q1 2022, Q3 2023, and Q3 2025	On-going M&V with quarterly desk reviews and evaluations to replace existing realization rates.
Activity 2: Impact Evaluations for Programs with Alternative Prospective Realization Rate (AP RR)	Plans Submitted Q4 2019, Q4 2020, Q2 2022	Commenced Q1 2020, Q1 2021, Q1 2022	Q4 2021, Q1 2022, 2022 - 2025	AP RRs updated as needed throughout cycle.
Activity 3: New Programs Attribution Study	Plans Submitted Q4 2019, Q4 2022	Q1 2020, Q1 2024	Q3 2021, Q4 2024	Portfolio-wide attribution study in 2021 and 2024 with updates to be completed within 1-2 years of new programs launch or significant program changes
Activity 4: Impact Evaluation of New Non-Residential Programs	Q4 2019, Q4 2022	Q1 2020, Q4 2022	Q1 2022, Q4 2022, Q3 2023	VGS RR to be developed within 1-2 years of program launch

EM&V Activity (Electric or Natural Gas)	Expected Plan Submission Date	Expected Start Date	Expected Completion Date	Status
Activity 5: Impact Evaluation of New Residential Programs	Q4 2022	Q4 2022	Q4 2023	VGS RR to be developed within 1-2 years of program launch
Activity 6: Process Evaluation of New Programs	Q4 2019, Q4 2022	Q1 2020. Q4 2022	Q2 2021, Q3 2023, Q4 2023, 2025	Process evaluations conducted within 1-2 years of program launch or as requested to support program operations.
Activity 7: Evaluation Technical Assistance	NA	Commenced Q1 2022	2022 - 2025	Audits, Technical Reviews, TRM support is ongoing

4.1.3 EM&V Forecasted Expenditures

Tables 4b through 4e detail the actual and forecasted expenditures allocated for the Companies' EM&V activities for the 2020, 2021, 2022, 2023, 2024 and 2025 program years. Expenditures presented for 2020-2023 are actual expenses. Expenditures for 2024-2025 are planned. The Companies have ensured that all EM&V activities listed match those referenced in Table 4a.

Table 4b: 2020-2025 EM&V Activity Expenditures NYSEG Electric

EM&V Activity (Electric or Gas)	2020 (Actual)	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)	Total
Activity 1	$234,692	$258,423	$199,264	$243,213	$311,900	$311,900	$1,559,392
Activity 2	$16,126	$258,423	$0	$57,007	$-	$-	$331,556
Activity 3	$118,756	$258,423	$70,885	$784	$-	$-	$448,848
Activity 4	$165,315	$258,423	$9,566	$56,167	$-	$-	$489,471
Activity 5	$77,292	$258,423	$8,544	$35,031	$-	$-	$379,291
Activity 6	$316,674	$258,423	$7,032	$68,328	$-	$-	$650,457
Activity 7	$164,101	$258,423	$117,261	$179,169	$214,800	$214,800	$1,148,554
Total EM&V Expenses	$1,092,956	$1,808,961	$412,552	$639,700	$526,700	$526,700	$5,007,569

Table 4c: 2020 – 2025 EM&V Activity Expenditures NYSEG Gas

EM&V Activity (Electric or Gas)	2020 (Actual)	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)	Total
Activity 1	$8,610	$7,945	$6,813	$9,145	$18,200	$18,200	$68,913
Activity 2	$8,929	$7,945	$0	$10,202	$-	$-	$27,076
Activity 3	$14,665	$7,945	$42,494	$196	$-	$-	$65,300
Activity 4	$19,544	$7,945	$0	$0	$-	$-	$27,489
Activity 5	$42,762	$7,945	$0	$0	$-	$-	$50,707
Activity 6	$45,552	$7,945	$0	$955	$-	$-	$54,452
Activity 7	$20,265	$7,945	$21,559	$32,941	$21,700	$21,700	$126,109
Total EM&V Expenses	$160,327	$55,615	$70,866	$53,438	$39,900	$39,900	$420,046

Table 4d: 2020-2025 EM&V Activity Expenditures RG&E Electric

EM&V Activity (Electric or Gas)	2020 (Actual)	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)	Total
Activity 1	$123,091	$136,581	$107,811	$133,440	$146,200	$146,200	$793,323
Activity 2	$11,061	$136,581	$0	$25,860	$-	$-	$173,502
Activity 3	$71,549	$136,581	$47,604	$336	$-	$-	$256,070
Activity 4	$243,379	$136,581	$5,529	$32,467	$-	$-	$417,956
Activity 5	$53,114	$136,581	$4,406	$18,079	$-	$-	$212,180
Activity 6	$147,158	$136,581	$4,288	$41,885	$-	$-	$329,912
Activity 7	$98,869	$136,581	$68,012	$103,920	$82,300	$82,300	$571,982
Total EM&V Expenses	$748,221	$956,067	$237,651	$355,987	$228,500	$228,500	$2,754,926

Table 4e: 2020-2025 EM&V Activity Expenditures RG&E Gas

EM&V Activity (Electric or Gas)	2020 (Actual)	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)	Total
Activity 1	$10,591	$10,473	$9,929	$12,326	$12,400	$12,400	$68,119
Activity 2	$8,307	$10,473	$0	$15,343	$-	$-	$34,123
Activity 3	$15,010	$10,473	$19,212	$84	$-	$-	$44,779
Activity 4	$26,760	$10,473	$0	$0	$-	$-	$37,233
Activity 5	$39,790	$10,473	$0	$0	$-	$-	$50,263
Activity 6	$47,587	$10,473	$0	$363	$-	$-	$58,423
Activity 7	$20,741	$10,473	$20,928	$31,976	$17,600	$17,600	$119,318
Total EM&V Expenses	$168,786	$73,311	$50,068	$60,093	$30,000	$30,000	$412,258

CHAPTER FIVE: BENEFIT COST ANALYSIS (BCA)

5.1 Benefit Cost Analysis

5.1.1 2021- 2025 BCA Updates

The benefit-cost calculation procedures and inputs for the 2020-2025 SEEP filing are in conformance with the Commission 2016 Order[21] and the Companies' revised Benefit Cost Analysis Handbook ("BCA Handbook").[22] The BCA results shown for Program Years 2020 -2025 in Tables 5a-5d were calculated using the : (a) specified benefit-cost tests to be conducted, (b) the required input data to be used in the test, and (c) the sources of the required input data. Additionally, the Companies are complying with the required use of the new common template for documenting and presenting Societal Cost Test analyses.[23]

5.1.2 Cost-Effectiveness Tests

The 2020-2025 SEEP uses the Societal Cost Test ("SCT") as the primary test for energy efficiency programs and portfolios, rather than using the Total Resource Cost Test. The SCT compares the costs incurred to design and deliver projects and customers costs with avoided electricity and other supply-side resource costs (e.g., generation, transmission, and natural gas) and includes the cost of externalities (e.g., carbon emission and other net non-energy benefits). The BCA Order[24] positions the SCT as the primary cost-effectiveness test as it evaluates impacts on society.

The 2020-2025 SEEP also utilizes the Utility Cost Test ("UCT") and the Ratepayer Impact Measure ("RIM") test as secondary tests to inform the Companies' review of

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[21] Case 14-M-0101, *Order Establishing the Benefit Cost Analysis Framework*, Jan. 21, *2016 and CE-07 Utility-Administered Energy Efficiency BCA Filing Requirement Guidance.*

[22] *Benefit Cost Analysis Handbook*, Version 3.0, June 30, 2020.

[23] CE-07, *Utility-Administered Energy Efficiency Benefit-Cost Analysis Filing Requirement Guidance*, May 14, 2018.

[24] Case 14-M-0101, *Order Establishing the Benefit Cost Analysis Framework*, Jan. 21, 2016.

programs and portfolios. The UCT compares the costs incurred to design, deliver, and manage projects by the utility with avoided electricity supply-side resource costs. The RIM test compares utility costs and utility bill reductions with avoided electricity and other supply-wide resource costs. The role of the UCT and RIM tests is to assess the preliminary impact on utility costs and ratepayer bills from the benefits and costs that pass the SCT.

The portfolio level BCA must be calculated using the total benefits and total costs of the portfolio, and the SCT ratio must exceed 1.0.[25] Tables 5e-5h provide the required SCT, UCT, and RIM test results at the portfolio level.

Tables 5a-5d provide benefit-cost test results as both a ratio and in dollars. The dollar values in Tables 5e-5h represent lifetime benefits of the program to society. These values are shown in today's dollars using an appropriate interest rate and show the costs of running the program. Subtracting the program costs from the program benefits results in the net value to society from implementing these programs.

The BCA test results (both the test ratios and the benefit and cost dollar values) in Tables 5e-5h utilize actual program performance from program years 2021 to 2023. Since the programs, targets, and metrics remain the same in this filing, the Companies felt this back-cast of actual data provided the most reliable basis for predicting future program performance in program years 2020 to 2025. Realization Rates obtained from the Evaluation Results and indicated on the companies' 2023 VGS specifications have been applied to the savings for the programs BCA calculations[26].

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[25] Case 15-M-0252, *In the Matter of Utility Energy Efficiency Programs, Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2019-2020* (issued March 15, 2018) ("2018 ETIP/SEEP Order"). A demonstration that the ETIP portfolio of programs passes a SCT at a 1.0 or better, in addition to requirements to apply benefit cost screening at varying levels of granularity, is described in the Commission-ordered ETIP Guidance, CE-02 (Version 4, 2018-12-20): ETIP Guidance, which outlines the required elements of the ETIP/SEEP filings.

[26] Attached to this ETIP/SEEP filing is the Verified Gross Savings Specifications Document prepared for NYSEG/RG&E by Energy & Resource Solutions ("ERS)". Changes based on Evaluation results filed to DPS on June 15, 2020.

Table 5a: 2021-2025 Benefit Cost Ratios (NYSEG Electric)

PORTFOLIO	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)
C&I Rebate Program					
Benefits	$27,772,033	$15,471,764	$34,484,962	$25,972,059	$25,441,380
Costs	$25,460,235	$7,747,322	$12,238,973	$20,894,244	$19,562,067
Benefit Cost Ratio	1.09	2.00	2.82	1.24	1.30
Small Business Direct Install					
Benefits	$22,270,126	$9,844,501	$1,348,027	$20,691,329	$20,225,051
Costs	$10,358,947	$3,765,783	$499,256	$8,501,193	$7,959,173
Benefit Cost Ratio	2.15	2.61	2.70	2.43	2.54
Online Energy Marketplace					
Benefits	$2,296,984	$2,748,678	$2,257,627	$2,089,086	$2,044,937
Costs	$913,082	$736,035	$1,165,336	$749,331	$701,555
Benefit Cost Ratio	2.52	3,73	1.94	2.79	2.91
Residential Rebate Electric					
Benefits	$90,779	$106,477	$115,211	$79,795	$77,840
Costs	$84,221	$41,432	$160,420	$69,117	$64,710
Benefit Cost Ratio	1.08	2,57	0.72	1.15	1.20
ARP					
Benefits	$1,224,461	$1,306,050	$368,728	$1,149,195	$1,123,020
Costs	$446,715	$663,857	$194,847	$366,602	$343,228
Benefit Cost Ratio	2.74	1.97	1.89	3.13	3.27
Multifamily Program[27]					
Benefits	$292,090	$17,807	$105,030	$272,952	$266,524
Costs	$472,690	$40,421	$36,483	$387,918	$363,185
Benefit Cost Ratio	0.62	0.44	2.88	0.70	0.73

[27] *The NYSEG Electric Multifamily program did not pass the SCT in 2021. NYSEG plans is to continue this program and making program adjustments to achieve a Benefit Cost Ratio of 1 or greater.*

PORTFOLIO	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)
Heat Pump					
Heat Pump Program[28]					
Benefits	$15,154,061	$14,990,573	$4,642,887	$13,972,945	$13,566,302
Costs	$21,432,035	$13,209,436	$58,193,692	$17,588,454	$16,467,048
Benefit Cost Ratio	0.71	1.13	0.08	0.79	0.82
AMEEP					
Benefits		$132,435	$952,188		
Costs		$98,335	$985,765		
Benefit Cost Ratio		1.35	0.97		
Behavioral					
Benefits		$184,021	$356,978		
Costs		$103,486	$156,601		
Benefit Cost Ratio		1.78	2.28		
LMI 1-4 Family Homes					
Benefits		$191,226	$270,331		
Costs		$521,290	$626,192		
Benefit Cost Ratio		0.37	0.43		
LMI Distributions					
Benefits		$3,551,238	$3,017,658		
Costs		$567,742	$1,563,073		
Benefit Cost Ratio		6.26	1.93		
Retail Products - MR					
Benefits		$32,778,432	$57,487,680		
Costs		$4,569,218	$13,447,044		
Benefit Cost Ratio		7.17	4.28		
Retail Products - LMI					
Benefits		$2,085,521	$2,688,901		
Costs		$340,519	$580,088		
Benefit Cost Ratio		6.12	4.64		
SBCC					
Benefits		$7,761,549	$15,112,399		
Costs		$4,840,792	$4,125,746		
Benefit Cost Ratio		1.60	3.66		
School Kits					
Benefits			$187,297		
Costs			$198,730		
Benefit Cost Ratio			0.94		
Total Benefits	$69,100,534	$91,170,273	$123,395,906	$64,227,361	$62,745,054
Total Costs	$59,167,924	$37,245,668	$94,172,247	$48,556,859	$45,460,967
Portfolio Benefit Cost Ratio	1.17	2.45	1.31	1.32	1.38

Table 5b: 2021-2025 Benefit Cost Ratios (NYSEG Natural Gas)

	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)
C&I Program					
Benefits	$453,476	$1,158,208	$961,247	$405,633	$389,022
Costs	$338,902	$281,865	$268,610	$278,124	$260,391
Benefit Cost Ratio	1.34	4.11	1.17	1.46	1.49
Online Energy Marketplace					
Benefits	$900,588	$1,547,405	$1,509,554	$877,319	$866,564
Costs	$260,860	$282,710	$98,771	$214,077	$200,428
Benefit Cost Ratio	3.45	5.47	3.50	4.10	4.32
Residential Rebate Gas					
Benefits	$2,863,076	$3,226,754	$1,174,414	$3,678,170	$3,584,193
Costs	$3,513,327	$1,920,464	$284,323	$2,883,254	$2,699,423
Benefit Cost Ratio	0.81	1.68	1.21	1.28	1.33
Multifamily Program[29]					
Benefits	$24,471	$21,700	$57,653	$23,839	$23,546
Costs	$65,694	$11,620	$55,976	$53,913	$50,475
Benefit Cost Ratio	0.37	1.87	3.81	0.44	0.47
AMEEP					
Benefits		$53,010	$251,846		
Costs		$55,911	$168,519		
Benefit Cost Ratio		0.95	2.03		
Behavioral					
Benefits		$103,118	$296,814		
Costs		$76,582	$201,394		
Benefit Cost Ratio		1.35	1.47		
LMI 1-4 Family Homes					
Benefits		$355,338	$726,642		
Costs		$1,274,893	$2,685,528		
Benefit Cost Ratio		0.28	0.27		

[28] *The NYSEG Heat Pump program did not pass the SCT in 2021. The residential heat pump program is being transferred to the New York State Clean Heat Statewide Heat Pump program, which is positioned to receive a joint utility, statewide evaluation.*

[29] *The NYSEG Gas Multifamily program did not pass the SCT in 2021. NYSEG plans is to continue this program and making program adjustments to achieve a Benefit Cost Ratio of 1 or greater.*

PORTFOLIO	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)
LMI Distributions					
Benefits		$237,465	$1,516,834		
Costs		$96,438	$108,855		
Benefit Cost Ratio		2.46	3.67		
Retail Products					
Benefits		$29,203	$27,640,787		
Costs		$28,327	$446,925		
Benefit Cost Ratio		1.03	5.07		
Retail Products LMI					
Benefits		$29,203	$195,184		
Costs		$28,327	$3,345		
Benefit Cost Ratio		1.03	5.07		
SBDI					
Benefits		$1,194	$1,297		
Costs		3616.66	$6,879		
Benefit Cost Ratio		0.33	0.20		
SBCC					
Benefits			$42,765		
Costs			$15,181		
Benefit Cost Ratio			2.31		
School Kits					
Benefits			$602,123		
Costs			$157,592		
Benefit Cost Ratio			2.52		
Total Benefits	$4,241,610	$6,733,396	$34,977,159	$4,984,961	$4,863,327
Total Costs	$4,178,783	$4,032,426	$4,501,898	$3,429,368	$3,210,718
Portfolio Benefit Cost Ratio	1.02	1.67	3.06	1.45	1.51

Table 5c: 2021-2025 Benefit Cost Ratios (RG&E Electric)

PORTFOLIO	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)
C&I Rebate Program					
Benefits	$9,396,028	$7,831,176	$19,822,236	$8,626,320	$8,389,358
Costs	$7,677,415	$2,517,882	$11,625,087	$6,183,467	$5,753,133
Benefit Cost Ratio	1.22	3.11	1.71	1.40	1.46
Small Business Direct Install					
Benefits	$7,060,032	$1,877,774	$336,866	$6,422,842	$6,241,389
Costs	$3,971,189	$765,233	$152,447	$3,198,435	$2,975,842
Benefit Cost Ratio	1.78	2.45	2.21	2.01	2.10
Online Energy Marketplace					
Benefits	$1,015,834	$1,033,628	$930,290	$907,253	$882,522
Costs	$565,981	$213,040	$507,034	$455,847	$424,123
Benefit Cost Ratio	1.79	4.85	1.83	1.99	2.08
Residential Rebate Electric					
Benefits	$183,252	$118,134	$142,522	$157,915	$152,827
Costs	$277,146	$92,443	$225,622	$223,216	$207,681
Benefit Cost Ratio	0.66	1.28	0.63	0.71	0.74
ARP					
Benefits	$743,711	$663,986	$201,037	$690,307	$671,556
Costs	$291,761	$357,620	$114,649	$234,987	$218,634
Benefit Cost Ratio	2.55	1.86	1.75	2.94	3.07
Multifamily Program[30]					
Benefits	$259,430	$248,580	$182,659	$239,777	$232,899
Costs	$544,216	$160,190	$40,295	$438,317	$407,812
Benefit Cost Ratio	0.48	1.55	4.53	0.55	0.57
Heat Pump Program[31]					
Benefits	$1,131,398	$3,869,296	$533,558	$1,042,424	$1,012,507
Costs	$3,396,968	$3,528,328	$12,022,192	$2,735,952	$2,545,546
Benefit Cost Ratio	0.33	1.10	0.04	0.38	0.40
AMEEP					
Benefits		$2,291,249	$427,907		
Costs		$127,694	$488,614		

[30] *The RG&E Electric Multifamily program did not pass the SCT in 2021. NYSEG plans is to continue this program and making program adjustments to achieve a Benefit Cost Ratio of 1 or greater.*

[31] *The RG&E Heat Pump program did not pass the SCT in 2021. The residential heat pump program is being transferred to the New York State Clean Heat Statewide Heat Pump program, which is positioned to receive a joint utility, statewide evaluation.*

PORTFOLIO	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)
Benefit Cost Ratio		17.94	0.88		
Behavioral					
Benefits		$489,031	$580,892		
Costs		$124,360	$180,439		
Benefit Cost Ratio		3.93	3.22		
LMI 1-4 Family Homes					
Benefits		$120,995	$114,669		
Costs		$264,410	$439,876		
Benefit Cost Ratio		0.46	0.26		
LMI Distributions					
Benefits		$1,597,799	$1,271,155		
Costs		$314,997	$765,168		
Benefit Cost Ratio		5.07	1.66		
Retail Products MR					
Benefits		$20,710,078	$26,902,880		
Costs		$3,026,886	$6,857,878		
Benefit Cost Ratio		6.84	3.92		
Retail Products LMI					
Benefits		$706,246	$681,889		
Costs		$121,235	$161,228		
Benefit Cost Ratio		5.83	4.23		
SBCC					
Benefits		$2,109,119	$4,297,839		
Costs		$1,409,608	$1,209,497		
Benefit Cost Ratio		1.50	3.55		
Self-Direct Install					
Benefits		$164,699			
Costs		$106,844			
Benefit Cost Ratio		1.54			
School Kits					
Benefits			$99,730		
Costs			$115,509		
Benefit Cost Ratio			0.86		
Total Benefits	$19,789,684	$43,831,790	$56,526,129	$18,086,838	$17,583,057
Total Costs	$16,724,676	$13,130,770	$34,905,536	$13,470,221	$12,532,770
Portfolio Benefit Cost Ratio	1.18	3.34	1.62	1.34	1.40

Table 5d: 2021-2025 Benefit Cost Ratios (RG&E Natural Gas)

PORTFOLIO	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)
C&I Program					
Benefits	$562,438	$1,857,050	$2,845,966	$495,373	$473,001
Costs	$1,126,457	$414,028	$2,633,382	$907,260	$844,120
Benefit Cost Ratio	0.50	4.49	1.08	0.55	0.56
Online Energy Marketplace					
Benefits	$1,409,299	$1,144,794	$1,501,833	$1,347,472	$1,403,744
Costs	$453,083	$206,806	$467,464	$364,918	$339,521
Benefit Cost Ratio	3.11	5.54	3.21	3.69	4.13
Residential Rebate Gas					
Benefits	$7,950,805	$7,548,849	$3,204,880	$7,371,012	$7,592,520
Costs	$8,984,234	$5,037,373	$2,780,633	$7,235,992	$6,732,408
Benefit Cost Ratio	0.88	1.50	1.15	1.02	1.13
Multifamily Program[32]					
Benefits	$64,967	$79,659	$71,084	$62,118	$64,691
Costs	$70,072	$45,369	$22,903	$56,437	$52,509
Benefit Cost Ratio	0.93	1.76	3.10	1.10	1.23
AMEEP					
Benefits		$201,978	$649,251		
Costs		$80,390	$276,839		
Benefit Cost Ratio		2.51	2.35		
Behavioral					
Benefits		$116,530	$294,071		
Costs		$108,793	$113,059		
Benefit Cost Ratio		1.07	2.60		
LMI 1-4 Family Homes					
Benefits		$214,313	$358,575		
Costs		$701,969	$1,335,929		
Benefit Cost Ratio		0.31	0.27		
LMI Distributions					
Benefits		$48,039	$996,247		
Costs		$48,005	$292,621		
Benefit Cost Ratio		1.00	3.40		

[32] *The RG&E Gas Multifamily program did not pass the SCT in 2021. NYSEG plans is to continue this program and making program adjustments to achieve a Benefit Cost Ratio of 1 or greater.*

PORTFOLIO	2021 (Actual)	2022 (Actual)	2023 (Actual)	2024 (Planned)	2025 (Planned)
Retail Products -MR					
Benefits		$12,351	$10,146,678		
Costs		$11,866	$2,156,796		
Benefit Cost Ratio		1.04	4.70		
Retail Products LMI					
Benefits		$12,351	$45,825		
Costs		$11,866	$9,740		
Benefit Cost Ratio		1.04	4.70		
SBCC					
Benefits			$48,069		
Costs			$22,466		
Benefit Cost Ratio			2.14		
SBDI					
Benefits		$853	$239		
Costs		$2,258	$1,644		
Benefit Cost Ratio		0.38	0.15		
School Kits					
Benefits			$327,344		
Costs			$137,900		
Benefit Cost Ratio			2.37		
Total Benefits	$9,987,509	$11,224,417	$20,490,062	$9,275,976	$9,533,955
Total Costs	$10,633,846	$6,656,858	$10,251,375	$8,564,606	$7,968,558
Portfolio Benefit Cost Ratio	0.94	1.69	2.00	1.08	1.20

5.1.3 2020-2025 Portfolio BCA Results

2021 - 2025 benefit cost ratios include EM&V and internal administration costs at program, sector, and portfolio levels. The following tables show actual results for program years 2021 – 2023 and planned results for 2024 – 2025.

Table 5e: 2020-2025 Portfolio BCA Results (NYSEG Electric)

Portfolio (Electric)	Program Year 2021	Program Year 2022	Program Year 2023	Planned Year 2024	Planned Year 2025
Societal Cost Test Ratio	1.17	2.45	1.31	1.32	1.38
Utility Cost Test Ratio	2.14	1.57	2.22	2.45	2.57
Ratepayer Impact Measure Test Ratio	0.37	0.35	0.43	0.40	0.41

Table 5f: 2020-2025 Portfolio BCA Results (NYSEG Natural Gas)

Portfolio (Natural Gas)	Program Year 2021	Program Year 2022	Program Year 2023	Planned Year 2024	Planned Year 2025
Societal Cost Test Ratio	1.02	1.67	3.06	1.45	1.51
Utility Cost Test Ratio	1.67	1.36	4.07	2.32	2.40
Ratepayer Impact Measure Test Ratio	0.45	0.40	0.62	0.49	0.50

Table 5g: 2020-2025 Portfolio BCA Results (RG&E Electric)

Portfolio (Electric)	Program Year 2021	Program Year 2022	Program Year 2023	Planned Year 2024	Planned Year 2025
Societal Cost Test Ratio	1.18	3.34	1.62	1.34	1.40
Utility Cost Test Ratio	1.88	2.44	2.82	2.16	2.27
Ratepayer Impact Measure Test Ratio	0.27	0.39	0.40	0.30	0.31

Table 5h: 2020-2025 Portfolio BCA Results (RG&E Natural Gas)

Portfolio (Natural Gas)	Program Year 2021	Program Year 2022	Program Year 2023	Planned Year 2024	Planned Year 2025
Societal Cost Test Ratio	0.94	1.69	3.06	1.08	1.20
Utility Cost Test Ratio	2.06	3.65	4.07	2.35	2.58
Ratepayer Impact Measure Test Ratio	0.53	0.44	0.62	0.58	0.62

5.1.4 Input Data Sources

1. Long Run Average Costs ("LRACs") for electric energy, capacity, natural gas, carbon dioxide emissions, and appropriate escalation factors, provided by Staff in October 2019 via e-mail. Rich Schuler and Kevin Manz from DPS supported these numbers.
2. Avoided Generation Capacity Costs ("AGCC") ($/kWh)) from NY-ISO CARIS Phase II database updates, 2018-19 values are based on 2018 Gold Book and 2020-2040 Based on 2020 Gold Book. Refer to Item#1379 on the NYPSC website for ICAP forecast. Weblink
3. Avoided Carbon Cost from Societal Cost of Carbon (SCC) less RGGI clearing price by Work papers from NY DPS Staff dated October 24, 2019. Original file name: Case 15-E-0751 – Value of Distributed Energy Resources, Updated Environmental Value, filed 3-13-2018.
4. Interest rates, loss factors, and avoided local (marginal) distribution costs from the Companies' BCA Handbook, Version 3.0, filed June 30, 2020.
5. Gas Line Losses factors from RG&E and NYSEG Gas LAUF per PSC 16 leaf 70. Weblink1, Weblink2.
6. Program implementation costs, including incentives and services, contractor and employee costs, administrative costs, and outreach and education costs from 2020 actual program costs.
7. EM&V costs based on actual 2020 expenditures.
8. Savings from 2020 actual program gross savings.[33]
9. Some of the Energy Efficiency Measure material and labor costs, both full and incremental, are taken from the Companies' program implementation contractor data files and from industry incremental cost studies. Available at: http://www.neep.org/initiatives/emv-forum/forum-products#Incremental Cost Studies), and from publicly available sources.
10. Program, sector, and portfolio Effective Useful Lives ("EULs") calculated from a savings weighted average of measure EULs rebated or provided through the Companies' programs.
11. Additional assumptions applied to Heat Pump Program BCA calculator only:

[33] On the BCA calculations Realization Rates have been applied to the 2020 Gross Savings for the programs that have them.

- Baseline heating systems used in the analysis are oil fired boiler/furnaces, oil fired hot water heaters, and electric hot water heaters per the scenarios provided by ICF, the Companies' implementation contractor for NY Clean Heat Program (BCA is based only on oil heating MMBTU savings, electric cooling kWh savings, and electric HP heating kWh penalties). Included Single family and Multifamily (small low rise) heat pump data provided by ICF. 15 years measure life (Air Source Heat Pump TRM)
- Utility costs have been assigned as follows: 5% for EM&V, 5% for Implementation, and 5% for admin costs.
- Avoided oil costs include only avoided commodity cost and avoided CO2
- Avoided commodity cost is based on the pricing data provided by NYSERDA- we used a 3-year average for 2019 avoided cost and then applied the growth rates found in the EIA Residential Energy Prices database (Mid-Atlantic region) for subsequent years.
    - For NYSEG we used the statewide average pricing excluding NYC and Long Island; and
    - For RG&E we used the average pricing from Central and Western NY regions.
- Avoided CO2 costs for oil, based on the Cost of Carbon spreadsheet provided by DPS Staff and applied the oil emission factor from the DPS Final Performance Metrics Report.
- The increased electric sales due to Heat pumps were included as a benefit in the RIM test for NYSEG and RG&E. Also, note the overall electric energy (kWh) savings at the portfolio level slightly decreased due to Heat Pump program activity.
- No avoided cost benefits from oil savings were included in the RIM test for both NYSEG and RG&E as the utilities are not involved in any oil-related transactions and doesn't impact the ratepayer.

APPENDIX A: Budgets/Savings Plan Summaries

Please reference file labeled: Appendix A – NYSEG & RG&E Elec-Gas Spend-Savings

APPENDIX B: Benefit Cost Analysis Working Papers

Please reference file labeled: BCA Working Papers

APPENDIX C: VGS Specifications

Please reference file labeled: NYSEG – RG&E VGS Specification