NEW YORK STATE

PUBLIC SERVICE COMMISSION

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

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

Case 07-G-0141 – Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of National Fuel Gas Distribution Corporation for Gas Service – Conservation Incentive Program

NATIONAL FUEL GAS DISTRIBUTION CORPORATION CONSERVATION INCENTIVE PROGRAM UPDATED SYSTEM ENERGY EFFICIENCY PLAN FOR THE 2019-2025 PROGRAM YEARS DATED: April 3, 2023

I. Portfolio Summary and Program Descriptions

Executive Summary

National Fuel Gas Distribution Corporation's ("Distribution" or "Company") New Efficiency: New York ("NE:NY") Gas Energy Efficiency Portfolio ("Portfolio") includes the following three core programs; (1) Residential Rebate Program; (2) Non-Residential Rebate Program; and (3) the Statewide Low-Moderate-Income ("LMI") Portfolio ("Statewide LMI Portfolio") which includes the Existing 1-4 Unit Family Home Initiative and the Affordable Multifamily Energy Efficiency Program ("AMEEP") . Distribution has offered the Residential Rebate Program and the Non-Residential Rebate program since 2007. Distribution phased out its previous Low Income Usage Reduction Program ("LIURP") in 2019 and has coordinated with NYSERDA and other parties to support the Statewide LMI Portfolio since 2020. In 2022, Distribution made small adjustments to the eligible measures and rebate amounts for the Residential Rebate Program and Non-Residential Rebate Program. In Q2 2022, Distribution started contributing to AMEEP under the Statewide LMI Portfolio.

Descriptions of Distribution's 2023 program offerings, including forecasted savings and budgets are provided below. For years 2023-2025, Distribution expects that its Portfolio will remain consistent with the program descriptions provided below. In accordance with New York State Department of Public Service Staff's ("Staff") System Energy Efficiency Plan ("SEEP") Guidance Document[1], Distribution will provide a description of any changes to the program offerings in future annual or quarterly SEEP filings.

Residential Rebate Program Description

2023 Program Narrative

The Residential Rebate Program is an equipment replacement program, modeled after a Vermont Gas Systems program, which was cited by the American Council for an Energy-Efficient Economy ("ACEEE"), as one of the nation's exemplary natural gas energy efficiency programs. Distribution's program offers equipment replacement rebate incentives for single-family residential dwellings, to encourage them to install high efficiency space heating, water heating, and other residential appliances. These types of appliances are by far the largest users of natural gas in residential buildings and are therefore most likely to show the largest savings to customers when they upgrade their appliances. Distribution sets minimum efficiency levels for each appliance type based on federal Energy Star and New York State ENERGY STAR guidelines. The goal of the Residential Rebate Program is to encourage the installation of high efficiency appliances or equipment by customers.

The Residential Rebate Program is coordinated with the Company's outreach activities, helping to entice customers to install high- efficiency natural gas equipment and appliances, rather than installing minimally code compliant equipment and appliances. The Company also continues to coordinate the Residential Rebate Program with NYSERDA's Clean Energy Fund (CEF) offerings, on an on-going basis, helping to ensure that incentives are complementary and not duplicative in nature.

[1] Case 15-M-0252 In the Matter of Utility Energy Efficiency Programs, CE-06 SEEP Annual Report Guidance Filing Package (issued April 22,2021)

Program Delivery Method

Space heating and water heating measures must be installed using a licensed contractor or a contractor that can supply a federal tax identification number, a certificate of insurance, or a business certificate. All measures must be purchased as new and installed prior to submitting a completed rebate application and other necessary required documentation. Proof of purchase for eligible measures should include the following information:

- Paid invoice or receipt(s) indicating the retailer/contractor name, business address, and phone number. The paid invoice should contain an itemized description of each product including:
  - Manufacturer, and complete model number of equipment replaced and installed;
  - Efficiency rating of the equipment or appliance, where applicable and required, as a minimum efficiency level specified by the program; and
  - Product installation date.

- A copy of the retailer/contractor federal tax identification number, certificate of insurance, or business certificate.

Distribution's rebate processor serves as the primary contact for receiving and processing rebate applications, handling customer inquiries, and/or responding to requests for information. A call center and toll-free telephone number is maintained so that customers can contact the rebate processor directly.

Many of the customer interactions are handled directly by the rebate processor, but contact is made by Distribution if an issue arises that requires Distribution's direction, judgment, or interpretation of Residential Rebate Program policies and procedures. This communication is completed through e-mails and telephone calls, and occurs on an as needed basis, which can be as often as daily. Customers that have submitted a rebate application and the necessary paperwork, and have questions about their submittal or rebate status, can call 1-877-285-7824 to speak to a representative. If customers have a question, problem, or request, they can contact Distribution's CRC. In the Buffalo area, that phone number is 716-686-6123 and in all other areas that phone number is 1-800-365-3234. In 2020, Distribution added the option of an online application for customers to complete in lieu of a paper application, which allows

customers to complete and submit their application and supporting documents completely online.

Target Market and Eligibility

The target market for the Residential Rebate Program is all residential customers within Distribution's New York service territory. All residential customers are eligible to participate in the Residential Rebate Program. Rebates are available for existing single-family dwellings, condominiums, and mobile dwellings. New construction is also eligible for this program.

Measures and rebate amounts for program years 2019 through 2023 included in the Residential Rebate Program are included in Appendix A. Notably, beginning in program year 2021, Distribution is including an enhanced furnace with ECM (electronically commutated motor) incentive when installed in combination with an electric air source heat pump. This hybrid heating system promises to be an effective measure for reducing greenhouse gas emissions without compromising reliability and resiliency.

Program Participation/Install Rates and Savings Derivation

Program participation and savings were estimated using a derivation analysis based on Distribution's newly proposed rebate dollar amounts, per unit savings calculations, and the engineering algorithms presented in the NY Technical Resource Manual (TRM).[2] The assumed measure mix within the Residential Rebate Program is based on actual measure mix experienced during the 2020 program year, scaled to the program budget.

Quality Assurance/ Quality Control (QA/QC)

Distribution has put in place a comprehensive QA/QC plan. This plan is implemented primarily by the rebate processor through several mechanisms to assure that rebates are only given to qualified customers. Distribution's current rebate processor administers energy efficiency programs for utilities nationwide and has been in the energy industry since 1982. The rebate processor screens all applications against a Distribution database to ensure that the applicant is a customer and that eligibility requirements

---

[2] New York State Public Service Commission website, New York Technical Resource Manual, at: http://www3.dps.ny.gov/W/PSCWeb.nsf/All/72C23DECFF52920A85257F1100671BDD?OpenDocument.

have been met. The rebate processor also reviews appliance specification sheets and compares equipment make/model data against an appliance database to ensure that equipment installed is meeting required energy efficiency levels. Contractor invoices are also reviewed to ensure that equipment was installed by a licensed contractor. Any flaws found in the application are turned back to the customer for additional information or clarification, and then are either approved or rejected based on additional data provided.

The rebate processor also conducts two additional QC aspects of the program. First, they work with a third-party vendor to conduct random monthly inspections[3] of equipment installations to verify that the equipment receiving a rebate was installed by the customer. Second, the rebate processor has historically conducted telephone surveys to random samples of customers to gain their insight on program awareness, the purchase decision, the rebate's impact on the purchase decision, and overall customer satisfaction with the rebate application process. Distribution is currently in the process of moving towards an online survey conducted via email. Additional information on the Company's QA/QC processes is included in Distribution's Data Governance Assessment Report, filed on September 11, 2018, in Case 15-M- 0252.

Program Budget and Performance Targets

The overall Residential Rebate Program budget is provided in Table 1 and Table 2 below. Distribution expects greater customer participation and program expenditures during the winter heating season, as customers are evaluating their heating needs. In addition, there is usually a lag in getting program results early in the program year (first quarter or two), as a measure needs to be installed, paperwork and supporting documentation needs to be assembled, reviewed, and processed, and a rebate payment needs to be provided to the customer. Generally speaking, most rebates are reviewed and processed within a six-to-eight-week cycle.

It is not uncommon for customers to submit rebate applications and necessary supporting documentation after the conclusion of a program year, especially for installs that were completed during

[3] Historically, inspections have been conducted on-site. In light of the COVID-19 pandemic, virtual inspections have been introduced if preferred by the customer.

the fourth quarter of the current program year. The majority of these customers would be required to complete an on-site inspection in order to receive a rebate. This QA practice verifies that the equipment was actually installed and minimizes the potential for fraudulent rebate claims to be submitted. Although previously allowing some flexibility around rebate application submissions, Distribution has implemented a firm deadline of March 31st (90 days after the start of the new program year), for any applications received for prior year's rebates.

Distribution's savings target for this program is based on the derivation analysis prepared by the evaluator, and engineering algorithms from the NY TRM, both of which were described above.

Non-Residential Rebate Program Description

2023 Program Narrative

The Non-Residential Rebate Program is a space, water and process heating equipment replacement program that offers fixed and customized rebate incentives to non-residential customers. It was modeled after a Vermont Gas Systems program that was cited by the American Council for an Energy Efficient Economy (ACEEE) as an exemplary natural gas energy efficiency program. The goal of the program is to provide cost effective incentives to non- residential customers utilizing natural gas efficiently in their business operations.

Fixed rebates on pre-qualified equipment are available to customers and are designed to be quick and easy, utilizing a straightforward application process. For fixed rebates, Distribution sets minimum efficiency levels for each appliance type based on federal ENERGY STAR and New York State Energy Smart guidelines.

Customized rebates are also available to customers on a case-by-case basis, at a level of $15 per Mcf multiplied by an estimate of natural gas energy savings to be achieved from the completion of a project. These rebates are available for energy efficient: furnaces, boilers, water heaters, process heating equipment, steam/hot water distribution piping insulation, boiler control systems, controls, cooking

equipment, and other natural gas appliances. All energy efficiency projects resulting in natural gas savings will be considered for a customized rebate. Technical engineering analyses are performed in order to validate and confirm energy savings.

From the program's inception in 2007, through December 31, 2016, eligibility was limited to non-residential customers using 12,000 Mcf or less per year. This practice ensured that Distribution's program offerings were not duplicative with NYSERDA programming, and that the two entities did not "compete" to enroll the same population of customers. Beginning January 1, 2017, the program was officially "opened up" to all non-residential customers (*i.e.,* the 12,000 Mcf cap was removed from the program). This determination was made: (1) resulting from an on-going dialogue with NYSERDA to discuss the change and ensure that it would not be duplicative, (2) after learning about NYSERDA's CEF programmatic offerings for non-residential customers, and (3) based on the fact that larger non-residential customers (*i.e.,* greater than 12,000 Mcf per year) are required to pay the Energy Efficiency Tracker, in accordance with Section 0, Leaf 146 of the Company's currently effective tariff (P.S.C. No. 9).

The program is coordinated with the Company's outreach activities, helping to entice customers to install high-efficiency natural gas equipment and appliances, rather than installing minimally code compliant equipment and appliances. The Company also continues to coordinate the program with CEF offerings, on an on-going basis, helping to ensure that incentives are complementary and not duplicative in nature.

Program Delivery Method

Procedures for customer enrollment include:

- Upon receipt of a completed application (includes application and technical engineering study) the Implementation Contractor, a third party retained by Distribution will:
  - Review the application for completeness and eligibility.
  - Ensure all necessary supporting documentation has been submitted.
  - Review the engineering study for technical merit.
  - Log the application into a Project Tracking Database.

- Contact the customer and/or contractor to conduct a pre-installation site visit to verify existing conditions.[4]
- Summarize the proposed natural gas project and provide a recommendation of potential energy savings and an appropriate financial incentive.

- Once an application is approved:
  - The customer will be notified by the Implementation Contractor that they are eligible to receive funding. This notification is in writing, unless requested otherwise by the customer.
  - The Implementation Contractor will maintain contact with the customer to confirm that the project is expected to move forward and to check the status of the project during its execution.
  - The Project Tracking Database will be updated to reflect the funding expectation and customer communications.

- Once the customer completes the project:
  - The Implementation Contractor will conduct a post-installation site- inspection to verify that the project has been completed and that the same equipment specified in the application was installed. This includes a verification of the efficiency levels submitted on the application and the efficiency levels of equipment installed.[5]
  - Based on the site-inspection, the Implementation Contractor will either: (1) sign off on the energy savings achieved and financial incentives to be awarded, or (2) document changes to energy savings achieved and financial incentives to be awarded.[6]
  - The customer will be notified of the results of the on-site inspection, the energy savings achieved by the project, and the final financial incentive. This notification is in writing, unless requested otherwise by the customer. Accompanying this notification is a financial incentive payment to the customer. If the customer requested a non-written notification, the financial incentive payment is mailed out on its own.[7]
  - The Project Tracking Database will be updated to reflect the completion of construction, completion of the on-site inspection, customer communications, final energy savings achieved, final financial incentive dollar amount, and payment information.

The Implementation Contractor serves as the primary point of contact for receiving and processing rebate applications, handling customer inquiries, and/or responding to requests for information. Customers can contact the Implementation Contractor via phone, e-mail, or in writing. Many of the customer inquiries are handled directly by the Implementation Contractor, but they also work closely with Distribution if there is an issue that requires the Company's direction, judgment or interpretation of program policies and procedures. This communication is done mainly through e-mails and occasional phone calls, and usually occurs on a weekly basis.

---

4 This procedure is only applicable for customized rebates.
5 This procedure is only applicable for customized rebates.
6 Ibid.
7 Ibid.

Communication also occurs on an as needed basis, outside of the typical weekly communication. Customers can also call Distribution's consumer response center ("CRC") at 1-844-365-3493 to learn more about the basics of the Non-Residential Rebate Program.

Target Market and Eligibility

The target market for the Non-Residential Rebate Program is non-residential customers within Distribution's New York service territory. All installations must be completed by a licensed contractor. Customers applying to participate in the program and the contractor that performs the installation must be able to supply one of the following: the contractor's federal tax identification number, a Certificate of Insurance, or a Business Certificate showing the contractor's name and address. This information must be provided for an application to be considered complete.

Building retrofits, as well as new construction, are both eligible for participation in the program. Measures and rebate amounts for program years 2019, 2020, 2021, 2022 and 2023 are included in Appendix A, tables A-1, A-2, A-3, A-4, and A-5 respectively. It should be noted that Distribution has put in place a $100,000 per project rebate cap for this program. The Company will continue to evaluate program eligibility as well as the per project rebate cap, making any necessary modifications in future SEEP filings. To the extent that Distribution elects to completely remove the per project rebate cap future, Distribution will make note of the change in the associated SEEP filing.

Program Participation/Install Rates and Savings Derivation

Program participation and savings were estimated through a derivation analysis based on average project incentives of $3,457 in program year 2019 and projected average energy savings per job of 894 Mcf in program year 2020, included in the Implementation Contractor's reports to Distribution, and scaled to the estimated number of participants in the program budget.

Distribution's Implementation Contractor utilizes the NY TRM for fixed, pre-qualified savings evaluation, and engineering analysis for custom, performance- based savings valuation.

Saturation Measurement

Distribution intends to measure market saturation for the program by comparing counts of specific measures installed and counts of the number of projects completed, to the total number of non-residential customers served in the Company's service territory. This type of pragmatic approach makes sense for the dual rebate structure within the program (*i.e.,* prequalified rebates would be informed by measure count comparisons whereas customized rebates would be informed by project count comparisons). Data is archived and available from 2007 (*i.e.,* the inception of Distribution's Conservation Incentive Program ("CIP")) to present, in order to facilitate such saturation measurement.

QA / QC

Distribution has put in place a comprehensive QA/QC plan. This plan is implemented primarily by the Implementation Contractor through several mechanisms to assure that only customers that meet the eligibility criteria are participating in the program. For fixed rebates, the Implementation Contractor completes a robust application review process, as described above. The review process includes Distribution on an as-needed basis when direction, judgment, or interpretation of Non-Residential Rebate Program policies and procedures are necessary. The Implementation Contractor is equipped with technical engineering expertise in order to accurately determine if a job meets required energy efficiency levels. Contractor paperwork is also reviewed by the Implementation Contractor to ensure that installations are completed by licensed contractors. Any flaws found in the application or supporting paperwork are turned back to the customer for additional information or clarification, and then are either approved or rejected based on the data provided. The Implementation Contractor also completes random, on- site inspections of approximately 5% of the fixed rebate population to confirm that the equipment stated on the application was installed. On-site inspections are meant to help ensure that no fraudulent applications are processed. Distribution also reserves the right to request that specific fixed rebate jobs undergo an on-site inspection upon job completion.

For customized rebates, the Implementation Contractor performs a detailed review of the

application and any engineering analysis submitted. First, the Implementation Contractor visits the customer's jobsite to review and confirm the existing equipment and energy usage. The Implementation Contractor analyzes the customer's estimated energy savings and estimated financial incentive for the proposed job to ensure that both numbers are correct and reasonable. During a post- installation site inspection, the Implementation Contractor confirms that makes and models meet required energy efficiency levels and that the equipment specified on the application form was installed. Any flaws or missing information found in the application or engineering analysis are turned back to the customer for additional information or clarification, and then are either approved or rejected based on the data provided.

The Implementation Contractor monitors program progress and expenditure levels to ensure that program objectives are met within approved budgets. Distribution and the Implementation Contractor will conduct telephone calls and hold meetings to ensure that contractors understand and are following program procedures. Contractor feedback is also sought during these telephone calls and meetings, as well as during training sessions. The Implementation Contractor will conduct periodic reviews of the Project Tracking Database to ensure the accuracy of data entry. At Distribution's request, the Implementation Contractor shall permit Company personnel to monitor and participate in administrative tasks. Additional information on the Company's QA/QC processes is included in Distribution's Data Governance Assessment Report, filed on September 11, 2018 in Case 15-M-0252.

Program Budget and Performance Targets

The overall program budget is provided in Table 1 and Table 2 below. Typically, there is no seasonality or unusual patterns of customer participation during a program year. The vast majority of projects within the program are fixed rebate projects. Customized rebates usually take longer to complete due to a detailed review of the engineering analyses submitted and the necessary completion of pre/post jobsite visits.

The program does not typically have a large number of encumbrances at the end of a program year, as the majority of jobs tend to be fixed rebates, and jobs are managed to be completed on- time during the current program year. In general, straightforward fixed rebates with complete application paperwork and subtending detail are typically processed within six to eight weeks. In contrast, because customized rebates are dependent on the completion of work at non-residential customer facilities, commitments and encumbrances can span several months, or more than a year in some cases. Distribution's savings target is based on the derivation analysis prepared and described above.

Statewide LMI Portfolio Description

2023 Program Narrative

On July 24, 2020, the Joint Utilities [8]("Joint Utilities"), including Distribution, and NYSERDA filed the Statewide Low- and Moderate-Income Portfolio Implementation Plan ("LMI Plan"), in response to the directive in the 2020 Energy Efficiency Order[9]. The Statewide LMI Portfolio includes multiple weatherization programs designed specifically for low-income customers. In 2020, 2021 and 2022, Distribution contributed to the Existing 1-4 Family Homes Initiative. In Q2 of 2022, Distribution started participating in AMEEP as well. Distribution's contribution to the LMI Portfolio, including its contributions to both the Existing 1-4 Unit Family Home and AMEEP, included all planned 2020 - 2022 LIURP funding, plus a portion of its incremental budget.

The Existing 1-4 Unit Family Homes Initiative was implemented in 2020 under several program names, including LIURP and EmPower. In 2020, LIURP transitioned to the EmPower New York statewide program. Under the existing 1-4 Unit Family Homes Initiative, low-income Distribution gas customers are eligible to receive a heating system check, an energy audit, weatherization measures, an

[8] The Joint Utilities consist of Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., National Fuel Gas Distribution Corporation, National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc. and Rochester Gas and Electric Corporation.

[9] Case 18-M-0084, Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025 (Order issued January 16,2020)

infiltration reduction, natural gas usage reduction measures and consumer education at no charge. Households receiving gas efficiency services paid for by Distribution were also evaluated by NYSERDA for electric reduction measures. The main goal of EmPower is to conserve energy, reduce residential energy bills, and improve the health, safety, and comfort levels for participating households. A secondary goal includes reducing payment delinquencies and the incidence of collections and service terminations. Additional detail on the Existing 1-4 Unit Family Home Initiative is available in the LMI Plan.

Distribution also contributes to the AMEEP. The program offers incentives for installing energy-efficient equipment in affordable multifamily housing properties. The upgrades will help affordable multifamily buildings reduce both energy use and costs while increasing operating efficiency and tenant comfort. The program was designed as a statewide joint utility program. Distribution partners with its customer's electric utility and implementation contractor in the overlapping territory and will be responsible for costs associated with gas measures.

There are two pathways for customers to participate in the program: the comprehensive pathway and the non-comprehensive pathway. The comprehensive pathway is for customers who undertake whole building retrofits that address multiple building system categories (*e.g.,* heating and cooling, insulation, etc.) and can offer a higher incentive. This pathway uses a points system to determine the incentive on a per dwelling unit basis. The minimum points accepted for a comprehensive project are 100 points. The non-comprehensive pathway is for customers interested in smaller upgrades that do not meet the 100 point minimum of the comprehensive pathway. Incentives are determined by the equipment installed and/or energy savings.

II. NE:NY Gas EE Portfolio – Budget and Plan Summary

Distribution has integrated its energy efficiency program functions into existing departments of the Company and into normal utility operations. Distribution has not created a separate energy efficiency department, but instead has included energy efficiency functions in existing departments best prepared to

provide services. As such, the labor, benefits, and employee expenses for those employees that work on CIP are already incorporated into the operating expenses of the utility and are not funded through the Company's Energy Efficiency Tracker Surcharge Rate. This practice was established during the inception of CIP in 2007 and has been effective. It should also be noted that the employees who work on CIP only work on the program on a limited, part-time basis. Each employee working on CIP has regular work assignments and other job responsibilities within their respective departments throughout the Company.

Figure 1. Distribution Departments Responsible for CIP Management and Operations

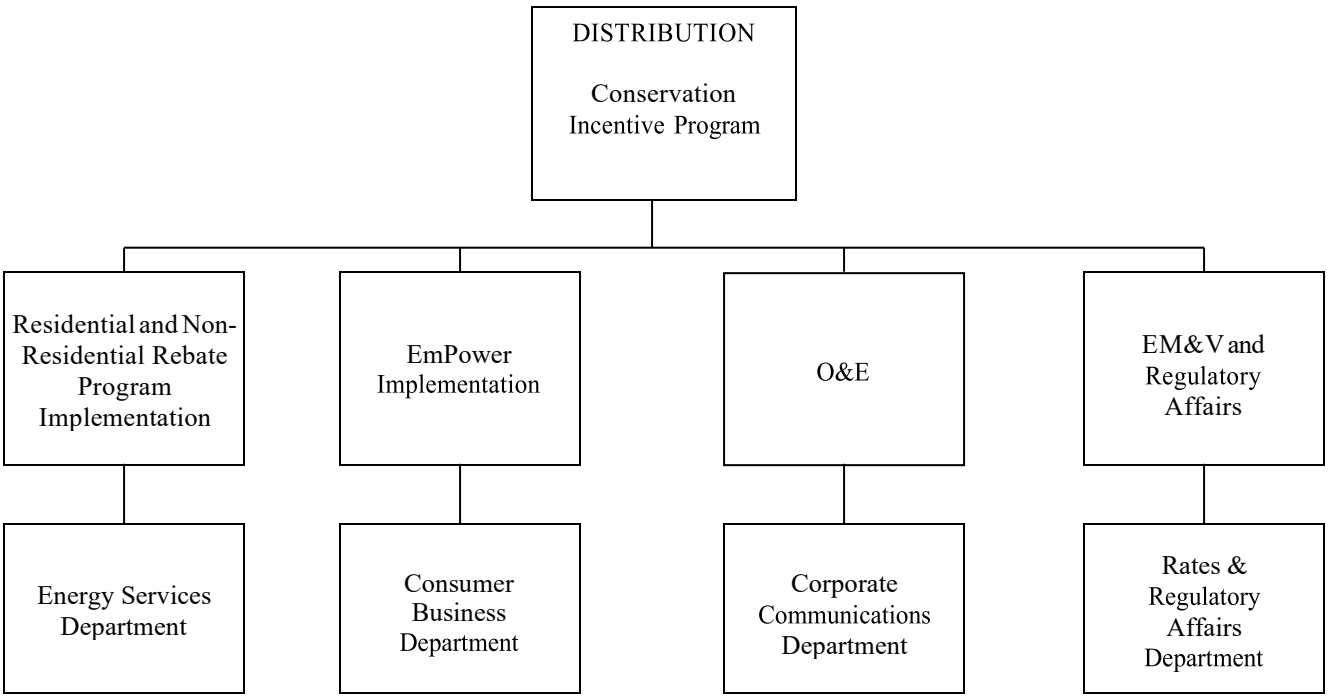

Table 1 provides actual and planned spending for Distribution's full 2019-2021 CIP portfolio. It should be noted that the Portfolio Administration category includes outreach and education activities, program administration, and CIP portfolio support.[10]

[10] Spending for LMI includes primarily spending for the 1-4 Unit Family Home Initiative, and a smaller amount for Distribution's contribution to the Affordable Multifamily Energy Efficiency Program, which started in Q2 of 2022. The NYS Clean Heat program is not offered by Distribution and planned, actual, and forecasted spending and savings are not relevant for this filing.

Table 1: ACTUAL VS. PLANNED PROGRAM SPEND						
GAS PORTFOLIO	**Actual Spend 2019**	**Actual Spend 2020**	**Actual Spend 2021**	**Planned Spend 2022**	**Actual Spend 2022**	**Total Actual Spend 2019-2022**
Residential Sector						
Residential Rebate Program						
Incentives and Services	$3,669,196	$4,574,519	$5,389,969	$3,452,188	$4,116,753	$17,750,437
Program Implementation	$238,310	$251,820	$259,855	$225,000	$302,254	$1,052,239
Total Residential Rebate Program Budget	$3,907,507	$4,826,339	$5,649,824	$3,677,188	$4,419,007	$18,802,676
C&I Sector						
Non-Residential Rebate Program						
Incentives and Services	$462,898	$1,001,022	$771,565	$742,550	$819,976	$3,055,461
Program Implementation	$63,458	$97,038	$95,063	$40,000	$98,447	$354,006
Total Non-Residential Rebate Program Budget	$526,355	$1,098,060	$866,628	$782,550	$918,423	$3,409,467
LMI Res Sector						
LMI/EHRR						
Incentives and Services	$3,934,484	$4,563,489	$3,537,952	$8,987,678	$8,660,293	$20,696,218
Program Implementation	$0	$0	$368,180	$1,227,889	$352,763	$720,943
Total LMI/EHRR Program Budget	$3,934,484	$4,563,489	$3,906,132	$10,215,567	$9,013,056	$21,417,161
Portfolio Administration	$878,385	$688,977	$971,544	$2,006,113	$1,633,853	$4,172,759
Portfolio EM&V	$102,268	$123,436	$199,835	$541,227	$145,973	$571,512
Total Actual Portfolio Expenditure	**$9,348,999**	**$11,300,301**	**$11,593,963**	**$16,681,418**	**$16,130,312**	**$48,373,575**
Commission - Authorized "Base" Budget	**$10,040,000**	**$10,040,000**	**$10,040,000**	**$10,040,000**	**$10,040,000**	**$40,160,000**
Commission - Authorized Total Budget	**$10,040,000**	**$10,040,000**	**$10,579,615**	**$16,799,413**	**$16,799,413**	**$47,459,028**
Budget Remaining	$691,001	($1,260,301)	($1,014,348)	$117,995	$669,101	($914,547)

Table 2, Table 2B, and Table 2C provide 2022 – 2025 estimates, forecasting CIP and LMI expenditures respectively, for commitment and encumbrance planning purposes.

Table 2: Forecasted Program Planned Spend and Budgets			
GAS PORTFOLIO	**Planned Spend 2023**	**Planned Spend 2024**	**Planned Spend 2025**
Residential Sector			
Residential Rebate Program			
Incentives and Services	$4,006,000	$5,000,000	$5,699,955
Program Implementation	$280,000	$300,000	$345,000
Total Residential Rebate Program Budget	$4,286,000	$5,300,000	$6,044,955
C&I Sector			
Non-Residential Rebate Program			
Incentives and Services	$1,049,172	$1,389,134	$2,105,139
Program Implementation	$70,000	$125,000	$170,000
Total Non-Residential Rebate Program Budget	$1,119,172	$1,514,134	$2,275,139
Portfolio Administration	$800,000	$1,200,000	$1,400,046
Portfolio EM&V	$240,000	$270,000	$310,000
Total Actual Portfolio Expenditure	**$6,445,172**	**$8,284,134**	**$10,030,140**

Table 2B. Forecasted LMI Portfolio Planned Spend and Budgets			
Portfolio (LMI Gas)[11]	**Planned Spend 2023**	**Planned Spend 2024**	**Planned Spend 2025**
LMI/EmPower/AMEEP/EHRR Program			
Incentives and Services	$5,309,364	$5,216,282	$5,306,230
Program Implementation	$998,768	$1,000,328	$1,022,018
Total LMI/EmPower/AMEEP/EHRR Budget	**$6,308,132**	**$6,216,610**	**$6,328,248**
Portfolio Administration	$556,323	$531,040	$549,683
Portfolio EM&V	$178,982	$171,689	$172,587
Total Actual Portfolio Expenditure	**$7,043,437**	**$6,919,339**	**$7,050,518**

Table 2C: Total Portfolio Planned Spend and Budgets			
NE:NY Gas EE Portfolio[12]	**Planned Spend 2023**	**Planned Spend 2024**	**Planned Spend 2025**
Total Actual Portfolio Expenditure	**$13,488,609**	**$15,203,473**	**$17,080,658**
Commission-Authorized Total Budget	**$13,096,465**	**$15,395,168**	**$18,195,654**
Budget Remaining/Unspent Funds	**($392,144)**	**$191,695**	**$1,114,996**

[11] LMI gas portfolio includes funds that had been allocated to LIURP.

[12] NE:NY Gas EE Portfolio is the sum of Gas Portfolio and LMI Gas Portfolios.

Table 3, Table 4, Table 4B and Table 4C estimates, forecasting MMBtu achievements, for commitment and encumbrance planning purposes.

Table 3: ACTUAL VS. PLANNED PROGRAM SAVINGS						
GAS PORTFOLIO	**Actual Savings 2019**	**Actual Savings 2020**	**Actual Savings 2021**	**Planned Savings 2022**	**Actual Savings 2022**	**Total Actual Savings 2019-2022**
Residential Sector						
Residential Rebate Program						
MMBtu (Primary)	153,112	181,699	177,848	196,164	154,204	666,863
C&I Sector						
Non-Residential Rebate Program						
MMBtu (Primary)	36,761	42,195	85,727	152,994	42,943	207,626
LMI Sector						
LIURP/LMI/EHRR						
MMBtu (Primary)	28,674	31,411	22,093	114,265	47,420	129,598
Total Portfolio						
MMBtu (Primary)	**218,548**	**255,305**	**285,668**	**463,423**	**244,567**	**1,004,087**

Table 4: Forecast Primary and Secondary Program Savings Plans			
Gas Portfolio	**Planned Savings 2023**	**Planned Savings 2024**	**Planned Savings 2025**
Residential Sector			
Residential Rebate Program			
MMBtu (Primary)	281,085	304,804	332,370
C&I Sector			
Non-Residential Rebate Program			
MMBtu (Primary)	102,926	111,611	121,705
Total Portfolio			
MMBtu (Primary)	**384,011**	**416,415**	**454,075**

Table 4B: Forecast Primary and Secondary LMI Portfolio Savings Plans			
Portfolio (LMI Gas)	**Planned Savings 2023**	**Planned Savings 2024**	**Planned Savings 2025**
LMI/EmPower/AMEEP/EHRR			
MMBtu (Primary)	54,457	59,053	64,393
Total Portfolio			
MMBtu (Primary)	**54,457**	**59,053**	**64,393**

Table 4C: Forecast Primary and Secondary Total Portfolio Savings			
NE:NY Gas EE Portfolio [13]	**Planned Savings 2023**	**Planned Savings 2024**	**Planned Savings 2025**
Total Portfolio			
MMBtu (Primary)	**438,468**	**475,468**	**518,468**
Target	**438,468**	**475,468**	**518,468**

III. Evaluation, Measurement and Verification (EM&V)

Distribution and its evaluation contractor have designed a comprehensive EM&V plan according to Clean Energy Guidance Documents CE-02 and CE-05, for the CIP program years 2019-2025.[14]

Table 5 and Table 6 provide Distribution's estimated EM&V activity schedule and each EM&V activity's forecasted expenditures, respectively, for planning purposes.

Table 5: 2019-2025 EM&V Activity Schedule				
EM&V Activity - Gas	**Expected Plan Submission Date**	**Expected Start Date**	**Expected Completion Date**	**Status**
Process Evaluation (All Programs; Years 2017)	Q2 2017	Q1 2018	Q2 2020	Complete
Joint Impact Evaluation With NYSERDA – LIURP (Years 2012-2016)	Q1 2019	Q4 2018	Q2 2020	Complete
Joint Impact Evaluation with NYSERDA – Non-Residential Rebate Program (Years 2014-2018)	Q1 2020	Q1 2019	Q4 2020	Complete
Residential Rebate Program Impact Evaluation (Years 2017-2019)	Q3 2020	Q3 2020	Q4 2021	Complete
Joint Impact Evaluation With NYSERDA – LIURP (Years 2017 through Q1 2019)	Q1 2021	Q4 2020	Q4 2022	Complete
Process and Free ridership Evaluation (All Programs; Years 2020-2021)	Q2 2022	Q3 2022	Q4 2023	Upcoming
Residential Rebate Program Impact Evaluation (Years 2021-2022)	Q2 2022	Q3 2022	Q4 2023	Upcoming
Non-Residential Rebate Program Impact Evaluation (Years TBD)	Q2 2023	Q3 2023	Q4 2024	Upcoming
LMI Statewide Portfolio Impact Evaluation	To be determined	To be determined	To be determined	To be determined
NY TRM Implementation and On-Going Support	On-Going	On-Going	On-Going	On-Going / In Progress

[13] NE:NY Gas EE Portfolio is the sum of Gas Portfolio and LMI Gas Portfolios.

[14] Case 15-M-0252 – Guidance Document CE-02, SEEP Guidance, filed on September 1, 2020 and Guidance Document CE-05, EMV Guidance, filed on November 1, 2016. https://www3.dps.ny.gov/W/PSCWeb.nsf/ArticlesByTitle/255EA3546DF802B585257E38005460F9?OpenDocument.

Table 6: EM&V Activity Forecasted Expenditures - Total Gas Portfolio								
EM&V Activity	**Actual Year 2019**	**Actual Year 2020**	**Actual Year 2021**	**Planned Year 2022**	**Actual Year 2022**	**Planned Year 2023**	**Planned Year 2024**	**Planned Year 2025**
Process Evaluation (All programs; Years 2017)	$16,521							
Joint Impact Evaluation with NYSERDA – LIURP (Years 2012-2016)	$15,815							
Joint Impact Evaluation with NYSERDA – Non- Residential Rebate Program (Years 2014-2018)		$25,000	$98,715					
Residential Rebate Program Impact Evaluation (Years 2017-2019)		$13,196	$52,753					
Joint Impact Evaluation With NYSERDA –LIURP (Years 2017-2019 Q1)				$3,168				
Process and Freeridership Evaluation (All programs; Years 2020-2021)				$44,970	$33,240	$73,010		
Residential Rebate Program Impact Evaluation (Years 2021-2022)				$6,250	$1,058	$38,630		
Non-Residential Rebate Program Impact Evaluation (Years TBD)						$50,000	$80,000	
LMI Statewide Portfolio (Years TBD)								
NY TRM Implementation and On-Going Support	$69,932	$30,893	$31,706					
Program QA/QC, VGS, and Planning Support		$54,347	$16,661	$79,050	$111,675			
Total EM&V Actual/Forecasted Expenditures	$102,268	$123,436	$199,835	$200,000	$200,000	$277,563	$307,563	$347,563
Unallocated Budget	**$0**	**$0**	**$0**	**$66,562**	**$54,027**	**$115,923**	**$227,563**	**$347,563**

The 2021-2022 Process and Net-to-Gross Evaluation Plan for all programs was filed in Q2 2022. The plan includes a materials review, interviews with key program actors, and participant surveys to assess the effectiveness of program design and implementation. Participant surveys will also facilitate freeridership analysis. In the 2017 to 2019 Residential Rebate evaluation, Cadmus recommended program workbook updates and applying an alternative prospective realization rate (APRR) of 100%. Clean Energy Guidance from the New York State Department of Public Service (DPS) requires Distribution to evaluate the program savings again within 18 months to verify the APRR. This plan was also filed in Q2

2022. The future Non-Residential Rebate Program Impact Evaluation (Years TBD) and LMI Statewide Portfolio Evaluation (Years TBD) will be conducted jointly with NYSERDA. Evaluation plans have not yet been developed.

Distribution remains an active participant in the Technical Resource Manual Management Committee ("NY TRM MC") and has budgeted for continued financial support of the maintenance and enhancement of the NY TRM within its EM&V budget.

Evaluation Reports Filed in 2022

NYSERDA filed one evaluation for an active CIP program in 2022:

- NYSERDA Residential Retrofit Impact Evaluation (2017 - Q1 2019)
    - Matter 16-02180, Clean Energy Program Evaluation, Measurement and Verification, October 11, 2022

NYSERDA Residential Retrofit Impact Evaluation

NMR evaluated NYSERDA's EmPower New York (EmPower) which also administers Distribution's LIURP. The report focused on projects from 2017 through the first quarter of 2019. The analysis incorporates residential natural gas consumption and Distribution's program tracking data of participating homes to estimate first year energy savings using a billing analysis. This was utilized for all completed projects with at least 12 months of utility billing records before and after the installation for homes for projects in 2017 and 2018 and at least 9 months of billing records for homes that completed projects in 2019. Using the verified savings compared to the reported savings, NMR calculated a realization rate (RR) for reporting future savings. Distribution reported RRs in 2017 and 2018 were 0.52 and 0.50, respectively before increasing to 0.73in Q1 of 2019. The overall program RR averaged to 0.52. The higher savings in Q1 2019 could be due to a smaller sample size and only requiring 9 months of pre and post billing data. 2017 and 2018 required 12 months of pre and post billing data. The overall RR is a weighted average of the three years.

Verified Gross Savings Specifications

Verified gross savings specifications ("VGSS") for each program are shown in VGSS 1, VGSS 2, VGSS 3 and VGSS 4. The realization rates included in VGSS are based on the most recent program evaluations. As impact evaluations are completed for the CIP programs, Distribution will provide updated verified gross savings realization rates in revision letters or annual updates to this SEEP.

VGSS 1: Non-Residential Rebate Program	
Date of SEEP/CEF filing	April 2023
Program Name	Non-Residential Rebate Program
Program Description	The Non-Residential Rebate Program provides rebates to non-residential customers for installation of energy saving measures.
Gross Savings Methodology	Gross savings reported in January 2020 filing were derived from desk reviews, phone verification, and billing analysis conducted by independent auditor.
Realization Rate (RR)	The initial VGS RR of 0.99 was determined through the EEPS Commercial and Multifamily Close-Out Impact Evaluation, Including National Fuel Gas Distribution Corporation's Non-Residential Rebate Program (2014-2018), January 2020. This initial VGS RR is applied retrospectively and prospectively until completion of the next Gross Savings Analysis.
Planned VGS Approach	The Non-Residential Rebate Program will undergo Gross Savings Analysis for a to-be-determined program period. Details related to the Gross Savings Analysis methodology will be submitted in an EM&V Plan in Q2 2023. The estimated completion of the Gross Savings Analysis Report is Q4 2024. An independent evaluator will perform the Gross Savings Analysis.
Exemption from EAM Status	Yes

VGSS 2: LMI Statewide Portfolio: Existing 1-4 Unit Family Homes Initiative	
Date of SEEP/CEF filing	April 2023
Program Name	EmPower NY
Program Description	The Existing 1-4 Unit Family Homes Initiative is served by the EmPower NY and Assisted Home Performance with ENERGY STAR ("AHPwES") programs administered by NYSERDA statewide. In 2020, the Low-Income Usage Reduction Program ("LIURP") in National Fuel Gas ("NFGDC") territory, transitioned to EmPower NY. The EmPower NY program is available to low-income households and provides no-cost energy services.
Gross Savings Methodology	In general, the Program Administrators rely on the TRM and best practices to estimate savings and achieve VGS goals (note that NYSERDA has used modeling tools, including EmPCalc, in the past and prior to aligning its savings estimates with the TRM). For prescriptive measures, baseline studies or other evaluation data will be leveraged, where available, to calculate an average existing condition baseline that approximates the type and age of equipment currently installed by LMI customers, and these assumptions have been documented in the TRM. For custom measures, project-specific existing condition baselines will be used.
Realization Rate (RR)	Distribution-funded activity under the Initiative (LIURP activity) has an initial VGS RR of 52% for for natural gas (MMBtu) based on the impact evaluation for the program period 2017-Q1 2019 *(NYSERDA's Residential Retrofit Impact Evaluation (PY 2017-Q1 2019),* filed in October 2022). This initial VGS RR is applied retrospectively starting in 2017 and will remain in place until the next Gross Savings Analysis. Note that a prior joint NYSERDA-NFGDC impact evaluation finalized in June 2020 (*NYSERDA Residential Retrofit Impact Evaluation, Program Year 2012-2016*) assessed program period 2012-2016 and calculated a VGS RR of 52% for MMBtu.
Planned VGS Approach	NYSERDA will continue to conduct statewide evaluations for EmPower and EmPower+ using methods similar to prior work (i.e., IPMVP Option C).
Exemption from EAM Status	Yes

VGSS 3: LMI Statewide Portfolio: Affordable Multifamily Energy Efficiency Program	
Date of SEEP/CEF filing	April 2023
Program Name	Affordable Multifamily Energy Efficiency Program
Program Description	Under development
Gross Savings Methodology	TBD
Realization Rate (RR)	No RR has been determined for this program within the preceding five-year time frame.
Planned VGS Approach	Distribution began participating in the Affordable Multifamily Energy Efficiency Program in Q2 2022. Distribution will determine an appropriate schedule for future LMI Gross Savings Analysis in collaboration with NYSERDA and the joint utilities, and will incorporate details into a future SEEP filing.
Exemption from EAM Status	Yes

VGSS 4: Residential Rebate Program (APRR)	
Date of SEEP/CEF filing[15]	April 2023
Program Name	Residential Rebate Program
Program Description	The Residential Rebate Program provides rebates for the installation of energy saving measures.
Gross Savings Methodology	Energy savings are calculated using the formulas and factors found in the NY TRM. Rebate processor follows a QA/QC plan to verify compliance with installation standards and evaluate the accuracy of submitted materials.
Alternative Prospective Realization Rate (APRR)	The initial VGS RR of .87 from the Residential Rebate Program Impact Evaluation of program period 2017-2019 is applied retrospectively. (Impact Evaluation of the Residential Rebate Program (2017 – 2019), filed December 31, 2021)[16] A GSA Report based on the independent evaluator's assessment of programmatic changes and savings estimation approaches identifies an AP RR of 1.0. This recommendation is based on updates to Distribution's Technical Manual Implementation workbook, that is used to calculate per unit savings for eligible measures, to align with the 2021 TRM. The exceptions are furnace and boiler tune-ups which have an energy savings factor set to 1%, replacing the 5% stated in the TRM. The evaluator also calculated an estimated full load hours (ELFH) of 1,090 hours based on actual run times per year for Distribution's territory, unlike TRM values that model various regions of the state. National Fuel Gas Distribution Corporation attests to using the 1.0 AP RR effective Q2 2021 and going forward for 18 months or until a new Gross Savings Analysis is completed.
Planned VGS Approach	The Residential Rebate Program will undergo Gross Savings Analysis for program period 2021-2022. Details related to the Gross Savings Analysis methodology will be submitted in an EM&V Plan in Q2 2022. The estimated completion of the Gross Savings Analysis Report is Q4 2023. Independent evaluator Cadmus will perform the Gross Savings Analysis.
Exemption from EAM Status	Yes

IV. Benefit Cost Analysis ("BCA")

Table 7 and Table 8 provide the latest BCA detail for Distribution's total gas portfolio of programs. It should be noted that the Societal Cost Test ("SCT") results presented herein includes the Staff- provided value of avoided carbon dioxide emissions (unmodified by Distribution). It should be further noted that the BCA is based on Distribution's forward looking gas prices, which were developed for volumetric forecasting used for, among other things, the Company's gas purchasing plan. This approach is consistent with the Commission's 2018 Energy Efficiency Order.[17]

---

15 Clean Energy Fund ("CEF") programs are evaluated jointly with NYSERDA.

16 Matter Number 16-02180. NFG Residential Rebate Evaluation 2017-2019. December 31, 2021. https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={B98D5096-BEB9-4B0A-865D-13D88BA389C5}

17 Case 15-M-0252 – 2018 Energy Efficiency Order, at page 50. The Commission determined that "Utilities are neither restricted from using a territory-specific forecast of natural gas prices in their gas energy efficiency portfolio BCA nor are they required to use specified natural gas price inputs.

The Company's BCA analysis assumes a $0.00 value as respects benefits associated with: avoided ancillary reserves, avoided distribution capacity infrastructure, avoided operations and maintenance expenses, avoided distribution losses, net avoided restoration costs, net avoided outage costs, net avoided criteria pollutants, avoided water impacts, avoided land impacts, and net non-energy benefits relating to utility operations. Stated otherwise, the Company took a realistic and conservative position on the valuation of benefits that would accrue from the Company's total gas portfolio of programs.

Table 7: 2019-2025 Primary Benefit Cost Analysis

Program	2019	2020	2021	2022	2023	2024	2025
Residential							
Residential Rebate Program							
Benefits	$5,200,641	$5,390,029	$8,712,478	$9,434,471	$11,095,220	$13,957,737	$16,961,407
Costs	$3,871,579	$3,871,579	$6,556,400	$7,101,400	$8,276,250	$10,275,995	$12,441,660
Benefit Cost Ratio	1.34	1.39	1.33	1.33	1.34	1.36	1.36
Commercial and Industrial Sector							
Non-Residential Rebate Program							
Benefits	$11,941,748	$12,386,836	$8,436,273	$8,307,330	$8,281,584	$7,104,139	$10,937,824
Costs	$4,800,601	$4,800,601	$2,764,581	$2,593,322	$3,183,807	$4,141,812	$5,961,682
Benefit Cost Ratio	2.49	2.58	3.05	3.20	2.60	1.72	1.83
LMI Sector							
LIURP/LMI							
Benefits	$5,518,932	$5,724,283	$5,021,989	$5,745,357	$6,006,341	$6,488,944	$7,078,291
Costs	$5,740,000	$5,740,000	$5,647,923	$6,374,934	$6,651,293	$7,111,034	$7,671,131
Benefit Cost Ratio	0.96	1.00	0.89	0.90	0.90	0.91	0.92
Total Portfolio							
Total Benefits (Excl. LIURP)	$17,142,389	$17,776,865	$17,148,751	$17,741,801	$19,376,804	$21,061,875	$27,899,230
Total Costs (Excl. LIURP, Incl. Portfolio Costs)	$9,747,180	$9,747,180	$10,181,248	$10,574,740	$12,500,057	$15,887,842	$20,113,388
Portfolio Benefit Cost Ratio	1.76	1.82	1.68	1.68	1.55	1.33	1.39

Table 8: 2019-2025 Portfolio BCA Ratios

PORTFOLIO Gas	2019	2020	2021	2022	2023	2024	2025
Societal Cost Test Ratio	1.76	1.82	1.40	1.39	1.33	1.20	1.26
Utility Cost Test Ratio	N/A	N/A	1.21	1.16	1.13	1.05	1.13
Ratepayer Impact Measure Test Ratio	N/A	N/A	0.79	0.77	0.77	0.72	0.78

As respects the Utility Cost Test ("UCT") and the Ratepayer Impact Measure ("RIM") BCA screening approaches, the Company notes that it received clarification from Staff that these tests would only apply

to the BCA Handbooks that were ordered by the Commission in the REV Proceeding.[18]

[18] Case 14-M-0101 – Order Establishing the Benefit Cost Analysis Framework, issued and effective January 21, 2016. https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={F8C835E1-EDB5-47FF-BD78-73EB5B3B177A}.

Appendix A: Program Rebate Tables

This incentive amounts for 2019, 2020, 2021 and 2022 for the Residential Rebate and Nonresidential Rebate programs are included below.

Non-Residential Rebate Program Measures and Rebates

Measures included in the 2019 and programs are outlined below in Appendix Table A-1. Measures and rebates for the 2020 program are in Appendix Table A-2, measures and rebates for the 2021 program are included in Appendix Table A-3, and measures and rebates for the 2022 program are included in Appendix Table A-4.

Appendix Tables A-1: Non-Residential Rebate Program Measure Summary – Calendar Year 2019

Measure	Required Minimum Efficiency	Equipment Size (MBtu/h) or (feet)	Rebate Amount
Space Heating			
Hot Air Furnace	90% AFUE	≤ 300	$3.00/MBtu/h
Hot Air Furnace	92% AFUE	≤ 300	$4.00/MBtu/h
Hot Air Furnace	95% AFUE	≤ 300	$5.00/MBtu/h
Hot Water Boiler (Non-Condensing)	85% AFUE	≤ 300	$600
Hot Water Boiler (Non-Condensing)	85% E_t	301 – 500	$750
Hot Water Boiler (Non-Condensing)	85% E_t	501 – 1,000	$1,500
Hot Water Boiler (Non-Condensing)	85% E_t	1,001 - 1,700	$2,500
Hot Water Boiler (Non-Condensing)	85% E_t	> 1,700	$3,000
Hot Water Boiler (Condensing)	90% AFUE	≤ 300	$1,000
Hot Water Boiler (Condensing)	90% E_t	301 - 500	$1,500
Hot Water Boiler (Condensing)	90% E_t	501 - 1,000	$2,500
Hot Water Boiler (Condensing)	90% E_t	1,001 - 1,700	$3,500
Hot Water Boiler (Condensing)	90% E_t	> 1,700	$4,500
Steam Boiler	82% AFUE	≤ 300	$2.00/MBtu/h
Steam Boiler	79% E_t	301 - 2,500	$1.00/MBtu/h
Steam Boiler	80% E_t	> 2,500	$1.00/MBtu/h
Unit Heater	≥ 90% AFUE or Et		$2.00/MBtu/h
Infrared Heater	N/A		$2.50/MBtu/h
Vent Damper	N/A		$1.00/MBtu/h
Pipe Insulation	R-Value > 4		$3.00/foot
Duct Insulation	R-Value ≥ 6		$0.50/foot
Demand Control Ventilation	N/A		$200/sensor
Furnace Tune Up Service	N/A		$60
Boiler Tune Up Service	N/A		$70
Water Heating			
Storage Tank Water Heater (140 Gallons or Less)	0.80 UEF or 0.80 E_t		$250
Tankless Water Heater	0.80 UEF or 0.00 E_t		$325
Cooking Equipment			
Fryer	Cooking Efficiency ≥ 50%		$1,000
Convection Oven	Cooking Efficiency ≥ 46%		$1,000
Conveyor Oven	Cooking Efficiency ≥ 42%		$1,000

Rack Oven	Cooking Efficiency ≥ 38%		$1,000
Steamer	Cooking Efficiency ≥ 38%		$1,000
Griddle	Cooking Efficiency ≥ 38%	≤ 2 feet wide	$350
Griddle	Cooking Efficiency ≥ 38%	3 feet wide	$525
Griddle	Cooking Efficiency ≥ 38%	4 feet wide	$700
Griddle	Cooking Efficiency ≥ 38%	5 feet wide	$875
Griddle	Cooking Efficiency ≥ 38%	≥ 6 feet wide	$1,050
Controls and Other			
Wi-Fi Thermostat	N/A		$125

Appendix Tables A-2: Non-Residential Rebate Program Measure Summary – Calendar Year 2020			
Measure	**Required Minimum Efficiency**	**Equipment Size (MBtu/h) or (feet)**	**Rebate Amount**
Space Heating			
Hot Air Furnace	90% AFUE	≤ 300	$3.00/MBtu/h
Hot Air Furnace	92% AFUE	≤ 300	$4.00/MBtu/h
Hot Air Furnace	95% AFUE	≤ 300	$5.00/MBtu/h
Hot Water Boiler (Non-Condensing)	85% AFUE	≤ 300	$600
Hot Water Boiler (Non-Condensing)	85% E_t	301 – 500	$750
Hot Water Boiler (Non-Condensing)	85% E_t	501 – 1,000	$1,500
Hot Water Boiler (Non-Condensing)	85% E_t	1,001 - 1,700	$2,500
Hot Water Boiler (Non-Condensing)	85% E_t	> 1,700	$3,000
Hot Water Boiler (Condensing)	90% AFUE	≤ 300	$1,000
Hot Water Boiler (Condensing)	90% E_t	301 - 500	$1,500
Hot Water Boiler (Condensing)	90% E_t	501 - 1,000	$2,500
Hot Water Boiler (Condensing)	90% E_t	1,001 - 1,700	$3,500
Hot Water Boiler (Condensing)	90% E_t	> 1,700	$4,500
Steam Boiler	82% AFUE	≤ 300	$2.00/MBtu/h
Steam Boiler	79% E_t	301 - 2,500	$1.00/MBtu/h
Steam Boiler	80% E_t	> 2,500	$1.00/MBtu/h
Unit Heater	≥ 90% AFUE or Et		$2.00/MBtu/h
Infrared Heater	N/A		$2.50/MBtu/h
Pipe Insulation	R-Value > 4		$3.00/foot
Duct Insulation	R-Value ≥ 6		$0.50/foot
Demand Control Ventilation	N/A		$200/sensor
Furnace Tune Up Service	N/A		$60
Boiler Tune Up Service	N/A		$70
Water Heating			
Storage Tank Water Heater (140 Gallons or Less)	0.80 UEF or 0.80 E_t		$250
Tankless Water Heater	0.80 UEF or 0.00 E_t		$325
Cooking Equipment			
Fryer	Cooking Efficiency ≥ 50%		$1,000
Convection Oven	Cooking Efficiency ≥ 46%		$1,000
Conveyor Oven	Cooking Efficiency ≥ 42%		$1,000
Rack Oven	Cooking Efficiency ≥ 38%		$1,000
Steamer	Cooking Efficiency ≥ 38%		$1,000
Griddle	Cooking Efficiency ≥ 38%	≤ 2 feet wide	$350
Griddle	Cooking Efficiency ≥ 38%	3 feet wide	$525
Griddle	Cooking Efficiency ≥ 38%	4 feet wide	$700
Griddle	Cooking Efficiency ≥ 38%	5 feet wide	$875

Griddle	Cooking Efficiency ≥ 38%	≥ 6 feet wide	$1,050
Controls and Other			
Wi-Fi Thermostat	N/A		$125
Clothes Dryer	Energy Star-Rated		$50

Appendix Table A-3: Non-Residential Rebate Program Measure Summary – Calendar Year 2021			
Measure	**Required Minimum Efficiency**	**Equipment Size (MBtu/h) or (feet)**	**Rebate Amount**
Space Heating			
Hot Air Furnace	90% AFUE	≤ 300	$3.00/MBtu/h
Hot Air Furnace	92% AFUE	≤ 300	$4.00/MBtu/h
Hot Air Furnace	95% AFUE	≤ 300	$5.00/MBtu/h
Hot Water Boiler (Non-Condensing)	85% AFUE	≤ 300	$600
Hot Water Boiler (Non-Condensing)	85% E_t	301 – 500	$750
Hot Water Boiler (Non-Condensing)	85% E_t	501 – 1,000	$1,500
Hot Water Boiler (Non-Condensing)	85% E_t	1,001 - 1,700	$2,500
Hot Water Boiler (Non-Condensing)	85% E_t	> 1,700	$3,000
Hot Water Boiler (Condensing)	90% AFUE	≤ 300	$1,000
Hot Water Boiler (Condensing)	90% E_t	301 - 500	$1,500
Hot Water Boiler (Condensing)	90% E_t	501 - 1,000	$2,500
Hot Water Boiler (Condensing)	90% E_t	1,001 - 1,700	$3,500
Hot Water Boiler (Condensing)	90% E_t	> 1,700	$4,500
Steam Boiler	82% AFUE	≤ 300	$2.00/MBtu/h
Steam Boiler	79% E_t	301 - 2,500	$1.00/MBtu/h
Steam Boiler	80% E_t	> 2,500	$1.00/MBtu/h
Unit Heater	≥ 90% AFUE or Et		$2.00/MBtu/h
Infrared Heater	N/A		$2.50/MBtu/h
Pipe Insulation	R-Value > 4		$3.00/foot
Duct Insulation	R-Value ≥ 6		$0.50/foot
Demand Control Ventilation	N/A		$200/sensor
Furnace Tune Up Service	N/A		$50
Boiler Tune Up Service	N/A		$50
Water Heating			
Storage Tank Water Heater (140 Gallons or Less)	0.80 UEF or 0.80 E_t		$250
Tankless Water Heater	0.80 UEF or 0.00 E_t		$200
Cooking Equipment			
Fryer	Cooking Efficiency ≥ 50%		$1,000
Convection Oven	Cooking Efficiency ≥ 46%		$1,000
Conveyor Oven	Cooking Efficiency ≥ 42%		$1,000
Rack Oven	Cooking Efficiency ≥ 38%		$1,000
Steamer	Cooking Efficiency ≥ 38%		$1,000
Griddle	Cooking Efficiency ≥ 38%	≤ 2 feet wide	$350
Griddle	Cooking Efficiency ≥ 38%	3 feet wide	$525
Griddle	Cooking Efficiency ≥ 38%	4 feet wide	$700
Griddle	Cooking Efficiency ≥ 38%	5 feet wide	$875
Griddle	Cooking Efficiency ≥ 38%	≥ 6 feet wide	$1,050
Controls and Other			
Wi-Fi Thermostat	N/A		$75
Clothes Dryer	Energy Star-Rated		$50

Appendix Table A-4: Non-Residential Rebate Program Measure Summary – Calendar Year 2022			
Measure	**Required Minimum Efficiency**	**Equipment Size (MBtu/h) or (feet)**	**Rebate Amount**
Space Heating			
Hot Air Furnace	90% AFUE	≤ 300	$3.00/MBtu/h
Hot Air Furnace	92% AFUE	≤ 300	$4.00/MBtu/h
Hot Air Furnace	95% AFUE	≤ 300	$5.00/MBtu/h
Hot Water Boiler (Non-Condensing)	85% AFUE	≤ 300	$600
Hot Water Boiler (Non-Condensing)	85% E_t	301 – 500	$750
Hot Water Boiler (Non-Condensing)	85% E_t	501 – 1,000	$1,500
Hot Water Boiler (Non-Condensing)	85% E_t	1,001 - 1,700	$2,500
Hot Water Boiler (Non-Condensing)	85% E_t	> 1,700	$3,000
Hot Water Boiler (Condensing)	90% AFUE	≤ 300	$1,000
Hot Water Boiler (Condensing)	90% E_t	301 - 500	$1,500
Hot Water Boiler (Condensing)	90% E_t	501 - 1,000	$2,500
Hot Water Boiler (Condensing)	90% E_t	1,001 - 1,700	$3,500
Hot Water Boiler (Condensing)	90% E_t	> 1,700	$4,500
Steam Boiler	82% AFUE	≤ 300	$2.00/MBtu/h
Steam Boiler	79% E_t	301 - 2,500	$1.00/MBtu/h
Steam Boiler	80% E_t	2,501 – 10,000	$1.00/MBtu/h
Unit Heater	≥ 90% AFUE or Et		$2.00/MBtu/h
Infrared Heater	N/A		$2.50/MBtu/h
Pipe Insulation	R-Value > 4		$3.00/foot
Duct Insulation	R-Value ≥ 6		$0.50/foot
Demand Control Ventilation	N/A		$200/sensor
Furnace Tune Up Service	N/A		$25
Boiler Tune Up Service	N/A		$25
Water Heating			
Storage Tank Water Heater (140 Gallons or Less)	0.80 UEF or 0.80 E_t		$250
Tankless Water Heater	0.80 UEF or 0.80 E_t		$200
Cooking Equipment			
Fryer	Cooking Efficiency ≥ 50%		$1,000
Convection Oven	Cooking Efficiency ≥ 46%		$1,000
Conveyor Oven	Cooking Efficiency ≥ 42%		$1,000
Rack Oven	Cooking Efficiency ≥ 48%		$1,000
Steamer	Cooking Efficiency ≥ 38%		$1,000
Griddle	Cooking Efficiency ≥ 38%	≤ 2 feet wide	$350
Griddle	Cooking Efficiency ≥ 38%	3 feet wide	$525
Griddle	Cooking Efficiency ≥ 38%	4 feet wide	$700
Griddle	Cooking Efficiency ≥ 38%	5 feet wide	$875
Griddle	Cooking Efficiency ≥ 38%	≥ 6 feet wide	$1,050
Controls and Other			
Wi-Fi Thermostat	N/A		$50
Clothes Dryer	Energy Star-Rated		$50

Appendix Table A-5: Non-Residential Rebate Program Measure Summary – Calendar Year 2023			
Measure	**Required Minimum Efficiency**	**Equipment Size (MBtu/h) or (feet)**	**Rebate Amount**
Space Heating			
Hot Air Furnace	95% AFUE	≤ 300	$5.00/MBtu/h
Hot Water Boiler (Condensing)	90% AFUE	≤ 300	$1,000
Hot Water Boiler (Condensing)	90% E_t	301 - 500	$1,500
Hot Water Boiler (Condensing)	90% E_t	501 - 1,000	$2,500
Hot Water Boiler (Condensing)	90% E_t	1,001 - 1,700	$3,500
Hot Water Boiler (Condensing)	90% E_t	> 1,700	$4,500
Steam Boiler	82% AFUE	≤ 300	$2.00/MBtu/h
Steam Boiler	79% E_t	301 - 2,500	$1.00/MBtu/h
Steam Boiler	80% E_t	2,501 – 10,000	$1.00/MBtu/h
Unit Heater	≥ 90% AFUE or Et		$2.00/MBtu/h
Infrared Heater	N/A		$2.50/MBtu/h
Pipe Insulation	R-Value > 4		$3.00/foot
Duct Insulation	R-Value ≥ 6		$0.50/foot
Demand Control Ventilation	N/A		$200/sensor
Furnace Tune Up Service	N/A		$25
Boiler Tune Up Service	N/A		$25
Water Heating			
Tankless Water Heater	0.80 UEF or 0.80 E_t		$200
Cooking Equipment			
Fryer	Cooking Efficiency ≥ 50%		$1,000
Convection Oven	Cooking Efficiency ≥ 46%		$1,000
Conveyor Oven	Cooking Efficiency ≥ 42%		$1,000
Rack Oven	Cooking Efficiency ≥ 48%		$1,000
Steamer	Cooking Efficiency ≥ 38%		$1,000
Griddle	Cooking Efficiency ≥ 38%	≤ 2 feet wide	$350
Griddle	Cooking Efficiency ≥ 38%	3 feet wide	$525
Griddle	Cooking Efficiency ≥ 38%	4 feet wide	$700
Griddle	Cooking Efficiency ≥ 38%	5 feet wide	$875
Griddle	Cooking Efficiency ≥ 38%	≥ 6 feet wide	$1,050
Controls and Other			
Wi-Fi Thermostat	N/A		$50
Clothes Dryer	Energy Star-Rated		$50

Residential Rebate Program Measures and Rebates

Residential Rebate Program eligible measures and rebates for 2019 are shown in Appendix Table A-5. Measures and rebates for 2020 are shown in Appendix Table A-6. Measures and rebates for 2021 are shown in Appendix Table A-7. Measures and rebates for 2022 are shown in Appendix Table A-8.

Appendix Table A-6: Residential Rebates Program Measure Summary – Calendar Year 2019

	Required Minimum Efficiency	Rebate Amount
Space Heating		
Hot Air Furnace Residential	92% AFUE	$400
Hot Air Furnace Residential	95% AFUE	$500
Hot Air Furnace With ECM	92% AFUE	$425
Hot Air Furnace With ECM	95% AFUE	$525
Hot Water Boiler	85% AFUE	$200
Hot Water Boiler	90% AFUE	$600
Steam Boiler	82% AFUE	$100
Appliance Rebates - Furnace Tune Up	N/A	$60
Appliance Rebates - Boiler Tune Up	N/A	$70
Water Heating		
Storage Tank Water Heater (55 Gallons or Less)	0.64 UEF or 0.67 EF	$75
Storage Tank Water Heater (55 Gallons or Less)	0.80 UEF	$250
Storage Tank Water Heater (More Than 55 Gallons)	0.78 UEF or 0.77 EF	$150
Tankless Water Heater	0.87 UEF or 0.90 EF	$325
Other Gas Appliances		
Clothes Dryer	Energy Star Rated	$50
Pool Heater	84% Thermal Efficiency	$40
Pool Heater	86% Thermal Efficiency	$80
Pool Heater	90% Thermal Efficiency	$120
Pool Heater	95% Thermal Efficiency	$160
Controls		
Wi-Fi Thermostat	N/A	$125

Appendix Table A-7: Residential Rebates Program Measure Summary – Calendar Year 2020		
	Required Minimum Efficiency	**Rebate Amount**
Space Heating		
Hot Air Furnace	95% AFUE	$500
Hot Air Furnace with ECM	95% AFUE	$525
Hot Water Boiler	90% AFUE	$600
Steam Boiler	82% AFUE	$100
Furnace Tune Up Service	N/A	$60
Boiler Tune Up Service	N/A	$70
Water Heating		
Storage Tank Water Heater (55 Gallons or Less)	0.64 UEF or 0.67 EF	$75
Storage Tank Water Heater (55 Gallons or Less)	0.80 UEF	$250
Storage Tank Water Heater (More Than 55 Gallons)	0.78 UEF or 0.77 EF	$150
Tankless Water Heater	0.87 UEF or 0.90 EF	$325
Other Gas Appliances		
Clothes Dryer	Energy Star Rated	$50
Pool Heater	84% Thermal Efficiency	$40
Pool Heater	86% Thermal Efficiency	$80
Pool Heater	90% Thermal Efficiency	$120
Pool Heater	95% Thermal Efficiency	$160
Controls		
Wi-Fi Thermostat	N/A	$125

Appendix Table A-8: Residential Rebates Program Measure Summary – Calendar Year 2021

	Required Minimum Efficiency	Rebate Amount
Space Heating		
Hot Air Furnace including ECM with an Electric Air Source Heat Pump	95% AFUE/14 SEER	$800
Hot Air Furnace	95% AFUE	$100
Hot Air Furnace with ECM	95% AFUE	$500
Hot Water Boiler	90% AFUE	$500
Steam Boiler	82% AFUE	$100
Furnace Tune Up Service	N/A	$50
Boiler Tune Up Service	N/A	$50
Water Heating		
Storage Tank Water Heater (55 Gallons or Less)	0.64 UEF or 0.67 EF	$75
Storage Tank Water Heater (55 Gallons or Less)	0.80 UEF	$250
Storage Tank Water Heater (More Than 55 Gallons)	0.78 UEF or 0.77 EF	$150
Tankless Water Heater	0.87 UEF or 0.90 EF	$200
Other Gas Appliances		
Clothes Dryer	Energy Star Rated	$50
Pool Heater	84% Thermal Efficiency	$40
Pool Heater	86% Thermal Efficiency	$80
Pool Heater	90% Thermal Efficiency	$120
Pool Heater	95% Thermal Efficiency	$160
Controls		
Wi-Fi Thermostat	N/A	$75

Appendix Table A-9: Residential Rebates Program Measure Summary – Calendar Year 2022		
	Required Minimum Efficiency	**Rebate Amount**
Space Heating		
Hot Air Furnace including ECM with an Electric Air Source Heat Pump	95% AFUE/14 SEER	$1,000
Hot Air Furnace with ECM	95% AFUE	$400
Hot Water Boiler	90% AFUE	$500
Furnace Tune Up Service	N/A	$25
Boiler Tune Up Service	N/A	$25
Water Heating		
Storage Tank Water Heater (55 gallons or less)	0.64 UEF or 0.67 EF	$75
Tankless Water Heater	0.87 UEF or 0.90 EF	$200
Other Gas Appliances		
Clothes Dryer	Energy Star Rated	$50
Controls		
Wi-Fi Thermostat	N/A	$50

Appendix Table A-10: Residential Rebates Program Measure Summary – Calendar Year 2023		
	Required Minimum Efficiency	**Rebate Amount**
Space Heating		
Hot Air Furnace including ECM with an Electric Air Source Heat Pump	95% AFUE/15 SEER	$1,350
Hot Air Furnace with ECM	95% AFUE	$350
Hot Water Boiler	90% AFUE	$500
Furnace Tune Up Service	N/A	$25
Boiler Tune Up Service	N/A	$25
Water Heating		
Storage Tank Water Heater (55 gallons or less)	0.64 UEF or 0.67 EF	$75
Tankless Water Heater	0.87 UEF or 0.90 EF	$200
Other Gas Appliances		
Clothes Dryer	Energy Star Rated	$50
Controls		
Wi-Fi Thermostat	N/A	$50

Appendix B: Summary of Future Evaluations

Process and Net-to-Gross Evaluation Plan (All Programs)

The evaluation contractor will conduct process and net-to-gross evaluations for the 2021 and 2022 Non-Residential Rebate and Residential Rebate programs to assess program performance (including design, delivery, and customer experience,) as well as to estimate free ridership. Specific future activities and schedules have yet to be determined but are expected to be developed and filed in Q2 2022.

Residential Rebate Impact Evaluation Plan (2021-2022)

The evaluation contractor will conduct an impact evaluation to verify the APRR. Specific future activities and schedules have yet to be determined but are expected to be developed and filed in Q2 2022.

Non-Residential Rebate Impact Evaluation Plan (Years TBD)

The evaluation contractor will conduct an impact evaluation to update the VGS RR. Specific future activities and schedules have yet to be determined but are expected to be developed and filed in Q2 2023.

Statewide LMI Impact Evaluation Plan (Years TBD)

Distribution will work with NYSERDA and the Joint Utilities to determine a plan for updating the VGS RR for the LMI initiatives. Specific future activities and schedules have yet to be determined.