

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
2021-2025 PROGRAM YEARS
DATED: OCTOBER 1, 2021

I. Portfolio Summary and Program Descriptions

Executive Summary

National Fuel Gas Distribution Corporation’s (“Distribution” or the “Company”) NE:NY Gas EE Portfolio includes three core programs, plus outreach and education initiatives that did not directly generate savings but supported the core programs. The core programs include the following: (1) Non-Residential Rebate Program, (2) Residential Rebate Program, and (3) the Existing 1-4 Unit Family Home Initiative under the Statewide Low- to Moderate-Income (“LMI”) Portfolio. The Non-Residential Rebate Program and the Residential Rebate program have been offered 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 LMI since 2020. In 2021, Distribution made small adjustments to the eligible measures and rebate amounts for the Residential Rebate Program and Non-Residential Rebate Program. In Q4 of 2021, Distribution expects to begin contributing to the Affordable Multifamily Energy Efficiency Program under the LMI Portfolio.

The 2022-2025 programs are expected to remain consistent with the narratives provided below

for the 2021 programs. Forecasted savings and budgets are provided in the portfolio overviews. Distribution will include a description of any changes to the programs during 2021 or future years in future annual or quarterly SEEP filings, in accordance with Staff's SEEP Guidance Document.

Non-Residential Rebate Program Description

2021 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. Since January 1, 2017, the program has been officially “opened up” to all non-residential customers (i.e., the 12,000 Mcf cap has been 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 Clean Energy Fund 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 lead generation 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 Clean Energy Fund (“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 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.¹
 - 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

¹ This procedure is only applicable for customized rebates.

- 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.²
 - 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.³
 - The customer will be notified of the results of the on-site inspection, the energy savings actually 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.⁴
 - 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 which 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.

Communication also occurs on an as needed basis, outside of the typical weekly communication. Customers can also call Distribution's Customer 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

² This procedure is only applicable for customized rebates.

³ Ibid.

⁴ Ibid.

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 in order 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, and 2021 included in the Non-Residential Rebate Program are included in Appendix Tables A-1, A-2 and A-3. 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 during future SEEP filings. In addition, to the extent that Distribution elects to remove the per project rebate cap immediately, this change will be disclosed in a future 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 New York Technical Manual ("NYTM") 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 CIP) to present, in order to facilitate such saturation measurement.

Quality Assurance (“OA”)/Quality Control (“OC”)

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 customers meeting eligibility criteria are the only customers participating in the program. For fixed rebates, the Implementation Contractor completes a robust application review process, as described above. The review process will include 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 actually installed. This is completed 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 confirm the existing equipment on hand and existing energy usage. The customer's estimated energy savings and estimated financial incentive for the proposed job is analyzed by the Implementation Contractor 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 actually 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 will monitor 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 will also be 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. 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. Generally speaking, straightforward fixed rebates with application paperwork and subtending detail complete, tend to be processed within six to eight weeks. In contrast, since 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

2021 Program Narrative

On July 24, 2020, the 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. The Statewide LMI Portfolio includes multiple weatherization programs designed specifically for low income customers. In 2020 and 2021, Distribution contributed to the Existing 1-4 Family Homes Initiative. In Q4 of 2021, Distribution expects to begin contributing to the Affordable Multifamily Energy Efficiency Program as well. Distribution's contribution to the LMI Portfolio, including its contributions to both the Existing 1-4 Unit Family Home and Affordable Multifamily Energy Efficiency Program, included all of its planned 2020 and 2021 LIURP funding, plus a portion of its incremental budget for 2021.⁵

The Existing 1-4 Unit Family Homes Initiative was implemented under several program names in 2020 and 2021, including LIURP in Distribution territory. LIURP was administered by NYSERDA, and was identical to the benefits for gas customers offered through NYSERDA's EmPOWER program (as described in the LMI Plan). Through the Initiative, low-income Distribution gas customers were eligible to receive a heating system check, an energy audit, weatherization measures, an infiltration reduction, natural gas usage reduction measures and consumer education at no charge. The program design is consistent with NYSERDA's previous EmPower New York ("EmPower") program and Distribution's previous low-income program, LIURP. Contractors followed procedures and guidelines developed for the EmPower program. Households receiving gas efficiency services paid for by Distribution were also evaluated by NYSERDA for electric reduction measures. The main goal of LIURP was to conserve

⁵ Case 18-M-0084 – Statewide Low- to Moderate-Income Implementation Plan, filed by Joint Utilities and NYSERDA, July 24, 2020.

energy, reduce residential energy bills, and improve the health, safety, and comfort levels for participating households. A secondary goal included 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.

As previously mentioned, Distribution expects to begin contributing to the Affordable Multifamily Energy Efficiency Program under the LMI Portfolio in Q4 of 2021. In coordination with NYSERDA and the Joint Utilities, Distribution continues to develop spending and savings targets, and the details of activities that will be funded through Distribution's contribution to the initiative. Distribution will update this SEEP with final details of its involvement in the Affordable Multifamily Energy Efficiency Program in its January 1, 2022 revision letter.

Residential Rebate Program Description

2021 Program Narrative

The Residential Rebate Program is an equipment replacement program, modeled after a Vermont Gas Systems program, which was cited by the 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 Smart 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 lead generation 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 CEF offerings, on an on-going basis,

helping to ensure that incentives are complementary and not duplicative in nature.

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 in the event that an issue arises which 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. In the event that 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. Customers will be able 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, 2020, and 2021 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 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 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 NYTM.⁶ 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.

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 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

⁶ New York State Public Service Commission website, New York Technical Manual, at: <http://www3.dps.ny.gov/W/PSCWeb.nsf/All/72C23DECF52920A85257F1100671BDD?OpenDocument>.

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 coordinates the process of conducting two additional QC aspects of the program. First, they work with a third party vendor to conduct random monthly inspections⁷ of equipment installations to verify that the equipment receiving a rebate was actually 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. Distribution expects greater customer participation and program expenditures during the winter heating season, as opposed to the summer months. 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 that rebate applications and necessary supporting documentation are submitted after the conclusion of a program year, especially for installs that were completed during the fourth quarter of the current program year. The vast majority of these submittals are typically completed

⁷ Historically, inspections have been conducted on-site. In light of the COVID-19 pandemic, virtual inspections have been introduced if preferred by the customer.

in the first six months of the subsequent 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 is now implementing 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 NYTM, both of which were described above.

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

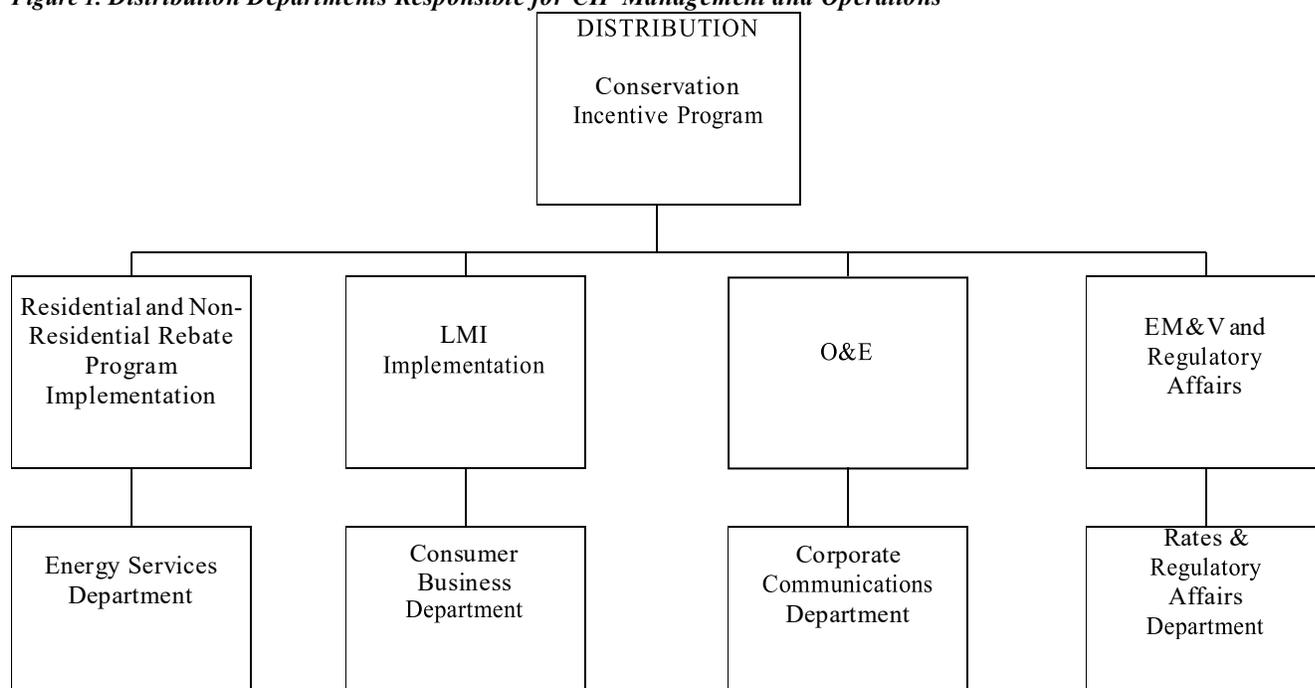


Table 1 provides actual and planned spending for Distribution’s full 2019-2021 CIP portfolio. It should be noted that the Portfolio Administration category includes outreach and education activities, program administration, and CIP portfolio support.⁸

⁸ 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 is expected to start in Q4 of 2021. 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 SPEND⁹					
GAS PORTFOLIO	Actual Spend 2019	Actual Spend 2020	Planned Spend 2021	Actual Spend 2021	Total Actual Spend 2020-2021
<i>C&I Sector</i>					
Non-Residential Rebate Program					
Incentives and Services	\$462,898	\$1,001,022	\$605,000	\$605,000	\$1,606,022
Program Implementation	\$63,458	\$97,038	\$40,000	\$40,000	\$137,038
Total Non-Residential Rebate Program Budget	\$526,355	\$1,098,060	\$645,000	\$645,000	\$1,743,060
<i>Residential Sector</i>					
LIURP/LMI/EHRR					
Incentives and Services	\$3,934,484	\$4,563,489	\$4,867,599	\$4,867,599	\$9,431,088
Program Implementation ¹⁰	\$0	\$0	\$1,268,180	\$450,000	\$450,000
Total LIURP/LMI/EHRR Program Budget	\$3,934,484	\$4,563,489	\$5,317,599	\$5,317,599	\$9,881,088
Residential Rebate Program					
Incentives and Services	\$3,669,196	\$4,574,519	\$3,226,425	\$3,226,425	\$7,800,944
Program Implementation	\$238,310	\$251,820	\$200,000	\$200,000	\$451,820
Total Residential Rebate Program Budget	\$3,907,507	\$4,826,339	\$3,426,425	\$3,426,425	\$8,252,764
Portfolio Administration	\$878,385	\$688,977	\$1,008,591	\$1,008,591	\$1,367,244
Portfolio EM&V	\$102,268	\$123,436	\$182,000	\$182,000	\$307,000
Total Actual Portfolio Expenditure	\$9,348,999	\$11,300,301	\$11,397,795	\$10,579,615	\$21,879,916
Commission - Authorized "Base" Budget	\$10,040,000	\$10,040,000	\$10,040,000	\$10,040,000	\$20,080,000
Commission - Authorized Total Budget	\$10,040,000	\$10,040,000	\$10,579,615	\$10,579,615	\$20,619,615
Budget Remaining/Unspent Funds	\$691,001	(\$1,260,301)	(\$818,180)	\$0	(\$1,260,301)

⁹ Actual Spend 2019 and Actual Spend 2020 reflects actual program year results. Actual Spend 2021 values are estimates for the 2021 program year.

¹⁰ The 2021 planned budget for LIURP/LMI/EHRR for 2021 includes costs for 2019 and 2020 program implementation.

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 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
<i>C&I Sector</i>				
Non-Residential Rebate Program				
Incentives and Services	\$742,550	\$1,049,172	\$1,389,134	\$2,299,522
Program Implementation	\$40,000	\$70,000	\$125,000	\$170,000
Total Non-Residential Rebate Program Budget	\$782,550	\$1,119,172	\$1,514,134	\$2,469,522
<i>Residential Sector</i>				
Residential Rebate Program				
Incentives and Services	\$3,452,188	\$4,006,000	\$5,000,000	\$5,999,955
Program Implementation	\$225,000	\$280,000	\$300,000	\$345,000
Total Residential Rebate Program Budget	\$3,677,188	\$4,286,000	\$5,300,000	\$6,344,955
Portfolio Administration	\$680,000	\$800,000	\$1,200,000	\$1,400,046
Portfolio EM&V	\$200,000	\$240,000	\$270,000	\$310,000
Total Actual Portfolio Expenditure	\$5,339,738	\$6,445,172	\$8,284,134	\$10,524,523

Table 2B. Forecasted LMI Portfolio Planned Spend and Budgets				
Portfolio (LMI Gas)¹¹	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
LIURP/LMI/EHRR Program				
Incentives and Services	\$5,606,632	\$5,844,488	\$6,307,609	\$6,870,447
Program Implementation	\$450,000	\$450,000	\$450,000	\$450,000
Total LIURP/LMI/EHRR Budget	\$6,056,632	\$6,294,488	\$6,757,609	\$7,320,447
Portfolio Administration	\$318,302	\$319,242	\$315,862	\$313,121
Portfolio EM&V	\$0	\$37,563	\$37,563	\$37,563
Total Actual Portfolio Expenditure	\$6,374,935	\$6,651,293	\$7,111,034	\$7,671,131

Table 2C: Total Portfolio Planned Spend and Budgets				
NE:NY Gas EE Portfolio¹²	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Total Actual Portfolio Expenditure	\$11,714,673	\$13,096,465	\$15,395,168	\$18,195,654
Commission-Authorized Total Budget	\$11,714,673	\$13,096,465	\$15,395,168	\$18,195,654
Budget Remaining/Unspent Funds	\$0	\$0	\$0	\$0

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 PRIMARY AND SECONDARY PROGRAM SAVINGS					
GAS PORTFOLIO	Actual Savings 2019	Actual Savings 2020	Planned Savings 2021	Actual Savings 2021	Total Actual Savings 2020-2021
<i>C&I Sector</i>					
Non-Residential Rebate Program					
MMBtu (Primary)	36,761	42,195	156,471	156,471	198,666
<i>Residential Sector</i>					
LIURP/LMI/EHRR					
MMBtu (Primary)	28,674	31,411	58,233	58,233	89,644
Residential Rebate Program					
MMBtu (Primary)	153,112	181,699	186,003	186,003	367,702
Total Portfolio					
MMBtu (Primary)	218,548	255,305	400,707	400,707	656,012

Table 4: Forecast Primary and Secondary Program Savings Plans				
Gas Portfolio	Planned Savings 2022	Planned Savings 2023	Planned Savings 2024	Planned Savings 2025
<i>C&I Sector</i>				
Non-Residential Rebate Program				
MMBtu (Primary)	153,504	152,000	129,516	197,904
<i>Residential Sector</i>				
Residential Rebate Program				
MMBtu (Primary)	196,164	218,046	272,084	312,430
Total Portfolio				
MMBtu (Primary)	349,668	370,046	401,600	510,334

Table 4B: Forecast Primary and Secondary LMI Portfolio Savings Plans				
Portfolio (LMI Gas)	Planned Savings 2022	Planned Savings 2023	Planned Savings 2024	Planned Savings 2025
LIURP/LMI/EHRR				
MMBtu (Primary)	66,310	68,909	73,971	80,122
Total Portfolio				
MMBtu (Primary)	66,310	68,909	73,971	80,122

NE:NY Gas EE Portfolio ¹³	Planned Savings 2022	Planned Savings 2023	Planned Savings 2024	Planned Savings 2025
<i>Total Portfolio</i>				
MMBtu (Primary)	415,978	438,956	475,571	590,456
Target	415,468	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.

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 2021	Upcoming
Process and Freeridership 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	Q2 2023	Q3 2023	Q4 2024	Upcoming
LMI Statewide Portfolio Impact Evaluation	To be determined	To be determined	To be determined	To be determined
NYTM 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.

EM&V Activity	Actual Year 2019	Actual Year 2020	Planned Year 2021	Actual Year 2021	Planned 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	\$98,000	\$98,000				
Residential Rebate Program Impact Evaluation (Years 2017-2019)		\$50,612	\$27,253	\$27,253				
Joint Impact Evaluation With NYSERDA –LIURP (Years 2017-2019 Q1)			\$3,168	\$3,168				
Process and Freeridership Evaluation (All programs; Years TBD)					\$50,000	\$80,000		
Non-Residential Rebate Program Impact Evaluation (Years TBD)						\$50,000	\$80,000	
LMI Statewide Portfolio (Years TBD)								
NYTM Implementation and On-Going Support	\$69,932	\$49,388	\$56,747	\$56,747				
Total EM&V Forecasted Expenditures	\$125,000	\$125,000	\$182,000	\$182,000	\$200,000	\$277,563	\$307,563	\$347,563
Unallocated Budget	\$22,732	\$0	(\$3,168)	(\$3,168)	\$150,000	\$147,563	\$227,563	\$347,563

Distribution filed reports for the first three activities in 2020, and provided descriptions of those reports in the 2020 SEEP. NYSERDA filed the EM&V plan for the evaluation of LIURP for years 2017 through Q1 2019, conducted jointly with Distribution, in Q1 2021, and plans to file the final report in Q4 2021. The Residential Rebate Impact Evaluation (Years 2017-2019) is underway currently, and expected to conclude in Q4 2021. The detailed EM&V plan for this study is included in this document as Appendix B. Descriptions of these reports are in the following section.

The future Process and Freeridership Evaluation (All Programs, Years TBD) does not yet have a detailed plan, but will likely include 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. The future Non-Residential Rebate Program Impact Evaluation (Years TBD) and LMI Statewide Portfolio Evaluation (Years TBD) will be conducted jointly with NYSERDA. Evaluation plan have not yet been developed.

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

Evaluation Reports Filed in 2021

Distribution will file two evaluations for active CIP programs in 2021:

- Impact Evaluation of the Residential Rebate Program (Year 2017 – 2019)
 - Matter 16-02180, filing title and exact date to be determined
- Joint Impact Evaluation with NYSERDA – LIURP (Years 2017-2019 Q1)
 - Matter 16-02180, filing title and exact date to be determined

Impact Evaluation of the Residential Rebate Program: Years 2017 - 2019

Cadmus evaluated Distribution’s Residential Rebate program for program years 2017-2019 to determine the program savings and the retrospective realization rate. As part of this evaluation, Cadmus recommended several updates to Distribution’s workbook used to calculate reported savings, and Cadmus also calculated an alternative prospective realization rate for reporting future savings.

To evaluate savings, Cadmus divided measures into three tiers, based on total contribution to program savings. Cadmus analyzed savings for Tier 1, furnace and boiler replacements, using engineering analysis based on project-specific capacity and efficiency, and a billing analysis of participants’ gas usage post-retrofit to determine the actual average run-time for furnaces and boilers in Distribution territory. Cadmus sourced other inputs from the NYTM. For Tier 2, furnace tune-ups, Cadmus conducted a pre-post billing analysis of gas usage for a census of participants. For Tier 3 measures, which included water heaters, boiler tune-ups, clothes dryers, thermostats and gas pool heaters, Cadmus used billing analysis with inputs sourced from the tracking data, analyses for Tier 1, or NYTM as available and appropriate.

The evaluation found the program achieved a realization rate of 87% for the 2017-2019 period.

Cadmus updated Distribution’s deemed savings estimates for reported savings using inputs from the evaluation and from the 2021 NYTM, and recommended a prospective realization rate of 100%.

Changes Implemented Based on Recommendations:

In response to the Residential Rebate Evaluation, Distribution updated the deemed savings estimates it uses to calculate reported savings for the Residential Rebate program. Beginning with Q2 2021, Distribution applied the new measure-level savings estimates, and a realization rate of 100%.

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	January 2020
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	Distribution will determine an appropriate schedule for future Non-Residential Rebate Program Gross Savings Analysis and incorporate details into future SEEP filing.
Exemption from EAM Status	Yes

VGSS 2: LMI Statewide Portfolio: Existing 1-4 Unit Family Homes Initiative	
Date of SEEP/CEF filing	December 14, 2020
Program Name	Existing 1-4 Unit Family Homes Initiative (LIURP)
Program Description	The Existing 1-4 Unit Family Homes Initiative operates under several program names, including EmPower NY and Assisted Home Performance with ENERGY STAR (“AHPwES”) administered by NYSERDA statewide, the Low-Income Usage Reduction Program (“LIURP”) in National Fuel Gas (“NFGDC”) territory, and the Home Energy Affordability Team (“HEAT”) program in the National Grid-Long Island territory. The EmPower NY, LIURP, and HEAT programs are available to low-income households and provide no-cost energy services.
Gross Savings Methodology	Energy savings are estimated from modeling tools used by contractors when conducting home energy audits. 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 MMBtu, based on the impact evaluation for program period 2012-2016 (NYSERDA Residential Retrofit Impact Evaluation (PY2012-2016), filed in June 2020). This initial VGS RR is applied retrospectively and prospectively until completion of the next Gross Savings Analysis.
Planned VGS Approach	Distribution-funded activity under the Initiative (LIURP activity) will undergo Gross Savings Analysis for program period 2017-Q1 2019 as part of the NYSERDA EmPower study. Details related to the Gross Savings Analysis methodology were submitted in an EM&V Plan in Q4 2020. Moving forward, NYSERDA will conduct statewide evaluation for this program 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	TBD
Program Name	Affordable Multifamily Energy Efficiency Program
Program Description	Under development
Gross Savings Methodology	TBD
Realization Rate (RR)	TBD
Planned VGS Approach	Distribution expects to contribute to the Affordable Multifamily Energy Efficiency Program by Q4 2021. 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	October 2021 (Expected)
Program Name	Residential Rebate Program
Program Description	The Residential Rebate Program provides rebates for the installation of energy saving measures.
Gross Savings Methodology	Gross savings are derived from a combination of consumption billing analysis and desk reviews conducted by an independent auditor.
Alternative Prospective Realization Rate (APRR)	100%
Planned VGS Approach	The Residential Rebate Program will evaluate Gross Savings for program activity from August, 2021 forward at a future date, which will be no later than 2023. This evaluation will serve to verify the APRR, and will rely primarily on engineering analysis based on desk reviews.
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 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.¹⁶

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.

¹⁵ CEF programs are evaluated jointly with NYSEERDA.

¹⁶ 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.

Table 7: 2019-2025 Primary Benefit Cost Analysis							
Program	2019	2020	2021	2022	2023	2024	2025
<i>Commercial and Industrial Sector</i>							
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
<i>Residential</i>							
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
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.¹⁷

¹⁷ Case 14-M-0101 – Order Establishing the Benefit Cost Analysis Framework, issued and effective January 21, 2016.

Appendix A: Program Rebate Tables

The incentive amounts for 2019, 2020 and 2021 for the Residential Rebate and Non-residential Rebate programs are included below. Distribution will update the SEEP with the 2022 program values once they are determined.

Non-Residential Rebate Program Measures and Rebates

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

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 E _t		\$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 $\geq 46\%$		\$1,000
Conveyor Oven	Cooking Efficiency $\geq 42\%$		\$1,000
Rack Oven	Cooking Efficiency $\geq 38\%$		\$1,000
Steamer	Cooking Efficiency $\geq 38\%$		\$1,000
Griddle	Cooking Efficiency $\geq 38\%$	≤ 2 feet wide	\$350
Griddle	Cooking Efficiency $\geq 38\%$	3 feet wide	\$525
Griddle	Cooking Efficiency $\geq 38\%$	4 feet wide	\$700
Griddle	Cooking Efficiency $\geq 38\%$	5 feet wide	\$875
Griddle	Cooking Efficiency $\geq 38\%$	≥ 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	$\geq 90\%$ AFUE or E_t		\$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 $\geq 50\%$		\$1,000
Convection Oven	Cooking Efficiency $\geq 46\%$		\$1,000
Conveyor Oven	Cooking Efficiency $\geq 42\%$		\$1,000
Rack Oven	Cooking Efficiency $\geq 38\%$		\$1,000
Steamer	Cooking Efficiency $\geq 38\%$		\$1,000
Griddle	Cooking Efficiency $\geq 38\%$	≤ 2 feet wide	\$350
Griddle	Cooking Efficiency $\geq 38\%$	3 feet wide	\$525

Griddle	Cooking Efficiency \geq 38%	4 feet wide	\$700
Griddle	Cooking Efficiency \geq 38%	5 feet wide	\$875
Griddle	Cooking Efficiency \geq 38%	\geq 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 2021²⁰			
Measure	Required Minimum Efficiency	Equipment Size (MBtu/h) or (feet)	Rebate Amount
Space Heating			
Hot Air Furnace	90% AFUE	\leq 300	\$3.00/MBtu/h
Hot Air Furnace	92% AFUE	\leq 300	\$4.00/MBtu/h
Hot Air Furnace	95% AFUE	\leq 300	\$5.00/MBtu/h
Hot Water Boiler (Non-Condensing)	85% AFUE	\leq 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	\leq 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	\leq 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	\geq 90% AFUE or E _t		\$2.00/MBtu/h
Infrared Heater	N/A		\$2.50/MBtu/h
Pipe Insulation	R-Value > 4		\$3.00/foot
Duct Insulation	R-Value \geq 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 \geq 50%		\$1,000
Convection Oven	Cooking Efficiency \geq 46%		\$1,000
Conveyor Oven	Cooking Efficiency \geq 42%		\$1,000
Rack Oven	Cooking Efficiency \geq 38%		\$1,000
Steamer	Cooking Efficiency \geq 38%		\$1,000
Griddle	Cooking Efficiency \geq 38%	\leq 2 feet wide	\$350
Griddle	Cooking Efficiency \geq 38%	3 feet wide	\$525
Griddle	Cooking Efficiency \geq 38%	4 feet wide	\$700
Griddle	Cooking Efficiency \geq 38%	5 feet wide	\$875

Griddle	Cooking Efficiency \geq 38%	\geq 6 feet wide	\$1,050
Controls and Other			
Wi-Fi Thermostat	N/A		\$75
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-4. Measures and rebates for 2020 are shown in Appendix Table A-5. Measures and rebates for 2021 are shown in Appendix Table A-6.

Appendix Table A-4: 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-5: 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-6: 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 B: Summary of Future Evaluations

Process Evaluation Plan (All Programs)

The evaluation contractor will conduct a process evaluation of all 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 2022.

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.