NEW YORK STATE
PUBLIC SERVICE COMMISSION

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

Case 07-M-0548 – Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard

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 2015 ENERGY EFFICIENCY TRANSITION IMPLEMENTATION PLAN
FOR THE 2016-2018 PROGRAM YEARS
DATED: DECEMBER 1, 2016

I. Introduction

On February 26, 2015, the Public Service Commission ("Commission") issued an Order Adopting Regulatory Policy Framework and Implementation Plan in the Reforming the Energy Vision Proceeding ("REV" or "REV Proceeding").[1] Included in the Track 1 Order was the Commission's affirmation that: (1) energy efficiency remains among the most cost effective ways to reduce emissions, and (2) utilities should continue their natural gas energy efficiency efforts.[2] Also included in the Track 1 Order were requirements that Department of Public Service Staff ("Staff"), in consultation with the Energy Efficiency Working Group ("E^2 Working Group"), develop and file a guidance document specifying the content of energy efficiency

[1] Case 14-M-0101 – Order Adopting Regulatory Policy Framework and Implementation Plan, issued and effective February 26, 2015 ("Track 1 Order").
[2] Case 14-M-0101 – Track 1 Order, at 26, 79, and Appendix C. National Fuel Gas Distribution Corporation ("Distribution" or the "Company") supports the referenced Commission affirmation.

transition implementation plan ("ETIP") submissions by May 1, 2015, and that electric utilities[3] develop and file an ETIP by July 15, 2015. On May 1, 2015, Staff filed Guidance Document CE-02, ETIP Guidance ("ETIP Guidance").[4]

On June 19, 2015, the Commission issued an Order Authorizing Utility-Administered Gas Energy Efficiency Portfolios for Implementation Beginning January 1, 2016 ("2015 Gas Energy Efficiency Order" or "2015 BAM Order").[5] In this Order, the Commission determined that the administration of gas energy efficiency programs should align with that of electric efficiency programs, and therefore required gas utilities to implement their energy efficiency programs under the same framework as that established for electric programs in the Track 1 Order. In response to the Track 1 Order, the 2015 Gas Energy Efficiency Order, and Staff's ETIP Guidance, National Fuel Gas Distribution Corporation ("Distribution" or the "Company") filed its 2015 ETIP on July 15, 2015, to continue natural gas energy efficiency programming beyond December 31, 2015.

On January 22, 2016, the Commission issued an Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2016 – 2018 ("2016 Energy Efficiency Order" or "2016 BAM Order").[6] This Order reaffirmed the authorization of Distribution's annual budget and dekatherm ("Dth") target for 2016, and simultaneously authorized Distribution's annual budget and Dth target for 2017 and 2018. In response to the 2016 Energy Efficiency Order and at Staff's request, on April 1, 2016, Distribution filed an updated ETIP for the 2016-2018 program years.

[3] Although the Track 1 Order, at 4, is clear that the Commission is adopting a policy framework for a reformed retail electric industry, and not the natural gas industry, the Company understands the term "utilities" in this instance to be inclusive of natural gas only utilities such as Distribution.
[4] Case 15-M-0252 – Guidance Document CE-02, ETIP Guidance, filed on May 1, 2015.
[5] Case 15-M-0252 – Order Authorizing Utility-Administered Gas Energy Efficiency Portfolios for Implementation Beginning January 1, 2016, issued and effective June 19, 2015.
[6] Case 15-M-0252 – Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2016-2018, issued and effective January 22, 2016.

On July 28, 2016, Staff updated and re-filed Guidance Document CE-01, Utility Energy Efficiency Program Cycle ("Program Cycle Guidance").[7] Included in the Program Cycle Guidance is a revised schedule of filing dates, with which utilities can update their ETIP filings to document programmatic and portfolio changes.[8] In response to the Program Cycle Guidance and at Staff's request, Distribution hereby submits this updated ETIP for the 2016-2018 program years.

II. Procedural Background

On September 20, 2007, the Commission issued its Order Adopting Conservation Incentive Program ("2007 CIP Order").[9] The Conservation Incentive Program ("CIP") preceded the energy efficiency programs established for other natural gas utilities in New York State, as initially established in the Energy Efficiency Portfolio Standard ("EEPS") proceeding.

On October 19, 2009, the Commission issued its Order Approving the Continuation of National Fuel Gas Distribution Corporation's Conservation Incentive Program with Modifications ("2009 CIP Order").[10]

On November 22, 2010, the Commission issued its Order Approving the Continuation of National Fuel Gas Distribution Corporation's Conservation Incentive Program with Modifications ("2010 CIP Order").[11]

On October 25, 2011, the Commission issued its Order Authorizing Efficiency Programs, Revising Incentive Mechanism, and Establishing a Surcharge schedule, which incorporated CIP

[7] Case 15-M-0252 – Guidance Document CE-01, Utility Energy Efficiency Program Cycle, filed on July 28, 2016.
[8] The schedule of filing dates provides a general overview of the current program cycle. The schedule includes target Commission approval dates, as well as key dates of other non-ETIP filings.
[9] Case 07-G-0141 – Order Adopting Conservation Incentive Program, issued and effective September 20, 2007.
[10] Case 07-G-0141 – Order Approving the Continuation of National Fuel Gas Distribution Corporation's Conservation Incentive Program with Modifications, issued and effective October 19, 2009.
[11] Case 07-G-0141 – Order Approving the Continuation of National Fuel Gas Distribution Corporation's Conservation Incentive Program with Modifications, issued and effective November 22, 2010.

within the EEPS portfolio of statewide energy efficiency programming and authorized the continuation of CIP ("2011 EEPS Order").[12]

On February 19, 2013, the Commission issued its Order Approving in Part and Denying in Part National Fuel Gas Distribution Corporation's Petition to Modify Certain Energy Efficiency (EEPS) Programs ("2012 EEPS Order"), which authorized the Company to reallocate budgets and savings targets between its Residential Rebate Program and its Low Income Usage Reduction Program ("LIURP"), while denying the Company's request to reallocate budgets from its Non-Residential Rebate Program ("NRCIP") to Distribution's Area Development Program ("ADP").[13]

On December 18, 2013, Distribution filed a petition with the Commission for CIP program modifications, updating budgets and savings targets for the Company's NRCIP ("2013 Petition"). As of the Company's July 15, 2015 ETIP filing, Distribution's 2013 Petition remained outstanding. As a result, the Company's July 15, 2015 ETIP filing incorporated and updated the budgetary and savings modifications previously sought by Distribution in the 2013 Petition.

On June 19, 2015, the Commission issued the 2015 Gas Energy Efficiency Order, which directed Distribution and other New York State utilities to implement gas energy efficiency programs beginning January 1, 2016. In addition, the 2015 Gas Energy Efficiency Order authorized budgets and Dth targets, in total by utility, for 2016.

On January 22, 2016, the Commission issued the 2016 Energy Efficiency Order, which reaffirmed the Commission's June 19, 2015 authorized budgets and Dth targets. The 2016

[12] Case 07-M-0548 – Order Authorizing Efficiency Programs, Revising Incentive Mechanism, and Establishing a Surcharge Schedule; issued and effective October 25, 2011.
[13] Case 07-M-0548 – Order Approving in Part and Denying in Part National Fuel Gas Distribution Corporation's Petition to Modify Certain Energy Efficiency (EEPS) Programs, issued and effective February 19, 2013.

Energy Efficiency Order also authorized natural gas and electric annual portfolio budgets and targets (Dth for natural gas and MWh for electric), in total by utility, for 2017 and 2018.

III. CIP Overview and High-Level Portfolio Description

CIP includes the following programs: (1) Residential Rebate Program, (2) NRCIP, and (3) LIURP. In addition, each of the programs is supported with Outreach and Education ("O&E") and Evaluation, Measurement, and Verification ("EM&V") initiatives. Exhibit 1 below summarizes budgets previously authorized in each of the Commission's Orders, including calendar years 2016 through 2018, as initially requested by the Company.

Exhibit 1 - Approved CIP Budgets

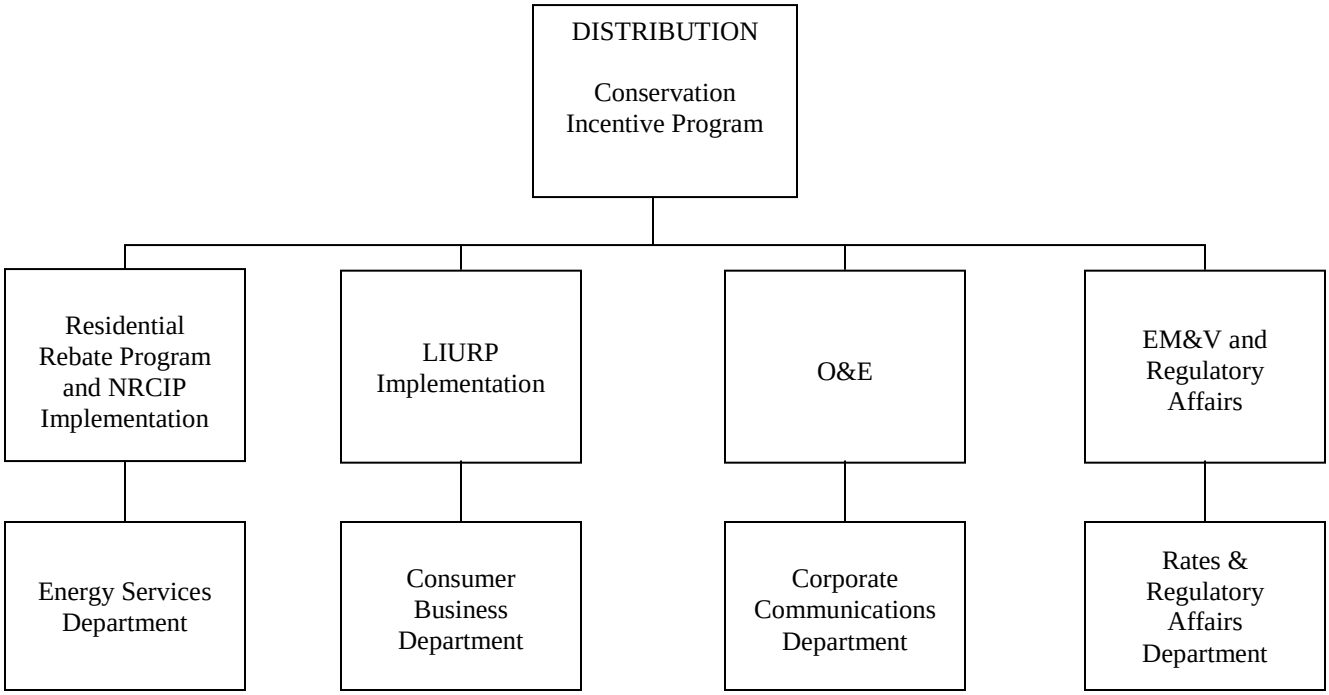
	2007 CIP		2009 CIP	2010 CIP	2011 EEPS	2012 EEPS	2016 BAM
	Order (two year approval)		Order	Order	Order	Order	Order
Program Year	2008	2009	2010	2011	2012 - 2015	2012 - 2015	2016 - 2018
LIURP	$2,940,000	$2,940,000	$2,940,000	$3,040,000	$3,559,295	$4,618,591	$5,490,000
Residential Rebate Program	$3,400,000	$3,400,000	$3,400,000	$3,500,000	$3,559,295	$2,500,001	$2,650,000
NRCIP	$1,520,000	$1,520,000	$1,520,000	$1,520,000	$1,515,810	$1,515,808	$650,000
O&E	$2,940,000	$2,940,000	$1,940,000	$1,500,000	$903,600	$903,600	$950,000
EM&V	$0	$0	$490,000	$480,000	$502,000	$502,000	$300,000
Total	$10,800,000	$10,800,000	$10,290,000	$10,040,000	$10,040,000	$10,040,000	$10,040,000

The 2015 Gas Energy Efficiency Order specified total budgets by utility and also provided each utility the flexibility to propose, through the ETIP process, how the total budget would be assigned to programs within the utility's energy efficiency portfolio. In contrast, the 2012 EEPS Order further identified total program budgets for Distribution's CIP by allocating O&E and EM&V to the three programs as summarized in Exhibit 2 below. In the 2012 EEPS Order, the Commission increased the LIURP budget by approximately $1.1 million, reduced the Residential Rebate Program budget by approximately $1.1 million, and essentially held the NRCIP budget flat at the level initially established for that program in the 2007 CIP Order.

Exhibit 2 - Approved CIP Budget - 2012 EEPS Order				
	Program Budget	E M & V	O & E	Total
LIURP	$4,618,591	$258,936	$301,200	$5,178,727
Residential Rebate Program	$2,500,001	$147,432	$301,200	$2,948,633
NRCIP	$1,515,808	$95,632	$301,200	$1,912,640
Total	$8,634,400	$502,000	$903,600	$10,040,000

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 already been effective for nine program years. 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. A summary of Company departments involved with CIP is provided in Exhibit 3 below.

Exhibit 3: Distribution Departments Responsible for CIP Management



The Company believes that as respects its operations, the integration of energy efficiency within existing departments: (1) is the best and most economical way to deliver a consistent energy efficiency program to customers, and (2) provides the ability to directly incorporate the impact of energy efficiency achievements into normal operations and planning efforts of the Company. Further, by integrating energy efficiency within existing departments, a consistent and thorough energy efficiency message and a comprehensive suite of programs (inclusive of energy efficiency offerings and other non-energy efficiency program offerings) can be effectively provided to customers.

IV. REV Proceeding Interrelation

According to the Track 1 Order in the REV Proceeding, the Commission has adopted a policy framework for a reformed retail electric industry.[14] In Distribution's REV Proceeding comments, Distribution noted among other things: (1) that the natural gas and electric industries in New York can be radically different businesses, and (2) to the extent that regulatory concepts and policy changes arising out of the REV Proceeding are applied to wholesale natural gas utilities, the results could be counterproductive to natural gas customers.[15]

While the vast majority of REV Proceeding content is only applicable to the electric industry, Distribution's energy efficiency portfolio and certain non-energy efficiency projects and programs, can reasonably be seen as advancing REV Proceeding policy objectives, where it makes sense for natural gas customers. Below is a list of changes made within Distribution's energy efficiency portfolio, transitioning from EEPS to the 2016 through 2018 program years. These changes are described in greater detail throughout Distribution's ETIP.

- Wireless fidelity ("Wi-Fi") thermostats, a REV-like measure that would provide benefits to natural gas customers, have been added as an available measure in every program within CIP.
- Distribution initially proposed a carbon dioxide equivalent emission reduction target for every program within CIP in its July 15, 2015 ETIP filing. This action directly supported REV Proceeding policy and aligned the Company's programming with statewide energy objectives as described in the 2015 New York State Energy Plan.[16] Specifically, Distribution's proposal of an emission reduction target directly supported New York

[14] Case 14-M-0101 – Order Adopting Regulatory Policy Framework and Implementation Plan, issued and effective February 26, 2015, at 4.
[15] Case 14-M-0101 – Initial Comments of National Fuel Gas Distribution Corporation on Department of Public Service Staff's August 22, 2014 Straw Proposal on Track 1 Issues, filed on September 22, 2014, at 2.
[16] 2015 New York State Energy Plan, at http://energyplan.ny.gov/.

State's goal of achieving a 40% reduction in greenhouse gas emissions from 1990 levels, by 2030. The Commission's 2016 Energy Efficiency Order determined that carbon dioxide emission reduction was not approved as an "official target" for Distribution's CIP. Instead, the Company will simply track carbon dioxide emission reductions prospectively but does not have an official target to achieve, and does not have a reporting requirement to the Commission, as directed in the 2016 Energy Efficiency Order.[17] Distribution will do so using the United States Environmental Protection Agency's ("EPA") Greenhouse Gas Equivalencies Calculator.[18]

- The Company has continued its strong commitment to low income customers by increasing low income program funding to 55% of the total CIP energy efficiency portfolio. Distribution believes that long-term statewide energy and emissions goals can be achieved as long as programs and activities delivered by the utilities and the New York State Energy Research and Development Authority ("NYSERDA") are complimentary and not redundant in nature. Distribution's low income program[19] reduces energy efficiency barriers for low income customers and continues a nine year successful collaboration with NYSERDA.[20] This collaborative effort has minimized duplicative services and customer confusion, and has achieved greater energy efficiency penetration levels. Distribution has developed new elements within its low income program that will: (1) augment existing health and safety protocols, (2) help prevent

[17] Case 15-M-0252 – 2016 Energy Efficiency Order, at 48.
[18] EPA website, Greenhouse Gas Equivalencies Calculator at: http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results.
[19] This program is referred to as the Low Income Usage reduction Program or LIURP throughout Distribution's ETIP.
[20] A detailed description of on-going collaboration with NYSERDA, as it relates to the Clean Energy Fund, was provided in response to Staff's data request questions. This is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

emergency situations for customers, especially during the winter heating season, and (3) eliminate a barrier to customer program participation while simultaneously achieving a deeper penetration of energy savings.

In addition, non-energy efficiency projects and programs that could reasonably be seen as advancing REV Proceeding policy objectives include:

- Distribution has been involved in three microgrid projects, all of which are active participants in NYSERDA's New York Prize Program ("NY Prize"):
    1) Buffalo Niagara Medical Campus ("BNMC") - Distribution has issued a letter of support for the project, to be submitted with BNMC's application. This project was selected to receive an award of $100,000 to fund a feasibility study as part of NY Prize. Distribution is an active participant in energizeBNMC and the Company is funding a thermal load study, as part of Distribution's Research and Development Program, a non-energy efficiency program, to assess the feasibility of a natural gas combined heat and power ("CHP") technology application.
    2) Village of Westfield – Distribution has issued a letter of support for the project, to be submitted with the Village of Westfield's application. This project was selected to receive an award of $100,000 to fund a feasibility study as part of NY Prize.
    3) Village of Arcade – Distribution has issued a letter of support for the project, to be submitted with the Village of Arcade's application. This project was selected to receive an award of $100,000 to fund a feasibility study as part of NY Prize.

It would be premature to speculate with respect to these projects: (1) if the existing natural gas distribution system has sufficient supply or if upgrades are needed, (2) potential ratepayer impacts, and (3) if additional peak day capacity is needed to satisfy an increased natural gas load, since all three microgrid projects are in the process of being considered.

As respects the current status of NY Prize, NYSERDA issued the Stage 2 competitive Request for Proposals ("RFP") in April 2016 and customer proposals were submitted in October 2016. During Stage 2, the NY Prize Selection Committee expects to award up to $8,000,000 in funding for detailed design activities such as: (1) fulfilling the criteria outlined for Stage 1 and conducting feasibility studies, (2) selecting and appointing consultants to conduct work, (3) bidding projects and evaluating bid results, (4) conducting detailed assessments of the technical design and system configuration, (5) conducting project valuation and investment planning, (6) assessing regulatory, legal, environmental suitability, and financial viability terms, (7) developing formal commercial terms/contractual relationships between project participants, (8) detailing project construction and commissioning proposals, and (9) finalizing project development and operational proposals.

- Network Enhancement Program (formally referred to as "Gas Expansion Program" or "GEP") – On June 4, 2015, December 9, 2015 and June 1, 2016, Distribution provided Staff with an update on its network enhancement initiatives, target customer segments and tools, including: the Wilson pilot program, the Richmond pilot program, Phase II projects, Phase III projects, non-heating customers, skips, non-customer clusters near mains, utilizing the Company's Geographic Information System ("GIS") to identify

candidates for network enhancement projects, plans for potential franchise expansion, low income initiatives, and gas conversion initiatives. On February 8, 2016, Distribution filed its latest Gas Network Enhancement Collaborative Annual Report, providing a written update on all Company network enhancement initiatives.

- Distributed Generation ("DG") Program – Under the DG Program, Distribution utilizes shareholder funds to help customers buydown the cost of installing DG equipment, which in turn lowers customer payback periods. Customers sign performance contracts with the Company and may be required to provide security. Funding for customer buydowns is recovered through incremental transportation revenues. This program was reauthorized by the Commission to operate through March 31, 2018.
- Natural Gas Vehicle ("NGV") Program – Under the NGV Program, Distribution utilizes shareholder funds to help customers buydown the cost of installing NGV refueling stations, procuring NGV-related equipment, and/or procuring NGV vehicles, which in turn lowers customer payback periods. Customers sign performance contracts with the Company and may be required to provide security. Funding for customer buydowns is recovered through incremental transportation revenues. This program was reauthorized by the Commission to operate through March 31, 2018. In addition, on June 4, 2015, December 9, 2015 and June 1, 2016, Distribution provided Staff with updates on the Company's plan to issue a RFP for a management company to operate the Mineral Springs NGV station, and on the state of the NGV market in western New York. On January 29, 2016, Distribution filed its latest Partnership for NGV Program Report, providing a written update on all Company NGV initiatives.

- Prime-WNY Program – Under the Prime-WNY Program, Distribution utilizes shareholder funds to incent large commercial and industrial customers to install incremental natural gas fired equipment at their existing facilities (e.g., system improvements, associated piping, and/or customer equipment). Customers sign performance contracts with the Company and may be required to provide security. Funding for customer buydowns is recovered through incremental transportation revenues. This program was authorized by the Commission to operate through March 31, 2018.

V. Residential Rebate Program Description

Program Design

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 and multi-family residential dwellings, to encourage them to install high efficiency space heating and water heating appliances. These types of appliances are by far the largest two 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.

Program Delivery Method

All 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 must include the following information:

1) 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:
    a. Manufacturer, and complete model number of equipment replaced and installed;
    b. Efficiency rating for furnaces or boilers ("AFUE");
    c. Efficiency rating for tank and tankless water heaters ("Energy Factor" or "EF"); and
    d. Product installation date.
2) 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 customer inquiries and/or 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 ad-hoc basis, as needed, which can be as often as a daily basis. 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 Customer Response Center ("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 2014, an online services web portal was launched for customers and the Company, with two key components to this service:

- Customer E-mail Status Alerts: Customers who supply e-mail addresses on their Residential Rebate Program application form will receive status updates via e-mail as their application moves through processing. Customers will receive confirmation that: (1) the application has been received, (2) the application is under review, (3) the application has been processed, and (4) the rebate check has been approved and mailed. E-mails to customers also include a link to a status webpage, so that customers can see the details of their application (e.g., measures applied for, rebate amount, etc.) at any time.
- Client Portal for Dashboards and Reporting: Company personnel can get immediate access to program data and customer participation levels. The portal includes a suite of standardized graphs, as well as the functionality to create custom reports and graphs for program administration and design purposes. The portal also provides visibility of pending applications so that Distribution can assess its program queuing, processing speed, and overall effectiveness.

In addition, Distribution and the rebate processor are working collaboratively to develop an online portal to accept Company applications for CIP. This will incorporate a landing page outlining online application instructions, with an electronic rebate form that can be completed and submitted online. Customers will also be able to log in to a rebate status page and have the option to subscribe to e-mail alerts, which provides customers further visibility on their application status. The development of this portal is currently in progress.

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, multi-family dwellings, condominiums and mobile dwellings. New construction is not eligible for this program.

Measures to be included in the Residential Rebate Program during calendar year 2016 are outlined below in Exhibit 4A.

Exhibit 4A: Residential Rebate Summary – Calendar Year 2016		
	Required Minimum Efficiency	Rebate Amount
Space Heating		
Hot Air Furnace	90% AFUE	$325
Hot Air Furnace with ECM	90% AFUE	$400
Hot Water Boiler	90% AFUE	$700
Steam Boiler	82% AFUE	$200
Water Heating		
Storage Tank Water Heater	0.67 EF	$75
Tankless Water Heater	0.82 EF	$375
Indirect Water Heater	N/A	$275
Controls		
Programmable Thermostat	N/A	$25
Wi-Fi Thermostat	N/A	$75

Measures planned for inclusion in the Residential Rebate Program during calendar years 2017 and 2018 are outlined below in Exhibit 4B.

Exhibit 4B: Residential Rebate Summary – Calendar Years 2017 and 2018		
	Required Minimum Efficiency	Rebate Amount
Space Heating		
Hot Air Furnace	90% AFUE	$325
Hot Air Furnace with ECM	90% AFUE	$400
Hot Water Boiler	90% AFUE	$700
Steam Boiler	82% AFUE	$200
Water Heating		
Storage Tank Water Heater (55 Gallons or Less)	0.67 EF	$100
Storage Tank Water Heater (More Than 55 Gallons)	0.77 EF	$200
Tankless Water Heater	0.90 EF	$375
Other Gas Appliances		
Clothes Dryer	Energy Star Rated	$50
Controls		
Programmable Thermostat	N/A	$25
Wi-Fi Thermostat	N/A	$75

In addition to the equipment outlined above, Distribution may elect to provide customers that have participated in CIP with low cost measures, utilizing competitive procurement processes. The provision of these measures would occur within the Residential Rebate Program in accordance with the Commission's June 20, 2011 Order, and any applicable installation requirements specified in the New York Standard Approach for Estimating Energy Savings from Energy Efficiency Programs ("New York Technical Manual" or "NYTM").[21] Distribution believes that customers previously participating in CIP would be the most likely to install new,

[21] Case 07-M-0548 – Order Approving Modifications to the Energy Efficiency Portfolio Standard (EEPS) Program to Streamline and Increase Flexibility in Administration, issued and effective June 20, 2011.

low-cost energy saving measures, as these customers have already demonstrated their interest in energy conservation through past practice.

Quality Assurance ("QA") / Quality Control ("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 out 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 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 on-site inspections of equipment installations to verify that the equipment receiving a rebate was actually installed by the customer.[22] Second, the rebate processor conducts 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.

[22] Up to 5% of all rebate projects are selected for a random on-site inspection.

Program Budget

The overall Residential Rebate Program budget, by category, is shown below in Exhibit 5. 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 month 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.

Exhibit 5: Residential Rebate Program Budgets[23]			
	2016	2017	2018
ANNUAL			
Incentives and Services	$2,500,000	$2,500,000	$2,500,000
Program Implementation[24]	$150,000	$150,000	$150,000
TOTAL ANNUAL	$2,650,000	$2,650,000	$2,650,000
CUMULATIVE			
Customer Incentives	$2,500,000	$5,000,000	$7,500,000
Program Administration	$150,000	$300,000	$450,000
TOTAL CUMULATIVE	$2,650,000	$5,300,000	$7,950,000

It is not uncommon that rebate applications and necessary supporting documentation is 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 in the first six months of the subsequent program year. After the six month period ends, Distribution will not preclude customers from submitting paperwork and participating in the program. However, 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

[23] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

[24] The "Program Implementation" line item in Exhibit 5 includes an estimate of the anticipated contractor implementation services, as well as the administration of the QA/QC plan.

equipment was actually installed and minimizes the potential for fraudulent rebate claims to be submitted.

Program Participation and Savings Derivation

Exhibit 6 provides a derivation of anticipated program participation levels and program savings for 2016, assuming the full program budget is expended. This derivation analysis was based on measured rebate amounts, per unit savings calculations, and the engineering algorithms presented in Version 3 of the NYTM.[25] The assumed measure mix within the Residential Rebate Program is based on actual program activity from its 2007 inception through the end of calendar year 2014, scaled to the program budget outlined above. With respect to Wi-Fi thermostats, a new REV-related measure initiated by Distribution, no historical data was available from the program. In addition, when this derivation analysis was prepared, this measure was not listed as a standalone measure in the NYTM. For the purposes of this derivation analysis, Distribution made a facilitating assumption that 75% of all thermostats will prospectively be installed as traditional programmable thermostats and 25% of all thermostats will prospectively be installed as Wi-Fi thermostats. For the purpose of valuing energy savings of Wi-Fi thermostats, Distribution utilized the programmable thermostat engineering algorithm in the NYTM.

[25] New York State Public Service Commission website, New York Technical Manual at: http://www3.dps.ny.gov/W/PSCWeb.nsf/ca7cd46b41e6d01f052568580054595 5/06f2fee55575bd8a852576e4006f9af7/$FILE/TRM%20Version%203%20-%20June%201,%202015.pdf.

Exhibit 6: Residential Rebate Program - Participation and Savings Derivation[26]					
Measure	**Number of Participants**	**Per Unit Rebate ($)**	**Total Rebates ($)**	**Net Per Unit Savings (Dth)**	**Net Total Savings (Dth)**
Space Heating					
Hot Air Furnace	3,944.86	$325	$1,282,080	14.2892	56,369.03
Hot Air Furnace with ECM	1,807.90	$400	$723,161	14.2892	25,833.53
Hot Water Boiler	254.29	$700	$178,002	11.0751	2,816.28
Steam Boiler	20.85	$200	$4,169	2.8380	59.16
Water Heating					
Storage Tank Water Heater	898.66	$75	$67,400	3.4283	3,080.90
Tankless Water Heater	220.51	$375	$82,693	8.3298	1,836.85
Indirect Water Heater	76.02	$275	$20,907	7.0523	536.15
Controls					
Programmable Thermostat	4,247.65	$25	$106,191	6.4141	27,244.82
Wi-Fi Thermostat	471.96	$75	$35,397	6.4141	3,027.20
Total Incentives and Services	**11,942.72**		**$2,500,000**		**120,803.93**

Performance Targets and Anticipated Changes

The primary performance target for this program is total savings, as outlined below in Exhibit 7. Distribution's savings target is based on the derivation analysis described above, as well as engineering algorithms from the NYTM.

Exhibit 7: Residential Rebate Program - Primary Target - 2016 Through 2018	
Program Year	**Primary Metric**
	Net Total Savings (Dth)
2016	120,803.93
2017	120,803.93
2018	120,803.93

If Residential Rebate Program changes are to be proposed prospectively for 2017, 2018, or future program years, those changes would be incorporated into future ETIP filings completed by Distribution, in accordance with Staff's Program Cycle Guidance Document. Distribution initially proposed a carbon dioxide equivalent emission reduction target for the Residential

[26] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

Rebate Program in its July 15, 2015 ETIP filing. The Commission's 2016 Energy Efficiency Order determined that carbon dioxide emission reduction was not approved as an "official target" for Distribution's CIP. Instead, the Company will simply track carbon dioxide emission reductions prospectively but does not have an official target to achieve, and does not have a reporting requirement to the Commission, as directed in the 2016 Energy Efficiency Order.[27] Distribution will do so using the EPA's Greenhouse Gas Equivalencies Calculator.[28]

Benefit Cost Analysis

Exhibit 8 and Exhibit 9 summarize the expected benefits, costs, and benefit/cost ratios for the Residential Rebate program as of July 2015.

Exhibit 8: Summary of Benefits and Costs[29]

Residential Rebate Program - Total Resource Cost ("TRC") Test

Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2016	1.79	$11,986,752	$6,696,775
2017	1.79	$11,986,752	$6,696,775
2018	1.79	$11,986,752	$6,696,775
2016-2018	1.79	$35,960,256	$20,090,325

[27] Case 15-M-0252 – 2016 Energy Efficiency Order, at 48.
[28] EPA website, Greenhouse Gas Equivalencies Calculator at: http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results.
[29] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

Exhibit 9: Summary of Benefits and Costs[30]			
Residential Rebate Program - TRC Test With Carbon Adder			
Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2016	1.95	$13,038,590	$6,696,775
2017	1.95	$13,038,590	$6,696,775
2018	1.95	$13,038,590	$6,696,775
2016-2018	1.95	$39,115,770	$20,090,325

VI. NRCIP Description

Program Design

NRCIP is a space, water and process heating equipment replacement program that offers fixed and customized rebate incentives to non-residential customers. NRCIP was modeled after a Vermont Gas Systems program that was cited by the ACEEE as an exemplary natural gas energy efficiency program. The goal of NRCIP 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

[30] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

systems, thermostats and cooking equipment. 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.

NYSERDA previously performed day-to-day project management and administration of NRCIP, in conjunction with their Existing Facilities Program, based on contractual agreements executed with Distribution. However, the Company has received informal communication from NYSERDA that they no longer wish to perform day-to-day project management and administration services for Distribution's NRCIP. As a result, the Company was involved in a competitive procurement process to solicit a new Implementation Contractor. Distribution completed the RFP process and necessary contractual requirements in December 2015 and a new Implementation Contractor was in place for January 1, 2016. The Company will continue to work with NYSERDA throughout the transition period, in order ensure a smooth transition for customers.

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.[31]
- 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.[32]
  - Based on the site-inspection, the Implementation Contractor will either: (1) sign off on the energy savings achieved and financial incentives to be

[31] This procedure is only applicable for customized rebates.
[32] This procedure is only applicable for customized rebates.

awarded, or (2) document changes to energy savings achieved and financial incentives to be awarded.[33]

- 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-writing notification, the financial incentive payment is mailed out on its own.[34]
- 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 any customer inquiries and/or 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 NRCIP 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 ad hoc basis, as needed, outside of the typical weekly communication. Customers can also call Distribution's CRC at 1-800-365-3234 to learn more about the basics of NRCIP.

[33] This procedure is only applicable for customized rebates.
[34] This procedure is only applicable for customized rebates.

Distribution typically holds training sessions with trade allies involved in NRCIP, which consists primarily of heating and cooling contractors, mechanical contractors and energy services companies ("ESCOs"). The Company will continue to hold training sessions in the future. These training sessions have largely been focused on educating trade allies on the availability of fixed and customized rebates, the differences between the two types of rebates, a detailed review of program application forms and procedures, and the provision of contact information for both the Implementation Contractor and Distribution. The training sessions also provide an opportunity to receive feedback on the program from trade allies. In addition, trade allies have the opportunity to ask any questions they may have.

Since April 2013, Distribution employed the services of a third party NRCIP Outreach Coordinator to assist commercial customers seeking information and to provide assistance in navigating through program requirements. The Company sees value in continuing the outreach work that was previously performed, since the efforts had a positive impact on program results achieved. This was addressed as part of the competitive procurement process and RFP described above.

Target Market and Eligibility

The target market for NRCIP 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 in order for an application to be considered complete. Building retrofits are eligible for NRCIP, but new construction is not eligible.

Measures to be included in NRCIP during calendar year 2016 are outlined below in Exhibit 10A.

Exhibit 10A: NRCIP Summary – Calendar Year 2016			
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	Energy Star-Rated or 85% AFUE	≤ 300	$600
Hot Water Boiler	85% E_t	301 – 500	$750
Hot Water Boiler	85% E_t	501 – 1,000	$1,500
Hot Water Boiler	85% E_t	1,001 - 1,700	$2,500
Hot Water Boiler	85% E_t	> 1,700	$3,000
Hot Water Boiler	90% AFUE	≤ 300	$1,000
Hot Water Boiler	90% E_t	301 - 500	$1,500
Hot Water Boiler	90% E_t	501 - 1,000	$2,500
Hot Water Boiler	90% E_t	1,001 - 1,700	$3,500
Hot Water Boiler	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
Water Heating			
Storage Tank Water Heater	0.67 EF		$125
Tankless Water Heater	0.82 EF		$450
Storage Tank Insulation	R-Value > 9		$1.00/sq.ft.
New Circulation Controls	N/A		$500/unit
Cooking Equipment			
Fryer	Energy Star-Rated		$750
Broiler	Cooking Efficiency ≥ 30%		$500

Convection Oven	Energy Star-Rated		$500
Combination Oven	Food Service Technology Center-Rated		$750
Steamer	Energy Star-Rated		$750
Griddle	Energy Star-Rated	≤ 2 feet wide	$350
Griddle	Energy Star-Rated	3 feet wide	$525
Griddle	Energy Star-Rated	4 feet wide	$700
Griddle	Energy Star-Rated	5 feet wide	$875
Griddle	Energy Star-Rated	≥ 6 feet wide	$1,050
Controls			
Programmable Thermostat	N/A		$25
Wi-Fi Thermostat	N/A		$75

Measures planned for inclusion in NRCIP during calendar years 2017 and 2018 are outlined below in Exhibit 10B.

Exhibit 10B: NRCIP Summary – Calendar Years 2017 and 2018			
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	Energy Star-Rated or 85% AFUE	≤ 300	$600
Hot Water Boiler	85% E_t	301 – 500	$750
Hot Water Boiler	85% E_t	501 – 1,000	$1,500
Hot Water Boiler	85% E_t	1,001 - 1,700	$2,500
Hot Water Boiler	85% E_t	> 1,700	$3,000
Hot Water Boiler	90% AFUE	≤ 300	$1,000
Hot Water Boiler	90% E_t	301 - 500	$1,500
Hot Water Boiler	90% E_t	501 - 1,000	$2,500
Hot Water Boiler	90% E_t	1,001 - 1,700	$3,500
Hot Water Boiler	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
Water Heating			
Storage Tank Water Heater (55 Gallons or Less)	0.67 EF		$150
Storage Tank Water Heater (More Than 55 Gallons)	0.77 EF		$250
Storage Tank Water Heater (140 Gallons or Less)	0.90 E_t		$350
Tankless Water Heater	0.90 EF		$425
Storage Tank Insulation	R-Value > 9		$1.00/sq.ft.
New Circulation Controls	N/A		$500/unit
Cooking Equipment			
Fryer	Energy Star-Rated		$750
Broiler	Cooking Efficiency ≥ 30%		$500
Convection Oven	Energy Star-Rated		$500
Combination Oven	Food Service Technology Center-Rated		$750
Steamer	Energy Star-Rated		$750
Griddle	Energy Star-Rated	≤ 2 feet wide	$350
Griddle	Energy Star-Rated	3 feet wide	$525
Griddle	Energy Star-Rated	4 feet wide	$700
Griddle	Energy Star-Rated	5 feet wide	$875
Griddle	Energy Star-Rated	≥ 6 feet wide	$1,050
Controls			
Programmable Thermostat	N/A		$25
Wi-Fi Thermostat	N/A		$75

Consistent with the 2012 to 2015 EEPS program years, during 2016, NRCIP was only being offered to small non-residential customers using less than 12,000 Mcf per year. Distribution is planning to remove the 12,000 Mcf usage cap during calendar year 2017, based on an on-going dialogue with NYSERDA, to coordinate NRCIP with Clean Energy Fund program offerings. In addition, Distribution is planning to add a $100,000 per project rebate cap to NRCIP during calendar year 2017. The Company will continue to evaluate program

eligibility as well as the per project rebate cap, making any necessary modifications during future ETIP filings.

With respect to Wi-Fi thermostats, a new REV-related measure initiated by Distribution, no historical data was available from the program. In addition, when Distribution's derivation analysis was prepared, this measure was not currently listed as a standalone measure in the NYTM. For the purpose of valuing energy savings of both Wi-Fi and programmable thermostats, Distribution utilized the programmable thermostat engineering algorithm in the NYTM.

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 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 NRCIP policies and procedures is 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 done 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.

Distribution employees meet via teleconference on a bi-weekly or on an as-needed basis with the Implementation Contractor. The goal of these meetings is to maintain an open dialog and to discuss program achievements. During each meeting, the Implementation Contractor

provides an update on the status of the application pipeline, jobs in process, outreach activities, and any feedback received on NRCIP.

Program Budget

The overall NRCIP budget, by category, is shown below in Exhibit 11. Typically there is no seasonality or unusual patterns of customer participation during a program year. The vast majority of projects within NRCIP (greater than 95%) 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.

Exhibit 11: NRCIP Budgets[35]			
	2016	2017	2018
ANNUAL			
Incentives and Services	$598,000	$598,000	$598,000
Program Implementation[36]	$52,000	$52,000	$52,000
TOTAL ANNUAL	$650,000	$650,000	$650,000
CUMULATIVE			
Customer Incentives	$598,000	$1,196,000	$1,794,000
Program Administration	$52,000	$104,000	$156,000
TOTAL CUMULATIVE	$650,000	$1,300,000	$1,950,000

NRCIP 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. There is usually a lag in getting final results at the immediate conclusion of a program year, as final payments are being processed, and financial information is dependent on Distribution's books and records being closed. Final program year

[35] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

[36] The "Program Implementation" line item in Exhibit 11 includes an estimate of the anticipated contractor implementation services, as well as the administration of the QA/QC plan.

numbers are typically completed within the first three months of the subsequent program year, unless customized projects are outstanding.

Program Participation and Savings Derivation

Exhibit 12 provides a derivation of anticipated program participation levels and program savings for 2016, assuming the full program budget is expended. This derivation analysis was based on savings calculations included in NYSERDA's reports to Distribution. The savings calculations for NRCIP were consistent with NYSERDA's statewide Existing Facilities program and were based on algorithms utilized in NYSERDA's savings databases, which was directly informed by the NYTM. The average cost per job is based on actual program activity from 2007 (NRCIP's inception) through the end of calendar year 2014, scaled to the program budget outlined above. The average savings per job is based on actual program activity from calendar year 2014, which Distribution believes most accurately reflects current market conditions and the impact of the outreach and education efforts completed by the NRCIP Outreach Coordinator.

Exhibit 12: NRCIP - Participation and Savings Derivation[37]

Job Type	Number of Participants	Average Cost Per Job ($)	Total Cost ($)	Net Per Unit Savings (Dth)	Net Total Savings (Dth)
NRCIP Incentives and Services	473.33	$1,263.40	$598,000	365.3067	172,909.14
Total Incentives and Services	**473.33**		**$598,000**		**172,909.14**

[37] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

Performance Targets and Anticipated Changes

The primary performance target for this program is total savings, as outlined below in Exhibit 13. Distribution's savings target is based on the derivation analysis described above, NYSERDA's savings database calculations and reports previously submitted to Distribution, and historical NRCIP results achieved since the program's inception.

Exhibit 13: NRCIP - Primary Target - 2016 Through 2018	
Program Year	**Primary Metric**
	Net Total Savings (Dth)
2016	172,909.36
2017	172,909.36
2018	172,909.36

If NRCIP changes are to be proposed prospectively for 2017, 2018, or future program years, those changes would be incorporated into future ETIP filings completed by Distribution, in accordance with Staff's Program Cycle Guidance Document. Distribution initially proposed a carbon dioxide equivalent emission reduction target for NRCIP in its July 15, 2015 ETIP filing. The Commission's 2016 Energy Efficiency Order determined that carbon dioxide emission reduction was not approved as an "official target" for Distribution's CIP. Instead, the Company will simply track carbon dioxide emission reductions prospectively but does not have an official target to achieve, and does not have a reporting requirement to the Commission, as directed in the 2016 Energy Efficiency Order.[38] Distribution will do so using the EPA's Greenhouse Gas Equivalencies Calculator.[39]

[38] Case 15-M-0252 – 2016 Energy Efficiency Order, at 48.
[39] EPA website, Greenhouse Gas Equivalencies Calculator at: http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results.

Benefit Cost Analysis

Exhibit 14 and Exhibit 15 summarize the expected benefits, costs, and benefit/cost ratios for NRCIP as of July 2015.

Exhibit 14: Summary of Benefits and Costs[40]

NRCIP -TRC Test

Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2016	1.71	$20,874,551	$12,175,948
2017	1.71	$20,874,551	$12,175,948
2018	1.71	$20,874,551	$12,175,948
2016-2018	1.71	$62,623,653	$36,527,844

Exhibit 15: Summary of Benefits and Costs[41]

NRCIP - TRC Test With Carbon Adder

Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2016	1.86	$22,706,293	$12,175,948
2017	1.86	$22,706,293	$12,175,948
2018	1.86	$22,706,293	$12,175,948
2016-2018	1.86	$68,118,879	$36,527,844

VII. LIURP Description

Program Design

LIURP is a weatherization program designed specifically for low income customers. Participants receive a heating system check, an energy audit, weatherization measures, an

[40] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

[41] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

infiltration reduction, natural gas usage reduction measures and consumer education. The program design is consistent with, and is being administered as part of NYSERDA's EmPower New York ("EmPower") program. Contractors follow procedures and guidelines developed for the EmPower program. Households receiving gas efficiency services paid for by Distribution will also be evaluated by NYSERDA for electric reduction measures. The main goal of LIURP is to conserve energy, reduce residential energy bills, and improve the health, safety, and comfort levels for participating households. A secondary goal includes reducing the incidence and risk of delinquencies and the costs associated with uncollectible accounts, late payment collections, and termination of service expenses.

Program Delivery Method

Procedures for customer enrollment include:

- Distribution generates referrals from:
    - The Company's Low Income Customer Affordability Assistance Program ("LICAAP")
    - Home Energy Assistance Program ("HEAP") status/consumption reports
    - Customer Assistance Centers / Company CRC locations / social service agencies / other
- Distribution screens for:
    - 12-month consumption history (ideally customers with 180-200+ Mcf of usage per year receive priority referral status)
- NYSERDA Program Implementer screens for eligibility:
    - NYSERDA's Program Implementer sends a cover letter from Distribution, with a LIURP/EmPower application included, to each potential participant. A second

cover letter and application will be sent if the first is not returned within a reasonable time frame.

  - Upon receipt of a completed application, NYSERDA's Program Implementer will examine the potential for natural gas energy efficiency services funded through Distribution, as well as the eligibility for electric reduction services, which are available to low-income electricity customers of National Grid and New York State Electric & Gas Corporation.
    - If the customer is a tenant, NYSERDA's Program Implementer will send a letter (on Distribution letterhead) to the landlord outlining program requirements and soliciting landlord participation/consent. Upon receipt of a satisfactory landlord authorization, the customer may then be accepted for energy services, if all eligibility requirements are met.

- If a customer is not eligible, NYSERDA's Program Implementer will:
  - Send a "no further services" letter to the customer (printed on Distribution letterhead).
  - Inform the referring office/social service agency the reason(s) why a customer is not eligible, if the referral was from Distribution or an outside agency.
- If a customer is eligible, NYSERDA's Program Implementer will:
  - Assign the customer to a participating contractor. Assignments will be made on the basis of current job backlogs, contractor availabilities and past program performance.
  - Send a letter to the customer, on Distribution letterhead, informing them of their acceptance and providing contact information for the assigned contractor.

- Enter relevant customer data into the EmPower database, including county designations and other information/data fields required by Distribution.
- Enter a weatherization-approved status.

- Once work is in progress:
  - Distribution has access to the EmPower database, including screens/reports to identify, among other things: (1) placed jobs that have yet to be picked up by contractors, and (2) the status of any placed jobs.
  - Distribution has the ability to retrieve customer weatherization service records and can obtain an electronic report of jobs with information required by Distribution, such as first name, last name, address, city, state, postal code, installation contractor, home phone number, account number, meter number, mailing address, city, state, zip, and the date a job was sent to a contractor.
  - NYSERDA's Program Implementer administers customer interactions/document procurements (letters sent to Distribution's customers on Distribution letterhead), including:
    - Customer Acceptance Letter
    - Audit Forms
    - Landlord/Tenant Agreements
    - Distribution LIURP Eligibility Affidavit/Information Waiver
    - Distribution Work Proposal Agreement
    - Customer Agreement
    - Distribution Safety Check List
    - Certificate of Completion

- Contractor Duties:
    - Within two weeks of receiving a job, the contractor calls customers to set up an initial appointment.
    - The contractor goes to the customer's property and performs a comprehensive home assessment, including:
        - Heating system inspection and combustion efficiency test;
        - Blower door test for air leakage, where feasible;
        - Inspection and measurement for insulation;
        - Health and safety checks, such as ambient carbon monoxide ("CO") testing and gas leak checks;
        - Energy education for customers;
        - An instrumented audit that is documented on EmPower forms;
        - A discussion of a potential work scope with an appropriate household member; and
        - An assessment to determine if a household is eligible for electric measures, such as compact fluorescent light bulbs or electric appliances.
    - If furnace problems are identified, a contractor follows the appropriate emergency and referral procedures, as outlined in the EmPower Guidelines and Procedures Manual.
    - If issues or problems are identified which preclude the successful installation of measures, such as severe structural damage or serious code violations related to the work, the contractor will notify NYSERDA's Program Implementer and further work will be cancelled until the conditions are corrected.

- NYSERDA's Program Implementer will send a letter (on Distribution letterhead) to customers explaining why work was cancelled, while also offering a timeline for work to be resumed if the conditions are corrected.
- The contractor develops work scopes and proceeds with work, according to EmPower Guidelines and the Procedures Manual.
- If a customer does not respond to contractor calls, letters, or refuses to communicate with the contractor, then NYSERDA's Program Implementer is advised. Contractors may still be reimbursed for services rendered such as customer education, etc., despite the weatherization job not being fully executed as designed.
- Once a job is completed, the contactor sends all completed forms and an invoice to NYSERDA's Program Implementer for payment processing.
- Jobs are to be completed within 60 days from the date of the initial referral.

- Invoice processing:
  - Invoices that are submitted must follow Invoicing Requirements listed in the EmPower Guidelines and Procedures Manual.
  - The Program Implementer reviews all forms and verifies invoices for accuracy. A standard invoice is used for all contractors.
  - If any discrepancies are found with an invoice, NYSERDA's Program Implementer contacts the contractor directly to resolve the issue.
  - If any forms are not returned or are incomplete, NYSERDA's Program Implementer contacts the contractor directly to resolve the issue.

    - The Program Implementer provides the third-party QA Contractor with information in order to complete QA inspections.
    - If the invoice is submitted correctly, NYSERDA's Program Implementer recommends an approval of the invoice, and then enters final approved costs into NYSERDA's energy savings and costing database ("CRIS"), locking information in place.
    - NYSERDA approves and processes contractor and vendor invoices, arranges payments, and resolves payment issues.
- NYSERDA tracks program expenditures and maintains all payment records. Accounts payable forms and all invoices are maintained for six years.
- Job completion processing:
    - NYSERDA's Program Implementer maintains a file of the following household data:
        - Customer application;
        - Energy usage;
        - Audit forms and work scope documentation;
        - Certificate of Completion; and
        - Required permissions.

All customer inquiries and questions are directed to Distribution's CRC, by calling 1-800-365-3234.

Target Market and Eligibility

The target market for LIURP is all low income residential customers within Distribution's New York service territory. A preferred application status is given to participants

in Distribution's LICAAP. Customers meeting all of the following criteria will be eligible to participate in LIURP:

- HEAP eligible;
- Account is active and the customer has occupied the residence for at least one year;
- Must be an owner or tenant of the residence; and
- Must be a single-family dwelling or a two unit residence if each unit has its own meter.

It should be noted that referrals are made on the basis of consumption, meaning the highest users of natural gas are referred for weatherization services first once the eligibility criteria is met. In addition, if a two unit residence is being considered, both customers individually need to meet the program eligibility requirements.

LIURP participants receive a heating system check, an energy audit, weatherization measures, an infiltration reduction, natural gas usage reduction measures and an energy education.

QA/QC

Distribution has put in place a comprehensive QA/QC plan. The plan functions on a standalone basis, but also is highly integrated into program design, as described above. Standalone QA/QC practices include:

- LIURP and NYSERDA's EmPower program both require contractors to obtain a Building Performance Institute ("BPI") certification. NYSERDA coordinates regional BPI contractor training once per year. NYSERDA also conducts periodic teleconferences with contractors, both scheduled and on an as-needed basis.
- NYSERDA's QA Contractor will perform independent, third-party QA field inspections on approximately 20% of completed jobs. The QA Contractor will also conduct QA

interviews via telephone on an additional 15% of completed jobs. QA activities will be finalized within one month of work completion.

- Distribution reserves the right to communicate with NYSERDA or NYSERDA's QA Contractor and request that specific jobs undergo QA assessments upon job completion.
- NYSERDA will reassess and enhance program procedures on an ongoing basis, ensuring that practices are consistent with standards of the BPI and that best practices are followed by contactors participating in EmPower. Forms, guidelines, software and other materials will be modified as needed. NYSERDA program staff will consult with counsel and the contract management group to ensure that the program is implemented correctly.
- NYSERDA and Distribution will monitor program progress and expenditure levels to ensure that program objectives are met within budget allocations. NYSERDA will conduct weekly meetings with the Program Implementer, and maintain daily contact as needed, to ensure that the program is progressing as required.
- NYSERDA will conduct monthly meetings with the QA Contractor, and maintain daily contact as needed, to ensure that QA procedures are being followed in accordance with the contract, and that QA issues are being resolved.
- NYSERDA and the Program Implementer will meet with contractors on a regular basis, both on-site and by teleconference, to ensure that contractors understand and are following program procedures, while also obtaining feedback regarding the program.
- NYSERDA will conduct periodic reviews of the EmpCalc savings database to verify the accuracy of data entry.

- NYSERDA will develop and process incentives for contractors who participate in the program and become BPI accredited. These incentives will consist of a 75% reimbursement of BPI contractor fees for training, accreditation and QA.
- NYSERDA will collaborate with the Weatherization Assistance Program to ensure consistency between programs and to maximize opportunities for collaboration, thereby allowing for enhanced work scopes.
- At Distribution's request, NYSERDA shall permit Company personnel to monitor and participate in administrative tasks.

Program Budget

The overall LIURP budget, by category, is shown below in Exhibit 16. Distribution expects very few job completions and program expenditures during the first quarter of the calendar year, as Distribution and NYSERDA are jointly focusing on: (1) contracting efforts, (2) payment processing and reporting requirements to close out the previous program year, and (3) customer referrals and enrollment activities to build a robust pipeline of customer jobs for the current year.

Exhibit 16: LIURP Budgets[42]			
	2016	2017	2018
ANNUAL			
Traditional LIURP Incentives and Services	$4,729,100	$4,729,100	$4,729,100
Furnace Replacement Incentives and Services	$250,000	$250,000	$250,000
Program Implementation[43]	$510,900	$510,900	$510,900
TOTAL ANNUAL	$5,490,000	$5,490,000	$5,490,000
CUMULATIVE			
Traditional LIURP Incentives and Services	$4,729,100	$9,458,200	$14,187,300
Furnace Replacement Incentives and Services	$250,000	$500,000	$750,000
Program Implementation	$510,900	$1,021,800	$1,532,700
TOTAL CUMULATIVE	$5,490,000	$10,980,000	$16,470,000

LIURP does not typically have a large number of encumbrances at the end of a program year, as all weatherization jobs for the year are coordinated and tend to be completed on-time. There is usually a lag in getting final results at the immediate conclusion of a program year, as final contractor payments are being processed, and financial information is dependent on books and records being closed for both NYSERDA and Distribution. Final program year numbers are typically completed within the first three to six months of the subsequent program year.

It should be noted that Distribution has earmarked $250,000 of incentives and services funding per year for a low income health and safety furnace replacement initiative, which would begin in 2016 as part of LIURP. This initiative is modeled after the HEAP Heating Equipment Repair and Replacement Program, which historically exhausts funding during the middle of the HEAP season. To the extent that HEAP eligible customers contact Distribution directly about old and inefficient heating equipment, malfunctioning heating equipment, or potential safety concerns, especially during the winter heating season, the Company would be able to have an

[42] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

[43] The "Program Implementation" line item in Exhibit 16 includes an estimate of NYSERDA implementation services, as well as the administration of the QA/QC plan.

HVAC contractor immediately install a high efficiency furnace and programmable thermostat at no cost to the customer. This furnace replacement initiative: (1) augments existing limited health and safety protocols currently in place as part of LIURP and EmPower, (2) supports the primary goal of LIURP, (3) helps prevent emergency situations for customers due to an underfunded portion of HEAP programming or a general lack of available options, and (4) produces energy savings by replacing legacy heating equipment with high efficiency heating equipment that low income customers may not otherwise be able to afford.

Program Participation and Savings Derivation

Exhibit 17 provides a derivation of anticipated program participation levels and program savings for 2016, assuming the full program budget is expended. This derivation analysis was based on savings calculations included in NYSERDA's reports to Distribution. The savings calculations for LIURP are consistent with NYSERDA's statewide EmPower program, and were based on algorithms utilized in NYSERDA's EmpCalc savings database, which is directly informed by the NYTM. For traditional LIURP measures, the average cost per job is based on actual program activity from 2007 (program inception) through the end of calendar year 2014, scaled to the program budget outlined above and inclusive of recommendations from a joint impact evaluation study recently completed with NYSERDA.[44] For the furnace replacement initiative, the average cost per job is based on results achieved from a competitive procurement process.

With respect to Wi-Fi thermostats, a new REV-related measure initiated by Distribution, no historical data was currently available from the program. In addition, when this derivation analysis was prepared, this measure was not currently listed as a standalone measure in the

[44] Case 07-G-0141 – NYSERDA EmPower Program and National Fuel Gas Distribution Corporation's Low Income Usage Reduction Program Impact Evaluation Final Report, filed by Distribution on June 15, 2015.

NYTM. For the purposes of this derivation analysis, Distribution made a facilitating assumption that every LIURP job will prospectively include the installation of a Wi-Fi thermostat. To the extent that Wi-Fi service is not available in a residence, the customer's LIURP job will instead include the installation of a programmable thermostat. For the purpose of valuing energy savings of both Wi-Fi and programmable thermostats, Distribution utilized the programmable thermostat engineering algorithm in the NYTM.

Exhibit 17: LIURP - Participation and Savings Derivation[45]

Job Type	Number of Participants	Average Cost Per Job ($)	Total Cost ($)	Net Per Unit Savings (Dth)	Net Total Savings (Dth)
Traditional LIURP Incentives and Services	1,232.96	$3,835.58	$4,729,100	39.7781	49,044.63
Furnace Replacement Incentives and Services	120.72	$2,070.83	$250,000	21.4037	2,583.95
Total Incentives and Services	**1,353.68**		**$4,979,100**		**51,628.58**

Performance Targets and Anticipated Changes

The primary performance target for this program is total savings, as outlined below in Exhibit 18. Distribution's savings target is based on the derivation analysis described above, NYSERDA's EmpCalc savings database calculations, and engineering algorithms from the NYTM (for the furnace replacement initiative).

Exhibit 18: LIURP - Primary Target - 2016 Through 2018

Program Year	Primary Metric
	Net Total Savings (Dth)
2016	51,628.58
2017	51,628.58
2018	51,628.58

If LIURP changes are to be proposed prospectively for 2017, 2018, or future program years, those changes would be incorporated into future ETIP filings completed by Distribution,

[45] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

in accordance with Staff's Program Cycle Guidance Document. Distribution initially proposed a carbon dioxide equivalent emission reduction target for LIURP in its July 15, 2015 ETIP filing. The Commission's 2016 Energy Efficiency Order determined that carbon dioxide emission reduction was not approved as an "official target" for Distribution's CIP. Instead, the Company will simply track carbon dioxide emission reductions prospectively but does not have an official target to achieve, and does not have a reporting requirement to the Commission, as directed in the 2016 Energy Efficiency Order.[46] Distribution will do so using the EPA's Greenhouse Gas Equivalencies Calculator.[47]

Benefit Cost Analysis

Exhibit 19 and Exhibit 20 summarize the expected benefits, costs, and benefit/cost ratios for LIURP as of July 2015.

Exhibit 19: Summary of Benefits and Costs[48]

LIURP - TRC Test

Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2016	1.23	$6,925,430	$5,635,000
2017	1.23	$6,925,430	$5,635,000
2018	1.23	$6,925,430	$5,635,000
2016-2018	1.23	$20,776,290	$16,905,000

[46] Case 15-M-0252 – 2016 Energy Efficiency Order, at 48.
[47] EPA website, Greenhouse Gas Equivalencies Calculator at: http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results.
[48] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

Exhibit 20: Summary of Benefits and Costs[49] LIURP – TRC Test With Carbon Adder			
Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2016	1.34	$7,533,137	$5,635,000
2017	1.34	$7,533,137	$5,635,000
2018	1.34	$7,533,137	$5,635,000
2016-2018	1.34	$22,599,411	$16,905,000

VIII. Total Portfolio Budget and Target Summary

Exhibit 21 provides a budget summary for Distribution's full CIP portfolio. It should be noted that the Portfolio Administration category includes outreach and education for the full CIP portfolio. In addition, a description of energy efficiency administrative costs that are recovered through base rates has been provided above in the "CIP Overview and High-Level Portfolio Description" section of the Company's ETIP.

[49] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

Exhibit 21: Total Gas Portfolio Budget			
	Year 1 (2016)	**Year 2 (2017)**	**Year 3 (2018)**
Commercial and Industrial Sector			
NRCIP			
Incentives and Services	$598,000	$598,000	$598,000
Program Implementation	$52,000	$52,000	$52,000
Total Program Budget	**$650,000**	**$650,000**	**$650,000**
Residential Sector			
Residential Rebate Program			
Incentives and Services	$2,500,000	$2,500,000	$2,500,000
Program Implementation	$150,000	$150,000	$150,000
Total Program Budget	**$2,650,000**	**$2,650,000**	**$2,650,000**
LIURP			
Incentives and Services	$4,979,100	$4,979,100	$4,979,100
Program Implementation	$510,900	$510,900	$510,900
Total Program Budget	**$5,490,000**	**$5,490,000**	**$5,490,000**
Total Portfolio			
Total Commercial and Industrial Sector	$650,000	$650,000	$650,000
Total Residential Sector	$8,140,000	$8,140,000	$8,140,000
Portfolio Administration[50]	$950,000	$950,000	$950,000
Portfolio EM&V	$300,000	$300,000	$300,000
Total Gas Portfolio Budget	**$10,040,000**	**$10,040,000**	**$10,040,000**

Exhibit 22 provides a metric summary for Distribution's full CIP portfolio. Distribution initially proposed a carbon dioxide equivalent emission reduction target for every program within CIP in its July 15, 2015 ETIP filing. The Commission's 2016 Energy Efficiency Order determined that carbon dioxide emission reduction was not approved as an "official target" for Distribution's CIP. Instead, the Company will simply track carbon dioxide emission reductions prospectively but does not have an official target to achieve, and does not have a reporting

[50] The "Portfolio Administration" line shown in Exhibit 21 represents Outreach and Education for Distribution's total gas portfolio.

requirement to the Commission, as directed in the 2016 Energy Efficiency Order.[51] Distribution will do so using the EPA's Greenhouse Gas Equivalencies Calculator.[52]

Exhibit 22: Total Gas Portfolio Primary Targets			
	Year 1 (2016)	**Year 2 (2017)**	**Year 3 (2018)**
Commercial and Industrial Sector			
NRCIP			
Dth - Primary Metric	172,909.14	172,909.14	172,909.14
Residential Sector			
Residential Rebate Program			
Dth - Primary Metric	120,803.93	120,803.93	120,803.93
LIURP			
Dth - Primary Metric	51,628.58	51,628.58	51,628.58
Total Portfolio			
Dth - Primary Metric	345,341.65	345,341.65	345,341.65

IX. Forecasted Total Portfolio Expenditures and Program Achievements

Exhibit 23 and Exhibit 24 provide an estimate of CIP expenditures and Dth achievements, respectively, for commitment and encumbrance planning purposes.

Exhibit 23: Total Gas Portfolio Forecasted Expenditures - 2016 Through 2018 Program Years				
	Year 1 (2016)	**Year 2 (2017)**	**Year 3 (2018)**	**Year 4 (2019)**
CIP - 2016 Program Year	$9,377,500	$662,500		
CIP - 2017 Program Year		$9,377,500	$662,500	
CIP - 2018 Program Year			$9,377,500	$662,500
Total Portfolio	**$9,377,500**	**$10,040,000**	**$10,040,000**	**$662,500**

Exhibit 24: Total Gas Portfolio Forecasted Dth Achievements - 2016 Through 2018 Program Years				
	Year 1 (2016)	**Year 2 (2017)**	**Year 3 (2018)**	**Year 4 (2019)**
CIP - 2016 Program Year	315,140.67	30,200.98		
CIP - 2017 Program Year		315,140.67	30,200.98	
CIP - 2018 Program Year			315,140.67	30,200.98
Total Portfolio	**315,140.67**	**345,341.65**	**345,341.65**	**30,200.98**

[51] Case 15-M-0252 – 2016 Energy Efficiency Order, at 48.
[52] EPA website, Greenhouse Gas Equivalencies Calculator at: http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results.

X. Total Portfolio Funding

Distribution's cost recovery for CIP programming is achieved by utilizing the Energy Efficiency Tracker Surcharge Rate.[53] The Company supports surcharge mechanisms for the continuation of energy efficiency programs, as they allow for the most transparent and flexible cost recovery approach. In the Commission's 2016 Energy Efficiency Order, utilities were directed to retain unspent EEPS funds, to be considered for future ratepayer benefit.[54] Based on this determination, Distribution has updated the Sources of Funds for Future Programs table, which is provided below as Exhibit 25.

Exhibit 25: Total Gas Portfolio – Sources of Funds for Future Programs[55]

Funding Source	**Year 1 (2016)**	**Year 2 (2017)**	**Year 3 (2018)**
Unspent EEPS 1[56]	$0	$0	$0
Unspent EEPS 2	$0	$0	$0
Unspent EEPS EM&V	$0	$0	$0
CIP Cost Recovery Mechanism ("EE Tracker")	$10,040,000	$10,040,000	$10,040,000
Total Funding	**$10,040,000**	**$10,040,000**	**$10,040,000**

XI. Total Portfolio Benefit Cost Analysis

Exhibit 26 provides Distribution's TRC benefit cost analysis, excluding carbon adders, as of July 2015.

[53] It should be noted that similar volumetric surcharge mechanisms have been supported by the Commission and implemented by Distribution since the inception of CIP in 2007.
[54] Case 15-M-0252 – 2016 Energy Efficiency Order, at 43.
[55] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.
[56] It should be noted that Distribution did not operate an energy efficiency program as part of EEPS 1. The Conservation Incentive Program was a standalone program, authorized in Case 07-G-0141, before EEPS 1 began.

Exhibit 26: Total Gas Portfolio - Total Resource Cost Test[57]			
	Year 1 (2016)	**Year 2 (2017)**	**Year 3 (2018)**
Commercial and Industrial Sector			
NRCIP			
NPV Benefits	$20,874,551	$20,874,551	$20,874,551
NPV Costs	$12,175,948	$12,175,948	$12,175,948
Benefit Cost Ratio	**1.71**	**1.71**	**1.71**
Residential Sector			
Residential Rebate Program			
NPV Benefits	$11,986,752	$11,986,752	$11,986,752
NPV Costs	$6,696,775	$6,696,775	$6,696,775
Benefit Cost Ratio	**1.79**	**1.79**	**1.79**
LIURP			
NPV Benefits	$6,925,430	$6,925,430	$6,925,430
NPV Costs	$5,635,000	$5,635,000	$5,635,000
Benefit Cost Ratio	**1.23**	**1.23**	**1.23**
Total Portfolio			
Total NPV Benefits	$39,786,733	$39,786,733	$39,786,733
Total NPV Costs	$24,507,723	$24,507,723	$24,507,723
Total Gas Portfolio Benefit Cost Ratio	**1.62**	**1.62**	**1.62**

Exhibit 27 provides Distribution's TRC benefit cost analysis, including carbon adders, as of July 2015.

[57] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

Exhibit 27: Total Gas Portfolio - Total Resource Cost Test - With Carbon Adder[58]			
	Year 1 (2016)	**Year 2 (2017)**	**Year 3 (2018)**
Commercial and Industrial Sector			
NRCIP			
NPV Benefits	$22,706,293	$22,706,293	$22,706,293
NPV Costs	$12,175,948	$12,175,948	$12,175,948
Benefit Cost Ratio	**1.86**	**1.86**	**1.86**
Residential Sector			
Residential Rebate Program			
NPV Benefits	$13,038,590	$13,038,590	$13,038,590
NPV Costs	$6,696,775	$6,696,775	$6,696,775
Benefit Cost Ratio	**1.95**	**1.95**	**1.95**
LIURP			
NPV Benefits	$7,533,137	$7,533,137	$7,533,137
NPV Costs	$5,635,000	$5,635,000	$5,635,000
Benefit Cost Ratio	**1.34**	**1.34**	**1.34**
Total Portfolio			
Total NPV Benefits	$43,278,020	$43,278,020	$43,278,020
Total NPV Costs	$24,507,723	$24,507,723	$24,507,723
Total Gas Portfolio Benefit Cost Ratio	**1.77**	**1.77**	**1.77**

XII. EM&V

Distribution and its evaluation contractor have developed a comprehensive EM&V Plan for CIP, which will be continuously refined for the 2016 to 2018 program years. This plan could be expanded to additional program years, as necessary, in accordance with Staff's Program Cycle Guidance Document. A copy of this EM&V Plan was filed as Appendix A to Distribution's July 15, 2015 ETIP filing, in Cases 15-M-0252, 07-M-0548, and 07-G-0141. Exhibit 28 provides a current estimate of Distribution's EM&V activity schedule.

[58] A work paper providing additional detail for this exhibit was provided in response to Staff's data request questions. This process is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

Exhibit 28: EM&V Activity Schedule			
EM&V Activity	**Expected Start Date**	**Expected Completion Date**	**Cycle Year Informed**
Process Evaluation (All Programs)	1/2/2017	9/30/2017	2018
LIURP Impact Evaluation Field Work	10/1/2017	3/31/2018	2020
Residential Rebate Program Impact Evaluation Field Work	10/1/2017	3/31/2018	2020
NRCIP Impact Evaluation Field Work	10/1/2017	3/31/2018	2020
Outreach and Education Impact Evaluation Field Work	4/1/2018	9/30/2018	2020
Impact Evaluation Report (All Programs)	10/1/2017	3/31/2019	2020
TRM Implementation Review and On-Going Support	On-Going	On-Going	All

Exhibit 29 provides an estimate of Distribution's EM&V activity budgets.[59]

Exhibit 29: EM&V Activity Budget			
EM&V Activity	**Year 1 (2016)**	**Year 2 (2017)**	**Year 3 (2018)**
Process Evaluation (All Programs)	$165,000		
LIURP Impact Evaluation Field Work		$90,000	
Residential Rebate Program Impact Evaluation Field Work		$90,000	
NRCIP Impact Evaluation Field Work			$135,000
Outreach and Education Impact Evaluation Field Work			$45,000
Impact Evaluation Report (All Programs)		$20,000	$20,000
TRM Implementation Review and On-Going Support	$135,000	$100,000	$100,000
Total EM&V Budget	**$300,000**	**$300,000**	**$300,000**

XIII. Staff Review of Distribution's ETIP

Staff performed a detailed review of the ETIP Distribution filed on July 15, 2015. As part of that detailed review, the Company was asked a number of data request questions. The responses to these questions contain additional supporting information that was used to develop the Company's ETIP filing. In addition, in some cases, the responses contain Company work papers supporting Exhibits in the Company's ETIP filing. Copies of the questions asked, as well as Distribution's responses to those questions have been filed publicly at Matter Number 15-

[59] An explanation of the 2011 EEPS Order, at 19, which approved an EM&V budget of 5% for each of Distribution's energy efficiency programs, as well as an additional detail supporting Distribution's proposed EM&V budget, is provided in response to Staff's data request questions. This is described in greater detail in the "Staff Review of Distribution's ETIP" section of this ETIP filing.

01945 in the Commission's Document and Matter Management ("DMM") System. The Company makes reference to this matter number to provide transparency as respects a complete record in this proceeding.

XIV. Conclusion

All CIP budgets and targets, as outlined in the Company's July 15, 2015 Budget and Metrics ("BAM") Plan filing in Case 15-M-0252, have been authorized by the Commission in the 2016 Energy Efficiency Order. Implementation detail and support for the authorized budgets and targets are described above in greater detail in this ETIP filing.

Respectfully submitted,

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