



***national fuel***

---

March 21, 2013

Honorable Jaclyn A. Brillig  
Secretary  
New York State Public Service Commission  
Three Empire State Plaza  
Albany, NY 12223

Re: 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

---

Dear Secretary Brillig,

Pursuant to the 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 in the above referenced proceedings ("Order"), attached please find National Fuel Gas Distribution Corporation's Conservation Incentive Program Implementation Plan. This filing is in compliance to the Commission Ordering Paragraph No. 2, page 7, of the Order.

Any questions you may have regarding the attached can be directed to the undersigned at (716) 857-7805 or at [meinle@natfuel.com](mailto:meinle@natfuel.com).

Respectfully submitted,

Eric H. Meinel  
General Manager, Rates & Regulatory Affairs

Attachments

NEW YORK STATE  
PUBLIC SERVICE COMMISSION

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 (“CIP”)  
IMPLEMENTATION PLAN

I. Background

a. Introduction

On August 15, 2012, National Fuel Gas Distribution Corporation (“Distribution” or “the Company”) filed a petition requesting modifications to the budgets of its residential rebate, small non-residential conservation incentive program (“NRCIP”), and its low income usage reduction program (“LIURP”), to more closely align the allocation of Energy Efficiency Portfolio Standard (“EEPS”) resources to current and expected market conditions.<sup>1</sup>

On February 19, 2013, the Commission issued an Order in response to Distribution’s August 15, 2012 petition, authorizing the Company to reallocate budgets and savings targets between its residential rebate program and LIURP, while denying the Company’s request to reallocate budgets from its NRCIP to the Area Development Program (“ADP”).<sup>2</sup> Included in this Order was a requirement that Distribution revises its implementations plans, addressing the

---

<sup>1</sup> Case 07-M-0548 – Petition of National Fuel Gas Distribution Corporation For Program Modifications to the EEPS Programs as Approved in the October 25, 2011 Order Authorizing Efficiency Programs, Revising Incentive Mechanism, and Establishing a Surcharge Schedule, filed on August 15, 2012.

<sup>2</sup> 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.

changes authorized in the Order, within 30 days of the issuance of the Order. This filing is made in compliance with that requirement.

b. Overview of Distribution's CIP

i. Procedural Background

On September 20, 2007, the Commission issued its Order Adopting Conservation Incentive Program ("CIP Order")<sup>3</sup> for National Fuel Gas Distribution Corporation ("Distribution" or "Company"). The CIP program preceded the energy efficiency programs established for other natural gas utilities in New York as required in the EEPS preceding.

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").<sup>4</sup>

On June 28, 2010, the Company filed a request with the Commission for continuation of the CIP. 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").<sup>5</sup>

On July 6, 2011 Department of Public Service Staff ("Staff") issued its EEPS Program Review White Paper ("White Paper"), providing a number of conclusions and recommendations for continuing energy efficiency initiatives established in the Commission's

---

<sup>4</sup> Case 07-G-0141 - Proceeding on the Motion of the Commission as to the Rates, Rules, and Regulations of National Fuel Gas Distribution Corporation for Gas Service, Order Adopting Conservation Incentive Program, issued and effective September 20, 2007.

<sup>4</sup> Case 07-G-0141 – Proceeding on the Motion of the Commission as to the Rates, Rules and Regulations of National Fuel Gas Distribution Corporation for Gas Service, Order Approving the Continuation of National Fuel Gas Distribution Corporation's Conservation Incentive Program with Modifications, issued and effective October 19, 2009.

<sup>5</sup> Case 07-G-0141 - Proceeding on the Motion of the Commission as to the Rates, Rules, and Regulations of National Fuel Gas Distribution Corporation for Gas Service, Order Approving the Continuation of National Fuel Gas Distribution Corporation's Conservation Incentive Program with Modifications, issued and effective November 22, 2010.

EEPS proceeding.<sup>6</sup> Staff recommends that EEPS programs are effective and should continue with modifications.

Included in the White Paper was a recommendation that the Commission consider whether Distribution's Conservation Incentive Program ("CIP") should in whole or in part be incorporated within the EEPS portfolio upon expiration of the currently authorized term.<sup>7</sup>

White Paper at 48. In comments filed with the Commission on August 22, 2011 Distribution agreed with Staff's recommendation that the CIP should be incorporated within the EEPS portfolio.

On October 25, 2011 the Commission issued its Order in this proceeding, among other things, accepting the recommendation that the CIP should be incorporated within the EEPS portfolio ("2011 EEPS Order").<sup>8</sup>

On August 15, 2012, the Company filed a request with the Commission for CIP program modifications, as briefly described above. 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").<sup>9</sup>

---

<sup>6</sup> Case 07-M-0548, Proceeding on Motion of the Commission Regarding and Energy Efficiency Portfolio Standard.

<sup>7</sup> The current term expires on November 30, 2011.

<sup>8</sup> 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. Order Authorizing Efficiency Programs, Revising Incentive Mechanism, and Establishing a Surcharge Schedule; Issued and Effective October 25, 2011; ("2011 EEPS Order").

<sup>9</sup> 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.

ii. Overview of CIP Components

CIP included the following programs: (1) residential natural gas appliance rebates; (2) a small non-residential equipment replacement program; (3) a low income usage reduction program; and (4) an outreach and education component. Upon approval of CIP, Distribution partnered with NYSERDA for the administration of NRCIP and LIURP (through the existing EmPower New York program).

The table below summarizes the spending level approved in each of the Commission’s CIP Orders.

<b>Table 1 - Approved CIP Spending Levels</b>						
	2007 CIP Order		2009 CIP	2010 CIP	2011 EEPS	2012 EEPS
	(two year approval)		Order	Order	Order	Order
	2008	2009	2010	2011	2012 - 2015	2012 - 2015
Low Income Usage Reduction Program (LIURP)	\$2,940,000	\$2,940,000	\$2,940,000	\$3,040,000	\$3,559,295	\$4,618,591
Residential Rebate Program	\$3,400,000	\$3,400,000	\$3,400,000	\$3,500,000	\$3,559,295	\$2,500,001
Small Non-Residential Rebate Program (NRCIP)	\$1,520,000	\$1,520,000	\$1,520,000	\$1,520,000	\$1,515,810	\$1,515,808
Outreach and Education	\$2,940,000	\$2,940,000	\$1,940,000	\$1,500,000	\$903,600	\$903,600
E M & V	\$0	\$0	\$490,000	\$480,000	\$502,000	\$502,000
<b>Total</b>	<b>\$10,800,000</b>	<b>\$10,800,000</b>	<b>\$10,290,000</b>	<b>\$10,040,000</b>	<b>\$10,040,000</b>	<b>\$10,040,000</b>

The 2012 EEPS Order further identified total program costs for the Distribution’s CIP by allocating E M & V and O&E to the three programs as summarized in Table 2 below.

<b>Table 2 - CIP Budget Approved in 2012 EEPS Order</b>				
	Program Budget	E M & V	O & E	Total
Low Income Usage Reduction Program (LIURP)	\$4,618,591	\$258,936	\$301,200	\$5,178,727
Residential Rebate Program	\$2,500,001	\$147,432	\$301,200	\$2,948,633
Small Non-Residential Rebate Program (NRCIP)	\$1,515,808	\$95,632	\$301,200	\$1,912,640
Total	\$8,634,400	\$502,000	\$903,600	\$10,040,000

In the 2012 EEPS Order, the Commission increased the LIURP program budget by approximately \$1.1 million, reduced the residential rebate program budget by approximately \$1.1 million, and essentially held the NRCIP program budget flat. In addition, the E M & V and O & E program budgets continued at the level established in the 2011 EEPS Order.

The following sections of this implementation plan present the implementation plan for each program element: 1) Residential Rebate Program, 2) NRCIP, and 3) LIURP.

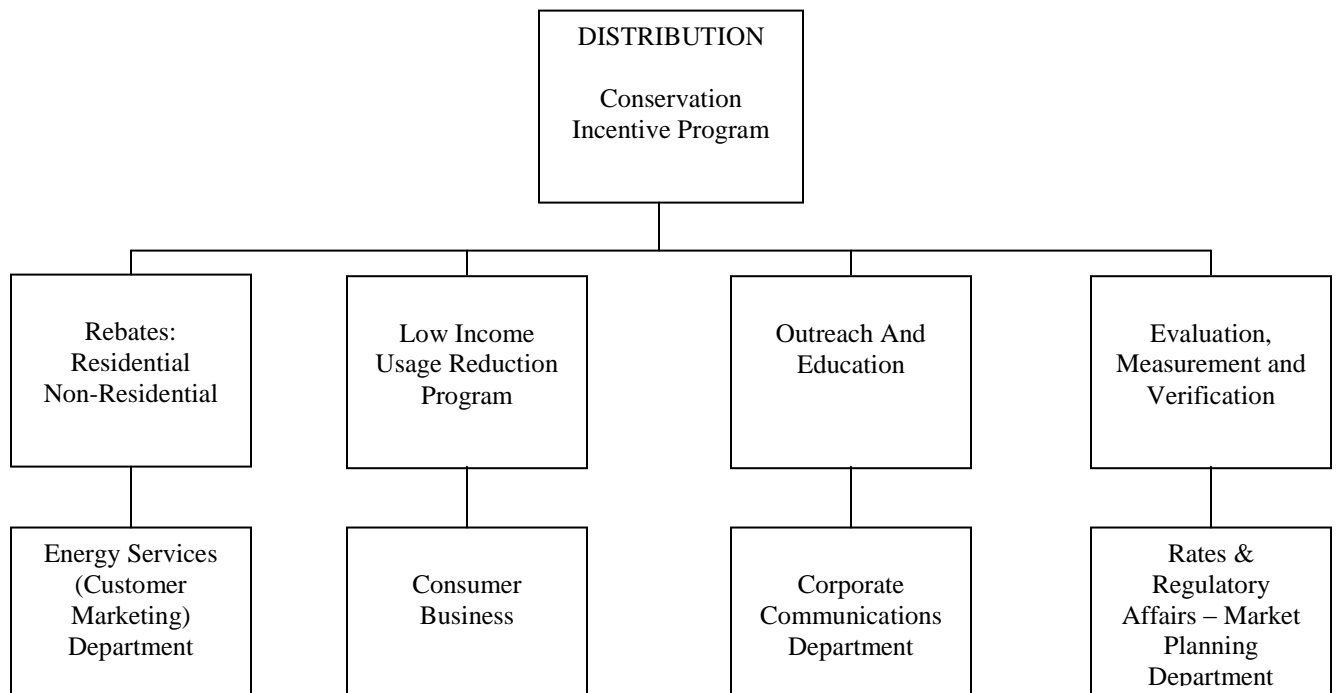
### iii. General Structure of Distribution's Energy Efficiency Initiatives

The Company has integrated its energy efficiency program function within existing departments of the Company. The Company has not created a separate energy efficiency department, but instead has included energy efficiency initiatives in existing departments best prepared to provide such services. The integration of energy efficiency within existing business areas is the best and most economical way to deliver a consistent energy efficiency message to customers and to directly assess the impact of energy efficiency efforts on the operations and planning efforts of the utility. Customers value utilities providing energy efficiency services.<sup>10</sup>

<sup>10</sup> "The utility is seen as housing "the experts" and people look to the utilities for direction and advice";

By integrating energy efficiency initiatives within the appropriate business departments a consistent and thorough energy efficiency message and associated services can be effectively provided to customers. Toward that end, CIP management has been integrated into the specific Company departments highlighted on Figure 1.

**Figure 1: Summary of Company Departments Directly Involved in CIP**



## II. Residential Rebates

### a. Program Overview

#### i. Description

The 2012 EEPS Order continued the existing residential rebate program. The residential program is an equipment replacement program, modeled after a Vermont Gas Systems program, which was cited by the ACEEE, as one of the nation's exemplary natural gas energy efficiency programs. Distribution's program offers equipment replacement rebate incentives for single-family and multi-family dwellings, to encourage them to install high efficiency space heating and water heating appliances. These 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 our customers when they upgrade their appliances. Distribution set minimum efficiency levels for each appliance type based on federal Energy Star and New York State Energy Smart guidelines.

#### ii. Program Goals

The goal of this program is to encourage the installation of high efficiency appliances by customers. The installation of high efficiency appliances was identified by Staff in its fast track<sup>11</sup> proposal as offering one of the greatest potentials for cost effective natural gas energy efficiency initiatives.

### b. Budgets, Energy Savings, & Customer Participation Estimates

The overall residential rebate program identified by budget category is provided in Table 3.

---

<sup>11</sup> Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard; New York State Department of Public Service, Staff Preliminary Proposal for Energy Efficiency Program Design and Delivery; August 28, 2007, p. 101.



<b>Table 3: Residential Rebate Budgets</b>				
	2012	2013	2014	2015
<b>ANNUAL</b>				
Customer Incentives	\$2,348,489	\$2,348,489	\$2,348,489	\$2,348,489
Program Administration	\$151,512	\$151,512	\$151,512	\$151,512
Outreach and Education	\$301,200	\$301,200	\$301,200	\$301,200
E, M, & V	\$147,432	\$147,432	\$147,432	\$147,432
<b>TOTAL ANNUAL</b>	<b>\$2,948,633</b>	<b>\$2,948,633</b>	<b>\$2,948,633</b>	<b>\$2,948,633</b>
<b>CUMULATIVE</b>				
Customer Incentives	\$2,348,489	\$4,696,978	\$7,045,467	\$9,393,956
Program Administration	\$151,512	\$303,024	\$454,536	\$606,048
Outreach and Education	\$301,200	\$602,400	\$903,600	\$1,204,800
E, M, & V	\$147,432	\$294,864	\$442,296	\$589,728
<b>TOTAL CUMULATIVE</b>	<b>\$2,948,633</b>	<b>\$5,897,266</b>	<b>\$8,845,899</b>	<b>\$11,794,532</b>

Table 4 provides the CIPS residential rebate program targets. Rebate targets and associated savings and rebate budget were estimated based on the 9 months of EEPS residential rebate activity available (9 months ended September 2012) scaled to the available 2012-2015 budgets authorized in the 2012 EEPS Order.

<b>Table 4: Residential Rebate Program Targets</b>					
	# Participants	Rebate	Total Rebate	Savings	Net Savings
<b>2012</b>					
<b>I. Space Heating</b>					
Boiler - Hot Water	326.45	\$350.00	\$114,258.30	21.37	6,278.66
Boiler - Steam	14.57	\$200.00	\$2,914.75	17.26	226.39
Furnace >= 90% with ECM	3,526.85	\$350.00	\$1,234,397.71	18.85	59,833.02
Furnace >= 90%	3,328.65	\$250.00	\$832,161.85	18.85	56,470.50
<b>II. Indirect Water Heating</b>	84.53	\$250.00	\$21,131.96	5.73	435.91
<b>III. Programmable Thermostat</b>	5,749.55	\$24.98	\$143,624.43	7.82	40,465.30
<b>Total</b>	<b>13,030.60</b>		<b>\$2,348,489.00</b>		<b>163,709.78</b>
<b>2013</b>					
<b>I. Space Heating</b>					
Boiler - Hot Water	326.45	\$350.00	\$114,258.30	21.37	6,278.66
Boiler - Steam	14.57	\$200.00	\$2,914.75	17.26	226.39
Furnace >= 90% with ECM	3,526.85	\$350.00	\$1,234,397.71	18.85	59,833.02

Furnace >= 90%	3,328.65	\$250.00	\$832,161.85	18.85	56,470.50
II. Indirect Water Heating	84.53	\$250.00	\$21,131.96	5.73	435.91
III. Programmable Thermostat	5,749.55	\$24.98	\$143,624.43	7.82	40,465.30
Total	13,030.60		\$2,348,489.00		163,709.78
2014					
I. Space Heating					
Boiler - Hot Water	326.45	\$350.00	\$114,258.30	21.37	6,278.66
Boiler - Steam	14.57	\$200.00	\$2,914.75	17.26	226.39
Furnace >= 90% with ECM	3,526.85	\$350.00	\$1,234,397.71	18.85	59,833.02
Furnace >= 90%	3,328.65	\$250.00	\$832,161.85	18.85	56,470.50
II. Indirect Water Heating	84.53	\$250.00	\$21,131.96	5.73	435.91
III. Programmable Thermostat	5,749.55	\$24.98	\$143,624.43	7.82	40,465.30
Total	13,030.60		\$2,348,489.00		163,709.78
2015					
I. Space Heating					
Boiler - Hot Water	326.45	\$350.00	\$114,258.30	21.37	6,278.66
Boiler - Steam	14.57	\$200.00	\$2,914.75	17.26	226.39
Furnace >= 90% with ECM	3,526.85	\$350.00	\$1,234,397.71	18.85	59,833.02
Furnace >= 90%	3,328.65	\$250.00	\$832,161.85	18.85	56,470.50
II. Indirect Water Heating	84.53	\$250.00	\$21,131.96	5.73	435.91
III. Programmable Thermostat	5,749.55	\$24.98	\$143,624.43	7.82	40,465.30
Total	13,030.60		\$2,348,489.00		163,709.78
2012-2015					
I. Space Heating					
Boiler - Hot Water	1,305.81	\$350.00	\$457,033.20	21.37	25,114.63
Boiler - Steam	58.30	\$200.00	\$11,659.01	17.26	905.56
Furnace >= 90% with ECM	14,107.40	\$350.00	\$4,937,590.82	18.85	239,332.08
Furnace >= 90%	13,314.59	\$250.00	\$3,328,647.41	18.85	225,882.01
II. Indirect Water Heating	338.11	\$250.00	\$84,527.82	5.73	1,743.64
III. Programmable Thermostat	22,998.18	\$24.98	\$574,497.73	7.82	161,861.21
Total	52,122.39		\$9,393,956.00		654,839.13

### c. Target Market

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. Available for existing homes only, not new construction.

### d. Eligible Efficiency Measures

For Year 6 of the CIP, beginning 1/1/2013, rebates are available on the purchase of the following items:

<b>Table 5: Residential Rebate Summary</b>		
	Required Minimum Efficiency	Rebate Amount
<b>Space Heating</b>		
Hot Air Furnace	90% AFUE <sup>12</sup>	\$250
Hot Air Furnace with ECM	90% AFUE	\$350
Hot Water Boiler	85% AFUE	\$350
Steam Boiler	81% AFUE	\$200
Programmable Thermostat	Energy Star –Rated	\$25
<b>Water Heating</b>		
Indirect Water Heater	N/A	\$250

e. Customer Outreach and Education

Please refer to the Outreach and Education Implementation Plan to be filed with the Commission by Distribution during March 2013.

f. Roles and Responsibilities

The general roles and responsibilities of the departments of the Company directly involved in CIP have been provided in Section I b. iii of this report and Figure 1. The Company’s Energy Services Department is responsible for the overall program administration of the residential rebate program. Outreach and education initiatives related to the residential rebate program are administered by the Company’s Corporate Communications Department.

The Company contracted with Energy Federation Inc. (“EFI”) to administer rebate processing. EFI has more than 15 years experience in administering energy efficiency programs for utilities nationwide.

---

<sup>12</sup> Annual Fuel Utilization Efficiency (“AFUE”) is the most widely used measure of a furnace’s heating efficiency. It measures the amount of heat actually delivered to a house compared to the amount of fuel that must supply the furnace.

g. Procedures for Customer Enrollment

Rebates were processed beginning on December 1, 2007. The following documentation was needed in order to complete the application for a rebate:

<b>Table 6: Customer Rebate Requirements</b>	
Purchased Item	Required Documentation
Furnaces, Boilers, Water Heaters, and Programmable Thermostats	<p>Paid invoice or receipt(s) indicating the retailer/contractor name, business address, phone and Federal ID (tax) number.</p> <p>Itemized description of each product, including:</p> <ol style="list-style-type: none"> <li>1. Manufacturer, and complete model number.</li> <li>2. EF for natural gas water heaters.</li> <li>3. AFUE (efficiency) rating for natural gas furnace or boiler.</li> <li>4. Energy Star rating for Programmable Thermostats.</li> </ol> <p>Product installation date.</p>

h. Contact Information for Customer Inquiries and Complaints

EFI serves as the primary contact point for any customer inquiries or complaints. They maintain a Call Center and a 1-800 phone number to allow customers to contact them directly with respect to these types of issues. Many of the inquiries and complaints are handled directly by EFI, but they also work closely with Distribution if there is an issue which requires Distribution's direction, judgment or interpretation of CIP policies and procedures. This communication is done mainly through e-mails and occasional phone calls, and occurs on an ad-hoc basis, as needed, which can be as often as on a daily basis.

Customers that have submitted a rebate application and have questions about that application call 1-877-285-7824. Customers that have a question, problem or request pertaining to Distribution call the Company's Customer Response Center. In the Buffalo area, that phone number is 716-686-6123 and in all other areas that phone number is 1-800-365-3234.

i. Trade Ally Training

Distribution typically holds an annual training session with the trade allies involved in the residential rebate program, which consists primarily of heating & cooling contractors and plumbing contractors. Due to the mature nature of CIP, high level of awareness and use of CIP by the contractors, and the relative stability of the program design over the past few years, this training has largely been a “refresher session” in which Distribution reviews the eligibility guidelines, program application forms and associated procedures, and answers any questions the contractors may have.

j. Quality Assurance

Distribution has put in place a comprehensive QA plan. This plan is implemented primarily by EFI through several mechanisms to assure that rebates are only given out to qualified customers. EFI screens all applications against a Distribution database to ensure that the applicant is a Distribution customer. They also review the appliance specification sheets and compare the equipment make/model data against an appliance database to ensure it meets the required energy efficiency level, and review the contractor invoice to ensure the 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 the data provided.

EFI also coordinates the process of conducting two additional quality control aspects of the program. First, they work with Conservation Services Group (CSG) to conduct random monthly on-site inspections of equipment installations to verify that the equipment receiving a rebate was actually installed. As of January 21, 2013, 3,372 of these inspections have been completed, which represents approximately a 4% sample of the total rebate population of 78,654

rebates, and no fraudulent claims have been discovered. Second, EFI has conducted a phone survey to a random sample of 2,508 customers through December 2012, to gain their insight into issues such as program awareness source, impact of the rebate on the purchase decision and satisfaction with the rebate process. Regarding program awareness, the top 4 sources of program information to rebate customers were contractors (69%), National Fuel bill inserts (11%), news/newspapers including print ads (9%) and friends/word of mouth (9%). A total of 83% of rebate participants indicated the rebate was important in influencing them to make their equipment upgrade decision. Finally, 95% of rebate customers were satisfied with the overall rebate program process.

k. Coordination with Other New York Energy Efficiency Programs and Program Administrators

Distribution is the primary gas utility in western New York, with only NYSEG offering natural gas service to a small portion of the northern region of western New York. Only two electric utilities, National Grid and NYSEG, offer electric service for most of western New York. Also, Distribution is the only remaining gas-only utility in New York State. Therefore, there has been no real confusion among our customers as to who to contact for natural gas appliance rebates. Through the Outreach and Education component of CIP, the Company has been able to make our customers very aware of our rebates, since program inception. Furthermore, since Distribution doesn't offer any electric appliance rebates, there is no real confusion in this area either. If customers do inquire about electric rebates while contacting us about our gas rebates, either EFI or Distribution's Call Center staff advises customers to contact their appropriate electric utility.

## 1. Evaluation Plans

### i. Overview

The Company will utilize evaluation results and recommendations of its existing program as a starting point for future evaluation efforts. The Company will participate in statewide studies where appropriate as described in greater detail in the following sections.

### ii. Process Evaluation

The Company completed a Process Evaluation report with its evaluation contractor<sup>13</sup> in December 2011. Process evaluation activities proceeded as follows.

Cadmus' process evaluation examined whether the program operated efficiently and effectively, relying on interviews with program and implementation staff at National Fuel, Energy Federation Incorporated (EFI), and CSG to collect information on the following topics:

- Program structure:
  - Logic model
  - Objectives
  - Changes
- Outreach and marketing;
- Participant experience and satisfaction;
- Communication between National Fuel, EFI, and CSG;
- Data collection and reporting;
- Quality assurance;
- Implementation barriers; and

---

<sup>13</sup> The Cadmus Group, Inc. / Energy Services; 720 SW Washington Street, Suite 400; Portland, OR 97205.

- Program strengths and areas for improvement.

Cadmus conducted in-depth interviews in person and via telephone, using a structured interview guide, and obtaining follow-up information and clarifications via telephone or e-mail, as necessary.

Surveys addressed participating trade allies (retailers and contractors) and participating customers. Topics covered during surveys with 15 trade allies include:

- Program awareness;
- Program delivery and implementation;
- Coordination with program staff;
- Reasons for participation;
- Marketing to customers;
- Reasons for customer participation;
- Market barriers and barriers to participation;
- Satisfaction; and
- Identification of potential areas for improvements.

Topics covered during the 70 participant surveys include:

- How customers learned of the program;
- Reasons for participation;
- Value of the program;
- Program delivery;
- Interaction with trade allies;
- Satisfaction levels; and



- Suggestions for program improvements.

iii. Impact Evaluation

Distribution has prepared a pre/post billing analysis of customer consumption for determining savings associated with the program. The proposed pre-post analysis is one of several statistical techniques for determining the savings of energy-efficiency programs. This method involves using monthly—or interval—consumption data to measure program impacts. Cadmus has conducted an assessment of Distribution’s pre post billing analysis. Distribution included a copy of the results of the Cadmus pre post billing analysis in Appendix I of its quarterly CIP status report filed with the Commission on November 15, 2011.<sup>14</sup> The billing analysis does provide solid evidence that customers participating in the Company’s residential rebate program are reducing consumption significantly more than the average customer base. During 2013, Distribution plans to update the pre/post billing analysis with recent program results.

Cadmus’ assessment of Distribution’s proposed pre/post measurement technique considered, at a minimum, the following: whether the technique provides the necessary levels of statistical reliability to generate accurate estimates of savings and whether the analysis is consistent with the approach outlined in Distribution’s evaluation, measurement, and verification plan; whether the method follows accepted industry standards and is consistent with the evaluation guidelines of the PSC Staff; whether the data used in the analysis provide the necessary levels of integrity; and what methods are available to improve effectiveness and reliability.

---

<sup>14</sup> <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={CDD359CA-F0DD-4161-A273-11E5C8111FF7}>.

Distribution is currently participating with other program administrators in a statewide Residential Gas HVAC Program impact evaluation. This project kicked off on October 25, 2012. The Company has provided timely responses to a number of data requests received from Opinion Dynamics, the consultant selected to perform the evaluation. During 2013, the Company plans to continue to provide program information and data, work with the team of joint utilities to further advance the project, and keep the project moving according to schedule.

m. Benefit and Cost Ratios

The following tables summarize the expected benefits, costs, and benefit/cost ratios for the program.

<b>Table 7: Summary of Benefits and Costs</b>			
Total Resource Cost Test After Net to Gross Assumptions			
Residential Rebate Program			
Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2012	1.62	\$18,104,440	\$11,144,969
2013	1.62	\$18,104,440	\$11,144,969
2014	1.62	\$18,104,440	\$11,144,969
2015	1.62	\$18,104,440	\$11,144,969
2012-2015	1.62	\$72,417,760	\$44,579,876

<b>Table 8: Summary of Benefits and Costs</b>			
Total Resource Cost Test After Net to Gross Assumptions w/Carbon Adder			
Residential Rebate Program			
Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2012	1.77	\$19,693,105	\$11,144,969

2013	1.77	\$19,693,105	\$11,144,969
2014	1.77	\$19,693,105	\$11,144,969
2015	1.77	\$19,693,105	\$11,144,969
2012-2015	1.77	\$78,772,420	\$44,579,876

n. Savings Assumptions

Savings assumptions were developed using the current Tec Market manuals summarized in Appendix I of its quarterly CIP status report filed with the Commission on November 15, 2011.<sup>15</sup>

III. NRCIP

a. Program Overview

i. Description

The NRCIP is an equipment replacement program, modeled after a Vermont Gas Systems program that was cited by the ACEEE as an exemplary natural gas energy efficiency program. NRCIP, administered by NYSERDA under its Existing Facilities program, offers equipment replacement pre-qualified and customized rebate incentives, to customers using less than 12,000 Mcf, to promote the installation of high efficiency space heating, water heating and process heating equipment. Customers are also eligible to receive customized rebates for non-equipment replacement changes made to heating, water heating and process heating equipment, such as adding insulation to a process heating oven, or updating controls to a space heating boiler. These custom incentives are set on a case-by-case basis, based upon the estimated resulting gas energy savings. A technical engineering analysis must first be performed to

---

<sup>15</sup> <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={CDD359CA-F0DD-4161-A273-11E5C8111FF7}>.

confirm energy savings. The rebate amount will be \$15 per Mcf multiplied by the estimated gas energy savings, with a cap of \$30,000. The Company contracted with NYSERDA to administer the day-to-day project management of this program.

ii. Program Goals

The goal of the small non-residential rebate program is to provide cost effective incentives to small non-residential customers to utilize natural gas efficiently in their business operations.

b. Budgets, Energy Savings, & Customer Participation Estimates

The overall NRCIP identified by budget category is provided below in Table 9.

	2012	2013	2014	2015
<b>ANNUAL</b>				
Program Direct Customer Benefits	\$1,368,774	\$1,368,774	\$1,368,774	\$1,368,774
NYSERDA Fee	\$121,265	\$121,265	\$121,265	\$121,265
NYSERDA State Assessment	\$25,769	\$25,769	\$25,769	\$25,769
Outreach and Education	\$301,200	\$301,200	\$301,200	\$301,200
E, M, & V	\$95,632	\$95,632	\$95,632	\$95,632
<b>TOTAL ANNUAL</b>	<b>\$1,912,640</b>	<b>\$1,912,640</b>	<b>\$1,912,640</b>	<b>\$1,912,640</b>
<b>CUMULATIVE</b>				
Program Direct Customer Benefits	\$1,368,774	\$2,737,548	\$4,106,322	\$5,475,096
NYSERDA Fee	\$121,265	\$242,530	\$363,795	\$485,060
NYSERDA State Assessment	\$25,769	\$51,538	\$77,307	\$103,076
Outreach and Education	\$301,200	\$602,400	\$903,600	\$1,204,800
E, M, & V	\$95,632	\$191,264	\$286,896	\$382,528
<b>TOTAL CUMULATIVE</b>	<b>\$1,912,640</b>	<b>\$3,825,280</b>	<b>\$5,737,920</b>	<b>\$7,650,560</b>

Tables 10.1 through 10.4 provide NRCIP program targets by year for 2012 through 2015.

Table 10.5 provides a cumulative summary from 2012 through 2015. NRCIP targets, associated savings, and rebate budgets were estimated based on an estimate of customized rebate participation levels, and the 9 months of EEPS NRCIP activity available (9 months ended September 2012) for the fixed rebate measures being offered in the program in 2013, scaled to the available 2012-2015 budgets authorized in the 2012 EEPS Order.

<b>Table 10.1: NRCIP Targets - 2012</b>					
	# Participants	Rebate	Total Rebate	Savings	Net Savings
2012					
Fixed Rebates					
I. Space Heating					
Boiler - Hot Water	185.79	\$2,269.61	\$421,665.14	190.09	31,784.08
Boiler - Steam	9.11	\$2,010.40	\$18,309.19	40.21	329.57
Unit Heater	74.68	\$1,573.17	\$117,483.38	632.71	42,525.60
Furnace	513.65	\$972.13	\$499,331.67	103.19	47,701.85
Subtotal	783.22		\$1,056,789.39		122,341.10
II. Cooking					
	12.75	\$1,035.71	\$13,205.50	49.19	564.41
<b>Total Fixed Rebates</b>	<b>795.97</b>		<b>\$1,069,994.88</b>		<b>122,905.51</b>
Customized Rebates					
I. Space Heating					
Boiler - Hot Water	8.00	\$13,204.80	\$105,638.37	642.78	4,628.03
Boiler - Steam	0.00	\$0.00	\$0.00	0.00	0.00
Unit Heater	1.00	\$10,687.50	\$10,687.50	10,687.50	9,618.75
Furnace	0.00	\$0.00	\$0.00	0.00	0.00
Other	3.00	\$12,291.34	\$36,874.03	539.47	1,456.57
Subtotal	12.00		\$153,199.90		15,703.35
II. Water Heating					
Water Heater - Storage Tank	2.00	\$4,578.25	\$9,156.50	244.28	439.70
Water Heater - Tankless	0.00	\$0.00	\$0.00	0.00	0.00
Subtotal	2.00		\$9,156.50		439.70
III. Process Heating					
	0.00	\$25,000.00	\$0.00	1,217.02	0.00
IV. Programmable Thermostat					
	0.00	\$0.00	\$0.00	0.00	0.00
<b>Total Customized Rebates</b>	<b>14.00</b>		<b>\$162,356.40</b>		<b>16,143.04</b>
<b>Technical Assessment Cost</b>			<b>\$136,422.72</b>		
<b>Total</b>	<b>809.97</b>		<b>\$1,368,774.00</b>		<b>139,048.55</b>

<b>Table 10.2: NRCIP Targets - 2013</b>					
	# Participants	Rebate	Total Rebate	Savings	Net Savings
2013					
Fixed Rebates					
I. Space Heating					
Boiler - Hot Water	185.79	\$2,269.61	\$421,665.14	190.09	31,784.08
Boiler - Steam	9.11	\$2,010.40	\$18,309.19	40.21	329.57
Unit Heater	74.68	\$1,573.17	\$117,483.38	632.71	42,525.60
Furnace	513.65	\$972.13	\$499,331.67	103.19	47,701.85
Subtotal	783.22		\$1,056,789.39		122,341.10
II. Cooking	12.75	\$1,035.71	\$13,205.50	49.19	564.41
<b>Total Fixed Rebates</b>	<b>795.97</b>		<b>\$1,069,994.88</b>		<b>122,905.51</b>
Customized Rebates					
I. Space Heating					
Boiler - Hot Water	8.00	\$13,204.80	\$105,638.37	642.78	4,628.03
Boiler - Steam	0.00	\$0.00	\$0.00	0.00	0.00
Unit Heater	1.00	\$10,687.50	\$10,687.50	10,687.50	9,618.75
Furnace	0.00	\$0.00	\$0.00	0.00	0.00
Other	3.00	\$12,291.34	\$36,874.03	539.47	1,456.57
Subtotal	12.00		\$153,199.90		15,703.35
II. Water Heating					
Water Heater - Storage Tank	2.00	\$4,578.25	\$9,156.50	244.28	439.70
Water Heater - Tankless	0.00	\$0.00	\$0.00	0.00	0.00
Subtotal	2.00		\$9,156.50		439.70
III. Process Heating	0.00	\$25,000.00	\$0.00	1,217.02	0.00
IV. Programmable Thermostat	0.00	\$0.00	\$0.00	0.00	0.00
<b>Total Customized Rebates</b>	<b>14.00</b>		<b>\$162,356.40</b>		<b>16,143.04</b>
<b>Technical Assessment Cost</b>			<b>\$136,422.72</b>		
<b>Total</b>	<b>809.97</b>		<b>\$1,368,774.00</b>		<b>139,048.55</b>

<b>Table 10.3: NRCIP Targets - 2014</b>					
	# Participants	Rebate	Total Rebate	Savings	Net Savings
2014					
Fixed Rebates					
I. Space Heating					
Boiler - Hot Water	185.79	\$2,269.61	\$421,665.14	190.09	31,784.08
Boiler - Steam	9.11	\$2,010.40	\$18,309.19	40.21	329.57
Unit Heater	74.68	\$1,573.17	\$117,483.38	632.71	42,525.60
Furnace	513.65	\$972.13	\$499,331.67	103.19	47,701.85
Subtotal	783.22		\$1,056,789.39		122,341.10
II. Cooking	12.75	\$1,035.71	\$13,205.50	49.19	564.41
<b>Total Fixed Rebates</b>	<b>795.97</b>		<b>\$1,069,994.88</b>		<b>122,905.51</b>
Customized Rebates					
I. Space Heating					
Boiler - Hot Water	8.00	\$13,204.80	\$105,638.37	642.78	4,628.03
Boiler - Steam	0.00	\$0.00	\$0.00	0.00	0.00

Unit Heater	1.00	\$10,687.50	\$10,687.50	10,687.50	9,618.75
Furnace	0.00	\$0.00	\$0.00	0.00	0.00
Other	3.00	\$12,291.34	\$36,874.03	539.47	1,456.57
Subtotal	12.00		\$153,199.90		15,703.35
<b>II. Water Heating</b>					
Water Heater - Storage Tank	2.00	\$4,578.25	\$9,156.50	244.28	439.70
Water Heater - Tankless	0.00	\$0.00	\$0.00	0.00	0.00
Subtotal	2.00		\$9,156.50		439.70
III. Process Heating	0.00	\$25,000.00	\$0.00	1,217.02	0.00
IV. Programmable Thermostat	0.00	\$0.00	\$0.00	0.00	0.00
<b>Total Customized Rebates</b>	<b>14.00</b>		<b>\$162,356.40</b>		<b>16,143.04</b>
<b>Technical Assessment Cost</b>			<b>\$136,422.72</b>		
<b>Total</b>	<b>809.97</b>		<b>\$1,368,774.00</b>		<b>139,048.55</b>

<b>Table 10.4: NRCIP Targets - 2015</b>					
	# Participants	Rebate	Total Rebate	Savings	Net Savings
2015					
Fixed Rebates					
I. Space Heating					
Boiler - Hot Water	185.79	\$2,269.61	\$421,665.14	190.09	31,784.08
Boiler - Steam	9.11	\$2,010.40	\$18,309.19	40.21	329.57
Unit Heater	74.68	\$1,573.17	\$117,483.38	632.71	42,525.60
Furnace	513.65	\$972.13	\$499,331.67	103.19	47,701.85
Subtotal	783.22		\$1,056,789.39		122,341.10
II. Cooking	12.75	\$1,035.71	\$13,205.50	49.19	564.41
<b>Total Fixed Rebates</b>	<b>795.97</b>		<b>\$1,069,994.88</b>		<b>122,905.51</b>
Customized Rebates					
I. Space Heating					
Boiler - Hot Water	8.00	\$13,204.80	\$105,638.37	642.78	4,628.03
Boiler - Steam	0.00	\$0.00	\$0.00	0.00	0.00
Unit Heater	1.00	\$10,687.50	\$10,687.50	10,687.50	9,618.75
Furnace	0.00	\$0.00	\$0.00	0.00	0.00
Other	3.00	\$12,291.34	\$36,874.03	539.47	1,456.57
Subtotal	12.00		\$153,199.90		15,703.35
II. Water Heating					
Water Heater - Storage Tank	2.00	\$4,578.25	\$9,156.50	244.28	439.70
Water Heater - Tankless	0.00	\$0.00	\$0.00	0.00	0.00
Subtotal	2.00		\$9,156.50		439.70
III. Process Heating	0.00	\$25,000.00	\$0.00	1,217.02	0.00
IV. Programmable Thermostat	0.00	\$0.00	\$0.00	0.00	0.00
<b>Total Customized Rebates</b>	<b>14.00</b>		<b>\$162,356.40</b>		<b>16,143.04</b>
<b>Technical Assessment Cost</b>			<b>\$136,422.72</b>		
<b>Total</b>	<b>809.97</b>		<b>\$1,368,774.00</b>		<b>139,048.55</b>

<b>Table 10.5: NRCIP Targets - 2012 to 2015</b>					
	# Participants	Rebate	Total Rebate	Savings	Net Savings
2012-2015					
Fixed Rebates					
I. Space Heating					
Boiler - Hot Water	743.15	\$2,269.61	\$1,686,660.58	190.09	127,136.34
Boiler - Steam	36.43	\$2,010.40	\$73,236.77	40.21	1,318.26
Unit Heater	298.72	\$1,573.17	\$469,933.51	632.71	170,102.40
Furnace	2,054.59	\$972.13	\$1,997,326.70	103.19	190,807.39
Subtotal	3,132.89		\$4,227,157.55		489,364.38
II. Cooking	51.00	\$1,035.71	\$52,821.98	49.19	2,257.65
<b>Total Fixed Rebates</b>	<b>3,183.89</b>		<b>\$4,279,979.54</b>		<b>491,622.03</b>
Customized Rebates					
I. Space Heating					
Boiler - Hot Water	32.00	\$13,204.80	\$422,553.47	642.78	18,512.11
Boiler - Steam	0.00	\$0.00	\$0.00	0.00	0.00
Unit Heater	4.00	\$10,687.50	\$42,750.00	10,687.50	38,475.00
Furnace	0.00	\$0.00	\$0.00	0.00	0.00
Other	12.00	\$12,291.34	\$147,496.11	539.47	5,826.29
Subtotal	48.00		\$612,799.58		62,813.39
II. Water Heating					
Water Heater - Storage Tank	8.00	\$4,578.25	\$36,626.00	244.28	1,758.78
Water Heater - Tankless	0.00	\$0.00	\$0.00	0.00	0.00
Subtotal	8.00		\$36,626.00		1,758.78
III. Process Heating	0.00	\$25,000.00	\$0.00	1,217.02	0.00
IV. Programmable Thermostat	0.00	\$0.00	\$0.00	0.00	0.00
<b>Total Customized Rebates</b>	<b>56.00</b>		<b>\$649,425.58</b>		<b>64,572.17</b>
<b>Technical Assessment Cost</b>			<b>\$545,690.88</b>		
<b>Total</b>	<b>3,239.89</b>		<b>\$5,475,096.00</b>		<b>556,194.21</b>

c. Target Market

Distribution's program will offer equipment replacement customized rebate incentives to non-residential customers using less than 12,000 Mcf annually.

d. Eligible Efficiency Measures

Rebates are available for small, non-residential customers whose facilities use less than 12,000 Mcf (thousand cubic feet) of natural gas per year for upgrading to more energy-efficient equipment.



Customers may choose from one of two rebate options:

- (1) Fixed (Pre-Qualified) Rebate – Fixed rebates are available on pre-qualified equipment. A current listing of the rebates available, based on equipment type, efficiency, and equipment size is provided in Appendix A, at the end of this filing.
- (2) Customized (Performance-Based) Rebate – Rebates are determined on a case-by-case basis, based on the results of an energy-use analysis. The rebate amount will be \$15 per Mcf multiplied by the estimated gas energy savings, with a cap of \$30,000. This may result in a larger rebate than if the customer were to receive a fixed rebate.

e. Customer Outreach and Education

Please refer to the Outreach and Education Implementation Plan to be filed with the Commission by Distribution during March 2013.

f. Roles and Responsibilities

The general roles and responsibilities of the departments of the Company directly involved in CIP have been provided in Section I. b. iii of this report and Figure 1. The Company's Energy Services Department is responsible for the overall program administration of NRCIP. Outreach and education initiatives related to NRCIP are administered by the Company's Corporate Communications Department.

NYSERDA will monitor program progress and expenditure levels to ensure that program objectives are met within budget allocations. NYSERDA will discuss by teleconference as needed with NYSERDA's TA Contractors, to ensure that contractors understand and are following program procedures, and to obtain feedback regarding the program. NYSERDA will conduct periodic reviews of the database to ensure quality of data entry and will provide Distribution with project data obtained on the application. NYSERDA will promote

Distribution's programs in energy efficiency workshops/seminars/conferences located in the Company's service territory. At Distribution's request, NYSERDA shall permit Company personnel to monitor and participate in administrative tasks.

Members of Distribution's Consumer Business Department meet via teleconference on a bi-weekly basis with NYSERDA and the Program Implementer. The goal of the meetings are to maintain an open dialog with NYSERDA and the Program Implementer to ensure the attainment of program goals. In each meeting, the Program Implementer provides an update on production status, contractor assignments and referrals.

g. Procedures for Customer Enrollment

- NYSERDA Application In-Take and Review:
  - Upon receipt of a completed Application (includes application and technical engineering study) NYSERDA assigns the gas energy project and sends a copy of the application to a NYSERDA TA Contractor.
  - NYSERDA will enter data into the Buildings Portal Database to track the energy project.
- NYSERDA's TA Contractor will perform the following:
  - Reviews the application for completeness and eligibility, and will review the engineering study for technical merit.
  - Will contact customer and/or contractor to conduct a pre-installation site visit to verify existing conditions.
  - Will provide NYSERDA with written correspondence on the application, summarizing the gas energy project and providing NYSERDA with a recommendation of the potential gas energy savings and financial incentive.
  - Will provide NYSERDA with a scope of work and budget to complete all phases related to the gas project.
- NYSERDA Offers Purchase Order:
  - NYSERDA will review the TA Contractor's recommendation and, if approved, will request Distribution to send correspondence via an approval memorandum to the customer. In the alternative, NYSERDA may itself send such correspondence on letterhead supplied to NYSERDA by Distribution.

- NYSERDA will develop a purchase order to contractually secure the financial incentives available for the gas energy project and offer a purchase order to the customer for their approval and signature.
  - NYSERDA will review the scope of work and budget and modify the existing TA Contractor's contract.
  - NYSERDA will update the data of the project in the Buildings Portal Database.
- Customer Completes Construction:
    - NYSERDA's TA Contractor will conduct a post-installation site-inspection of the energy project to verify that the energy project is completed and the same equipment and efficiency ratings specified in the application was installed.
    - NYSERDA's TA Contractor will provide NYSERDA with correspondence in writing with a recommendation of the potential gas energy savings and financial incentives and notify any changes to the project.
    - NYSERDA will request Distribution to provide the customer with correspondence in writing indicating the amount of financial incentive that the customer can invoice. In the alternative, NYSERDA may send such correspondence on letterhead supplied to NYSERDA by Distribution.
    - NYSERDA will update the data of the project in the Buildings Portal Database.
  - Invoice Processing:
    - NYSERDA will review all invoices for accuracy, and if acceptable NYSERDA will process the invoice for payment following their prompt payment policy.

#### h. Contact Information for Customer Inquiries and Complaints

NYSERDA serves as the primary contact point for any customer inquiries or complaints.

They maintain a call center and a 1-800 phone number to allow customers to contact them directly. Many of the inquiries and complaints are handled directly by NYSERDA, but they also work closely with Distribution if there is an issue which requires the Company's direction, judgment or interpretation of CIP 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 1-800-365-3234 to learn more about the basics of NRCIP.

i. Trade Ally Training

Distribution typically holds training sessions with trade allies involved in NRCIP, which consists primarily of heating & cooling contractors, mechanical contractors and energy services companies (“ESCOS”), and the Company plans to continue to hold training sessions in the future. Due to the changing nature of NRCIP, relatively low levels of awareness and use of the program by contractors, and the changing nature of the program design over the past few years, these training sessions have largely been focused on educating the trade allies on the two types of rebates, pre-qualified and performance-based, reviewing in detail program application forms and associated procedures, and answering any questions contractors may have.

Distribution currently plans to hold a training session again in 2013. This year’s session will be particularly important due to three reasons. First, Distribution received an approval on November 7, 2012, to alter NRCIP pre-qualified rebates slightly, in order to keep them in line with changes NYSEDA made to similar gas rebates.<sup>16</sup> Second, NYSEDA is now required to process all their funding through the new NY Consolidated Funding Application (“CFA”), which involves a much longer and more detailed set of questions than used to be required for customers to receive a rebate. Third, Distribution is currently in the RFP process for a NRCIP Outreach Coordinator, which will be the main point of contact for smaller commercial customers seeking information and assistance in navigating through the rebate program. Distribution currently plans to bring the NRCIP Outreach Coordinator on board during spring 2013. Additional information on the NRCIP Outreach Coordinator is contained within the Company’s Outreach

---

<sup>16</sup> <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={68FEC17A-C66C-4182-8D3B-4697344ECDDD}>

and Education Implementation Plan, which will be filed with the Commission during March 2013. These three topical areas, along with any anticipated changes for Year 7 of NRCIP, would need to be communicated to the various trade allies to assist them in promoting NRCIP to our customers, increasing the program's acceptance and usage.

j. Quality Assurance

Distribution has put in place a comprehensive QA plan. This plan is implemented primarily by NYSERDA through several mechanisms to assure that rebates are only given out to qualified customers. For pre-qualified rebates, NYSERDA coordinates the application review process with several Technical Assessment ("TA") contractors they have retained. These TAs are engineering firms who review the equipment specification sheets to ensure that a job meets the required energy efficiency level. TAs also review the contractor invoice to ensure the 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 the data provided. NYSERDA also coordinates with these TAs to perform a random, on-site inspection of approximately 5% of the 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.

For performance-based rebates, NYSERDA uses these same TAs to do a more detailed review of the application. First, the TA visits the customer's site to confirm what equipment is currently installed. They then review the customer's estimated energy savings analysis for the proposed new equipment to be installed, based on their application, to confirm that the assumptions and calculations used to estimate the energy savings are accurate. They also review the customer's estimated project cost data to ensure this is reasonable as well. The TAs then

review the equipment specification sheets to ensure that makes and models meet the required energy efficiency level. Any flaws or missing information found in the application are turned back to the customer for additional information or clarification, and then are either approved or rejected based on the data provided. If approved, the TA informs the customer of the final rebate amount based on their technical review. Finally, after the new equipment has been installed, the TAs make another on-site visit to confirm the equipment stated on the application was actually installed.

k. Coordination with Other New York Energy Efficiency Programs and Program Administrators

Distribution has contracted with NYSERDA to administer NRCIP. This contractual relationship provides NYSERDA with the opportunity to coordinate NRCIP with additional services (including electric efficiency initiatives) available to the customer through additional measures included in NYSERDA's overall portfolio of energy efficiency programs.

l. Evaluation Plans

i. Overview

The Company will utilize evaluation results and recommendations of its existing program as a starting point for future evaluation efforts. The Company will participate in statewide studies where appropriate as described in greater detail in the following sections.

ii. Process Evaluation

The Company completed a Process Evaluation report with its evaluation contractor<sup>17</sup> in December 2011. Process evaluation activities proceeded as follows.

---

<sup>17</sup> The Cadmus Group, Inc. / Energy Services; 720 SW Washington Street, Suite 400; Portland, OR 97205.

Cadmus' process evaluation examined whether the program operates efficiently and effectively, primarily relying on interviews with program and implementation staff at National Fuel, NYSERDA, and two TA contractors, collecting information about the following topics:

- Program structure:
  - Logic model
  - Objectives
  - Changes
- Outreach and marketing;
- Participant experience and satisfaction;
- Communication between National Fuel, NYSERDA, and the technical assistance contractors;
- Data collection and reporting;
- Quality assurance;
- Implementation barriers; and
- Program strengths and areas for improvement.

Cadmus conducted in-depth interviews in person and by telephone, using structured interview guides, and obtained follow-up information and clarification via telephone or e-mail, as necessary.

### iii. Impact Evaluation

Distribution has received confirmation from NYSERDA that a joint impact analysis of NRCIP could be completed in the future, when NYSERDA is ready to initiate the project. The Company is looking forward to this collaborative opportunity. Since NRCIP is very similar to

NYSERDA’s Existing Facilities program, a joint impact analysis would provide for an efficient use of resources.

If a joint impact analysis cannot be completed with NYSERDA, the Company will continue to explore participating in statewide impact studies of the small commercial marketplace, where such studies are determined to be cost effective. If there is no opportunity to participate in statewide studies to determine the impact of this program, the Company will develop an individual impact study proposal.

Distribution is also considering using its evaluation contractor to complete a review of NYSERDA’s impact analysis for the Existing Facilities program, when an analysis is completed and information is available, to assess its applicability to NRCIP.

m. Benefit Cost Ratios

<b>Table 11: Summary of Benefits and Costs</b>			
Total Resource Cost Test After Net to Gross Assumptions			
NRCIP			
Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2012	2.96	\$14,955,150	\$ 5,047,808
2013	2.96	\$14,955,150	\$ 5,047,808
2014	2.96	\$14,955,150	\$ 5,047,808
2015	2.96	\$14,955,150	\$ 5,047,808
2012-2015	2.96	\$59,820,600	\$ 20,191,232



<b>Table 12: Summary of Benefits and Costs</b>			
Total Resource Cost Test After Net to Gross Assumptions w/Carbon Adder			
NRCIP			
Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2012	3.22	\$16,267,465	\$ 5,047,808
2013	3.22	\$16,267,465	\$ 5,047,808
2014	3.22	\$16,267,465	\$ 5,047,808
2015	3.22	\$16,267,465	\$ 5,047,808
2012-2015	3.22	\$65,069,860	\$ 20,191,232

n. Savings Assumptions

The savings assumptions for the NRCIP were derived from savings assumptions included in NYSERDA’s reports to Distribution. NYSERDA utilizes estimated savings from its deemed savings database. NYSERDA is in the process of incorporating into its savings assumptions the currently effective Tec Market Manual. Once NYSERDA has completed this process and updated its savings assumptions for its programs, the Company will update its savings assumptions.

IV. LIURP

a. Program Overview

i. Description

LIURP is a weatherization program for low-income customers. Participants receive a heating system check, an energy audit, weatherization measures, an 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 be evaluated for electric reduction measures to be paid for by NYSERDA with System Benefits Charge (“SBC”) funds.

ii. Program Goal

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 pay delinquencies and the costs associated with uncollectible accounts, late payment collections, and termination of service expenses. Measures installed as part of the program will be cost effective and will pay for themselves through energy savings over a specified time frame.

b. Budgets, Energy Savings, & Customer Participation Estimates

The overall LIURP identified by budget category is provided in Table 13.

<b>Table 13: LIURP Budgets</b>				
	2012	2013	2014	2015
<b>ANNUAL</b>				
Program Direct Customer Benefits	\$3,859,149	\$3,859,149	\$3,859,149	\$3,859,149
NYSERDA Fee	\$369,487	\$369,487	\$369,487	\$369,487
NYSERDA State Assessment	\$78,516	\$78,516	\$78,516	\$78,516
NYSERDA Contractor	\$213,558	\$213,558	\$213,558	\$213,558
NYSERDA QA	\$97,881	\$97,881	\$97,881	\$97,881
Outreach and Education	\$301,200	\$301,200	\$301,200	\$301,200
E, M, & V	\$258,936	\$258,936	\$258,936	\$258,936
<b>TOTAL ANNUAL</b>	<b>\$5,178,727</b>	<b>\$5,178,727</b>	<b>\$5,178,727</b>	<b>\$5,178,727</b>
<b>CUMULATIVE</b>				
Program Direct Customer Benefits	\$3,859,149	\$7,718,298	\$11,577,447	\$15,436,596
NYSERDA Fee	\$369,487	\$738,974	\$1,108,461	\$1,477,948
NYSERDA State Assessment	\$78,516	\$157,032	\$235,548	\$314,064
NYSERDA Contractor	\$213,558	\$427,116	\$640,674	\$854,232
NYSERDA QA	\$97,881	\$195,762	\$293,643	\$391,524

Outreach and Education	\$301,200	\$602,400	\$903,600	\$1,204,800
E, M, & V	\$258,936	\$517,872	\$776,808	\$1,035,744
<b>TOTAL CUMULATIVE</b>	<b>\$5,178,727</b>	<b>\$10,357,454</b>	<b>\$15,536,181</b>	<b>\$20,714,908</b>

Table 14 provides LIURP program targets by year for 2012 through 2015. LIURP targets, associated savings, and rebate budgets were estimated based on the 9 months of EEPS LIURP activity available (9 months ended September 2012) scaled to the available 2012-2015 budgets authorized in the 2012 EEPS Order.

<b>Table 14: LIURP Targets</b>					
	# Participants	Average Cost of Measures	Total Measures	Savings	Net Savings
<b>2012</b>					
Conservation Measures					
Audit Fee/Education	980.28	\$355.65	\$348,640.72	0.00	0.00
Insulation	763.12	\$3,316.33	\$2,530,743.85	51.74	35,534.84
Air Sealing	793.56	\$457.97	\$363,426.10	7.17	5,118.16
Heating System Repair/Replacement	606.84	\$293.86	\$178,323.68	1.04	568.08
Thermostats	168.45	\$108.76	\$18,320.88	7.58	1,148.94
DHW Improvements	26.38	\$278.23	\$7,340.94	0.00	0.00
Showerheads	133.95	\$18.79	\$2,516.66	0.82	98.64
Pipe Wrapping	16.24	\$12.25	\$198.90	0.13	1.83
Other	840.24	\$487.52	\$409,637.27	0.14	109.60
<b>Total</b>	<b>4,329.06</b>		<b>\$3,859,149.00</b>		<b>42,580.07</b>
<b>2013</b>					
Conservation Measures					
Audit Fee/Education	980.28	\$355.65	\$348,640.72	0.00	0.00
Insulation	763.12	\$3,316.33	\$2,530,743.85	51.74	35,534.84
Air Sealing	793.56	\$457.97	\$363,426.10	7.17	5,118.16
Heating System Repair/Replacement	606.84	\$293.86	\$178,323.68	1.04	568.08
Thermostats	168.45	\$108.76	\$18,320.88	7.58	1,148.94
DHW Improvements	26.38	\$278.23	\$7,340.94	0.00	0.00
Showerheads	133.95	\$18.79	\$2,516.66	0.82	98.64
Pipe Wrapping	16.24	\$12.25	\$198.90	0.13	1.83
Other	840.24	\$487.52	\$409,637.27	0.14	109.60
<b>Total</b>	<b>4,329.06</b>		<b>\$3,859,149.00</b>		<b>42,580.07</b>
<b>2014</b>					
Conservation Measures					
Audit Fee/Education	980.28	\$355.65	\$348,640.72	0.00	0.00
Insulation	763.12	\$3,316.33	\$2,530,743.85	51.74	35,534.84
Air Sealing	793.56	\$457.97	\$363,426.10	7.17	5,118.16

Heating System Repair/Replacement	606.84	\$293.86	\$178,323.68	1.04	568.08
Thermostats	168.45	\$108.76	\$18,320.88	7.58	1,148.94
DHW Improvements	26.38	\$278.23	\$7,340.94	0.00	0.00
Showerheads	133.95	\$18.79	\$2,516.66	0.82	98.64
Pipe Wrapping	16.24	\$12.25	\$198.90	0.13	1.83
Other	840.24	\$487.52	\$409,637.27	0.14	109.60
<b>Total</b>	<b>4,329.06</b>		<b>\$3,859,149.00</b>		<b>42,580.07</b>
<b>2015</b>					
Conservation Measures					
Audit Fee/Education	980.28	\$355.65	\$348,640.72	0.00	0.00
Insulation	763.12	\$3,316.33	\$2,530,743.85	51.74	35,534.84
Air Sealing	793.56	\$457.97	\$363,426.10	7.17	5,118.16
Heating System Repair/Replacement	606.84	\$293.86	\$178,323.68	1.04	568.08
Thermostats	168.45	\$108.76	\$18,320.88	7.58	1,148.94
DHW Improvements	26.38	\$278.23	\$7,340.94	0.00	0.00
Showerheads	133.95	\$18.79	\$2,516.66	0.82	98.64
Pipe Wrapping	16.24	\$12.25	\$198.90	0.13	1.83
Other	840.24	\$487.52	\$409,637.27	0.14	109.60
<b>Total</b>	<b>4,329.06</b>		<b>\$3,859,149.00</b>		<b>42,580.07</b>
<b>2012-2015</b>					
Conservation Measures					
Audit Fee/Education	3,921.12	\$355.65	\$1,394,562.88	0.00	0.00
Insulation	3,052.47	\$3,316.33	\$10,122,975.42	51.74	142,139.37
Air Sealing	3,174.24	\$457.97	\$1,453,704.40	7.17	20,472.63
Heating System Repair/Replacement	2,427.36	\$293.86	\$713,294.71	1.04	2,272.30
Thermostats	673.82	\$108.76	\$73,283.54	7.58	4,595.75
DHW Improvements	105.54	\$278.23	\$29,363.75	0.00	0.00
Showerheads	535.81	\$18.79	\$10,066.64	0.82	394.55
Pipe Wrapping	64.95	\$12.25	\$795.59	0.13	7.31
Other	3,360.96	\$487.52	\$1,638,549.07	0.14	438.39
<b>Total</b>	<b>17,316.25</b>		<b>\$15,436,596.00</b>		<b>170,320.29</b>

c. Target Market

Customers meeting the following criteria will be eligible to participate in the Company's

LIURP:

- Preferred status to participants in Low Income Customer Affordability Assistance Program ("LICAAP").
- Income less than or equal to 60% New York State median income (HEAP eligible).
- Active account and residency in the premises for at least one year prior to weatherization.

- High consumption – referrals are made starting with 180 – 200+ Mcf or thousand cubic feet per year; minimum referrals are based on 132 Mcf, adjusted for normal weather; currently the minimum referral is set at 112 Mcf, with this adjustment taken into account.
- Owners and tenants eligible.
- Must be a single-family dwelling or two units if each has its own meter and both meet eligibility requirements.

d. Eligible Efficiency Measures

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

e. Customer Outreach and Education

Please refer to the Outreach and Education Implementation Plan to be filed with the Commission by Distribution during March 2013.

f. Roles and Responsibilities

The general roles and responsibilities of the departments of the Company directly involved in CIP have been provided in Section I. B .iii of this report and Figure 1. The Company’s Consumer Business Department is responsible for the overall program administration of LIURP. Outreach and education initiatives related to LIURP are administered by the Company’s Corporate Communications Department.

NYSERDA will reassess and enhance program procedures on an ongoing basis, ensuring that practices are consistent with standards of the Building Performance Institute (“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 Contract Management as needed to ensure that the program is implemented correctly.

NYSERDA 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 weekly and 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 obtaining feedback regarding the program.

NYSERDA will conduct an annual review of pricing to ensure that fees are appropriate, and provide financial support to the New York State Weatherization Directors Association for their bulk purchase bidding procedure. NYSERDA will ensure that appliance pricing is consistent with this bid.

NYSERDA will conduct periodic reviews of the database to ensure quality 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 75% reimbursement of BPI contractor fees for training, accreditation and quality assurance.

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.

NYSERDA will modify energy efficiency and financial management workshops currently provided in Distribution's service territory to include information related to the Company's low income programs.

At Distribution's request, NYSERDA shall permit Company personnel to monitor and participate in administrative tasks.

NYSERDA will use its best efforts to accommodate an interface platform with Distribution's customer information systems to assure the proper transfer of customer information necessary to perform the obligations hereunder.

- g. Procedures for Customer Enrollment
- Distribution generates referrals from:
    - LICAAP
    - HEAP status/consumption report
    - CAC/Outside Agencies/Other
  - Distribution screens for:
    - 12-month consumption history (Ideally, 180-200+ Mcf initially).
  - NYSERDA Program Implementer screens for eligibility:
    - NYSERDA's Program Implementer is sending a cover letter from Distribution with a LIURP/EmPower application to each potential participant. A second application will be sent if the first is not returned within a reasonable time frame.
    - Upon receipt of 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

funded through the SBC, 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 requirements and soliciting landlord participation. Upon receipt of a satisfactory landlord agreement, the customer may be accepted for energy services.
- If the customer resides in a multi-family home (three units or greater), the customer will be ineligible for gas efficiency measures.
- 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 referring office/agency reason(s) why customer not eligible, if the referral was from Distribution or an outside agency.
- If above criteria are met for eligibility, NYSERDA's Program Implementer performs the following:
  - Assigns the customer to a participating contractor. Assignments will be made on the basis of current backlog, contractor availability and past performance.
  - Sends a letter, on Distribution letterhead, to the customer informing them of their acceptance and providing contact information for the assigned contractor.
- When the customer is eligible for weatherization, NYSERDA's Program Implementer will:



- Enter relevant customer data into the EmPower database, including county designations and other information required by Distribution.
- Enter a weatherization-approved status.
- Once work is in progress:
  - Distribution has access to the EmPower database. Distribution has access to screens/reports to identify, among other things, placed jobs that have yet to be picked up by contractors as well as the status of any placed jobs. Distribution has the ability to retrieve customer energy services 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, contractor, home phone number, account number, meter number, mailing address, mailing city, mailing zip, and the date a job was sent to a contractor.
  - NYSERDA's Program Implementer is administering customer interactions/document procurements (letters sent to Distribution's customers on Distribution letterhead), including:
    - Customer Acceptance Letter
    - CIP/EmPower 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.
    - Inspection and measurement for insulation.
    - Health and safety checks, such as ambient CO testing and gas leak checks.
    - Energy education.
    - Instrumented audit and documentation on EmPower forms.
    - Discussion of work scope with an appropriate household member.
    - Determines if a household is eligible for SBC-funded measures, or even the installation of minor electric reduction measures, such as compact fluorescent light bulbs and evaluation of electric appliances.
  - If furnace problems are identified, a contractor follows the appropriate emergency and referral procedures, as outlined in Section 5 of 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 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 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 or letters, the contractor advises NYSERDA's Program Implementer. (The contractor may be reimbursed for services rendered such as customer education, etc., despite the weatherization job not being completed. Reasons why a job may not have been completed could include customer not getting back to contractor, among others.)
- Once a job is completed, the contractor sends all completed forms and an invoice to NYSERDA's Program Implementer for processing.
- Jobs are to be completed within 60 days from the initial referral.
- Invoice processing:
  - Invoices that are submitted must follow Invoicing Requirements listed on Section 15.3 of the EmPower Guidelines and Procedures Manual.
  - 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.

- Program Implementer provides the third-party QA Contractor with information in order to complete QA inspections.
- If the invoice is okay as submitted, NYSERDA's Program Implementer recommends an approval of the invoice, and then enters final approved costs into the CRIS database, locking costs 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 write-ups.
    - Certificate of Completion.
    - Required permissions.

h. Contact Information for Customer Inquiries and Complaints

All customer inquiries and complaints are directed to Distribution's Customer Response Center, by calling 1-800-365-3234.

i. Contractor Training Plan

NYSERDA's Empower programs require contractors to obtain a BPI certification. NYSERDA coordinates regional contractor training once a year. NYSERDA also conducts periodic teleconferences with contractors.

j. Quality Assurance

NYSERDA's QA Contractor (currently CSG Services) will perform independent, third-party QA field inspections on approximately 20% of completed jobs. The QA Contractor will also conduct phone QA interviews on approximately 15% of additional completed jobs. QA activities will be completed within one month of completion of work.

k. Coordination with Other New York Energy Efficiency Programs and Program Administrators

Distribution has contracted with NYSERDA to administer LIURP. This contractual relationship provides NYSERDA with the opportunity to coordinate LIURP with additional services (including electric efficiency initiatives) available to customers through additional measures included in NYSERDA's overall portfolio of energy efficiency programs.

l. Evaluation Plans

i. Overview

The Company will utilize evaluation results and recommendations of its existing program as a starting point for future evaluation efforts. The Company will participate in statewide studies where appropriate as described in greater detail in the following sections.

## ii. Process Evaluation

The Company completed a Process Evaluation report with its evaluation contractor<sup>18</sup> in December 2011. Process evaluation activities proceeded as follows.

Cadmus' process evaluation examined whether the program operates efficiently and effectively, relying primarily on interviews with program and implementation staff. Cadmus conducted interviews with program staff at National Fuel and NYSERDA to collect information addressing the following topics:

- Program structure:
  - Logic model
  - Objectives
  - Changes
- Outreach and marketing
- Participant experience and satisfaction
- Communication between National Fuel, NYSERDA, Program Implementer, and CSG
- Data collection and reporting
- Quality assurance
- Implementation barriers
- Program strengths and areas for improvement

Cadmus conducted in-depth interviews in person and by telephone, using a structured interview guide, and obtained follow-up information and clarifications via telephone or e-mail, as necessary.

---

<sup>18</sup> The Cadmus Group, Inc. / Energy Services; 720 SW Washington Street, Suite 400; Portland, OR 97205.

### iii. Impact Evaluation

Distribution has prepared a pre/post billing analysis of customer consumption for determining savings associated with the program. The proposed pre-post analysis is one of several statistical techniques for determining the savings of energy-efficiency programs. This method involves using monthly—or interval—consumption data to measure program impacts. Cadmus has conducted an assessment of Distribution’s pre post billing analysis. Distribution included a copy of the results of the Cadmus pre post billing analysis in Appendix I of its quarterly CIP status report filed with the Commission on November 15, 2011.<sup>19</sup> The billing analysis does provide solid evidence that customers participating in the Company’s LIURP are reducing consumption significantly more than the average customer base. During 2013, Distribution plans to update the pre/post billing analysis with recent program results.

Cadmus’ assessment of Distribution’s proposed pre/post measurement technique considered, at a minimum, the following: Whether the technique provides the necessary levels of statistical reliability to generate accurate estimates of savings and whether the analysis is consistent with the approach outlined in Distribution’s evaluation, measurement, and verification plan; Whether the method follows accepted industry standards and is consistent with the evaluation guidelines of the PSC Staff; Whether the data used in the analysis provide the necessary levels of integrity; and what methods are available to improve effectiveness and reliability.

Cadmus also completed a review of NYSERDA’s impact analysis for the EmPower program, in order to assess its applicability to Distribution’s LIURP. The review noted that the

---

<sup>19</sup> <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={CDD359CA-F0DD-4161-A273-11E5C8111FF7}>.

gas impact results from NYSERDA's impact analysis appear to be applicable to LIURP. Further, Cadmus believes that the Company's billing analysis can be used to assess usage impacts for LIURP. Distribution included a copy of Cadmus' review in Appendix I of its quarterly CIP status report filed with the Commission on November 15, 2011.<sup>20</sup>

Distribution is planning on participating in a joint impact evaluation with NYSERDA. Since Distribution's LIURP is administered by NYSERDA, both parties felt there would be evaluation efficiencies by completing a joint evaluation. The evaluation will be of NYSERDA's Home Performance with Energy Star and EmPower programs, as well as Distribution's LIURP, for calendar years 2010 and 2011. This project kicked off on February 7, 2013. Providing that final project contracting issues can be completed, the Company plans to continue to provide program information and data, work with NYSERDA to further advance the project, and keep the project moving according to schedule.

If a joint impact analysis cannot be completed with NYSERDA, the Company will continue to explore participating in statewide impact studies for LIURP, where such studies are determined to be cost effective. If there is no opportunity to participate in statewide studies to determine the impact of this program, the Company will develop an individual impact study proposal.

---

<sup>20</sup> <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={CDD359CA-F0DD-4161-A273-11E5C8111FF7}>.



m. Benefit Cost Ratios

<b>Table 15: Summary of Benefits and Costs</b>			
Total Resource Cost Test After Net to Gross Assumptions			
LIURP			
Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2012	1.10	\$ 5,711,662	\$ 5,178,727
2013	1.10	\$ 5,711,662	\$ 5,178,727
2014	1.10	\$ 5,711,662	\$ 5,178,727
2015	1.10	\$ 5,711,662	\$ 5,178,727
2012-2015	1.10	\$ 22,846,648	\$ 20,714,908

<b>Table 16: Summary of Benefits and Costs</b>			
Total Resource Cost Test After Net to Gross Assumptions w/Carbon Adder			
LIURP			
Program Year	TRC Benefit / Cost	Total NPV Benefits	Total NPV Costs
2012	1.20	\$ 6,212,861	\$ 5,178,727
2013	1.20	\$ 6,212,861	\$ 5,178,727
2014	1.20	\$ 6,212,861	\$ 5,178,727
2015	1.20	\$ 6,212,861	\$ 5,178,727
2012-2015	1.20	\$ 24,851,444	\$ 20,714,908

n. Savings Assumptions

The savings assumptions for LIURP were derived from savings assumptions included in NYSERDA's reports to the Company. The savings assumptions are consistent with savings calculations used in NYSERDA's state-wide Empower program.

**National Fuel Gas Distribution Corporation  
Small Non-Residential Conservation Incentive Program**

**APPENDIX A**

Small Non-Residential (< 12,000 Mcf/year)

Effective Date

November 1, 2012

Rebate Cap

\$30,000

**NYSERDA**

**Measure**

<u>Code</u>	<u>Equipment Type</u>	<u>Efficiency</u>	<u>Equipment Size (MBtu/h)</u>	<u>Rebate</u>
<b><u>Space Heating Equipment:</u></b>				
AF-1	Hot Air Furnace	minimum efficiency: 90% AFUE	≤ 300	\$500
B-1	Hot Water Boiler	85% AFUE	≤ 300	\$600
B-2	Hot Water Boiler	85% E <sub>T</sub>	301 - 500	\$750
B-3	Hot Water Boiler	85% E <sub>T</sub>	501 - 1,000	\$1,500
B-4	Hot Water Boiler	85% E <sub>T</sub>	1,001 - 1,700	\$2,500
B-5	Hot Water Boiler	85% E <sub>T</sub>	> 1,700	\$3,000
CB-1	Hot Water Boiler	90% AFUE	≤ 300	\$1,000
CB-2	Hot Water Boiler	90% E <sub>T</sub>	301 - 500	\$1,500
CB-3	Hot Water Boiler	90% E <sub>T</sub>	501 - 1,000	\$2,500
CB-4	Hot Water Boiler	90% E <sub>T</sub>	1,001 - 1,700	\$3,500
CB-5	Hot Water Boiler	90% E <sub>T</sub>	> 1,700	\$4,500
SB-1	Steam Boiler	82% AFUE	≤ 300	\$600
SB-2	Steam Boiler	79% E <sub>T</sub>	301 - 2,500	\$1.00/MBtu/h
SB-3	Steam Boiler	80% E <sub>T</sub>	2,501 - 10,000	\$1.00/MBtu/h
UH-1	Unit Heater	≥ 90% AFUE	≤ 300	\$1,000
HE-1	Low Intensity Infrared Heater			\$500
HE-2	New Vent Damper			\$1.00/MBtu/h
HE-3	New Pipe Insulation	R-value > 4		\$3.00/foot
HE-4	New Duct Insulation	R-value > 10		\$0.50/foot
HE-6	Demand Control Ventilation			\$200/unit
<b><u>Water Heating Equipment:</u></b>				
WH-1	Storage Tank Insulation			\$1.00/sq. ft.
WH-2	New Circulation Controls			\$500/unit
<b><u>Cooking Equipment:</u></b>				
GK-1	Fryer	Energy Star-rated		\$750
GK-2	Broiler	> 30% cooking efficiency		\$500
GK-3	Convection Oven	> 40% cooking efficiency		\$500
GK-4	Combination Oven	> 40% cooking efficiency		\$750
GK-5	Steamer	Energy Star-rated		\$750
GK-6	Griddle	> 45% cooking efficiency		\$500

(AFUE) = Annual Fuel Utilization Efficiency  
(E<sub>T</sub>) = Energy Factor  
(MBtu/h) = 1,000 British Thermal Units (Btu) per hour