Karla M. Corpus
Senior Counsel
NY Regulatory

June 1, 2017

VIA ELECTRONIC MAIL

Honorable Kathleen Burgess, Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

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

Niagara Mohawk Power Corporation d/b/a National Grid – 2017-2020 Electric and Gas Energy Efficiency Transition Implementation Plan (ETIP)

Dear Secretary Burgess:

In accordance with the requirements set forth in the *Order Adopting Regulatory Policy Framework and Implementation Plan* issued by the Commission on February 26, 2015 in Case 14-M-0101, the *Order Authorizing Utility-Administered Gas Energy Efficiency Portfolios for Implementation Beginning January 1, 2016* issued by the Commission on June 19, 2015 in Case 15-M-0252, the *Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2106-2018* issued by the Commission on January 22, 2016 in Case 15-M-0252 and *CE-01 ETIP Guidance, Version 2.0*, New York State Department of Public Service – Office of Clean Energy (dated July 28, 2016) which established the filing dates for the 2017 program year and thereafter, Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid" or the "Company") hereby submits for filing the 2017-2020 Electric and Gas Energy Efficiency Transition Implementation Plan ("ETIP").

Please direct any questions regarding this filing to:

Lisa M. Tallet
Director New York Strategic Business, Policy & Evaluation
National Grid
300 Erie Boulevard West
Syracuse, New York 13202
Tel.: 315-460-1103
Mobile: 315-350-4064
Email: lisa.tallet@nationalgrid.com

National Grid looks forward to working collaboratively with Department of Public Service Staff to advance the Company's electric and gas energy efficiency portfolios.

Respectfully submitted,

/s/ *Karla M. Corpus*

Karla M. Corpus
Senior Counsel

Enc.

cc: Christina Palmero, DPS Staff, w/enclosure (via electronic mail)
Peggie Neville, DPS Staff, w/enclosure (via electronic mail)
Kevin Manz, DPS Staff, w/enclosure (via electronic mail)
Denise Gerbsch, DPS Staff, w/enclosure (via electronic mail)
Allison Manz, DPS Staff, w/enclosure (via electronic mail)
Terence Sobolewski, w/enclosure (via electronic mail)
John Isberg, w/enclosure (via electronic mail)
Cathy Hughto-Delzer, w/enclosure (via electronic mail)
Carol White, w/enclosure (via electronic mail)
James Dillon, w/enclosure (via electronic mail)
Lisa Tallet, w/enclosure (via electronic mail)
Gayle Pensabene, w/enclosure (via electronic mail)
Tamara Prodrick, w/enclosure (via electronic mail)
Brandon Dyer, w/enclosure (via electronic mail)

nationalgrid

2017-2020 Electric and Gas

Energy Efficiency Transition Implementation Plan ("ETIP")

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

Niagara Mohawk Power Corporation
d/b/a National Grid

June 1, 2017

Table of Contents

2017-2020 ELECTRIC AND GAS ETIP

APPENDIX: 2016 ANNUAL REPORTING REQUIREMENT

nationalgrid

2017-2020 Electric and Gas

Energy Efficiency Transition Implementation Plan ("ETIP")

Niagara Mohawk Power Corporation d/b/a National Grid

I. Introduction

On February 26, 2015 the New York State Public Service Commission ("Commission") issued *Order Adopting Regulatory Policy Framework and Implementation Plan* (the "Track One Order") in the Reforming the Energy Vision ("REV") Proceeding which directed electric utilities to file Energy Efficiency Budget and Metrics ("BAM") Plans and Energy Efficiency Transition Implementation Plans ("ETIPs") describing electric energy efficiency programs and initiatives proposed for the 2016-2018 three-year period.[1] The Track One Order authorized 2016 utility electric energy efficiency portfolio budgets and targets. On June 19, 2015, the Commission issued *Order Authorizing Utility-Administered Gas Energy Efficiency Portfolios for Implementation Beginning January 1, 2016* directing gas utilities to implement gas energy efficiency programs and for electric and gas utilities to file tariffs implementing an electric and gas Energy Efficiency Tracker ("EE Tracker") by July 20, 2015.[2] On January 22, 2016, the Commission issued *Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2016 - 2018* (the "January 2016 Order")[3] establishing budgets and targets for electric and gas portfolios in 2017 and 2018 at the levels previously authorized for 2016.

To support the development and framework of utility ETIPs, on May 12, 2017, the New York State Department of Public Service Staff ("Staff"), through the Office of Clean Energy, issued the Clean Energy Guidance document entitled *CE-02: ETIP Guidance*, Version 3.0, modifying the content of utility ETIPs.[4] Also on May 12, 2017, Staff issued the Clean

[1] Case 14-M-0101 – *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision* ("REV Proceeding"), Order Adopting Regulatory Policy Framework and Implementation Plan (issued February 26, 2015) ("Track One Order"), Appendix B, at p. [1].
[2] Case 15-M-0252 *et al*., *In the Matter of Utility Energy Efficiency Programs et al*., Order Authorizing Utility-Administered Gas Energy Efficiency Portfolios for Implementation Beginning January 1, 2016 (issued June 19, 2015) ("June 2015 Gas ETIP Order").
[3] Case 15-M-0252 *et al*., *In the Matter of Utility Energy Efficiency Programs et al*., Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2016 - 2018 (issued January 22, 2016)("January 2016 Order").
[4] *See* CE-02 ETIP Guidance, Version 3.0, New York State Department of Public Service – Office of Clean Energy (dated May 12, 2017).

Energy Guidance document entitled *CE-06: ETIP Annual Reporting Guidance* to outline the reporting requirements to be included as a component of the ETIPs.[5]

In accordance with the January 2016 Order, and in accordance with the ETIP guidance documents, this document represents the electric and gas ETIP for the years 2017-2020[6] of Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid" or the "Company").[7]

[5] *See* CE-06 ETIP Annual Reporting Guidance, Version 1.0, New York State Department of Public Service – Office of Clean Energy (dated May 12, 2017).
[6] *See* CE-01 ETIP Guidance, Version 2.0, New York State Department of Public Service – Office of Clean Energy (dated July 28, 2016), which establishes the filing dates for the 2017 program year and thereafter.
[7] National Grid's ETIP presented herein reflects the strategic proposals for energy efficiency set out in the Company's recently filed electric and gas rate cases. *See* Case 17-E-0238 – *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service* (filed April 28, 2017) and Case 17-G- 0239 – *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Gas Service* (filed April 28, 2017).

II. Electric & Gas Portfolio Description

National Grid's electric and gas 2017-2020 ETIP is designed to support the progression of market-based solutions and the penetration of emerging and transformative technologies within New York State, in support of the Commission's REV Proceeding and overall modernization efforts. The Company will continue to strive to exceed the current energy savings goals while finding new opportunities to reduce implementation and administration costs of its energy efficiency programs. Expanded energy efficiency offerings will take a more holistic approach to delivering customer solutions and focus on providing enhanced value to both the customer and the Company. The portfolio of programs includes non-residential, residential, and multifamily sector-specific offerings designed to serve the diverse needs of all three broad market sectors. Within each of these sectors are sub-populations each with unique needs as detailed below in *Section VII. Program Descriptions*. The 2017-2020 electric and gas portfolios encompass the principles and objectives below, outlining the importance of energy efficiency as a fundamental core element of National Grid's business.

ENHANCED CUSTOMER ENGAGEMENT

This ETIP directly responds to the REV Proceeding objective of enhancing customer engagement by providing customers with tools that support effective management of their energy use. The electric and gas portfolios include behavioral programs aimed at providing customers with insight into their energy consumption patterns, with the goal of achieving awareness of how their behaviors affect their energy bill. In order to maximize savings, the Company seeks to offer customer-specific solutions to increase education and program awareness. By coordinating with external stakeholders to reduce overlap and avoid confusion, consistent messaging will flow through diverse channels. Through outreach, technical services, and diverse incentives, National Grid will help each unique customer construct customized solutions to best fit their needs. The ETIP portfolio strategies will respond to site-specific needs for large commercial and industrial ("C&I") customers; reduce barriers for small businesses; address split incentives within the multifamily sector; support opportunities for income-eligible customers; and expand residential offerings that support education, engagement, and awareness. National Grid will also seek opportunities to partner with market participants to coordinate joint opportunities and leverage existing relationships in an effort to expand tools for customers, and foster the growth of the market to support the delivery of energy efficiency products and services.

MARKET ANIMATION

The electric and gas ETIP portfolios include strategic interventions that will promote market animation and result in a lasting change by focusing on a more thoughtful and

integrated approach to the portfolio of energy efficiency programs that National Grid offers. Striving for successful market animation, key elements of the ETIP portfolios include: addressing market behavior to create opportunities for adoption of cost-effective energy efficiency measures; removing barriers to customer participation; incorporating market changes into program goals to affect lasting change; and building programs based on market trends. The Company also intends to remain focused on a cycle of planning, implementing, and evaluating offerings so as to track key drivers of success. National Grid seeks to engage the customer and third parties as part of a strategy that will treat energy efficiency as an opportunity to create value, thereby achieving a synthesis of purpose between the regulated utility space and the open marketplace, and ultimately creating the evolution envisioned by REV.

SYSTEM-WIDE EFFICIENCY

National Grid's energy efficiency programs will encourage deeper energy savings to help reduce system demand and thereby contribute to the reduction or postponement of certain capital investment needs of the Company. Facilitating a coordinated approach to resource-acquisition programs that will achieve cost-effective MWh and Dth savings combined with efforts to target specific electric distribution needs, will continue to be key components of the Company's strategy in the area of electric energy efficiency programs. National Grid will also cross-promote its energy efficiency programs, with the goal of pushing energy savings deeper and providing customers with a more cohesive experience in the pursuit of energy efficiency opportunities.

FUEL AND RESOURCE DIVERSITY

In an effort to provide the correct signals in the marketplace and allow customers and suppliers to better understand their role with respect to a more fuel-diverse system, National Grid will continue to support increased penetration of customer-specific energy efficiency solutions. The 2017-2020 ETIP programs will support measures that avoid MWh and Dth being added to the system and will be used to "right size" energy load in an effort to reinforce awareness of the diverse energy resource mix available for optimal energy efficiency, while meeting customer demands.

REDUCTION OF GREENHOUSE GAS ("GHG") EMISSIONS

In compliance with the January 2016 Order, National Grid will track GHG emission reduction progress against the MWh targets set forth herein. This 2017-2020 ETIP is designed to encourage deeper and lasting savings in meaningful load areas (*e.g.*, high electric load areas that convert to gas, areas of high gas load that are strategically converted to electric, areas with high concentrations of low-income customers, etc.). The Company's strategy will require engagement with customers to implement additional energy efficiency measures and will include promoting greater operational and system efficiency for customers participating in the Company's new Electric Self-Direct Program. Other energy efficiency programs will package measures to encourage holistic solutions and peak demand reduction. Implementation of a tiered incentive structure will encourage customers to implement multiple measures and engage with National Grid's other clean energy offerings.

III. Budget and Target Summary

ELECTRIC

FOUR-YEAR BUDGETS

ELECTRIC PORTFOLIO	2017	2018	2019	2020
Commercial & Industrial Sector				
C&I Retrofit Program				
Incentives & Services	$14,508,613	$17,318,146	$17,318,146	$17,318,146
Program Implementation	$2,610,432	$1,852,751	$1,852,751	$1,851,751
Total Budget	**$17,119,045**	**$19,170,897**	**$19,170,897**	**$19,170,897**
Self-Direct Program				
Incentives & Services	$336,821	$336,821	$336,821	$336,821
Program Implementation	$0	$0	$0	$0
Total Budget	**$336,821**	**$336,821**	**$336,821**	**$336,821**
Small Business Program				
Incentives & Services	$14,078,567	$13,058,199	$13,157,501	$13,157,501
Program Implementation	$1,014,196	$598,844	$581,555	$581,555
Total Budget	**$15,092,763**	**$13,657,043**	**$13,739,056**	**$13,739,056**
Multifamily Sector				
Multifamily Program				
Incentives & Services	$2,434,942	$900,777	$900,777	$900,777
Program Implementation	$224,338	$148,104	$148,104	$148,104
Total Budget	**$2,659,280**	**$1,048,881**	**$1,048,881**	**$1,048,881**
Residential Sector				
Residential Engagement Program				
Incentives & Services	$6,758,000	$6,909,000	$6,909,000	$6,909,000
Program Implementation	$18,246	$65,509	$65,509	$65,509
Total Budget	**$6,776,246**	**$6,974,509**	**$6,974,509**	**$6,974,509**
Residential Efficiency Platform				
Incentives & Services	$1,727,687	$0	$0	$0
Program Implementation	$523,218	$0	$0	$0
Total Budget	**$2,250,905**	**$0**	**$0**	**$0**
Residential Consumer Products Program				
Incentives & Services	$266,400	$103,470	$103,470	$103,470
Program Implementation	$6,476	$57,393	$57,393	$57,393
Total Budget	**$272,876**	**$160,863**	**$160,863**	**$160,863**
Unspecified Sector				
Tiered Incentive Structure				
Incentives & Services	$0	$4,500,000	$4,500,000	$4,500,000
Program Implementation	$0	$200,000	$200,000	$200,000
Total Budget	**$0**	**$4,700,000**	**$4,700,000**	**$4,700,000**
Partnership Programs				
Incentives & Services	$0	$1,950,000	$1,950,000	$1,950,000
Program Implementation	$0	$1,180,000	$1,180,000	$1,180,000
Total Budget	**$0**	**$3,130,000**	**$3,130,000**	**$3,130,000**

ELECTRIC PORTFOLIO – Cont'd	2017	2018	2019	2020
Total Portfolio				
Total Electric Portfolio				
Total C&I Programs	$32,548,629	$33,164,761	$33,246,774	$33,246,774
Total Multifamily Programs	$2,659,280	$1,048,881	$1,048,881	$1,048,881
Total Residential Programs	$9,300,027	$7,135,372	$7,135,372	$7,135,372
Total Unspecified Programs	$0	$7,830,000	$7,830,000	$7,830,000
Portfolio Administration	$4,409,780	$2,261,496	$2,196,867	$2,196,867
Portfolio Evaluation, Measurement & Verification ("EM&V")	$2,540,178	$17,384	$0	$0
Total Electric Portfolio Budget	**$51,457,894**	**$51,457,894**	**$51,457,894**	**$51,457,894**

FOUR-YEAR PRIMARY SAVINGS TARGETS

ELECTRIC PORTFOLIO	2017	2018	2019	2020
Commercial & Industrial Sector				
C&I Retrofit Program				
MWh	75,373	91,064	91,064	91,064
Self-Direct Program				
MWh	1,880	1,880	1,880	1,880
Small Business Services Program				
MWh	63,344	53,465	53,465	53,465
Multifamily Sector				
Multifamily Program				
MWh	10,305	5,822	5,822	5,822
Residential Sector				
Residential Engagement Program				
MWh	74,979	74,979	74,979	74,979
Residential Efficiency Platform				
MWh	4,165	0	0	0
Residential Consumer Products				
MWh	800	800	800	800
Unspecified Sector				
Tiered Incentive Structure				
MWh	0	22,417	22,417	22,417
Partnership Programs				
MWh	0	13,450	13,450	13,450
Total Portfolio				
Total Electric Portfolio				
MWh	**230,846**	**263,877**	**263,877**	**263,877**

GAS

FOUR-YEAR BUDGETS

GAS PORTFOLIO	2017	2018	2019	2020
Commercial & Industrial Sector				
C&I Program				
Incentives & Services	$2,134,489	$2,784,444	$2,784,444	$2,784,444
Program Implementation	$574,975	$518,055	$518,055	$518,055
Total Budget	**$2,709,464**	**$3,302,499**	**$3,302,499**	**$3,302,499**
Multifamily Sector				
Multifamily Program				
Incentives & Services	$470,411	$320,410	$320,410	$320,410
Program Implementation	$122,645	$122,313	$122,313	$122,313
Total Budget	**$593,056**	**$442,723**	**$442,723**	**$442,723**
Residential Sector				
Residential Engagement Program				
Incentives & Services	$662,000	$662,000	$662,000	$662,000
Program Implementation	$31,000	$30,849	$30,849	$30,849
Total Budget	**$693,000**	**$692,849**	**$692,849**	**$692,849**
Residential Efficiency Platform				
Incentives & Services	$300,000	$0	$0	$0
Program Implementation	$340,000	$0	$0	$0
Total Budget	**$640,000**	**$0**	**$0**	**$0**
Residential Program				
Incentives & Services	$3,034,358	$2,696,475	$2,696,475	$2,696,475
Program Implementation	$383,925	$293,008	$365,013	$365,013
Total Budget	**$3,418,283**	**$2,989,483**	**$3,061,488**	**$3,061,488**
Unspecified Sector				
Tiered Incentive Structure				
Incentives & Services	$0	$900,000	$900,000	$900,000
Program Implementation	$0	$40,000	$40,000	$40,000
Total Budget	**$0**	**$940,000**	**$940,000**	**$940,000**
Partnership Programs				
Incentives & Services	$0	$910,000	$910,000	$910,000
Program Implementation	$0	$490,000	$490,000	$490,000
Total Budget	**$0**	**$1,400,000**	**$1,400,000**	**$1,400,000**
Total Portfolio				
Total Gas Portfolio				
Total C&I Programs	$2,709,464	$3,302,499	$3,302,499	$3,302,499
Total Multifamily Programs	$593,056	$442,723	$442,723	$442,723
Total Residential Programs	$4,751,283	$3,682,332	$3,754,337	$3,754,337
Total Unspecified Programs	$0	$2,340,000	$2,340,000	$2,340,000
Portfolio Administration	$1,968,645	$781,708	$709,703	$709,703
Portfolio EM&V	$526,814	$0	$0	$0
Total Gas Portfolio Budget	**$10,549,262**	**$10,549,262**	**$10,549,262**	**$10,549,262**

FOUR-YEAR PRIMARY SAVINGS TARGETS

GAS PORTFOLIO	2017	2018	2019	2020
Commercial & Industrial Sector				
C&I Program				
Dth	86,659	135,758	135,758	135,758
Multifamily Sector				
Multifamily Program				
Dth	24,637	18,233	18,233	18,233
Residential Sector				
Residential Engagement Program				
Dth	69,661	69,661	69,661	69,661
Residential Efficiency Platform				
Dth	36,000	0	0	0
Residential Program				
Dth	233,445	225,445	225,445	225,445
Unspecified Sector				
Tiered Incentive Structure				
Dth	0	42,695	42,695	42,695
Partnership Programs				
Dth	0	59,773	59,773	59,773
Total Portfolio				
Total Gas Portfolio				
Dth	**450,402**	**551,565**	**551,565**	**551,565**

ELECTRIC & GAS

PORTFOLIO ADMINISTRATION BUDGETS

The 2017 Portfolio Administration budget category for the electric and gas portfolios includes all portfolio-level (non-program specific) costs other than portfolio Evaluation, Measurement & Verification ("EM&V") costs.[8] Costs included in Portfolio Administration include, but are not limited to, staff salaries, Company overhead (*i.e.,* supplies, computer and communication equipment, staff training and industry-related sponsorships and memberships), program literature, advertising, promotion, internal and external communication, and all forms of direct and broad media. Employee benefit costs, inclusive of pension and other post-employment benefits ("OPEB"), are currently recovered through the Company's base rates and as such, are not reflected in the Portfolio Administration budget category or the energy efficiency portfolio budgets. Beginning on April 1, 2018, and thereafter, the Portfolio Administration budget will include all current portfolio-level (non-program specific) costs other than portfolio EM&V costs and labor costs of National Grid employees.

[8] *See* CE-02 ETIP Guidance, Version 3.0, p. 3.

IV. Forecasted Portfolio-Level Activity

The following tables reflect the forecasted timing of program year expenditures and target achievements which include expected levels of spending and energy savings associated with the 2017-2020 electric and gas portfolios. Spending and achievement lags can be associated with natural program delivery lag and EM&V activities.

ELECTRIC

FORECASTED EXPENDITURES

Budgets	Forecasted Electric Expenditures			
	2017	2018	2019	2020
2016	$8,036,038	$1,573,674	$1,146,814	$0
2017	$48,543,115	$1,531,869	$1,378,553	$4,358
2018		$50,445,403	$869,131	$138,159
2019			$50,457,854	$865,372
2020				$50,457,854
Total Electric Portfolio	**$56,579,153**	**$53,550,946**	**$53,852,352**	**$51,465,743**

FORECASTED ACHIEVEMENTS

Targets (MWH)	Forecasted Electric Achievements			
	2017	2018	2019	2020
2016	15,351	6,292	0	0
2017	223,025	6,304	1,488	29
2018		254,126	7,634	2,080
2019			254,126	7,634
2020				254,126
Total Electric Portfolio	**238,376**	**266,722**	**263,248**	**263,869**

GAS

FORECASTED EXPENDITURES

Budgets	Forecasted Gas Expenditures			
	2017	2018	2019	2020
2016	$2,521,402	$732,384	$224,476	$0
2017	$9,853,442	$406,387	$289,433	$0
2018		$10,281,679	$233,632	$33,951
2019			$10,281,679	$233,632
2020				$10,281,679
Total Gas Portfolio	**$12,374,844**	**$11,420,450**	**$11,029,220**	**$10,549,262**

FORECASTED ACHIEVEMENTS

Targets (DTH)	Forecasted Gas Achievements			
	2017	2018	2019	2020
2016	7,950	10,906	0	0
2017	414,867	34,940	596	0
2018		516,633	33,998	933
2019			516,634	33,998
2020				516,634
Total Gas Portfolio	**422,817**	**562,479**	**551,228**	**551,565**

V. Evaluation Measurement and Verification ("EM&V")

The tables below outline National Grid's plan and schedule for all EM&V activities for 2017-2020. The tables identify the specific EM&V activity, budget amounts, and the estimated timeframe by which EM&V information will be obtained to support the overall program cycle. The Company will incorporate, as applicable, "real-time EM&V" to provide timely feedback to the program implementation team as the evaluation is proceeding. The EM&V plan will also look at the market as a whole to maximize feedback to the energy efficiency programs. The Company will also explore new evaluation methods that utilize automation, smart devices, and/or software solutions.

The EM&V plan also incorporates work needed to assist in maintaining the New York State Technical Reference Manual ("TRM"), as well as activities to inform the benefit cost analysis ("BCA"). Items such as the comparison of energy efficiency measure costs versus baseline costs, non-energy impacts, avoided energy supply costs, and impacts resulting from New York State building code changes will be explored. In addition, efforts may be undertaken to assess the full range of benefits being realized in New York as a result of energy efficiency efforts (*e.g.,* other resource benefits and non-resource benefits).

The potential opportunity to perform some of the EM&V work collaboratively across the State and where applicable, to build upon existing studies will also be explored. In order to build and support infrastructure for evaluations in New York, the use of local consulting firms and contractors will be considered whenever possible.

ELECTRIC

EM&V ACTIVITY SCHEDULE

EM&V Activity	Expected Plan Submission Date	Start Date	End Date	Cycle Year Informed	Status
Non-Residential – Large Commercial and Industrial					
1. Impact/Process/Net-to-Gross ("NTG")/Market Effects Studies	2017	2017	2020	2017 to 2020	Upcoming
2. Market and Technical Potential	2017	2017	2020	2017 to 2020	Upcoming
3. Comprehensive Top Tier Customers	2017	2017	2020	2017 to 2020	Upcoming
Non-Residential Small Business					
4. Impact/Process/NTG/Market Effects/Persistence Studies	2017	2017	2020	2017 to 2020	Upcoming
Non-Residential General					
5. Technology & Market Potential and Cost & Savings Analyses	2017	2017	2020	2017 to 2020	Upcoming
6. C&I Measurement &Verification ("M&V")Activities	2017	2017	2020	2017 to 2020	Upcoming
7. TRM Activities and Building Code Change Effects	2017	2017	2020	2017 to 2020	Upcoming
8. BCA Framework Activities	2017	2017	2020	2017 to 2020	Upcoming
9. C&I Load Shape Management EM&V	2017	2017	2020	2017 to 2020	Upcoming
Multifamily					
10. Process & Impact Evaluation*	2017	2017	2020	2017 to 2020	Upcoming
Residential					
11. Market Assessment	2017	2017	2020	2017 to 2020	Upcoming
12. Consumer Products Evaluation	2017	2017	2020	2017 to 2020	Upcoming
13. Behavioral Program Process & Impact Evaluation*	2017	2017	2020	2017 to 2020	Upcoming
14. TRM, BCA, Measure Costs, & Savings Impact Activities*	2017	2017	2020	2017 to 2020	Upcoming
15. M&V Activities*	2017	2017	2020	2017 to 2020	Upcoming

* Coordinated electric and natural gas EM&V activities

EM&V ACTIVITY FORECASTED EXPENDITURES

EM&V Activity	2017	2018	2019	2020
Non-Residential – Large Commercial and Industrial				
1. Impact/Process/NTG/Market Effects Studies	$631,544	N/A	N/A	N/A
2. Market and Technical Potential	$157,495	N/A	N/A	N/A
3. Comprehensive Top Tier Customers	$65,623	N/A	N/A	N/A
Non-Residential Small Business				
4. Impact/Process/NTG/Market Effects/Persistence Studies	$211,075	N/A	N/A	N/A
Non-Residential General				
5. Technology & Market Potential and Cost & Savings Analyses	$144,370	N/A	N/A	N/A
6. C&I M&V Activities	$250,000	N/A	N/A	N/A
7. TRM Activities and Building Code Change Effects	$65,623	N/A	N/A	N/A
8. BCA Framework Activities	$32,811	N/A	N/A	N/A
9. C&I Load Shape Management EM&V	$32,811	N/A	N/A	N/A
Multifamily				
10. Process & Impact Evaluation*	$62,857	N/A	N/A	N/A
Residential				
11. Market Assessment	$100,000	N/A	N/A	N/A
12. Consumer Products Evaluation	$75,000	N/A	N/A	N/A
13. Behavioral Program Process & Impact Evaluation*	$43,820	N/A	N/A	N/A
14. TRM, BCA, Measure Costs, & Savings Impact Activities*	$223,167	N/A	N/A	N/A
15. M&V Activities*	$43,820	N/A	N/A	N/A
Total Electric EM&V Budget	$2,140,016	N/A	N/A	N/A

GAS

EM&V ACTIVITY SCHEDULE

EM&V Activity	Expected Plan Submission Date	Start Date	End Date	Cycle Year Informed	Status
Commercial & Industrial					
1. Market Assessment, Market Effects, and Market Potential Study	2017	2017	2020	2017 to 2020	Upcoming
2. Process & Impact Evaluation	2017	2017	2020	2017 to 2020	Upcoming
3. TRM, BCA, Measure Costs, & Savings Impact Activities	2017	2017	2020	2017 to 2020	Upcoming
4. M&V Activities	2017	2017	2020	2017 to 2020	Upcoming
Multifamily					
5. Process & Impact Evaluation*	2017	2017	2020	2017 to 2020	Upcoming
Residential					
6. Behavioral Program Process & Impact Evaluation*	2017	2017	2020	2017 to 2020	Upcoming
7. TRM, BCA, Measure Costs, & Savings Impact Activities*	2017	2017	2020	2017 to 2020	Upcoming
8. M&V Activities*	2017	2017	2020	2017 to 2020	Upcoming
9. High Efficiency Heating Equipment ("HEHE") Process & Impact Evaluation	2017	2017	2020	2017 to 2020	Upcoming

* Coordinated electric and natural gas EM&V activities

EM&V ACTIVITY FORECASTED EXPENDITURES

EM&V Activity	2017	2018	2019	2020
Commercial & Industrial				
1. Market Assessment, Market Effects, and Market Potential Study	$34,380	N/A	N/A	N/A
2. Process & Impact Evaluation	$27,726	N/A	N/A	N/A
3. TRM, BCA, Measure Costs, & Savings Impact Activities	$62,336	N/A	N/A	N/A
4. M&V Activities	$22,181	N/A	N/A	N/A
Multifamily				
5. Process & Impact Evaluation*	$48,778	N/A	N/A	N/A
Residential				
6. Behavioral Program Process & Impact Evaluation*	$22,408	N/A	N/A	N/A
7. TRM, BCA, Measure Costs, & Savings Impact Activities*	$103,893	N/A	N/A	N/A
8. M&V Activities*	$22,408	N/A	N/A	N/A
9. HEHE Process & Impact Evaluation	$99,713	N/A	N/A	N/A
Total Gas EM&V Budget	$443,823	N/A	N/A	N/A

VI. Benefit Cost Analysis ("BCA")

ELECTRIC

FOUR-YEAR BENEFIT COST ANALYSIS

The BCA table below summarizes the value of the electric energy efficiency savings goals for the current year and next three (3) years including associated budgets, and benefit cost ratios for each offering from a Societal Cost Test ("SCT") perspective, as well as the value of avoided external CO_2. The table also includes a benefit cost ratio at the portfolio level, as well as for each program.

Electric Portfolio*	2017	2018	2019	2020
Commercial & Industrial Sector				
Electric Commercial & Industrial Retrofit Program				
Benefits	$66,106,666	$82,593,042	$63,313,375	$67,286,272
Costs	$36,864,340	$42,499,353	$43,421,358	$43,547,989
Benefit Cost Ratio	***1.79***	***1.94***	***1.46***	***1.55***
Electric Small Business Services				
Benefits	$55,556,508	$48,491,578	$37,172,204	$39,504,750
Costs	$22,719,132	$20,651,985	$20,844,498	$20,862,823
Benefit Cost Ratio	***2.45***	***2.35***	***1.78***	***1.89***
Self-Direct				
Benefits	$1,393,022	$1,443,674	$1,075,343	$1,146,940
Costs	$757,981	$793,582	$807,045	$808,894
Benefit Cost Ratio	***1.84***	***1.82***	***1.33***	***1.42***
Multifamily Sector				
Electric Multifamily Program				
Benefits	$5,962,434	$3,484,985	$2,498,537	$2,667,812
Costs	$4,045,051	$1,847,743	$1,908,852	$1,917,245
Benefit Cost Ratio	***1.47***	***1.89***	***1.31***	***1.39***
Residential Sector				
Electric Residential Engagement Program				
Benefits	$6,938,555	$7,160,965	$4,631,307	$4,986,699
Costs	$7,481,690	$7,651,900	$7,717,350	$7,726,339
Benefit Cost Ratio	***0.93***	***0.94***	***0.60***	***0.65***
Electric Residential Efficiency Platform				
Benefits	$2,057,705	N/A	N/A	N/A
Costs	$4,044,048	N/A	N/A	N/A
Benefit Cost Ratio	***0.51***	***N/A***	***N/A***	***N/A***
Electric Residential Consumer Products				
Benefits	$621,535	$641,484	$465,666	$495,290
Costs	$496,393	$289,762	$305,031	$307,128
Benefit Cost Ratio	***1.25***	***2.21***	***1.53***	***1.61***

Electric Portfolio* - Cont'd	2017	2018	2019	2020
Unspecified Sector				
Tiered Incentive Structure				
Benefits	N/A	$10,497,534	$7,026,158	$7,546,270
Costs	N/A	$5,386,037	$5,426,619	$5,432,193
Benefit Cost Ratio	***N/A***	***1.95***	***1.29***	***1.39***
Partnership Programs				
Benefits	N/A	$6,298,427	$4,215,632	$4,527,695
Costs	N/A	$3,595,973	$3,636,555	$3,642,129
Benefit Cost Ratio	***N/A***	***1.75***	***1.16***	***1.24***
Total Portfolio				
Total Benefits	**$138,636,426**	**$160,611,689**	**$120,398,222**	**$128,161,727**
Total Costs	**$76,408,635**	**$82,716,335**	**$84,067,309**	**$84,244,740**
Portfolio Benefit Cost Ratio	**1.81**	**1.94**	**1.43**	**1.52**

*2017 and 2018 BCAs for electric programs were calculated using 2008 long run avoided costs ("LRACs") issued and effective on January 16, 2009.[9] The 2019 and 2020 BCAs for electric programs were calculated using the draft 2017 LRACs provided by Staff on April 18, 2017.[10]

FOUR-YEAR PORTFOLIO BCA RESULTS

Electric Portfolio	2017	2018	2019	2020
Societal Cost Test Ratio	1.81	1.94	1.43	1.52
Utility Cost Test Ratio	2.03	2.12	1.21	1.29
Ratepayer Impact Measure Test Ratio	2.46	2.59	1.42	1.52

[9] *See* Case 08-E-1014, *et al., Petition of Niagara Mohawk Power Corporation for Approval of an Energy Efficiency Portfolio Standard (EEPS) "Fast Track" Utility-Administered Electric Energy Efficiency Program,* Order Approving "Fast Track" Utility-Administered Electric Energy Efficiency Programs With Modifications (issued January 16, 2009) (*"2009 Fast Track Electric EE Program Order"*), Appendix 2, Table 1.

[10] *See* email from Peter Sheehan, Utility Analyst (Environmental), New York State Department of Public Service Staff, Office of Clean Energy, to Lisa Tallet, Director of New York Strategic Business, National Grid *et al.* (April 18, 2017, 11:05 EDT) and modified spreadsheet attached thereto.

GAS

FOUR-YEAR BENEFIT COST ANALYSIS

The BCA table below summarizes the value of the gas energy efficiency savings goals for the current year and next three years including associated budgets, and benefit cost ratios for each offering from a Societal Cost Test ("SCT") perspective, as well as the value of avoided external CO_2. The table also includes a benefit cost ratio at the portfolio level, as well as for each program.

GAS PORTFOLIO*	2017	2018	2019	2020
Commercial & Industrial Sector				
Gas Commercial & Industrial Program				
Benefits	$9,484,688	$15,313,613	$9,071,088	$9,537,876
Costs	$6,344,937	$7,659,947	$7,941,128	$7,979,746
Benefit Cost Ratio	***1.49***	***2.00***	***1.14***	***1.20***
Multifamily Sector				
Gas Multifamily Program				
Benefits	$2,174,685	$1,658,986	$953,155	$1,004,982
Costs	$1,475,948	$1,102,242	$1,139,567	$1,144,694
Benefit Cost Ratio	***1.47***	***1.51***	***0.84***	***0.88***
Residential Sector				
Gas Residential Engagement Program				
Benefits	$882,079	$915,048	$503,325	$534,121
Costs	$909,599	$882,465	$908,202	$911,737
Benefit Cost Ratio	***0.97***	***1.04***	***0.55***	***0.59***
Gas Residential Efficiency Platform				
Benefits	$2,065,405	N/A	N/A	N/A
Costs	$1,069,136	N/A	N/A	N/A
Benefit Cost Ratio	***1.93***	***N/A***	***N/A***	***N/A***
Gas Residential Program				
Benefits	$22,343,243	$22,240,995	$12,923,034	$13,606,049
Costs	$7,603,453	$6,725,840	$6,863,692	$6,882,626
Benefit Cost Ratio	***2.94***	***3.31***	***1.88***	***1.98***
Unspecified Sector				
Tiered Incentive Structure				
Benefits	N/A	$2,526,605	$1,377,873	$1,456,085
Costs	N/A	$1,967,906	$1,974,106	$1,974,958
Benefit Cost Ratio	***N/A***	***1.28***	***0.70***	***0.74***
Partnership Programs				
Benefits	N/A	$3,537,247	$1,929,022	$2,038,519
Costs	N/A	$1,556,725	$1,562,925	$2,473,777
Benefit Cost Ratio	***N/A***	***2.27***	***1.23***	***0.82***
Total Portfolio				
Total Benefits	**$36,950,100**	**$46,192,493**	**$26,757,497**	**$28,177,631**
Total Costs	**$17,403,073**	**$19,895,124**	**$20,389,620**	**$21,367,537**
Benefit Cost Ratio	**2.12**	**2.32**	**1.31**	**1.32**

*2017 and 2018 BCAs for gas programs were calculated using 2008 LRACs issued and effective on April 9, 2009.[11] The 2019 and 2020 BCAs for gas programs were calculated using the draft 2017 LRACs provided by Staff on April 18, 2017.[12]

FOUR-YEAR PORTFOLIO BCA RESULTS

Gas Portfolio	2017	2018	2019	2020
Societal Cost Test Ratio	2.12	2.32	1.29	1.28
Utility Cost Test Ratio	3.16	3.43	1.18	1.23
Ratepayer Impact Measure Test Ratio	3.22	3.50	1.21	1.25

[11] *See* Case 08-G-1015 *et al*., *Petition of Niagara Mohawk Power Corporation for Approval of an Energy Efficiency Portfolio Standard (EEPS) "Fast Track" Utility-Administered Gas Energy Efficiency Program*, Order Approving "Fast Track" Utility-Administered Gas Energy Efficiency Programs with Modifications (issued April 9, 2009) ("*2009 Fast Track Gas EE Program Order")*, Appendix 2, Table 2.

[12] *See* email from Peter Sheehan, Utility Analyst (Environmental), New York State Department of Public Service Staff, Office of Clean Energy, to Lisa Tallet, Director of New York Strategic Business, National Grid *et al.* (April 18, 2017, 11:05 EDT) and modified spreadsheet attached thereto.

VII. Program Descriptions

ELECTRIC COMMERCIAL & INDUSTRIAL RETROFIT PROGRAM

A. 2016 Performance Summary

The Electric C&I Retrofit Program over-achieved its 2016 energy savings target. Program spending was continuously modulated, which allowed available funding from this program to be shifted to the Electric Multifamily Program to avoid interruption of services. Program performance was enhanced by focusing on metrics and improving internal processes to ensure targets were met, thereby delivering greater value to the customer. Identifying different market segments enabled National Grid's internal sales team to approach similar customers with similar projects, resulting in an expanded segment-based delivery approach. Several large long-lead time projects materialized using a collaborative approach amongst the Company's internal sales team, trade allies, and the vendor community. National Grid also continues to work with the New York State Energy Research Development Authority ("NYSERDA") to ensure customers are aware of all available opportunities.

B. 2017 - 2020 Overview

Design Overview

The Electric C&I Retrofit Program provides technical services along with prescriptive and custom incentives to encourage the installation of a wide variety of energy-efficient electric measures to upgrade everything from building systems to manufacturing processes. Program performance is continually monitored, and offerings and incentive levels are adjusted to reflect technological advancements and changes in the marketplace. The target market is C&I facilities across the Company's service territory.

Delivery Overview

1. Program Design

Prescriptive incentives are available for measures that provide predictable energy savings in virtually all applications where they replace a similar technology of lesser efficiency. The Company offers such incentives for a long list of electric technologies including, but not limited to, lighting equipment and controls, energy management systems, and compressed air.

To identify and quantify custom opportunities related to a specific process or unique building operations, National Grid provides customers with expert technical assistance, using both in-house technical staff and subject matter experts drawn from a pool of prequalified expert private sector engineering consultants. To move customers to action once opportunities have been identified, the Company also

offers incentives designed to offset the cost of implementing the energy efficiency project. The overarching goal is to instil customer confidence in projections of project energy savings and the reliability of equipment performance, in order to make the financial investment attractive, and to provide a delivery process that makes the upgrade process as simple and seamless as possible.

Offerings will be continuously reviewed to ensure emerging technologies are incentivized at an appropriate level to encourage market acceptance. Incentives for products that have reached market saturation will be reduced and eliminated over a period of time.

2. **Strategic Partnerships**

Partnership prospects include working collaboratively with NYSERDA, new market players, and peer New York utilities in areas where electric and natural gas service territories overlap (*e.g.,* in Western New York). Preliminary proposals are under development among and between National Grid, NYSERDA, and peer utilities to identify the best market segments and offerings for these joint initiatives in coordination with the Clean Energy Advisory Council's ("CEAC") Clean Energy Implementation and Coordination Working Group. These combined efforts will allow for streamlined implementation of energy efficiency programs, peer exchange opportunities, success story dissemination, and reduced market confusion.

3. **Customer Outreach and Education**

National Grid's Strategic Sales Team is focused on the largest C&I customers in various sectors, including industrial/manufacturing, hospitals, nursing homes, colleges/universities, and municipal and state government. The Strategic Sales Team educates decision-makers on the energy and non-energy benefits (*e.g.,* improved productivity, reduced emissions, etc.) of their energy efficiency investments, and educates both vendors and installers regarding the Company's efficiency offerings. These trade allies, in turn, educate C&I customers on the benefits of high-efficiency equipment and National Grid's energy efficiency program offerings. Each Strategic Sales Team member connects customers with vendors and vendors with customers, thereby animating the market and building relationships that lead to future energy projects. The Channel Sales Team also works with small to mid-sized commercial customers and external vendors in a similar manner.

In-house technical staff and external technical assistance firms (which are under contract with the Company) prepare scoping studies and engineering analyses to identify and quantify energy savings, as well as the financial benefits of energy efficiency improvements for customers.

C. 2017 – 2020 Design & Delivery Details

Customer Eligibility

Non-residential customers with average monthly demand greater than 110 kW are eligible to participate in the Electric C&I Retrofit Program as long as they contribute to the Energy Efficiency Surcharge ("EES") component of the System Benefits Charge ("SBC").

Marketing and Promotion

National Grid's sales teams engages electric C&I customers through one-on-one and group meetings, networks of trade allies and trade associations, direct marketing and other channels, as appropriate.

Specific marketing initiatives have been instituted to inform customers and influence their actions. These efforts include digital and print advertising specific to customer segments, direct outreach efforts such as email and telemarketing that promote the direct install offering, and targeted marketing.

Due to the varied nature of all of the industries that can be involved with the Electric C&I Retrofit Program, the Company will explore targeted marketing opportunities, as well as further customer education regarding their overall electric usage patterns in an effort to identify more energy efficiency opportunities. Facts and figures estimating the amount of carbon reduction achieved by energy efficiency measures may also be incorporated into the brochures and marketing efforts to encourage interest in Electric C&I Retrofit Program measures.

Customer Application Process

Customers work with the Company's sales teams in order to apply for both prescriptive and custom incentives. National Grid has created an application that provides all the steps needed to process the application quickly and efficiently. The sales teams, with the assistance of energy efficiency analysts, manage all aspects of a customer's participation in the Electric C&I Retrofit Program, from application submittal through project completion and incentive check distribution.

Anticipated Participation Levels

The forecasted annual participation for the Electric C&I Retrofit Program is 1,200 customers.

Multi-Year Strategy

2018: Emerging technology offerings to large C&I customers will continue, in combination with incentivizing measures beyond minimum building code requirements to spur customer participation in the Electric C&I Retrofit Program. New delivery

strategies will be introduced, including layering incentives to focus on such measures, encouraging connectivity measures with a focus on demand response, and geo-targeting energy efficiency in certain high-load areas. A midstream/upstream pilot to determine market applicability for different measures or technologies (*e.g.,* kitchen equipment) will be explored, with potential coordination with gas customers across the Company's service territory. Third-party partnerships will continue, including collaboration with NYSERDA as its role under the Clean Energy Fund ("CEF") evolves and additional opportunities become available (*e.g.,* NYSERDA's Flexible Technical Assistance Program and Industrial Strategic Energy Management pilot).

2019: Additional measures for deeper and longer-term energy savings (beyond lighting) will be incorporated, including a pilot pay-for-performance program offering. National Grid will seek to collaborate with NYSERDA on a new offerings designed to avoid overlap of services while continuing to meet the needs of customers. Finally, new delivery strategies implemented in 2018 will be evaluated to determine their effectiveness.

2020: Continued market research will ensure that the Company is evolving to meet customer demands, achieving a more productive mix of utility and third-party investment, improving overall efficiency of the National Grid electric system, and increasing consumer value and choice.

Alignment with REV

National Grid continues to focus on the overall themes of REV as a major program strategy consideration, including how to meet the needs of the next century while supporting smarter, more efficient technology options. The Electric C&I Retrofit Program will continue to evolve to meet changing market conditions, thereby enabling the program to support new products and services.

Quality Assurance/Quality Control Procedures

The specific quality assurance measures for the Electric C&I Retrofit Program include pre-inspections and post-inspections, along with creation of a Minimum Requirements Document used to determine whether equipment is installed and operated as designed. National Grid randomly selects up to ten percent of the completed prescriptive incentive applications for post-inspection. The Company is actively working to improve the quality assurance/quality control process and may include more projects beyond the ten percent standard. Such inspections confirm the incentivized equipment is installed and operational. Custom projects receiving incentives of $10,000 or less are randomly selected for post-inspections. All custom projects receiving incentives of more than $10,000 require a post-inspection.

GAS COMMERCIAL & INDUSTRIAL PROGRAM

A. 2016 Performance Summary

The Gas C&I Program over-achieved its 2016 savings target. Overall program performance was enhanced by focusing on metrics and improving internal processes to ensure targets were met, thereby delivering greater value to the customer. The success of the Gas C&I Program can be attributed to the specific marketing efforts across the National Grid service territory, including the accurate identification of market segments. Gas sales efforts are identified through sales representatives who also work on the electric portfolio. The identification of specific market segments and collaboration with the electric sector has proven to be successful for the Gas C&I Program. Moreover, a new boiler tune-up pilot offering was introduced. In 2016, the Company focused on specific marketing initiatives to inform customers and influence their actions, including digital and print advertising specific to customer segments and direct outreach efforts.

B. 2017 - 2020 Overview

Design Overview

The Gas C&I Program provides technical services along with prescriptive and custom incentives to encourage the installation of a wide variety of energy efficient gas measures to upgrade everything from building systems to manufacturing processes. These offerings apply to existing buildings and new construction. Program performance is continuously monitored, and offerings and incentive levels are adjusted to reflect technological advancements and changes in the market place. The Gas C&I Program targets National Grid's non-residential natural gas customers.

Delivery Overview

1. Program Design

The Gas C&I Program promotes prescriptive and custom energy savings opportunities. Prescriptive incentives are available for measures that provide predictable energy savings in virtually all applications where they replace a similar technology of lesser efficiency. National Grid offers such incentives for a variety of natural gas technologies including, but not limited to, space and water heating systems (along with associated controls), steam traps, insulation, and commercial kitchen equipment. The Gas C&I Program also includes boiler tune-up and enhanced steam trap survey offerings. The prescriptive path often serves as the customer's initial exposure to energy efficiency and may lead to more complex custom projects.

Offerings will be continuously reviewed to ensure emerging technologies are incentivized at a higher level to encourage market acceptance. Incentives for products that have reached market saturation will be retired.

2. **Strategic Partnerships**
   Partnership prospects include working with NYSERDA, new market players, and peer New York utilities in areas where electric and natural gas service territories overlap (*e.g.,* in Western New York) to identify the best market segments and offerings for these joint initiatives. These combined efforts will allow for streamlined implementation of energy efficiency programs and reduce market confusion.

   Furthermore, potential partnership programs with water utilities, to enable both therm and water savings, are being explored.

   Plans have been finalized to launch a midstream commercial kitchen equipment pilot initiative in 2017, which will utilize third-party vendors (*i.e.*, kitchen equipment distributors) to assist with the pilot's implementation and administration.

3. **Customer Outreach and Education**
   National Grid's Strategic Sales Team is focused on the largest C&I customers in various sectors, including industrial/manufacturing, hospitals, nursing homes, colleges/universities, and municipal and state governments. The Strategic Sales Team educates decision-makers on energy and non-energy benefits (*e.g.,* improved productivity, reduced emissions, etc.) of their energy efficiency investments, and educates both vendors and installers regarding the Company's energy efficiency offerings. These trade allies, in turn, educate C&I customers on the benefits of high-efficiency equipment and National Grid's energy efficiency program offerings.

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

C&I customers are eligible to participate in the Gas C&I Program as long as they contribute to the EES component of the SBC.

Marketing and Promotion

Gas C&I Program customers are engaged via one-on-one and group meetings, networks of trade allies and trade associations, direct marketing, and other channels, as appropriate. Specific marketing initiatives have been instituted to inform customers and influence their actions. These efforts include digital and print advertising specific to customer segments, direct outreach efforts (such as email and telemarketing) that

promote the direct install offering, and targeted marketing for enhanced steam trap initiatives and other prescriptive and custom incentives.

Due to the varied nature of all of the industries that can be involved with the Gas C&I Program, National Grid will explore targeted marketing opportunities as well as further education for customers on their overall gas usage patterns in an effort to identify more opportunities for natural gas (and possibly water) usage reduction. Facts and figures estimating the amount of carbon reduction achieved by energy efficiency measures may also be incorporated into the brochures and marketing efforts to encourage interest in Gas C&I Program measures.

With the ever-evolving nature of energy efficiency equipment, particularly in the steam systems of industrial and manufacturing plants, customers with high steam usage will be key marketing targets.

Customer Application Process

Customers work with National Grid's Strategic Sales Team to apply for both custom and prescriptive incentives. For the direct install offering, customers work with both the Company and its vendor to complete the incentive application and the installation of energy efficiency equipment. Customers apply directly with the Company for high-efficiency kitchen equipment, steam surveyor requests, steam traps, and piping insulation incentives.

Anticipated Participation Levels

The forecasted annual participation for the Gas C&I Program is 400 customers.

Multi-Year Strategy

2018: Deployment of the midstream commercial kitchen equipment initiative will be expanded to include additional prescriptive measures and increase the number of participating distributors. Midstream and upstream offerings will also be expanded to include other types of energy-efficient equipment. Methods by which the enhanced steam trap survey or boiler tune-up initiatives could be coupled with other prescriptive measures will also be explored.

2019: Potential expansion of waste heat recovery incentives and additional partnership program opportunities with electric and water utilities will be assessed.

2020: Emphasis will continue on the adoption of innovative measures and expansion of opportunities to collaborate with other community organizations and utilities. Research will be conducted by National Grid into a pay-for-performance pilot offering.

Alignment with REV

National Grid is focused on implementing program delivery strategies which align with the overall themes of REV, such as midstream and upstream offerings, in an effort to stimulate the market. The expansion of these opportunities also allows for increased customer engagement and partnerships with manufacturers, distributors, third-party market participants, and end-use customers.

Quality Assurance/Quality Control Procedures

The specific Gas C&I Program inspection procedures vary based on the type of measure installed and the size of the project. Quality assurance measures include pre- and/or post-inspections to verify the equipment is installed and operating as designed. The Company randomly selects up to ten percent (10%) of the completed prescriptive incentive applications for post-inspection. National Grid is actively working to improve the quality assurance/quality control process and may include more projects beyond the ten percent (10%) standard.

ELECTRIC SELF-DIRECT PROGRAM

A. 2016 Performance Summary

The enrollment period for the initial 2017-2019 Electric Self-Direct Program cycle opened in 2016. As of January 1, 2017, three customers have been enrolled and deemed eligible to submit projects to be completed under the Electric Self-Direct Program.

B. 2017 - 2020 Overview

Design Overview

The Electric Self-Direct Program was designed in accordance with *CE-03: Self-Direct Program Guidance*.[13] As stated in the Self-Direct Program Guidance, the Electric Self-Direct Program is intended to encourage individual customers' unique energy management actions by allowing customers to self-direct funds toward a suite of investments over a period of three years and complement existing or future strategic energy management activities.[14] The Self-Direct Program is available to all individual customers with a 36-month average demand of 2 MW or greater as well as customers with an aggregated 36-month average demand of 4 MW or greater as long as one or more of the accounts being aggregated by the customer has at least a 36-month average demand of 1 MW.[15]

Delivery Overview

1. Program Design

The Electric Self-Direct Program is implemented on a three-year program cycle. Throughout the program cycle, participants are able to access at least 85 percent of their contributions to the EES component of the SBC to fund eligible projects, as agreed upon by the customer and National Grid.

2. Strategic Partnerships

The Electric Self-Direct Program requires National Grid and participating customers to act as partners in proposing, completing, and funding projects. In addition, this program design allows customers with expertise or industry networks to make their own arrangements within the market to support their project completion.

[13] *See* CE-03, Version 2.0, Self-Direct Program Guidance.
[14] *Id.,* p. 1.
[15] *Id.,* p. 3.

3. Customer Outreach and Education

Customers who were individually eligible for the Electric Self-Direct Program (average demand of 2MW or greater) were sent an email introducing them to the program, discussing the timeline for participation, and providing account manager contact information. Additional emails were sent during the enrollment process to further promote the Electric Self-Direct Program. As individual customers reached out to National Grid account managers, one-on-one meetings were held to discuss customer-specific projects and general program requirements.

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

The Self-Direct Program is available to all individual customers with a 36-month average demand of 2 MW or greater, as well as customers with an aggregated 36-month average demand of 4 MW or greater, as long as one or more of the accounts being aggregated by the customer has at least a 36-month average demand of 1 MW. Eligible customers must also contribute to the EES component of the SBC.

Marketing and Promotion

During the enrollment period, the Electric Self-Direct Program was introduced to individually eligible customers through email correspondence from National Grid. The Company also engaged with peer utilities and industry organizations to answer customer questions and provide information on program design details.

Customer Application Process

A common state-wide application was developed in conjunction with regulatory staff, customers, and utility stakeholders, and is part of the Self-Direct Program Guidance.[16] Customers worked with National Grid to submit applications in 2016, and were notified of their enrollment in the Electric Self-Direct Program prior to the end of 2016. Enrolled customers are eligible to submit proposed projects for Company approval throughout the 2017-2019 program cycle using the common state-wide Project Plan document.[17]

Anticipated Participation Levels

The Company enrolled three customers for the 2017-2019 program cycle.

[16] *Id.,* Appendix 1.
[17] *Id.,* Appendix 2.

Multi-Year Strategy

2018: Proposed projects will be reviewed and approved as they are submitted by enrolled customers.

2019: Enrollment for the next program cycle (expected to be 2020-2022) will be opened. The competitive bid process envisioned in the current Self-Direct Program Guidance is expected to be further developed.

2020: The next program cycle is expected to commence and the competitive bid process for the 2017-2019 program cycle will be conducted. The Company also expects to conduct an evaluation of the 2017-2019 program cycle.

Alignment with REV

National Grid offers the Electric Self-Direct Program in compliance with the Track One Order, which requires electric utilities to implement a Self-Direct Program for large electric energy users by January 1, 2017.

Quality Assurance/Quality Control Procedures

Participants in the Electric Self-Direct Program are required to undergo verification of energy efficiency measure installation and evaluation of project savings.

ELECTRIC SMALL BUSINESS SERVICES PROGRAM

A. 2016 Performance Summary

The Electric Small Business Services ("SBS") Program slightly under-achieved its energy savings goal in 2016. The achieved savings were the result of successful revisions to the custom lighting and refrigeration tools, as well as updates to the internal National Grid tracking system, which resulted in easier data entry and tracking of custom measures. Focused marketing initiatives, revised custom screening tools, and lowered material costs all contributed to this program remaining within budget, while meeting and/or exceeding customer expectations.

National Grid will continue to assess the effectiveness of the current model and has undertaken a program review process with a third party to ensure that this program is successful and continues to support State's REV objectives.

B. 2017 - 2020 Overview

Design Overview

The Electric SBS Program strives to improve the energy efficiency of small, non-residential business customers by providing on-site energy audits, savings analyses, incentives, on-bill payment options for customer co-pays, and installation services. The Company provides the funding and overall oversight for the program, which is delivered by third-party vendors. The target market is small to mid-sized electric customers with an average monthly demand of 110 kW or less. These customers are generally served under National Grid's SC2D and SC2 service classifications. Certain non-residential customers in the target market may be on SC1 rates.

Delivery Overview

1. Program Design

The Electric SBS Program is administered by National Grid and vendors who are selected through a competitive bidding process. The program offers two main delivery channels for customers to participate; direct installation with program-approved vendors who conduct audits and then install the equipment, and a Customer Directed Option ("CDO") which has a third-party CDO Administrator contracted to the Company, who in turn manages independent trade ally contractors. For the CDO option, the trade ally must coordinate each project with the CDO Administrator, who manages the project from the audit/ application stage, through incentive offer, to post-retrofit inspection, and payment process.

Trade allies market the Electric SBS Program, perform audits at the customers' facilities, complete audit forms, and provide project proposals to customers including the project costs, estimated annual savings, customer contributions, and

paybacks. The Electric SBS Program offers prescriptive and custom energy savings opportunities. Some of the energy efficiency equipment available through this program includes lighting upgrades (*e.g.,* LED technology), lighting occupancy sensors, and incentives on refrigeration measures. To further animate the market, the CDO also encourages independent contractors to bring electric energy efficiency products to National Grid for consideration.

2. **Strategic Partnerships**

   The direct installation program option allows implementation vendors to work closely with the customer in overcoming common barriers to participation, such as lack of awareness, time and capital, perceived complexity of the technology, and the "landlord/tenant split" incentive. Customers work with preferred vendors and the Company directly, and receive either an incentive based on specific $/kWh for savings achieved, or an incentive of up to 60 percent of the total cost of the project, as determined by program criteria, whichever is less. Eligible customers (based on payment history) have the option of paying for their portion of the project costs by placing those costs on their electric utility bills in twelve monthly installments. Approximately one-half of Electric SBS Program participants to date have taken advantage of this repayment option. Additionally, customers may choose an upfront payment option and receive a discount on their project cost co-payment. Both options help promote customer and vendor participation.

   The CDO channel is overseen by a vendor. Engagement with CDO trade allies and the Company's Channel Sales Team will be expanded based on customer preferences.

3. **Customer Outreach and Education**

   National Grid will focus on directly targeting small business customers through outreach and marketing to increase participation. Vendor and trade ally outreach (with National Grid oversight) will be used as additional means of recruitment. Customer engagement and education will remain a primary focus for the Electric SBS Program

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

Small to mid-sized electric customers with an average monthly demand of 110 kW or less are eligible to participate in the Electric SBS Program, as long as they contribute to the EES component of the SBC.

Marketing and Promotion

Customers are engaged through one-on-one and group meetings, networks of trade allies and trade associations, direct marketing, and other channels as appropriate. Specific marketing initiatives to inform customers and influence their actions include digital and print advertising specific to customer segments, direct outreach efforts (such as email and direct mail) that promote the direct install offering, and other prescriptive and custom incentives.

Due to the varied nature of the customers that can be involved with the Electric SBS Program, expanded targeted marketing opportunities will be instituted. Facts and figures estimating the amount of carbon reduction achieved by energy efficiency measures may also be incorporated into marketing materials to encourage interest in Electric SBS Program measures.

Customer Application Process

Customers can apply directly through National Grid for participation in the Electric SBS Program. Customer service representatives and other sales personnel work directly with the customer to gauge their interest and encourage participation in the program.

Anticipated Participation Levels

The forecasted annual participation for the Electric SBS Program is 2,500 customers.

Multi-Year Strategy

2018: New program measures with a focus on emerging technologies will be introduced. Current model strategies will be evaluated by researching nationwide for best practices. National Grid seeks to ensure that the program operates effectively to enroll small business customers who often have unique challenges and a diverse range of participation barriers, such as insufficient capital investment, time and/or resources. New delivery strategies are currently being explored for 2018, including a Small Business Customer Engagement website.

2019: National Grid will continue to monitor and access this program for opportunities to partner with third parties on collaborative efforts, including alternative financing options. A midstream pilot will be investigated to determine market applicability. Collaboration with NYSERDA will continue as their role under the Clean Energy Fund evolves to ensure there are no market gaps and to provide the best value and service to customers.

2020: Market research will expand to meet developing customer demands, and to achieve a more productive mix of utility and third-party investment in an effort to improve the overall efficiency of the National Grid electric system and increase customer value and choice.

Alignment with REV

Program strategies are aligned with the REV objectives by contributing to the reduction of energy consumption, by promoting customer engagement, and by striving to help customers make informed choices.

Quality Assurance/Quality Control Procedures

Customers must certify satisfaction with the installed measures prior to program vendors billing National Grid. Independent auditors are used to post-inspect a random sample of up to ten percent of completed projects for both the direct install and CDO delivery channels. These auditors are primarily responsible for verifying the counts of installed measures and whether any issues require further attention by the program manager or vendor. In addition, as a means of quality control, the CDO Administrator also independently post-inspects trade ally projects. The Company is actively working to improve the quality assurance/quality control process and may include more projects beyond the ten percent (10%) standard.

ELECTRIC & GAS MULTIFAMILY PROGRAMS

A. 2016 Performance Summary

The Electric Multifamily Program under-achieved its 2016 energy savings goal. The original budget did not provide sufficient incentive dollars per unit to fund the projects needed to reach the savings goal. Therefore, funds were shifted from the Electric C&I Program budget to the Electric Multifamily Program incentive budget, along with additional savings target. After the funds were shifted, the implementation vendor was able to move forward to complete projects with the correct goals. However, the additional savings assigned to the Electric Multifamily Program resulting from the funds shift created a savings shortfall in 2016.

The Gas Multifamily Program over-achieved in its 2016 energy savings goal. Success was primarily driven by the installation of highly cost-effective measures such as thermostats and direct hot water low flow devices, and the ability of the implementation vendor to reach an abundance of customers. Additionally, this program is run in conjunction with the Electric Multifamily Program, which increases its efficiency and effectiveness by providing dual-fuel customers with a comprehensive and holistic approach to energy efficiency.

B. 2017 - 2020 Overview

Design Overview

The Electric Multifamily Program and the Gas Multifamily Program (collectively, "Multifamily Programs") are designed to increase the installation of energy efficiency measures in existing, multifamily buildings within the Company's electric and/or gas service territories by working with property owners, managers, trade allies and tenants. These two Multifamily Programs are delivered in coordination, where possible, and offer free energy audits which identify energy saving opportunities for electric and /or gas measures. Upgrade opportunities in multifamily buildings can be located in common areas and individual units. Available measures include (alone or in combination, but not limited to) a free energy audit, incentives for air sealing, lighting replacements, Wi-Fi-enabled thermostats, low-flow shower heads, faucet aerators, hot and water pipe wrap and tank wrap. The Multifamily Programs target all eligible multifamily buildings with five or more units on a single property owned by a single firm or person, including low-income multifamily residential units.

Delivery Overview

1. Program Design

The Multifamily Programs offer energy efficiency incentives to buildings with either residential or commercial meters, and serve individual units as well as common

areas. Opportunities to offer incentives for non-direct install measures, such as building shell improvements, appliances, and heating and cooling equipment, will be explored in order to achieve more comprehensive energy savings. National Grid will evaluate, refine, enhance, and explore new ways to animate this highly segmented and complex market by delivering comprehensive energy efficiency measures and solutions.

2. Strategic Partnerships

In communities where National Grid does not provide both electric and gas service, opportunities will be pursued to collaborate with peer utilities by engaging a single implementation vendor to coordinate leads, audits, and energy savings between the utilities. The Company will also collaborate with NYSERDA to avoid customer confusion and overlap of services.

3. Customer Outreach and Education

The multifamily housing industry is highly segmented and complex, underscoring the importance of finding the right people to engage and targeting their individual needs. Within this industry there exist multiple decision makers, including property owners, property management companies, building operators, on-site building managers, and tenants. The motivation to invest in energy efficiency varies among each of these entities.

To encourage participation in the Multifamily Programs, National Grid engages building owners via outreach and education on the potential benefits of energy efficiency. Also, energy education and outreach campaigns will be conducted to increase the energy efficiency awareness of targeted customers. Audit reports will be streamlined and abbreviated so as to not overwhelm building owners with excessive information. The Company will develop leave behind operations and maintenance materials for building owners as well as tenants.

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

Tenant customers who live in multifamily buildings with five or more units on a single property, including low-income multifamily residential units, are eligible to participate in the Multifamily Programs as long as they contribute to the EES component of the SBC. Owners of multifamily buildings with five (5) or more units on a single property are eligible to participate in the Multifamily Programs as long as they are a single firm or person and contribute to the EES component of the SBC.

Marketing and Promotion

National Grid will use its customer data and information and any other additional information from partnerships with other state agencies to segment the customer and multifamily building type. This information will then be incorporated into strategies to target and market to the various segments with appropriate value propositions, such as increases in property value, investment return, tenant retention, lower maintenance and energy costs, and environmental benefits.

Marketing efforts will promote success stories and case studies to help educate property owners and manager. Opportunities to utilize industry newsletters to educate market actors, such as engineers, realtors, landlord associations, architects, and/or property managers, will also be investigated. The Company will participate, as appropriate, in trade ally shows, such as realtor and multifamily property manager conferences.

Customer Application Process

There are multiple channels through which single-unit tenants and/or building owners may enroll, including website and telephone registration.

Anticipated Participation Levels

The forecasted annual participation is 14,000 customers for the Electric Multifamily Program and 8,000 customers for the Gas Multifamily Program.

Multi-Year Strategy

2018: Introduction of new technologies and development of leads for in-home audits will be made through an online assessment that will be made available for non-direct install measures. National Grid will also promote the purchase of measures through the Residential Efficiency Platform (described below).

2019: Analysis of prior year successes and challenges will help to determine future offerings and refine program strategy.

2020: A potential pay-for-performance offering in conjunction with NYSERDA will be assessed.

Alignment with REV

Outreach and education will increase customer engagement. Higher incentives for emerging technologies will accelerate customer acceptance of innovative equipment, and support market transformation.

Quality Assurance/Quality Control Procedures

Random post-inspections are performed at up to ten percent of installed projects. The Company is actively working to improve the quality assurance/quality control process and may include more projects beyond the ten percent (10%) standard.

ELECTRIC & GAS RESIDENTIAL ENGAGEMENT PROGRAMS

A. 2016 Performance Summary

Both the Electric Residential Engagement Program and the Gas Residential Engagement Program (collectively, "Residential Engagement Programs") over-achieved their respective 2016 energy savings targets. In the fourth quarter of 2015, the Residential Engagement Programs were expanded to 845,000 electric participants and 270,000 gas participants. As such, 2016 was the first year home energy reports ("HERs") were sent to this expanded customer base.

The Residential Engagement Programs have been very successful and therefore, have not required any fund shifts or gap closures. In the first quarter of 2016, the Residential Engagement Programs launched a points and rewards opportunity giving customers points for taking certain actions. Such actions include committing to an energy savings tip and/or signing up for paperless billing. Points can then be redeemed for different rewards, such as gift cards to local businesses or donations to certain charitable foundations. The Residential Engagement Programs were rolled out in a staggered approach throughout 2016, helping to boost participation and customer engagement. The launch of an integrated website in the first quarter of 2016 was a key component of this success. The website provides customers with a single sign-on, creating greater ease of use. The HERs was also redesigned to addresses customer feedback, thereby providing a more valuable experience to the customer. In sum, the Residential Engagement Programs provide valuable knowledge and education, engage customers in their energy usage, and give them the opportunity to lower their energy bills.

B. 2017 - 2020 Overview

Design Overview

The Residential Engagement Programs are behavioral initiatives to encourage residential customers to change their energy usage behavior to conserve energy. Behavioral initiatives seek to identify the motivational factors which cause residential customers to actively employ personal energy saving actions and/or participate in energy efficiency programs. The target market for the Residential Engagement Programs includes residential electric and/or gas customers, and some individually metered multifamily customers.

Delivery Overview

1. Program Design

One of the new behavioral mechanisms the Company plans to implement is to provide customers with personalized energy information via an energy information platform. The energy information platform uses multiple channels (*e.g.,* web, mail, email) to deliver personalized energy information to residential customers. The information motivates customers to take action to conserve energy use and reduce expense.

The Residential Engagement Programs offer points and rewards, which provide customers the opportunity to earn points in exchange for taking energy actions (such as participating in an online home assessment). These rewards can be redeemed for energy efficient products and gift cards, or used to make charitable donations.

2. Strategic Partnerships

National Grid contracts with a vendor to deliver the energy information platform, define the participant group, the treatment period, engagement mechanisms, content of messaging, and strategy for how these messages tie in with other Company offerings. In addition, a third-party vendor is used for customer contact services and is trained to answer questions about the Residential Engagement Programs.

3. Customer Outreach and Education

Customers receive information through print or emailed HERs that provide a snapshot of the customer's current energy use, while also comparing energy use of the previous year. Additionally, similar sized homes with the same fuel that are located within a fixed radius of the customer's home are also compared. Customers receive personalized information about how to save energy and avoid excessive energy bills. Customers can also take a survey that will determine what equipment or appliances are using the most energy in their home and what behaviors will have the largest impact on their usage.

National Grid also plans to introduce informational campaigns promoting energy use best practices, such as optimal thermostat set points and seasonal energy tips. Energy usage alerts will be used to notify the customer when usage has exceeded their standard profile. The customer will be provided tips to help avoid excessive bills, with suggestions on which actions to take to save energy.

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

Residential electric and gas customers and some individually metered multifamily customers are eligible to participate in the Residential Engagement Programs as long as they contribute to the EES component of the SBC.

Marketing and Promotion

The Residential Engagement Programs use an opt-out model. To ensure that customers are adopting and engaging in the program, marketing and education are continued throughout the customer experience.

Customer Application Process

Customers are selected on a randomized basis and automatically enrolled in the program with the option to opt-out of HERs communications.

Anticipated Participation Levels

The forecasted annual participation is 600,000 customers for the Electric Residential Engagement Program and 250,000 customers for the Gas Residential Engagement Program.

Multi-Year Strategy

2018: The Company will continue to monitor and adjust the Residential Engagement Programs, and will also use the energy information platform to market other energy efficiency strategies or programs.

2019: The Residential Engagement Programs will be monitored and adjusted as needed.

2020: The Company will continue to monitor and adjust the Residential Engagement Programs, as needed, and explore a behavioral demand response component.

Alignment with REV

Customized energy reports and messaging increase customer awareness and customer engagement, and empower customers to make informed choices about their energy use.

Quality Assurance/Quality Control Procedures

The behavioral initiative assigns customers to treatment and control groups. The treatment groups receive mailer-based reports on an ongoing basis and have access to an online portal. Control groups are retained for the purposes of evaluation.

ELECTRIC & GAS RESIDENTIAL EFFICIENCY PLATFORMS
ELECTRIC & GAS NON-RESIDENTIAL EFFICIENCY PLATFORMS

A. 2016 Performance Summary

The Electric Residential Efficiency Platform and the Gas Residential Efficiency Platform (collectively, "Residential Efficiency Platforms") did not achieve any savings in 2016. Due to delays surrounding the Request for Proposals ("RFP") and the vendor acquisition process, as well as data system issues, the Residential Efficiency Platforms did not launch in 2016. The Residential Efficiency Platforms are expected to launch in 2017. Funding in 2016 was used to support the initial start-up and development costs of the Residential Efficiency Platforms.

The Electric Non-Residential Efficiency Platform and the Gas Non-Residential Efficiency Platform (collectively, "Non-Residential Efficiency Platforms") were not launched in 2016, and therefore, there is no applicable 2016 Performance Summary to report. Due to delays with implementing the Residential Efficiency Platforms during 2016, the Non-Residential Efficiency Platforms are expected to launch in 2018 after successful implementation and lessons learned are analyzed from the launch of the Residential Efficiency Platforms in 2017.

B. 2017 - 2020 Overview

Design Overview

The Residential Efficiency Platforms and Non-Residential Efficiency Platforms (collectively, the "Efficiency Platforms") include individualized customer education on specific energy efficiency opportunities for customers' homes or businesses. The Efficiency Platforms provide an intuitive, visual, and interactive tool to engage the customer, and allow customers to take immediate action with instant financial incentives and rebates. The Efficiency Platforms will drive action, educate, and provide customer intelligence for a more customized online experience. The target market for the Residential Efficiency Platforms is single-family residential and multifamily electric and/or gas customers. The target market for the Non-Residential Efficiency Platforms is all small and medium electric and/or gas business customers.

Delivery Overview

1. Program Design

Customers will complete an online energy assessment that will collect information about their homes or businesses and their usage habits. The online assessment will then generate a report that provides customers a disaggregation of their energy usage and details for a variety of recommendations on how they can save energy. These tips will direct the customer to an e-commerce website where they will have

the opportunity to purchase smaller, self-install measures. National Grid will provide an instant rebate for smaller measures and will allow customers to begin the rebate process for larger measures (*i.e.*, appliances) by being directed to other online retailers to purchase such measures.

2. **Strategic Partnerships**
   The online assessment and marketplace platforms will be delivered by vendors selected through a competitive procurement process. Customers will be directed to the platforms through links on the National Grid website, as well as be informed through other marketing and outreach efforts. Lead vendors will be responsible for managing the platforms, as well as customer outreach, education, data tracking, and analytics in partnership with National Grid. Customer insights will inform future initiatives, offerings and strategies, as well as customized and targeted messaging.

3. **Customer Outreach and Education**
   Customers will be directed to the online assessment via the National Grid website, HERs, National Grid marketing messaging, and/or through presentations at community events. Customers who do not have internet access will be mailed a paper version of the assessment, and subsequently will be mailed an energy assessment report with the opportunities and actions they can take to improve energy efficiency within their home or business.

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

Residential and multifamily electric and/or gas customers are eligible to participate in the Residential Efficiency Platforms as long as they contribute to the EES component of the SBC.

Non-residential small to mid-sized electric customers with an average monthly demand of 110 kW or less are eligible to participate in the Electric Non-Residential Efficiency Platform as long as they contribute to the EES component of the SBC. Non-residential gas customers are eligible to participate in the Gas Non-Residential Efficiency Platform as long as they contribute to the EES component of the SBC.

Marketing and Promotion

Marketing efforts will be designed to meet the objectives of driving more customers to the National Grid website to complete the online assessment and take advantage of electric and/or gas energy efficiency measures at the e-commerce website to maximize energy savings. The Company will conduct market segmentation to target homes,

communities, and businesses with the most opportunity to save energy. This initiative may include customer outreach via direct and broad based channels.

Customer Application Process

Customers will be able to access the online assessment through National Grid's website. Customers will have the option to create a profile and sign in to this profile to save their information and track their progress.

The online assessment will link the customer to the e-commerce store where they can purchase measures through a secure online system. For smaller energy efficiency measures, rebates will be applied instantly with no application process necessary. For larger energy efficiency measures, customers can begin the application process through the e-commerce store and complete it once they receive a receipt or invoice to verify their purchase.

Anticipated Participation Levels

The forecasted annual participation is 40,000 customers for the Electric Residential Efficiency Platform and 14,500 customers for the Gas Residential Efficiency Platform.

The forecasted annual participation is 3,750 customers for the Electric Non-Residential Efficiency Platform and 1,100 customers for the Gas Non-Residential Efficiency Platform.

Multi-Year Strategy

2018: New technologies and measures for the on-line e-commerce store will be investigated through engagement with third-parties with knowledge of the most energy efficient products available. Customer insights gained from the online assessments will be used to determine new offerings and streamline existing offerings. Focus will also be on connecting customers to demand reduction opportunities for purchased measures, layering incentives, and bundling measures to encourage deeper energy savings.

2019: National Grid will conduct an intensive review of the customer experience to identify opportunities to streamline and simplify content that will drive customers to take action on energy efficiency. Customer insights gained from the online assessments will be used to determine new offerings and streamline existing offerings during the launch of the Non-Residential Efficiency Platforms.

2020: New technologies and appliances for customers to review and purchase via the online e-commerce store will be evaluated and added, as appropriate. Collaboration with NYSERDA to offer a contractor network platform where customers can choose a contractor to install their measures will also be investigated.

Alignment with REV

The online assessment increases customer engagement through education, and the e-commerce website allows customers to take immediate action by purchasing and installing energy efficiency measures. Higher incentives for cutting-edge technologies will accelerate customer acceptance of innovative equipment and support market transformation.

Quality Assurance/Quality Control Procedures

National Grid will evaluate the success of the online assessment and the e-commerce tools using key performance metrics that may include visits to the website, completion of online assessments, email information received, number of visits to the e-commerce website, subsequent energy efficiency measures purchased, and non-instant energy efficiency measures researched. Regular tests of the website will be performed to insure a seamless customer experience, and modify and fine tune the online process as needed to maximize the success of the online experience.

ELECTRIC RESIDENTIAL CONSUMER PRODUCTS PROGRAM

A. 2016 Performance Summary

The Electric Residential Consumer Products Program ("Electric Residential Program") under-achieved its 2016 energy savings target due to challenges reaching customers and engaging them to participate. In 2015, this program had included appliance recycling, which was very effective and often accounted for the majority of the savings achieved. Appliance recycling was discontinued at the end of 2015, and only a few cost effective measures remained in the Electric Residential Program for customers in 2016. National Grid implemented marketing campaigns and direct targeted marketing strategies in order to reach new and existing customers. Wi-Fi-enabled thermostats have since been added to the Electric Residential Program for customers with whole-home central air conditioning and will link customers who purchase thermostats to the Company's demand response program to keep customers engaged and give them opportunities to manage their energy usage.

B. 2017 - 2020 Overview

Design Overview

The Electric Residential Program is designed to increase customer awareness of the importance and benefits of purchasing high efficiency electric appliances and products. This initiative seeks to expand the availability, customer acceptance, and use of high-quality energy-efficient technologies. The target market for this program is residential electric customers that reside in single family homes or multifamily buildings with less than five units.

Delivery Overview

1. **Program Design**

   The Electric Residential Program educates customers and vendors regarding the benefits of high-efficiency equipment to increase customer acceptance of these products and to encourage customers to purchase ENERGY STAR® certified models when they shop.

2. **Strategic Partnerships**

   National Grid has partnered with a major appliance retailer to place point of purchase displays in retail outlets to promote high-efficiency appliances and recycling. Training is provided to employees in each store so they can be one-on-one consumer educators and effective champions for energy-efficient appliances and associated environmental benefits.

3. Customer Outreach and Education

National Grid employs outreach contractors who recruit manufacturers, wholesale distributors and retailers (including discount retail outlets) to participate in the Electric Residential Program. The outreach contractors train wholesale and retail employees, place point of purchase materials in participating wholesale and retail stores, and act as a liaison between the utility, manufacturers, wholesale distributors and retailers. In the future, methods to cross-promote the Electric Residential Program through HERs, online assessments, and the Residential Efficiency Platform will be explored to better inform customers regarding the full suite of residential offerings.

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

Residential electric customers in single family home or multifamily buildings with less than five units are eligible to participate in the Electric Residential Program as long as they contribute to the EES component of the SBC.

Marketing and Promotion

The Electric Residential Program will be cross-promoted through HERs, online assessments, an e-commerce website, and traditional and digital marketing methods.

Customer Application Process

Customers may complete their rebate application online and monitor their application as it progresses through the submission, review, and payment cycle. Paper application forms are also offered for customers who do not have computer access. The Electric Residential Program employs a competitively bid rebate processing contractor, who will also be used in the companion Gas Residential Program, to process both mail-in and online rebates. This contractor provides documentation for program tracking and evaluation purposes.

Anticipated Participation Levels

The forecasted annual participation for the Electric Residential Program is expected to be 600 customers.

Multi-Year Strategy

2018: Various methods to increase customer participation will be explored. These include, ways to shorten rebate cycle times and automate processes, increasing consumer awareness and adoption of the highest efficiency appliances, and identification of tactics to support deeper savings through education, and promotion. Higher incentives for cutting-edge measures may be instituted, if appropriate. National

Grid will also monitor more efficient products for consumers, such as those with higher tier ratings by ENERGY STAR®.

2019: To further enhance the customer experience, the Company and its rebate implementation vendor will explore opportunities to offer instant rebates using mobile technology.

2020: The Company will explore incorporating measures into the Residential Efficiency Platform and discontinuing the stand-alone Electric Residential Program.

Alignment with REV

Higher incentives for cutting-edge technologies will potentially accelerate customer acceptance of innovative equipment and support market transformation.

Quality Assurance/Quality Control Procedures

Random post-inspection of up to ten percent (10%) of approved rebates will be conducted to verify the incentivized equipment is installed. The Company is actively working to improve the quality assurance/quality control process and may include more projects beyond the ten percent (10%) standard.

GAS RESIDENTIAL PROGRAM

A. 2016 Performance Summary

The Gas Residential Program under-achieved its 2016 energy savings target. The Gas Residential Program faced challenges reaching and re-engaging customers to participate in the program as it has been in the market for many years and has already reached a large volume of customers. To continue engaging customers and create awareness surrounding new technologies, two separate week-long Wi-Fi-enabled thermostat email flash sales were held in partnership with Nest. National Grid also identified applications that could not be processed because of missing or incorrect information, and made process improvements to commence outbound calls directly to customers to resolve the issues and make the necessary corrections. This resulted in a higher number of processed applications and supported customer satisfaction. Other strategies used to close the gap and acquire additional savings included encouraging customers to apply online to decrease application process times and working with marketing to extend digital media campaigns.

B. 2017 - 2020 Overview

Design Overview

The primary objective of the Gas Residential Program is to overcome market barriers and increase market awareness and penetration of high-efficiency equipment, including gas heating, water heating, associated controls, and water tank wraps. Rebates are provided to customers to offset the higher cost of their investment in high-efficiency equipment.

Delivery Overview

1. **Program Design**

   The Gas Residential Program educates customers, plumbing/heating installers, and vendors regarding the benefits of high-efficiency gas equipment to increase customer acceptance of these products and to encourage consumers to purchase ENERGY STAR® certified or higher efficiency equipment or models when they shop.

2. **Strategic Partnerships**

   National Grid has well established trade ally networks in place. Through periodic training and one-on-one assistance, these trade allies are educated on the benefits of high-efficiency equipment and controls along with the current incentive offerings and online rebate application process.

3. **Customer Outreach and Education**
   The Gas Residential Program will be cross-promoted through HERs, online assessments, and the Residential Efficiency Platform, as well as traditional marketing methods.

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

Residential gas customers in single family homes or multifamily buildings with less than five units are eligible to participate in the Gas Residential Program as long as they contribute to the EES component of the SBC.

Marketing and Promotion

The Gas Residential Program will be cross-promoted through HERs, online assessments, an e-commerce website, and traditional and digital marketing methods.

Customer Application Process

Customers may complete their rebate application online, and monitor their application as it progresses through the submission, review, and payment cycle. Paper application forms are also offered for customers who do not have computer access. The Electric Residential Program employs a competitively bid rebate processing contractor, who will also be used in the companion Gas Residential Program, to process both mail-in and online rebates. This contractor provides documentation for program tracking and evaluation purposes.

Anticipated Participation Levels

The forecasted annual participation for the Gas Residential Program is expected to be 11,000 customers.

Multi-Year Strategy

2018: To further enhance the customer experience, the Company and its rebate implementation vendor will explore opportunities to offer instant rebates using mobile technology.

2019: Gas measures will be offered through the Residential Efficiency Platform.

2020: A pay-for-performance offering in conjunction with NYSERDA's Energy Efficiency Meter project will be evaluated by National Grid. The Company will also explore applying rebates directly to customer bills.

Alignment with REV

Higher incentives for cutting-edge technologies will accelerate customer acceptance of innovative equipment and support market transformation. Encouraging customers to purchase high-efficiency heating equipment through the Residential Efficiency Platform may provide opportunities to position National Grid as a trusted energy advisor and reduce incentives necessary to influence the customer.

Quality Assurance/Quality Control Procedures

Random post-inspection of up to ten percent (10%) of approved rebates will be conducted to verify the incentivized equipment is installed. The Company is actively working to improve the quality assurance/quality control process and may include more projects beyond the ten percent (10%) standard.

ELECTRIC & GAS TIERED INCENTIVE STRUCTURE

A. 2016 Performance Summary

Historical performance information is not available, as this will be a new offering in 2018.

B. 2017 - 2020 Overview

Design Overview

The goal of the Tiered Incentive Structure is to make customer incentives more dynamic, reflective of the value to National Grid's electric distribution system, and supportive of the State's clean energy priorities. The Tiered Incentive Structure intends to create "tiers" for certain criteria that, when met, will increase the total incentive paid to the customer, as compared to a traditional energy efficiency incentive. Criteria are based on the needs of the distribution system and clean energy goals. The Company currently envisions this will be offered in both the Residential and C&I sectors, but the specific programs that will incorporate this Tiered Incentive Structure are not yet known.

Delivery Overview

1. **Program Design**

   The Tiered Incentive Structure will be integrated into the scope of an existing energy efficiency program. The Company is currently working to identify the qualifying tiers that will be offered, and is exploring opportunities for encouraging connected devices and controls, bundling measures, and recognizing the demographics of the customer. The goal of the Tiered Incentive Structure is to maximize the incentive budget for a given program while communicating the value of energy efficiency as a resource on National Grid's electric and gas distribution systems.

2. **Strategic Partnerships**

   The Company foresees that the tiers will ultimately incorporate distributed energy resource ("DER") initiatives. In addition, successful implementation of the Tiered Incentive Structure is expected to lead to increased opportunities for coordination with peer utilities and third parties.

3. **Customer Outreach and Education**

   As the Tiered Incentive Structure is expected to be incorporated into existing programs within the residential and C&I sectors, specific Tiered Incentive Structure outreach and education plans will be folded into those programs.

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

Customer eligibility will be determined through their inclusion in existing residential and C&I programs that incorporate the Tiered Incentive Structure, as well as individual qualifiers for each individual tier, which will be defined once the Tiered Incentive Structure is more fully developed.

Marketing and Promotion

Marketing efforts for the existing programs will be leveraged to communicate the Tiered Incentive Structure within the residential and C&I sectors. Specific marketing materials and messaging may be developed to support various opportunities presented in each tier.

Customer Application Process

The Company expects the customer application process will follow the existing energy efficiency programs in which the Tiered Incentive Structure is incorporated.

Anticipated Participation Levels

Anticipated participation levels are dependent on which existing energy efficiency programs are chosen to incorporate the Tiered Incentive Structure.

Multi-Year Strategy

2018: National Grid intends to implement the Tiered Incentive Structure within an existing energy efficiency program in both the residential and C&I sectors.

2019: The success of each tier will be evaluated and may result in the adjustment or expansion of tiers as needed.

2020: National Grid will reflect on the success of the Tiered Incentive Structure in supporting certain metrics, and will evaluate opportunities to expand to other areas of the ETIP portfolios.

Alignment with REV

The Tiered Incentive Structure aims to reflect the value of energy efficiency, as a DER, to the electric and gas distribution system and support the State's clean energy priorities. This opportunity will encourage specific customer behaviors that will leverage other Company DER offerings and support the clean energy market in New York.

Quality Assurance/Quality Control Procedures

Quality assurance procedures will be aligned with the procedures for the existing energy efficiency programs chosen to incorporate the Tiered Incentive Structure.

ELECTRIC & GAS PARTNERSHIP PROGRAMS

A. 2016 Performance Summary

Historical performance information is not available, as this will be a new offering in 2018.

B. 2017 - 2020 Overview

Design Overview

The Company is proposing to investigate partnership opportunities for energy efficiency programs in coordination with technology providers, both energy and non-energy utilities, and other third party market participants. The goal of such partnership programs will be to achieve additional energy savings on behalf of National Grid by leveraging other entities' relationships with customers, expanding energy management tools for customers, and achieving additional metrics. Partnership program opportunities will be evaluated in 2017, with implementation of certain initiatives to commence in 2018. The target market for these partnership programs will be dependent on the scope of each opportunity and is not yet known.

Delivery Overview

1. **Program Design**

   Partnership programs are intended to coordinate National Grid's energy efficiency efforts with other clean energy and customer priorities. The Company expects that coordination of various programs will leverage opportunities to engage customers with energy efficiency while supporting the goals of other entities. For example, where there is an overlap of customers, program coordination could be between National Grid and a water utility, wherein the Company could encourage energy efficiency measures that also conserve water. Expectations include a sharing of program costs and joint communications to promote such a program. Another such opportunity may be to work with a third party provider to support a pilot program designed to introduce customers to a specific technology or offering. The Company is in the process of identifying program opportunities and is pursuing initiatives to implement in 2018.

2. **Strategic Partnerships**

   The partnership programs are intended to strategically align opportunities that exist within the energy sector and the market generally so as to create value for customers.

3. **Customer Outreach and Education**
   Customer outreach and education efforts will be dependent on the scope of the partnership program and the customers being targeted. Such details will be known when specific partnership programs are further defined.

C. 2017 - 2020 Design & Delivery Details

Customer Eligibility

Customer eligibility will be dependent on the scope of each partnership program.

Marketing and Promotion

Specific marketing and promotion activities will be dependent on the scope of each partnership program, the target market, and the specific goals. Such details will be known when specific partnership programs are scoped for implementation.

Customer Application Process

The customer application process will be dependent on the scope of each partnership program, the target market, and existing efforts within the given sector. Such details will be known when specific partnership programs are scoped for implementation.

Anticipated Participation Levels

Anticipated participation levels will be dependent on the scope of each partnership program.

Multi-Year Strategy

2018: The Company will implement new partnership programs in select markets, in coordination with other entities.

2019: Working in conjunction with its program partners, National Grid will evaluate successes and challenges, and will adjust, renew, or discontinue partnership programs as needed.

2020: Select partnership programs will be integrated into National Grid's permanent portfolio of energy efficiency offerings.

Alignment with REV

Leveraging strategic partnerships to promote the Company's energy efficiency goals in coordination with other clean energy or customer opportunities will drive greater value for customers, while reducing costs and adding customer tools.

Quality Assurance/Quality Control Procedures

Quality assurance procedures will be dependent on the scope of each partnership program.

Appendix: 2016 Annual Reporting Requirement

Niagara Mohawk Power Corporation d/b/a National Grid

Pursuant to CE:06 ETIP Annual Reporting Guidance,[18] the Company is providing this annual report as a component of this ETIP reflective of the progress toward achieving metrics as stated in the previous years' final ETIP filing. The following tables and information are provided to summarize the Company's annual performance.

[18] *See* CE-06 ETIP Annual Reporting Guidance, Version 1.0 (dated May 12, 2017).

I. Budget and Target Activity Summary

ELECTRIC

TOTAL FUNDS EXPENDED AND ENCUMBERED

ELECTRIC PORTFOLIO	Planned Annual Budget	Expended	Encumbered	Total Expended & Encumbered
Commercial & Industrial Sector				
Electric Commercial & Industrial Program				
Incentives & Services	$ 16,329,938	$ 13,002,269	$ -	$ 13,002,269
Program Implementation	$ 3,177,066	$ 2,210,190	$ -	$ 2,210,190
Total Budget	**$ 19,507,004**	**$ 15,212,459**	**$ -**	**$ 15,212,459**
Small Business Program				
Incentives & Services	$ 13,907,501	$ 13,066,877	$ -	$ 13,066,877
Program Implementation	$ 577,555	$ 582,933	$ -	$ 582,933
Total Budget	**$ 14,485,056**	**$ 13,649,810**	**$ -**	**$ 13,649,810**
Multifamily Sector				
Electric Multifamily Program				
Incentives & Services	$ 900,777	$ 1,427,803	$ -	$ 1,427,803
Program Implementation	$ 148,297	$ 190,643	$ -	$ 190,643
Total Budget	**$ 1,049,074**	**$ 1,618,446**	**$ -**	**$ 1,618,446**
Residential Sector				
Residential Engagement Program				
Incentives & Services	$ 7,175,000	$ 7,175,000	$ -	$ 7,175,000
Program Implementation	$ 40,000	$ 16,592	$ -	$ 16,592
Total Budget	**$ 7,215,000**	**$ 7,191,592**	**$ -**	**$ 7,191,592**
Residential Efficiency Platform				
Incentives & Services	$ 1,727,687	$ -	$ -	$ -
Program Implementation	$ 523,000	$ 106,430	$ -	$ 106,430
Total Budget	**$ 2,250,687**	**$ 106,430**	**$ -**	**$ 106,430**
Electric Residential Consumer Products				
Incentives & Services	$ 266,400	$ 78,059	$ -	$ 78,059
Program Implementation	$ 57,693	$ 46,476	$ -	$ 46,476
Total Budget	**$ 324,093**	**$ 124,535**	**$ -**	**$ 124,535**
Total Portfolio				
Total Electric Portfolio				
Total C&I Programs	$ 33,992,060	$ 28,862,269	$ -	$ 28,862,269
Total Multifamily Programs	$ 1,049,074	$ 1,618,446	**$ -**	$ 1,618,446
Total Residential Programs	$ 9,789,780	$ 7,422,557	$ -	$ 7,422,557
Portfolio Administration	$ 4,133,385	$ 2,535,124	$ -	$ 2,535,124
Portfolio EM&V	$ 2,493,595	$ 262,972	$ -	$ 262,972
Total Electric Portfolio Budget	**$ 51,457,894**	**$ 40,701,368**	**$ -**	**$ 40,701,368**

ELECTRIC BUDGET VARIANCE DISUSSION

ELECTRIC MULTIFAMILY PROGRAM

The Electric Multifamily Program spent $1,618,446 in the Incentives and Services and Program Implementation budget categories compared to a budget of $1,049,074. During the latter part of 2016, this program was projected to overspend its originally planned budget. Consequently, $700,000 was shifted from the Electric C&I Retrofit Program in order to keep this program open and achieve the 2016 expected savings target.

ELECTRIC RESIDENTIAL EFFICIENCY PLATFORM

The Electric Residential Efficiency Platform spent $106,430 in the Incentives and Services and Program Implementation budget categories compared to a budget of $2,250,687. These funds were allocated to vendor set-up costs, which commenced in late 2016. The Company encountered some technical issues which delayed the program launch in 2016; the expected launch date is June, 2017.

ELECTRIC RESIDENTIAL CONSUMER PRODUCTS PROGRAM

The Residential Electric Consumer Products Program spent $124,536 in the Incentives and Services and Program Implementation budget categories compared to a budget of $324,093. This program faced challenges when it came to reaching customers and engaging them. Participation was lower than anticipated despite several marketing promotions and direct targeted marketing campaigns.

ELECTRIC PORTFOLIO ADMINISTRATION

The Portfolio Administration budget category spent $2,535,124, compared to a budget of $4,133,385. The Portfolio Administration budget includes costs to administer energy efficiency programs and includes, but is not limited to, staff salaries, Company overhead, supplies, program literature, advertising, and all forms of media such as direct mail, print, radio, television and internet. The variance in the Portfolio Administration budget category is due to fewer than anticipated full-time employees charging the program and less than anticipated spend in outreach and marketing.

TARGETS ACQUIRED AND COMMITTED

ELECTRIC PORTFOLIO	Planned Annual Targets	Acquired in 2016	Committed at Year End	Year Total
Commercial & Industrial Sector				
Electric Commercial & Industrial Program				
MWh	83,070	98,230		98,230
Small Business Program				
MWh	61,869	57,515	-	57,515
Multifamily Sector				
Electric Multifamily Program				
MWh	5,822	4,632	-	4,632
Residential Sector				
Electric Residential Engagement Program				
MWh	74,979	100,728	-	100,728
Electric Residential Efficiency Platform				
MWh	4,165	-	-	-
Electric Residential Consumer Products				
MWh	800	234	-	234
Total Portfolio				
Total Electric Portfolio				
MWh	**230,705**	**261,339**	**-**	**261,339**

ELECTRIC TARGET VARIANCE DISUSSION

ELECTRIC RESIDENTIAL ENGAGEMENT PROGRAM

The Electric Residential Engagement Program acquired 100,728 MWh compared to a savings target of 74,979 MWh. As such, 2016 was the first year HERs were sent to this expanded customer base. In Q1 of 2016, this program launched its Points and Rewards Program, allowing customers to earn points for taking certain actions, such as committing to an energy savings tip or signing-up for paperless billing. Points could be redeemed for rewards such as gift cards or can be converted to a charitable donation. The Points and Rewards Program was rolled out in waves throughout 2016 helping to boost participation and customer engagement. Additionally, this program launched an integrated website in 2016. The website provides electric and gas customers with single sign-on creating greater ease of use. The launch of HER 2.0 in Q4 2016, which provides a redesigned report that addresses customer feedback, was also instrumental in the program's success.

ELECTRIC RESIDENTIAL EFFICIENCY PLATFORM

The Electric Residential Efficiency Platform did not achieve any savings resulting in a hundred percent variance from the expected savings target. Due to technical issues, the program did not launch in 2016, and therefore, did not acquire any electric energy savings. The expected launch date is June 2017.

ELECTRIC RESIDENTIAL CONSUMER PRODUCTS PROGRAM

The Residential Electric Consumer Products Program acquired 234 MWh, compared to a savings target of 800 MWh. This program saw participation from 1,235 customers and faced challenges when it came to reaching and engaging customers to participate in the program. In 2015, this program previously included appliance recycling, which was very effective and often accounted for the majority of the savings achieved. At the end of 2015, it was necessary to discontinue the appliance recycling portion of the Consumer Products Program. The discontinuation of the appliance recycling and the limited number of cost-effective measures offered to customers contributed to lower than anticipated savings achievements in 2016.

GAS

TOTAL FUNDS EXPENDED AND ENCUMBERED

GAS PORTFOLIO	Planned Annual Budget	Expended	Encumbered	Total Expended & Encumbered
Commercial & Industrial Sector				
Gas Commercial & Industrial Program				
Incentives & Services	$ 2,284,489	$ 1,189,803	$ -	$ 1,189,803
Program Implementation	$ 574,975	$ 245,444	$ -	$ 245,444
Total Budget	**$ 2,859,464**	**$ 1,435,247**	**$ -**	**$ 1,435,248**
Multifamily Sector				
Gas Multifamily Program				
Incentives & Services	$ 320,410	$ 436,065	$ -	$ 436,065
Program Implementation	$ 122,645	$ 44,118	$ -	$ 44,118
Total Budget	**$ 443,055**	**$ 480,183**	**$ -**	**$ 480,183**
Residential Sector				
Gas Residential Engagement Program				
Incentives & Services	$ 662,000	$ 662,000	$ -	$ 662,000
Program Implementation	$ 31,000	$ 12,952	$ -	$ 12,952
Total Budget	**$ 693,000**	**$ 674,952**	**$ -**	**$ 674,952**
Gas Residential Efficiency Platform				
Incentives & Services	$ 300,000	$ -	$ -	$ -
Program Implementation	$ 340,000	$ 106,224	$ -	$ 106,224
Total Budget	**$ 640,000**	**$ 106,224**	**$ -**	**$ 106,224**
Gas Residential Program				
Incentives & Services	$ 3,034,358	$ 2,440,367	$ -	$ 2,440,367
Program Implementation	$ 383,926	$ 340,630	$ -	$ 340,630
Total Budget	**$ 3,418,284**	**$ 2,780,997**	**$ -**	**$ 2,780,997**
Total Portfolio				
Total Gas Portfolio				
Total C&I Programs	$ 2,859,464	$ 1,435,247	$ -	$ 1,435,247
Total Multifamily Programs	$ 443,055	$ 480,183	**$ -**	$ 480,183
Total Residential Programs	$ 4,751,284	$ 3,562,173	$ -	$ 3,562,173
Portfolio Administration	$ 1,968,645	$ 1,497,229	$ -	$ 1,497,229
Portfolio EM&V	$ 526,814	$ 96,168	$ -	$ 96,168
Total Gas Portfolio Budget	**$ 10,549,262**	**$ 7,071,000**	**$ -**	**$ 7,070,999**

GAS BUDGET VARIANCE DISUSSION

GAS COMMERCIAL & INDUSTRIAL PROGRAM

The Gas Commercial and Industrial Program spent $1,435,248 compared to a budget of $2,859,464. The Company shifted $150,000 from the Incentive and Services budget to the Incentive and Services budget of the Gas Multifamily Program. Several large projects contributed to the program achieving goal.

GAS RESIDENTIAL EFFICIENCY PLATFORM

The Gas Residential Efficiency Platform spent $106,224 compared to a budget of $640,000. Funds spent were allocated to vendor set-up costs which commenced in late 2016. The Company encountered some technical issue which delayed the program launch in 2016; the expected launch date is June 2017.

TARGETS ACQUIRED AND COMMITTED

GAS PORTFOLIO	Planned Annual Targets	Acquired in 2016	Committed at Year End	Year Total
Commercial & Industrial Sector				
Gas Commercial & Industrial Program				
Dth	93,064	156,607	-	156,607
Multifamily Sector				
Gas Multifamily Program				
Dth	18,232	40,558	-	40,558
Residential Sector				
Gas Residential Engagement Program				
Dth	69,661	115,207	-	115,207
Gas Residential Efficiency Platform				
Dth	36,000	-	-	-
Gas Residential Program				
Dth	233,445	176,074	-	176,074
Total Portfolio				
Total Gas Portfolio				
Dth	**450,402**	**488,446**	**-**	**488,446**

GAS TARGET VARIANCE DISUSSION

GAS COMMERCIAL & INDUSTRIAL PROGRAM

The Gas Commercial and Industrial Program acquired 156,607 Dth savings, compared to a savings target of 93,064 Dth. Program performance was enhanced by focusing on metrics and improving internal processes. Marketing efforts were targeted and focused on specific market segment in various areas of the National Grid service territories.

Identification of specific market segments and a “tag-team” approach with the electric portfolio has proven to be successful for this gas program.

GAS MULTIFAMILY PROGRAM

The Gas Multifamily Program acquired 40,558 Dth of savings compared to a savings target of 18,232 Dth. Savings achievements were primarily driven by the installation of measures such as thermostats and direct hot water low flow devices as well as the ability of the implementation vendor to reach many customers. The program is run in conjunction with the Electric Multifamily Program, which increases its efficiency and effectiveness by providing dual-fuel customers with a comprehensive and holistic approach. The Company shifted $150,000 to the Incentive and Services budget category from the Gas Commercial and Industrial Program in 2016 which allowed the program to meet customer demand.

GAS RESIDENTIAL ENGAGEMENT

The Gas Residential Engagement Program acquired 115,207 Dth of savings compared to a savings target 69,661 Dth. As such, 2016 was the first year HERs were sent to this expanded customer base. In Q1 of 2016, the program launched its Points and Rewards Program allowing customers to earn points for taking certain actions, such as committing to an energy savings tip or signing-up for paperless billing. Points can be redeemed for rewards such as gift cards or can be converted to a charitable donation. The Points and Rewards Program was rolled out in waves throughout 2016 helping to boost participation and customer engagement. Additionally, the program launched an integrated website in Q1 2016. The website provides electric and gas customers with a single sign-on, creating greater ease of use. The launch of HER 2.0 in Q4 2016, which provides a redesigned report that addresses customer feedback, was also instrumental in the program’s success.

GAS RESIDENTIAL EFFICIENCY PLATFORM

The Gas Residential Efficiency Platform did not achieve any savings. Due to technical issues the program did not launch in 2016 and therefore did not acquire any gas savings. The expected launch date is June 2017.

II. Evaluation, Measurement, and Verification ("EM&V")

ELECTRIC

EM&V ACTIVITY EXPENDITURES

ELECTRIC PORTFOLIO	2016 Planned Expenditures	Expended	Encumbered	Total Expended & Encumbered
Non-Residential – Large Commercial and Industrial				
1. Impact/Process/NTG/Market Effects Studies	$425,000	$0	$0	$0
2. Market and Technical Potential	$0	$0	$0	$0
3. Comprehensive Top Tier Customers	$50,000	$0	$0	$0
Non-Residential Small Business				
4. Impact/Process/NTG/Market Effects/Persistence Studies	$230,000	$0	$0	$0
Non Residential General				
5. Technology & Market Potential and Cost & Savings Analyses	$110,000	$0	$0	$0
6. C&I M&V Activities	$454,000	$0	$0	$0
7. TRM Activities and Building Code Change Effects	$100,000	$0	$0	$0
8. BCA Framework Activities	$50,000	$0	$0	$0
9. C&I Load Shape Management EM&V	$0	$0	$0	$0
Multifamily				
10. Process & Impact Evaluation*	$49,038	$0	$0	$0
Residential				
11. Market Assessment	$120,000	$0	$0	$0
12. Consumer Products Evaluation	$75,000	$0	$0	$0
13. Behavioral Program Process & Impact Evaluation*	$24,936	$0	$0	$0
14. Customer Profile Study*	$0	$0	$0	$0
15. TRM, BCA, Measure Costs, & Savings Impact Activities*	$159,591	$0	$0	$0
16. Supply Side Population Assessment*	$0	$0	$0	$0
17. M&V Activities*	$49,873	$0	$0	$0
Total EM&V	**$1,897,438**	**$0**	**$0**	**$0**

EM&V DISCUSSION & VARIANCES

The forecasted 2016 electric EM&V activity expenditures of $1,897,438, as filed on April 1, 2016, were unspent as of December 31, 2016. Funds will be rolled over and expended in future years. EM&V studies that were expected to start in 2016 are scheduled to begin in 2017, with many of these studies focusing on 2016 ETIP program participants.

WITHDRAWN OR COMPLETED EM&V ACTIVITES

EM&V Activity (Electric)	Status	Details & Significant Dates
N/A		

GAS

EM&V ACTIVITY EXPENDITURES

GAS PORTFOLIO	2016 Planned Expenditures	Expended	Encumbered	Total Expended & Encumbered
Non-Residential				
1. Market Assessment, Market Effects, and Market Potential Study	$25,084	$0	$0	$0
2. Process & Impact Evaluation	$0	$0	$0	$0
3. Heating Equipment Full Load Hours Study	$25,084	$0	$0	$0
4. TRM, BCA, Measure Costs, & Savings Impact Activities	$33,445	$0	$0	$0
5. M&V Activities	$28,429	$0	$0	$0
Multifamily				
6. Process & Impact Evaluation*	$59,408	$0	$0	$0
Residential				
7. Behavioral Program Process & Impact Evaluation*	$13,202	$0	$0	$0
8. Customer Profile Study*	$0	$0	$0	$0
9. TRM, BCA, Measure Costs, & Savings Impact Activities*	$84,494	$0	$0	$0
10. Supply Side Population Assessment*	$0	$0	$0	$0
11. M&V Activities*	$26,404	$0	$0	$0
12. HEHE Process & Impact Evaluation*	$100,081	$0	$0	$0
Total EM&V	**$395,631**	**$0**	**$0**	**$0**

EM&V DISCUSSION & VARIANCES

The forecasted 2016 gas EM&V activity expenditures of $395,631, as filed on April 1, 2016, were unspent as of December 31, 2016. Funds will be rolled over and expended in future years. EM&V studies that were expected to start in 2016 are scheduled to begin in 2017, with many of these studies focusing on 2016 ETIP program participants.

WITHDRAWN OR COMPLETED EM&V ACTIVITES

EM&V Activity (Electric)	Status	Details & Significant Dates
N/A		

III. Program Summary

ELECTRIC AND GAS PROGRAM NARRATIVES

See section *VIII. Program Descriptions*, sub-section *A. 2016 Performance Summary*, within the main body of this document for a brief description of the status of each of the energy efficiency programs that National Grid has implemented during the 2016 program year. This includes a brief description of any impediments to achieving program goal or items of concern or interest that arose during the program year.

ELECTRIC AND GAS 2016 BCA PERFORMANCE

The BCA results, based on actual 2016 values, improved from the filed 2016 ETIP on April 1, 2016. The main variables that changed in the benefit cost calculation were total annual program savings and total annual program spend. Improvements in those variables were primarily driven by changes in measure mix, levels of customer uptake and an improvement in the dollar per dekatherm as compared to the plan.

2016 BCA Inputs:

1. LRACs for electricity and CO_2 emissions from the 2008 LRACs issued and effective on 01/16/2009,[19] and natural gas and CO_2 emissions from the 2008 LRACs issued and effective on 04/09/2009;[20]

2. Program implementation costs, including incentives and services, contractor and employee costs, administrative costs, outreach and education costs, and evaluation, measurement and verification costs from 2016 actual program costs; and

3. Savings from 2016 actual program net savings.

[19] *See* 2009 Fast Track Electric EE Program Order, *supra.*
[20] *See* 2009 Fast Track Gas EE Program Order, *supra.*