

May 1, 2017

VIA ELECTRONIC DELIVERY

Honorable Kathleen H. Burgess
Secretary
New York State Public Service Commission
Three Empire State Plaza, 19th Floor
Albany, New York 12223-1350

**RE: Case 14-M-0101 – Proceeding on Motion of the Commission in Regard to
Reforming the Energy Vision (REV)**

**NIAGARA MOHAWK POWER CORPORATION d/b/a NATIONAL
GRID: CLIFTON PARK DEMAND REDUCTION REV
DEMONSTRATION PROJECT- Q1 2017 REPORT**

Dear Secretary Burgess:

Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid”) hereby submits for filing its quarterly update to the Clifton Park Demand Reduction REV Demonstration Project Implementation Plan covering the period of January 1, 2017 to March 31, 2017 (“Q1 2017 Report”) as required by the REV Demonstration Project Assessment Report (“Assessment Report”) filed by the New York State Department of Public Service Staff (“Staff”) with the Commission on December 1, 2016 in Case 14-M-0101.

Please direct any questions regarding this filing to:

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Hon. Kathleen H. Burgess, Secretary
National Grid: Clifton Park Demand Reduction REV Demonstration Project
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National Grid looks forward to continuing to work collaboratively with Staff as it proceeds with the implementation of the Clifton Park Demand Reduction REV Demonstration Project.

Respectfully submitted,

/s/ Karla M. Corpus

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Senior Counsel

Enc.

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**Clifton Park Demand Reduction
REV Demonstration Project**

Q1 2017 Report

May 1, 2017

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1.0 Executive Summary

On January 17, 2017 Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid” or “the Company”) filed an Implementation Plan for its Demand Reduction REV Demonstration Project (the “Project”), which is designed to provide residential customers in the Town of Clifton Park (“Clifton Park” or the “Town”) with price signals, tools and information, enabled by infrastructure investments and distributed energy resources (“DER”), to reduce electric demand during peak times and inform the Reforming the Energy Vision (“REV”) proceeding.¹

The Project aligns with the New York Public Service Commission’s (“Commission”) Order Adopting a Ratemaking and Utility Revenue Model Policy Framework (“REV Track Two Order”) wherein the Commission asserts “[o]ne of the most important objectives of REV is improving overall system efficiency including the efficiency of capital investment to create value for customers. Toward that objective, electric peak reduction is among the most immediate priorities for REV implementation.”² National Grid believes that it is possible to create more responsive relationships with customers by leveraging critical infrastructure, customer outreach and engagement, deep energy insights and actionable information, as well as price signals and DER products and services, which incentivize customers to reduce peak electric load and overall electric and gas energy use. Toward that end, the following elements are included in the Project:

- Infrastructure
 - Advanced Metering Functionality (“AMF”)
 - Volt/VAR Optimization (includes Conservation Voltage Reduction) (“VVO”)
- Customer Outreach & Engagement
- Deep Energy Insights & Actionable Information
- Price Signals
 - Peak Time Rewards (“PTR”)
 - Voluntary Time-of-Use (“VTOU”) Rate
- DER Services

The customers participating in this project are contained within the city limits of Clifton Park as shown below. The total number of impacted customers is approximately 14,400.

¹ Case 14-M-0101, *Proceeding on Motion in Regard to Reforming the Energy Vision* (“REV Proceeding”), National Grid Demand Reduction REV Demonstration Project in Clifton Park Implementation Plan (filed January 17, 2017) (“Implementation Plan”).

² REV Proceeding, Order Adopting a Ratemaking and Utility Revenue Model Policy Framework (“Track Two Order”) (issued May 19, 2016) p.72.

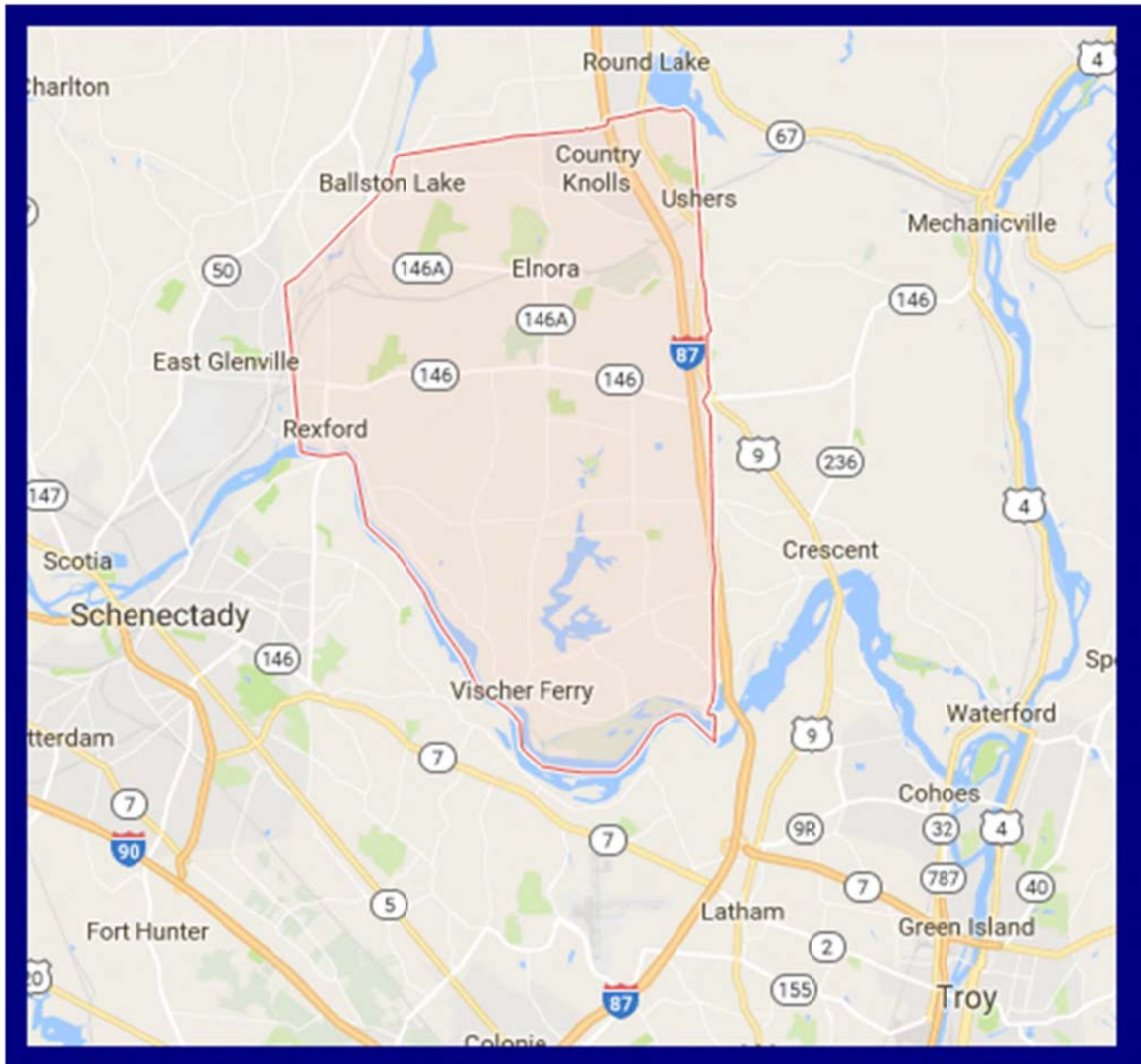


Figure 1: City of Clifton Park

Project Elements

A summary of the Project's key services and offerings are provided below. With the exception of VVO, customers can opt-in or opt-out of each Project element. A description of each Project element is included with the individual sections of this report.

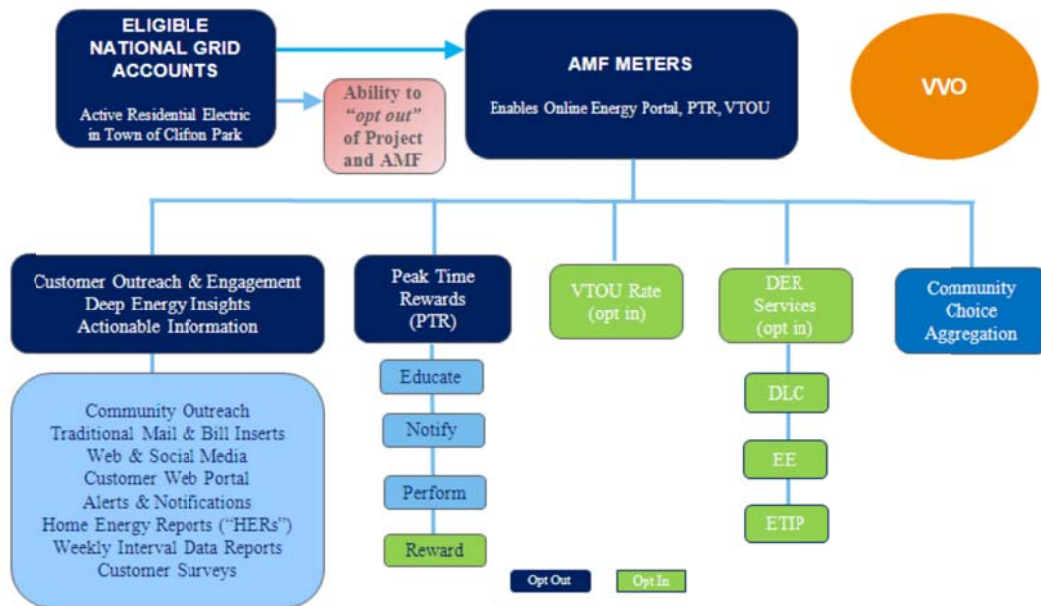


Figure 2: Project Elements

2.0 Highlights Since Previous Quarter

The following highlights key activities accomplished to date on the Project, as well as key activities planned for the next quarter.

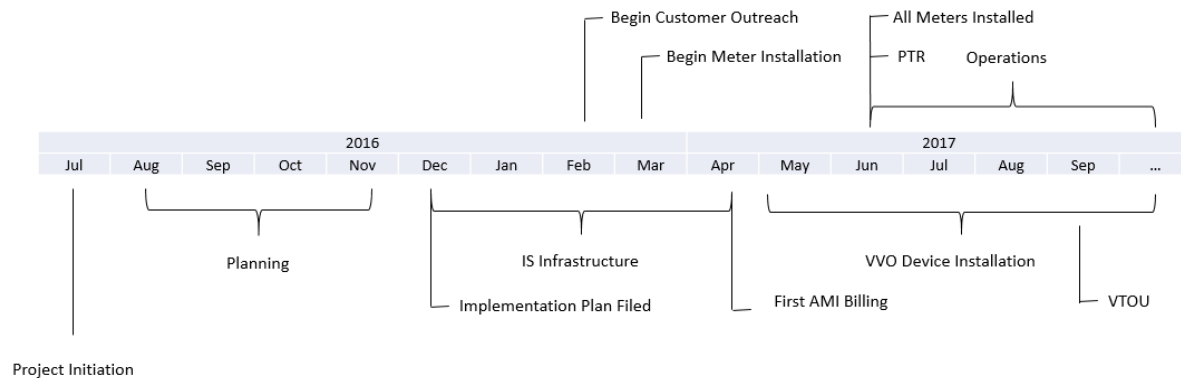


Figure 3: Work Plan Summary

2.1 Major Task Activities

2.1.1 Advanced Metering Functionality

Advanced Meter Functionality (“AMF”) deployment in Clifton Park will replace existing National Grid electric meter reading and billing processes. AMF meters will be read and data transferred over the cellular network to National Grid for utility billing. Data will also be transferred to Project partners over secure networks to enable various elements of the Project, including the customer web portal. Interval data will also be used for deployment of PTR, billing of the VTOU rate, and to support authorized Project evaluation activities.

AMF deployment commenced the end of the first quarter of 2017. Customer letters introducing them to smart energy solutions and postcards alerting them of the AMF installation process timeframe were distributed prior to installations. This allowed for a period during which customers could opt out of the AMF metering technology, as well as certain other aspects of the Project.

Customers choosing not to have AMF installed have been directed to a specialized team at the National Grid Call Center, which in turn directs Customer Meter Services (“CMS”) not to install an AMF meter for those customers. Those customers will instead retain their existing automatic meter reading (“AMR”) meter, or if they had previously elected the “AMR Opt-Out Option”, retain a non-AMR meter. Additionally, during the Project term, customers have the option to have their AMF meter removed and replaced with an AMR meter at no cost to the customer.

2.1.1.1 Information Services Activities (“IS”)

Timeframe	Completed Milestones
1 st Quarter 2017	<ul style="list-style-type: none"> Enhanced customer system architecture reading AMF meters and bill customers on existing rates.
	<ul style="list-style-type: none"> Developed and tested interface between Itron and National Grid to retrieve data for all AMF meters.
	<ul style="list-style-type: none"> Developed and tested 2-way communication interface between National Grid and its Project partner, Itron, using Verizon Multiprotocol Label Switching (“MPLS”) cloud technology.
	<ul style="list-style-type: none"> Began Phase 2 design efforts with Opower and the National Grid Advanced Data Analytics (“ADA”) team.
	<ul style="list-style-type: none"> Provided Call Center training to National Grid employees.

2.1.1.2 Meter Installation Activities

Timeframe	Completed Milestones
1 st Quarter 2017	<ul style="list-style-type: none"> Installed meters per schedule indicated in Figure 4.
	<ul style="list-style-type: none"> Total Meters installed: 5,074: <ul style="list-style-type: none"> Total Electric Meters installed: 2,788; Total Gas Meter Encoder receiver transmitters (“ERTs”) installed: 2,286.
	<ul style="list-style-type: none"> Completed 88 Quality Control checks after installation.
	<ul style="list-style-type: none"> Completed 30 real time performance audits.

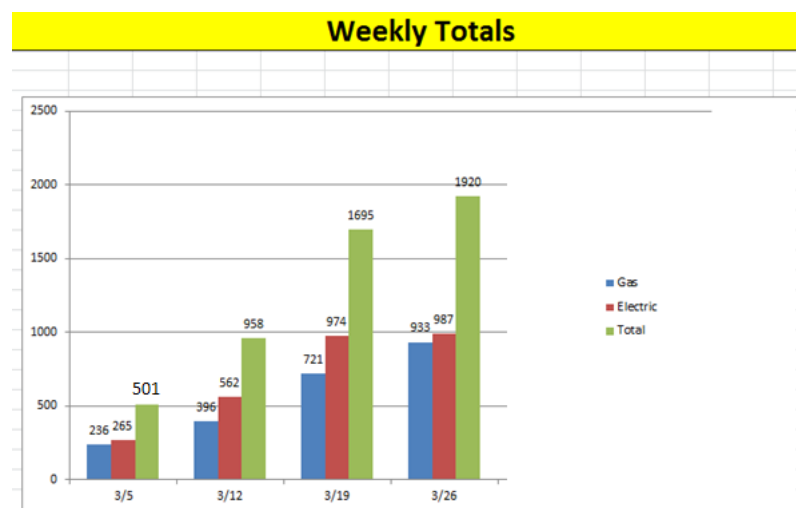


Figure 4: Meter Installation Activity

2.1.2 Volt/VAR Optimization

National Grid will enhance the efficiency of the electric distribution system through the installation of software and devices that better regulate the voltage of the distribution system. These system enhancements will benefit all customers connected to the substations being upgraded. Working with the Project's VVO partner (Utilidata), National Grid will install devices on the distribution system that monitor voltage along with advanced controllers for voltage regulators and reactive capacitors.

National Grid will evaluate the extent to which optimized regulation of the voltage and power factor of the electric distribution system benefits customers, ultimately reflected by improved feeder power factor, flatter voltage profiles, reduced feeder losses, reduced peak demand, and reduced energy consumption by customers.

VVO includes:

- Three Substation Transformer Load Tap Changers;
- Eleven Feeders, including:
 - 11 estimated, 12 actual Line Voltage Monitors;
 - 39 estimated, 31 actual Advanced Switching Capacitors; and
 - 8 estimated, 6 actual Pole Top Regulators;
- A central controller and data concentrator installed at the National Grid Control Center in Liverpool, New York;
- Supervisory control via National Grid's Supervisory Control and Data Acquisition ("SCADA") and Energy Management System ("EMS"); and
- Cellular connectivity between all field, substation devices, and the data concentrator.

Timeframe	Completed Milestones
1st Quarter 2017	• Completed and approved Technical Scoping Documents for Elnora and Grooms Road Substations.
	• Field verified all device (<i>e.g.</i> , capacitors) locations.
	• Finalized single line diagrams and provided those to Utilidata (VVO Partner).
	• Designed 33% of field device upgrades.
	• Ordered long lead-time project equipment to ensure delivery dates.

2.1.3 Customer Outreach

National Grid will engage residents of the Clifton Park community to educate energy consumers about the Project and solicit input. The strategies to be used include:

- Community outreach;
- Mail and bill inserts;
- Web and Social Media.

Community Outreach

Prior to moving ahead with community outreach, National Grid conducted research to better understand customers' awareness of smart energy solutions and to understand what would drive them to participate. Based on the research, some high-level findings include:

- 37% of the Residents in Clifton Park are aware of Smart Energy Solutions;
- Saving money is a key driver for participation;
- 49% of customers were interested in Smart Energy Solutions when they learned it were “free”;
- Segmented messaging by age group allowing National Grid to deliver relevant and motivating information specific to each defined age group.

To effectively engage the Town, National Grid worked to engage community leaders through coordination with the Town leadership, and hosted community meetings such as those at the Clifton Park-Halfmoon Public Library.

Mail and Bill Inserts

Prior to the installation of AMF, National Grid delivered a set of communications via standard mailings to introduce Clifton Park customers to Smart Energy Solutions and notify them of the imminent arrival of the AMF meter technology. Customers were asked to contact National Grid if they did not want to receive a new AMF meter. Each letter spoke to the key benefits of the Project and touched upon key Project elements available immediately and in the future.

These communications were sent in the form of direct mail and bill inserts. (See attached [Appendix B](#) - Sample Smart Energy Introduction Letter to Customers, and Sample bill insert, for examples.)

National Grid also sent out a series of meter installation notifications letting customers know when their new meters would be installed. Included in these communications was an invitation to attend one of the Company's customer outreach and education meetings to learn more about the Project, ask questions and interact with the National Grid team.

Following the installation of an AMF meter, customers receive educational materials focused on the various Project elements, such as enrolling in Peak Time rewards. Bill inserts will be incorporated four (4) times per year as new Project elements are rolled out and media updates will be on-going throughout the year.

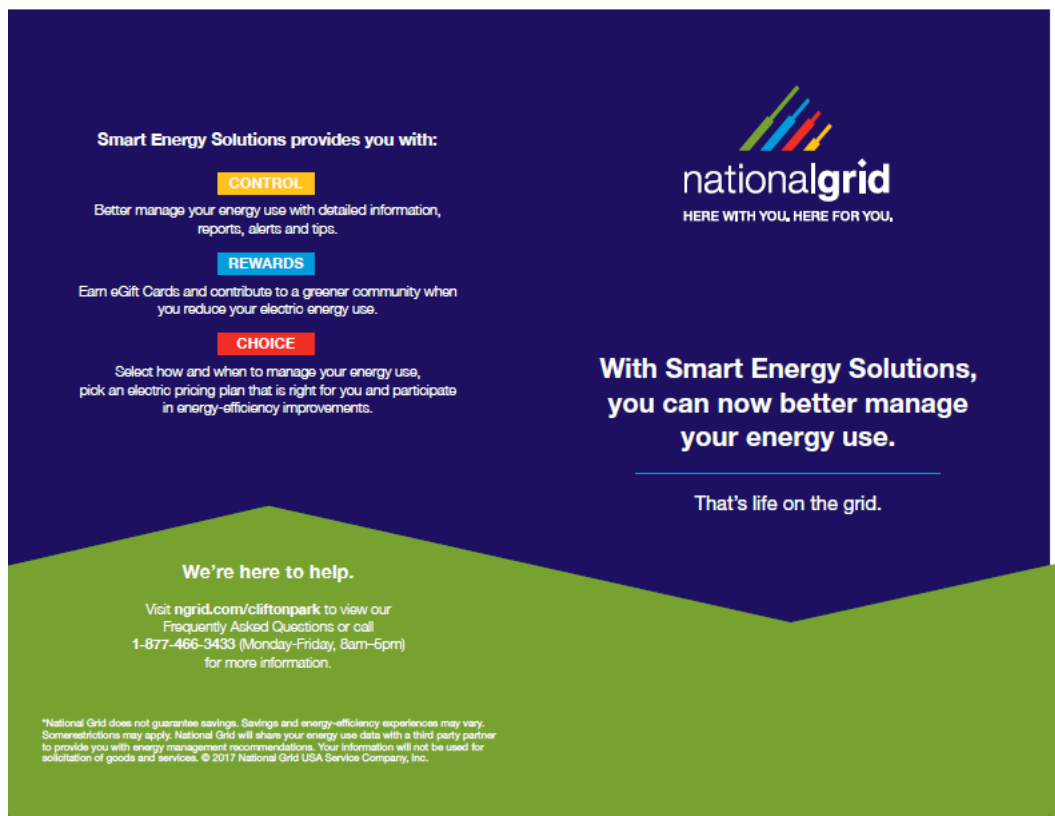
Web and Social Media

National Grid continues to expand the existing Clifton Park micro-site, a component of the Company's current <http://www.nationalgrid.com> website, to include information on the Project for all Clifton Park residents.

As the Project progresses, the Project website will include the following information:

- Frequently Asked Questions Video overview of the Project
<https://vimeo.com/209611691/bd2127692f>
- Information about PTR and the VTOU rate as the program elements are rolled out
- Energy services information and sign-up options for DER products and services will be available once AMF is installed (e.g., PTR)
- <http://www.ngrid.com/cliftonpark> will be updated throughout the year to announce the rollout of new products and services.

National Grid also proactively monitors open social media sites to join any conversations regarding the Project and to help answer questions about it.



Smart Energy Solutions provides you with:

CONTROL
Better manage your energy use with detailed information, reports, alerts and tips.

REWARDS
Earn eGift Cards and contribute to a greener community when you reduce your electric energy use.

CHOICE
Select how and when to manage your energy use, pick an electric pricing plan that is right for you and participate in energy-efficiency improvements.

nationalgrid
HERE WITH YOU, HERE FOR YOU.

With Smart Energy Solutions, you can now better manage your energy use.

That's life on the grid.

We're here to help.
Visit ngrid.com/cliftonpark to view our Frequently Asked Questions or call 1-877-466-3433 (Monday-Friday, 8am-5pm) for more information.

*National Grid does not guarantee savings. Savings and energy-efficiency experiences may vary. Some restrictions may apply. National Grid will share your energy use data with a third party partner to provide you with energy management recommendations. Your information will not be used for solicitation of goods and services. © 2017 National Grid USA Service Company, Inc.

Today, we have so many ways to better manage our lives. Like mobile phones – where you can track your use and make informed choices. Or, online banking, where you instantly know how and where you are spending your money. **With Smart Energy Solutions, you get that and so much more. You'll be able to make informed choices, take control of your energy use and earn rewards.**

It's easy to get started!

Create an online profile

To access Smart Energy Solutions, you will need to have a National Grid online profile.

- 1 Go to ngrid.com/cliftonpark
- 2 Click on [Join/Sign In](#) located at the top of the screen
- 3 Click on [Join Now](#)
- 4 Fill out the form and click on [Continue](#)
- 5 Verify the information and click on [Add an account to my profile](#)
- 6 Fill out the form and click on [Add this account](#)
- 7 Confirm the information and click on [Continue](#)

Note: you will need your National Grid account number to create your online profile.

Log in

After you have created an online profile, it's simple to access your account.

- 1 Go to ngrid.com/cliftonpark
- 2 Click on [Join/Sign In](#) located at the top of the screen
- 3 Enter username and password then click [Sign In](#)


"I am very satisfied with the program and I have saved a lot of money." – *Smart Energy Solutions Customer in Worcester, MA*

Smart Energy Solutions has helped customers in Worcester, MA collectively save a total of 2,300 megawatt-hours – enough to power a local library in Worcester, MA for nearly a year

Now you can better manage your energy use.

Access Smart Energy Solutions, anywhere and any time.

Track your energy use.



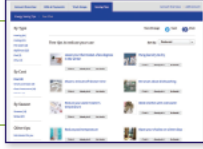
You will be able to view monthly energy use data. However, in approximately one month, you will be able to view daily information.

Go to: Track Usage

Get energy-saving tips.

Receive personalized recommendations on how to reduce your energy use.


Go to: Saving Tips and Rewards



Earn rewards.

Get rewarded with points that can be redeemed for eGift Cards when you reduce your energy use during Conservation Days. These are the times when energy use in our community reaches its highest levels.

Go to: Saving Tips and Rewards



An average customer can expect to earn over \$20 per year!

Earn 150 points when you create your online profile!

Figure 5: Bi-fold Flyer

Timeframe	Completed Milestones
1 st Quarter 2017	<ul style="list-style-type: none"> • Confirmed customer web landing page.
	<ul style="list-style-type: none"> • Delivered direct mailings to customers via direct mail and bill inserts regarding smart energy systems availability in Clifton Park.
	<ul style="list-style-type: none"> • Delivered meter installation notifications to applicable customers prior to meter installations.
	<ul style="list-style-type: none"> • Conducted community outreach meetings with Town residents on 3/29/2017 at the local public library.
	<ul style="list-style-type: none"> • Held a meeting with the Town's Green Committee to talk about smart energy solutions available through the Project.
	<ul style="list-style-type: none"> • Developed leave behind materials for customers that attended the outreach meetings.
	<ul style="list-style-type: none"> • Enhanced the FAQ information and responses based on community feedback, to be included on the Project website and addressed during community meetings.

Timeframe	Completed Milestones
	<ul style="list-style-type: none"> Performed AMF opt-out monitoring (to date 2% of residential customers have opted out); <ul style="list-style-type: none"> 320 customers requested to opt-out in Q1; 78 were incurred during field installations; and 242 were incurred via the National Grid Call Center. Re-mailed those customers that had opted out and invited them to the April community meeting to learn more about the AMF meters and other Project features, while offering them the availability of opting back into the Project.

HERE WITH YOU. HERE FOR YOU.

Upstate NY

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[Report a Power Outage](#)
[Join/Sign In](#)
[Contact Us](#)

[Your Account >](#)
[Your Home >](#)
[Your Business >](#)
[Business Partners >](#)
[Our Company >](#)

[Pay Bill](#)

Home > Ways to Save > Energy Saving Programs > Introducing Smart Energy Solutions

Introducing Smart Energy Solutions

National Grid is committed to providing Clifton Park residents with more control over your energy use.

National Grid Smart Energy Solutions is an innovative energy management program developed specifically for our Clifton Park customers to help you manage energy use and potentially save money. Smart Energy Solutions will provide you with:

CONTROL: Better manage your energy use with near real-time information, detailed reports, alerts and tips.

REWARDS: Earn gift cards and contribute to a greener community when you reduce your electric energy usage.

Questions?

[Email us for more information.](#)

Latest News

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Figure 6: Web Portal Landing Page

CURRENT BILL

DETAIL OF CURRENT CHARGES					
Delivery Services					
Electricity Delivery					
Service Period	No. of days	Current Reading	-	Previous Reading	= Total Usage
Feb 8 - Mar 10	30	79007	Actual	78336	Actual 671 kWh
METER NUMBER 1234567		NEXT SCHEDULED READ DATE ON OR ABOUT Apr 12			

BILL ONCE NEW METERS ARE INSTALLED

DETAIL OF CURRENT CHARGES					
Delivery Services					
Electricity Delivery					
		Energy-kWh			
Metered Usage		670 kWh			
Billed Usage		671 kWh			
METER NUMBER 1234567		NEXT SCHEDULED READ DATE ON OR ABOUT Apr 12			
SERVICE PERIOD Feb 9 - Mar 10		NUMBER OF DAYS IN PERIOD 29			

Figure 7: Example of Bill with AMI Meter

2.1.4 Peak Time Rewards (“PTR”)

Through a single marketing message, “Reduce Your Energy Usage and Earn a Gift Card Reward,” National Grid will seek to incentivize Clifton Park customers to reduce electric use during specified peak times. Participating customers will be rewarded for curtailing electric load through behavioral actions such as turning off lights and adjusting their thermostats.

Key elements of PTR include:

- Event performance analytics performed on all customers with AMF;
- No penalties for failure to reduce load during PTR events;
- Pre-event and post-event notifications;
- Rewards earned by those enrolled in “Points and Rewards”; and
- Rewards awarded based on participation in up to twenty (20) PTR events per year.

Timeframe	Completed Milestones
1st Quarter 2017	• Evaluated event call criteria.
	• Completed customer facing materials for communications; welcome letter, pre-event emails, post event emails.
	• Confirmed proof of concept for web portal.
	• Evaluated business requirements for supporting PTR throughout the Project.
	• Opt-out subscribe / unsubscribe plan was completed.

To ensure customer privacy is protected, vendor contracting is taking longer than anticipated, which poses the risk that completion of the PTR launch will be delayed.

Track Energy Usage

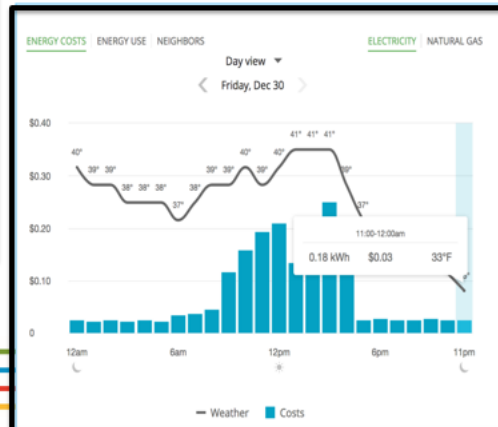
nationalgrid
HERE WITH YOU. HERE FOR YOU.



Customers will be able to track their energy usage, compare previous bills and will receive tips on how to reduce their energy usage.

Note:

Presentment of data on the track usage page will look different for customers in Clifton Park come June (see below)



This is a Mock up-not FINAL

Figure 8: Sample Energy Tracking Web Portal for PTR

2.1.5 Advanced Data Analytics (“ADA”)

As part of the Project, National Grid will be installing metering technology that will enable the recording of customer electricity usage on a more frequent basis than what has been done in the past. The increased frequency (*i.e.*, interval) of meter reads enables National Grid to build an hourly profile of usage. It also enables National Grid to forecast usage under a variety of different conditions.

Customers utilize energy differently, but every customer's usage can be characterized by what is known as a 'load shape'. Simply put, a load shape is a representation of a customer's usage on a 15-minute basis throughout each day. Two (2) types of load shapes are required to understand if a customer has participated in the Peak Time Rewards Program. The customer's actual load shape, which is the representation of the customer's usage as determined by the meter reads collected, and the customer's forecasted load shape, which is a representation of a customer's usage pattern, taking historical interval meter reads and weather into account. The accuracy of the customer's usage pattern as defined by the forecasted load shape will be impacted by the amount of historical meter data collected and the interval with which it is collected. Therefore, National Grid will utilize as much historical interval meter reading data as possible in the creation of the forecasted load shape for each customer.

The forecasted load shape is built using analytical modeling techniques that are designed to build a mathematical model to determine what a customer's usage would be given the inputs of weather, time of day, day of week, if the day is a holiday or not, as well as others. The same type of mathematical model is used for every customer; however, customers will have different parameters that drive the model. This, coupled with the customer's historical usage habits, allows the model to be specific to each customer. The forecasted load shape is built for every customer, and is used to represent what a customer's load would have been if a demand response event was not called.

When a demand event is called, National Grid will monitor actual electric usage during the event. This actual usage determines the customer's Actual Load Shape during the event period. National Grid then utilizes the customer's forecasted load shape using the actual conditions that occurred during the event as input to the mathematical equation that built the forecasted load shape. This enables National Grid to compare the customer's actual usage to the customer's forecasted usage under the same conditions. The difference between the forecasted and actual usage during the event is what will be used to determine if participation occurred or not.

The Advanced Data Analytics Project team members are responsible for evaluating residential energy use and building a baseline model for residential customers per the above. The purpose is to monitor if each customer has reduced usage and by how much during a PTR event.

Timeframe	Completed Milestones
1 st Quarter 2017	• Designed forecasting model.
	• Performed preliminary environment testing.
	• Began PTR Analytics Environment Build.

2.1.6 Voluntary Time-of-Use (“VTOU”) Rate

The VTOU rate will be tested in Clifton Park on an opt-in basis. The VTOU rate, which became effective December 1, 2016³, includes three (3) rate periods for supply; on-peak, off-peak and super-peak, as well as an on-peak and off-peak period for delivery.

Timeframe	Completed Milestones
1 st Quarter 2017	• Rate approved 12/1/2016 for entire jurisdiction.
	• Filed Petition for Limited Waiver regarding monthly incremental metering fee for Clifton Park customers utilizing VTOU rate. ⁴

2.1.7 Distributed Energy Resource Services (“DER”)

In addition to reducing peak load through energy insights, actionable information and price signals, National Grid seeks to animate the market by working with third-party DER providers and/or facilitating DER providers’ services as part of the Project. DER products and services will be opt-in offerings to customers, publicized via the customer engagement channels outlined above as well as community outreach. DER services may include energy efficiency, demand response, or renewable distributed generation opportunities.

DER providers will gain value by leveraging National Grid’s communications channels to those customers opting in to receive such communications, and in turn, DER providers will contribute toward Project revenues in the form of referral incentive fees.

National Grid is continuing to consider additional DER providers and will investigate each to determine their appropriateness for inclusion in this Project.

³ See National Grid’s Electricity Tariff, Service Classification 1, Special Provision L, “Residential Time of Use Delivery and Commodity Rate”.

⁴ See REV Proceeding, Petition for Waiver of Incremental Metering Costs Associated with Voluntary Time of Use (VTOU) Rates (filed January 30, 2017).

2.1.8 Community Choice Aggregation (“CCA”)

National Grid engaged with Clifton Park officials and community members on the potential for CCA. After the filing of the Implementation Plan, the Town decided to not include this as part of the Project.

2.1.9 Project Management Group

The Project Management Group is a construct of individuals who strive to keep the Project on track with regard to scope, schedule and budget, while lending visibility into processes, accomplishments, and financial tracking. The team (see [Appendix A](#)) regularly engages in, and promotes, the following:

- Weekly Core Team Status Reporting;
- Monthly Steering Committee Meetings;
- Monthly General Staff Meetings;
- Quarterly PSC Reporting;
- Issues Tracking;
- Lessons Learned Recording and Review;
- Change Log Processes; and
- Financial Reporting activities.

Timeframe	Completed Milestones
1st Quarter 2017	• Established governance model for the Project, including an organizational structure and communication plan.
	• Established weekly reporting standards and metrics for core team leads.
	• Created financial tracking metrics for budget versus actual spend, by work stream, and recorded progress on a monthly basis.
	• Established tracking for risks and issues across the Project team.

2.1.10 Challenges, Changes, and Lessons Learned






Qtr	Issue or Change	Resulting Change to Project Scope/Timeline?	Strategies to Resolve	Lessons Learned
Q1.17'	Opower contracting is taking longer than anticipated which will delay the PTR launch.	Each week slip in contract resolution results in a week delay in beginning PTR activities. As such, the PTR estimated completion has slipped from 6/5/2017 to 6/19/2017.	Continue working to resolve issues with vendor.	Engage in contract resolution activities early.
Q1.17'	The Town made a decision to not pursue CCA as part of this Project.	Efforts associated with CCA are excluded from the Project schedule as well as the Project budget.	None.	None.

3.0 Next Quarter Forecast


During the 2nd Quarter of 2017, the Project team will finalize Phase 1 efforts and begin Phase 2 of the Project.




3.1 Check Points/Milestone Progress







3.1.1 Summary

	Checkpoint/Milestone	Anticipated Start-End Date	Revised Start-End Date	Status
1	Phase I: Network Configuration and Meter Deployment; Peak Time Rewards Operations	1/2/17 – 6/16/17	1/2/17 - 6/16/17	
2	Phase 2: Volt/VAR Optimization; Voluntary Time Of Use; REV Operations and Evaluation	6/19/17 – 9/30/19	6/19/17 – 9/30/19	
Key  On-Track  Delayed start, at risk of on-time completion, or over-budget  Terminated/abandoned checkpoint				

3.1.2 Work Stream - 2nd Quarter 2017

Work Stream	Future Milestones	Status
Information Systems ("IS")	• Finalize Phase 2 Design, begin build and system testing.	
	• Accurately bill all accounts with AMF meters.	
	• Resolve issues identified as result of Phase 1 activities.	
	• Increase bandwidth through Verizon to handle additional volume.	

Work Stream	Future Milestones	Status
	<ul style="list-style-type: none"> • Develop and test interface between ADA and Itron/Opower/Customer Service System. • Develop and test interface between Opower and Itron/ADA/Customer Service System through Verizon MPLS. • Retire field deployment devices used during the installation of meters for configuration purposes, switching back to in-house work management system. 	
Meter Installation	<ul style="list-style-type: none"> • Complete all remaining meter installations and verify connectivity. • Target 20,926 Total Meters to be installed: <ul style="list-style-type: none"> ○ Targeted Electric Meters to be installed: 11,212; ○ Targeted Gas Meter ERTs to be installed: 9,714. • Targeted Quality Control checks after installation: 250. • Targeted real time performance audits: 60. 	
Volt/VAR Optimization ("VVO")	<ul style="list-style-type: none"> • Complete design of 100% of field device upgrades. • Install 50% of field equipment. • Complete Elnora substation transformer controller upgrade. • Complete Grooms Road substation transformer controller upgrade. 	
Customer Outreach	<ul style="list-style-type: none"> • Conduct community outreach meetings with residents on 4/27/2017 and 6/12/2017 at the Clifton Park - Halfmoon Public Library. • Continue meter installation notifications. • Conduct national Grid Call Center Training regarding Peak Time Rewards and Web Portal on 5/10/2017. • Send out email communications regarding enrollment in Peak Time Rewards on 4/27/17 and 5/15/17. • Send direct mail to customers regarding Conservation Day; target 5/22/2017. • Launch web portal with AMF data in June so customers can see interval data. 	

Work Stream	Future Milestones	Status
Peak Time Rewards (“PTR”)	• Finalize event call criteria.	
	• Select and utilize Itron evaluation model for comparison with ADA results.	
	• Develop AMI high-bill alerts and notification plan.	
	• Officially launch PTR program (in conjunction with customer outreach).	
Advanced Data Analytics (“ADA”)	• Complete PTR Analytics Build-out.	
	• Perform system testing.	
	• Begin processing event analysis.	
Voluntary Time-of-Use (“VTOU”)	• Investigate technologies and vendors of voice recognition technology for SHR and engage in discussions.	
	• Plan for Q3/Q4 communication content.	
	• Secure PSC approval of Petition for Limited Waiver.	
Distributed Energy Resources (“DER”)	• National Grid is continuing to consider additional DER providers and will investigate each provider to determine appropriateness of including them in the Project.	
Project Management Group	Conduct monthly Steering Committee team meetings.	
	Generate and maintain Lessons Learned log.	
Project Management Group	• Establish and maintain Change Log, reporting as modifications to the Project arise.	
	• Continue tracking, monitoring and controlling the Project schedule, tracking on a weekly basis.	
	• Continue tracking, monitoring and controlling the Project financials, tracking on month-by-month basis.	
	• Continue to identify, monitor and manage risks and issues as they arise.	
	• Continue weekly status reporting.	
	• Process document log (how things were accomplished) for reference on an on-going basis.	
	• Manage resource utilization and reallocation as Project nears completion of Phase 1.	

4.0 Work Plan and Budget Review

4.1 Updated Work Plan

ID	Task Name	Start	Finish	2017												2018												2019																							
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct														
1	Clifton Park Integrated Program Plan V1	12/22/2016	1/23/2020																																																
2	IS	3/31/2017	7/21/2017																																																
3	ADA	4/17/2017	6/9/2017																																																
4	Design	5/1/2017	5/31/2017																																																
5	Initial Testing	4/28/2017	6/9/2017																																																
6	Development	5/1/2017	5/31/2017																																																
7	Testing	4/17/2017	5/30/2017																																																
8	Meters	3/17/2017	6/5/2017																																																
9	VVO	2/24/2017	12/29/2017																																																
10	Field Devices	7/28/2017	12/29/2017																																																
11	Substations	2/24/2017	12/29/2017																																																
12	Elnora Substation	2/24/2017	9/29/2017																																																
13	Grooms Substation	2/24/2017	12/29/2017																																																
14	Xformer 1	4/28/2017	5/26/2017																																																
15	Xformer 2	5/26/2017	9/29/2017																																																
16	Utilidata Server	5/26/2017	9/29/2017																																																
17	PTR	4/28/2017	6/5/2017																																																
18	Phase 1	4/28/2017	5/29/2017																																																
19	Phase 2	6/5/2017	6/5/2017																																																
20	Outreach (O&E)	2/2/2017	1/8/2018																																																
21	Phase 1 Marketing Communications	2/13/2017	10/20/2017																																																
22	Direct Mailings Traditional Mail and Inserts	2/2/2017	2/13/2017																																																
23	Points and Rewards Enrollment	4/28/2017	4/28/2017																																																
24	Conservation Day letter	5/22/2017	5/22/2017																																																
25	Pricing	10/20/2017	10/20/2017																																																
26	Meter Installation Notifications	3/3/2017	4/28/2017																																																
27	Community Outreach meeting	4/27/2017	1/8/2018																																																
28	Contact Center Training	5/10/2017	5/10/2017																																																
29	Opt-out Monitoring	6/9/2017	6/9/2017																																																
30	AMO	4/3/2017	9/30/2019																																																
31	Project Management Operations	2/20/2017	9/30/2019																																																
32	Procurement	12/22/2016	8/10/2017																																																

4.2 Updated Budget

The overall Project budget remains unchanged. However, \$13,063,123 has been shifted from fiscal year 1 (2017) to fiscal year 2 (2018) given additional time needed to set up the network and configure meters prior to commencement of the installation process.

	Budget	Revised Forecast	Actuals
Fiscal Year 1 (2017)	\$16,693,536	\$3,630,413	\$3,630,413
Fiscal Year 2 (2018)	\$6,037,345	\$19,100,345	
Fiscal Year 3 (2019)	\$4,222,477	\$4,222,477	
Total*	\$26,953,235	\$26,953,235	

*A difference between the Implementation Plan budget (\$26,819,336)⁵ and the current revised budget (\$26,953,235) exists due to an increase in actual meter costs and associated fees. The overall difference is \$133,899.

⁵ See Implementation Plan, p.33.

5.0 Progress Metrics

Checkpoint ⁶	Progress / Target Completion
Infrastructure	
AMF Opt Out	Continuing to monitor opt-out rates as Project progresses. On-going through life of the Project.
VVO System Benefits	Establishing infrastructure required to enact VVO and monitor progress. Completion of equipment installation targeted for 2017 Q4.
Customer Outreach and Engagement / Deep Energy Insights and Actionable Information	
Customer Outreach and Engagement	Mailings and flyers sent to Customers in 2017 Q1. Continuing engagement through life of the Project.
Customer Energy Portal Engagement	Portal accessible in 2017 Q1.
Price Signals	
Peak Time Rewards	Begin PTR in June 2017; continue evaluation through life of the Project.
VTOU Rate	Customer Outreach was started in 2017 Q1. Fully engage customers by 2017 Q3.
DER	
DER Opportunities	National Grid is continuing to consider additional DER providers and will investigate appropriateness of prospective providers during 2017 Q2.

⁶ See Implementation Plan pp. 24-26 for specific metrics.

6.0 Appendices

Appendix A: Project Management Structure

The Project follows the guidelines as presented in the Implementation Plan, focusing on quality of deliverables according to schedule and budget. As such, a Project team has been formed to support in this effort. The Project Management structure is comprised of the following groups:

- Executive Sponsorship;
- Project Management Organization (“PMO”);
- Steering Committee;
- Core Team Leads; and
- Supporting Staff.

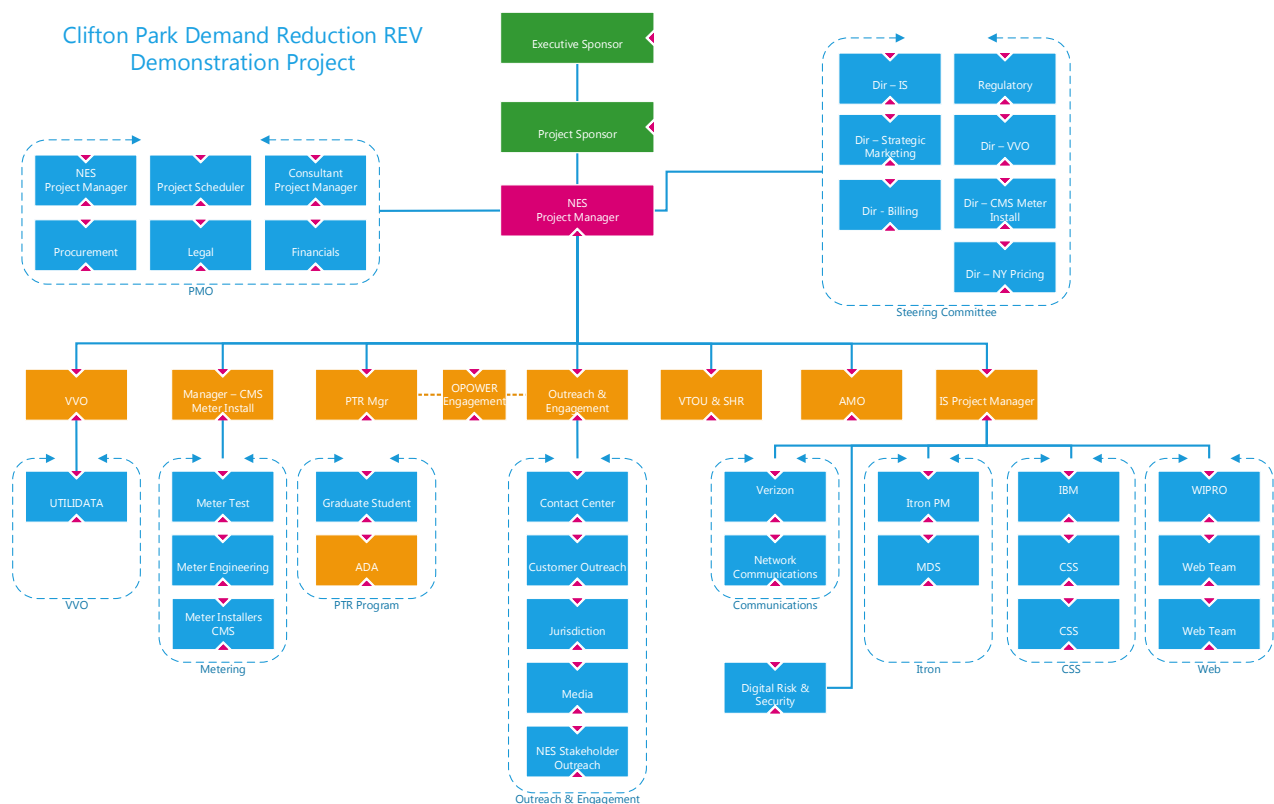


Figure A-1: Project Team

Key roles and responsibilities for these groups include the following:

Role	Responsibility
Executive Sponsorship	Project leadership, vision and guidance; key stakeholder for delivery; serves as point of escalation.
Steering Committee	Provide overall guidance and issue resolution.
PMO	Project structure and guidance; support team with operations and reporting.
Core Team Leads	Provides weekly status updates for area of responsibility to the Project team.
Supporting Staff	Provide updates to Project leadership and team, as needed, for their area of responsibility.

Appendix B: Sample Smart Energy Introduction Letters to Customers, and Sample Bill Insert



Dear Jamie E. Kay,

Did you know 98% of your neighbors decided to take advantage of Smart Energy Solutions? We would like to offer you the opportunity to learn more about this no-cost energy-saving program by joining us at our next community event. You will be able to ask questions, see how it works and discover how Smart Energy Solutions could benefit you.

Join your neighbors at our Thursday, April 27 event.

Clifton Park-Halfmoon Public Library
12:30–1:30pm or 7:00–8:00pm
Light refreshments will be served.

There's still time to join!

While you currently have decided not to participate in Smart Energy Solutions, we hope you will attend our upcoming event and learn why so many of your friends and neighbors are taking advantage of this program. It's not too late to join them.

Call **1-877-466-3433** (Monday–Friday, 8am–5pm) or stop by the library on Thursday, April 27 to learn more.

Sincerely,

Laurie J. Poltynski
Regional Executive

**Smart Energy Solutions
provides you with:**

CONTROL

Better manage your energy use
with detailed information, reports,
alerts and tips.

REWARDS

Earn eGift Cards and contribute to a
greener community when you reduce
your electric energy use.

CHOICE

Select how and when to manage your
energy use, pick an electric pricing plan
that is right for you and participate
in energy-efficiency improvements.

Manage your energy your way. Learn more at ngrid.com/cliftonpark



Congratulations!

Dear Martin Wagstaff,

Your new meter(s) have been installed and Smart Energy Solutions is now available! We've enclosed a guide with simple step-by-step instructions to make it quick and easy to get started. You can also view our Frequently Asked Questions by visiting ngrid.com/cliftonpark.

As an added bonus, you'll receive 150 points when you create your online profile and enroll in our Rewards program.* If you have any questions, please call **1-877-466-3433** (Monday–Friday, 8am–5pm).

It's your energy. And, now, you can manage it your way!

Sincerely,

Laurie J. Poltynski
Regional Executive

*Offer only available to new customers enrolling in Peak Time Rewards. Customers already enrolled do not qualify.

1



Dear Neo Andersen,

We are excited to introduce Smart Energy Solutions – an innovative energy management program, developed specifically for our Clifton Park customers. It's so much more than your current online experience and Home Energy Reports. With an improved website experience, you will receive more detailed and near real-time information as well as valuable insights to take better control of your energy use. You will also have the opportunity to earn rewards and make better informed choices. All of this will be provided at no additional cost and could help you save money!

Smart Energy Solutions will provide you with:

- CONTROL** Better manage your energy use with near real-time information, detailed reports, alerts and tips.
- REWARDS** Earn gift cards and contribute to a greener community when you reduce your electric energy use.
- CHOICE** Select how and when to manage your energy use, pick an electric pricing plan that is right for you and participate in energy-efficiency improvements.

It all starts with new meters.

National Grid will automatically upgrade meters in Clifton Park, at no additional cost to you, to enable Smart Energy Solutions. We will notify you as to when we will be in your neighborhood to replace your Electric meter.

There's a lot more to come.

Throughout the year, we will provide you with more information on how to better manage your energy use. If you do not wish to participate in Smart Energy Solutions, please call **1-877-466-3433** (Monday-Friday, 8am-5pm) by 2/28/17.

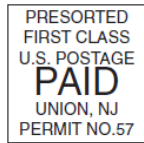
It's your energy. And, soon, you can manage it your way!

Sincerely,

Laurie J. Poltynski
Regional Executive



National Grid
1125 Broadway
Albany, NY 12204-2505



**Your new meter and a
better way to manage your
energy use is coming.**

*****AUTO**5-DIGIT 12065 S514 B3 T2 BEK4VQ

Mr. Ed E. Mercks
or Current Resident
915 True Steel Lane
Clifton Park, NY 12065-1104



With Smart Energy Solutions, you'll be able to make informed choices, take control of your energy use and earn rewards. It all starts with new meters.

A National Grid employee, carrying proper identification, will knock on your door when they are ready to perform the upgrade at no additional cost to you.

- **If your meter(s) are accessible**, then you do not need to be home – the installer will upgrade the meter(s) and leave a door hanger to let you know that the work has been performed.
- **If your meter(s) are NOT accessible**, then the meter(s) will not be upgraded and a door hanger will be left with instructions to schedule an appointment time that is convenient for you.

Join us at the
Clifton Park-Halfmoon Public Library
 Monday, June 12
 12:30–1:30pm or 7:00–8:00pm
 to learn more about
 Smart Energy Solutions.
Light refreshments will be served.

**Your Gas and Electric meter upgrade
 is scheduled for the week of May 1st.**

If you have any questions, please call 1-877-466-3433 (Monday–Friday, 8am–5pm)

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