

Karla M. Corpus Senior Counsel NY Regulatory

October 31, 2018

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-Q3 2018 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 July 1, 2018 to September 30, 2018 ("Q3 2018 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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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

Karla M. Corpus Senior Counsel

Enc.

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nationalgrid

Demand Reduction REV Demonstration Project

in

Clifton Park

Q3 2018 Report

October 31, 2018

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On January 17, 2017 Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid" or the "Company") filed an implementation plan for the Demand Reduction REV Demonstration Project in Clifton Park (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
- Utility supported Community Choice Aggregation ("CCA")

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

Key activities and milestones accomplished this quarter (Q2 2018) are summarized as follows:

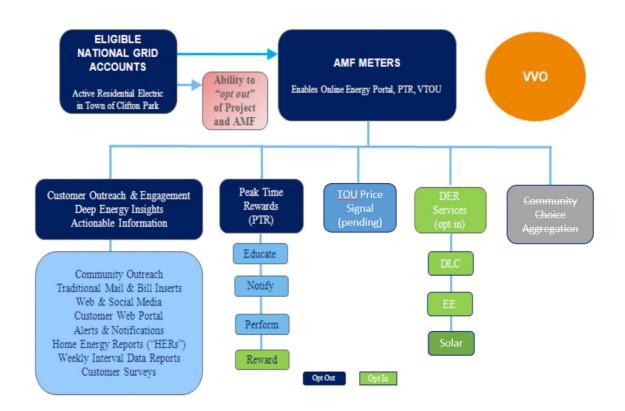
¹ Case 14-M-0101, *Proceeding on Motion in Regard to Reforming the Energy Vision* ("REV Proceeding"), National Grid Demand Reduction REV Demonstration Project in Clifton Park Implementation Plan (filed January 17, 2017)("Implementation Plan").

^{2017)(&}quot;Implementation Plan"). ² REV Proceeding, Order Adopting a Ratemaking and Utility Revenue Model Policy Framework ("REV Track Two Order")(issued May 19, 2016), p. 72.

Key Item	Outcome
PTR season 2	 PTR season 2 rewards model consisted of a 2-tiered rewards approach; 100 points rewarded to applicable customers saving 0.1kWh – 1.0 kWh during an event, and 500 points to those saving > 1.0 kWh during an event.
	 Trigger for an event consisted of a forecasted high temperature of 86° degrees Fahrenheit and above. Thirteen (13) events were called between June 1st and September 30^{th.}
IS and ADA efforts	 Advanced Data Analytics ("ADA") and Information Services ("IS") continued in support mode.
VVO efforts	 Completed 90% installation of field devices and commissioned 56%.
Customer Outreach & Marketing	 Launched new customer engagement marketing material.
TOU Price Signal	 Alternatives to VTOU rate were investigated.
	Worked with AMI team to determine upcoming rate structure.
	 Preparing for Time Variant Pricing (TVP) rate filing.
DER	• Promoted National Grid NY Solar Marketplace through mailing campaign with vanity URL for Clifton Park customers. Tracking Clifton Park activity separately from rest of service territory.

Project Elements

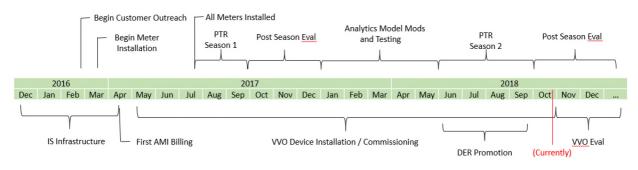
A visual of the Project's key services and offerings are provided below. Except for VVO, customers can opt in or opt out of each Project element. A description of each Project element is included with the individual sections of this quarterly report.





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.





2.1 Major Task Activities

2.1.1 Advanced Metering Functionality

AMF deployment in Clifton Park has replaced existing National Grid electric and gas meter reading and billing processes for customers that have not opted out of the Project. AMF meters are read and select portions of data are transferred over the cellular network to National Grid for utility billing. Portions of data are also transferred to the Project's partners over secure networks to enable various elements of the Project, including the customer web portal. Interval data is used for deployment of PTR, all customer billing, and to support authorized Project evaluation activities.

AMF deployment commenced at the end of the first quarter of 2017. Letters introducing Clifton Park customers to Smart Energy Solutions and postcards alerting customers of the AMF installation 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 Contact Center, which in turn directs Customer Meter Services ("CMS") not to install an AMF technology 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.

The AMF opt-out rate remains unchanged since the previous quarter at eight-point eight percent (8.8%), or 1,256 premises. AMF meter opt-outs include customers that: 1) called into the National Grid Customer Contact Center; 2) informed CMS field workers in-person that they did not want the

meter; or 3) where National Grid was unable to gain access to account premises after three (3) attempts at access were made without success.

National Grid will continue to monitor AMF opt-outs as the Project continues and new customers move into the Town of Clifton Park and others move out. The National Grid Customer Contact Center will continue to accept customer requests to install or remove the AMF technology and process orders.

A customer with concerns about meter readings requested National Grid remove their AMI meters. National Grid is analyzing the AMI data of the relevant accounts and is testing those meters. The Company intends to develop a communications action plan to address similar issues that may arise in the future.

2.1.1.1 Information Services ("IS") Activities

Timeframe	Completed Milestones
3 rd Quarter 2018	Continued Project support via National Grid's IS Support team.

2.1.1.2 Meter Installation Activities

Timeframe	Completed Milestones	
3 rd Quarter 2018	 Continued to support normal business practices related to move-in/out of customers. 	

2.1.2 Volt/VAR Optimization ("VVO") Device Installations

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 those substations being upgraded. Working with the Project's VVO partner, Utilidata, National Grid started installing devices on the electric 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. National Grid's targeted efficiency gain through the VVO portion of the Project is approximately three percent (3%).

VVO installation scope includes:

- Three (3) substation transformer load tap changers;
- Eleven (11) feeders, including:
 - Twelve (12) line voltage monitors;
 - Thirty-one (31) advanced switching capacitors; and
 - Five (5) 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		
	Installed thirty-one (31) of thirty-one (31) Advanced Capacitors.		
	• Commissioned twenty-three (23) of thirty-one (31) Advanced Capacitors.		
3 rd Quarter 2018	• Installed twelve (12) of twelve (12) circuit monitoring devices.		
	• Commissioned nine (9) of twelve (12) circuit monitoring devices.		
	 Installed four (4) of five (5) voltage regulators. 		

2.1.3 Customer Outreach

National Grid has engaged residents of the Clifton Park community to learn about the Project and solicit input. The strategies include:

- Community outreach;
- Mail and bill inserts; and
- Web and social media.

Community Outreach

The National Grid marketing team performed studies of Clifton Park residential customers to assess areas of concern and to present recommendations. The studies were conducted by Market Probe moderators, a third-party market research group, via:

- Outreach sessions with Clifton Park residents in June 2018;
- Phone and online annual surveys completed; and
- Testimonial campaign with radio and billboard outreach prepared to launch.

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.

Thereafter, 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 received educational materials focused on the various Project elements, such as enrolling in PTR. Bill inserts will continue to be incorporated four (4) times per year as new Project elements are rolled out, and media updates will be on-going throughout the year. Additionally, video tutorials have been created and were made available on the National Grid website.

Web and Social Media

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

The Project website includes the following information:

- Frequently Asked Questions Video overview of the Project:
 - o https://vimeo.com/209611691/bd2127692f;
- Frequently Asked Questions pdf:
 - https://www.nationalgridus.com/media/pdfs/resi-ways-tosave/cp_fags.pdf;
- Information about PTR;
- DER product and service options available (*e.g.*, New York Solar Marketplace); and
- <u>http://www.ngrid.com/cliftonpark</u> 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.

The Project tracks customer interaction with the Opower web portal. Emails, bill inserts, direct mailings, and social media contributed to raising awareness of the information available to customers, as evidenced by increasing levels of interaction throughout the PTR season. Customer outreach activities continue outside of the PTR season to encourage ongoing customer engagement.

Areas of the portal experiencing common customer interaction include:

- My Energy Use;
- Ways to Save;
- Compare My Bills;
- Dashboard; and

• Home Energy Audit.

The following key performance indicators ("KPIs") have been created to track and measure success of Customer Outreach:

- Customer Acceptance of AMF Technology;
- Awareness;
- Customer Control of Energy Usage;
- Customer Satisfaction with National Grid; and
- Portal Engagement, such as:
 - Login Creation;
 - o Enrollment in Points and Rewards; and
 - \circ Profile Completion.

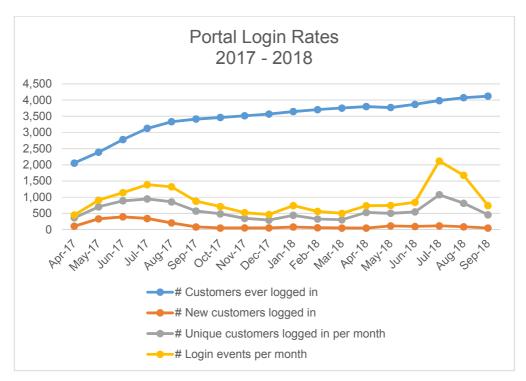


Figure 3: Portal Activity

Timeframe	Completed Milestones
	Completed customer testimonial video and photoshoot.
	Launched new customer engagement marketing material.
	 Tested new marketing outreach with out-of-home advertising generating additional traffic.
3 rd Quarter 2018	• Hyper marketed solar marketing place 8/21 and drove twenty-three (23) visits to site.
	• Hyper marketed portal resulting in forty-three (43) new portal account creations.
	Hyper marketed energy efficient pool pumps via email.

2.1.4 Peak Time Rewards ("PTR")

National Grid seeks to incentivize Clifton Park customers to reduce electric use during specified peak times. Participating customers are rewarded for curtailing electric load through behavioral actions such as turning off lights and adjusting their thermostats or utilizing customer-controlled technology.

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 email 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.

National Grid reviews load forecasts for the New York Independent System Operator ("NYISO") system and Zone F (which includes Clifton Park), as well as local Clifton Park weather forecasts, to determine whether to call a PTR (a/k/a "Conservation Day") event.

PTR events are entered into two (2) systems; one triggers customer event notifications to Clifton Park customers and the other sets in motion the energy use predictive model, which will compare predicted values to actual AMF metered usage, to determine curtailment participation. Over 8,000 pre-event emails notifying that a conservation event is scheduled are sent out to Clifton Park customers for each event.

Upon determination of whether each account has curtailed, each customer electric service account is assigned a value of 'true' or 'false' for each event, based on its curtailment determination. Those accounts enrolled in the Points-and-Rewards program which are assigned a value of 'true', are then awarded points.

National Grid tracks customer enrollments in PTR as a measure of customer engagement. Enrollment in Point-and-Rewards has increased each month as the Project has progressed. PTR enrollment enables customers participating in PTR events/Conservation Days to earn rewards.



Figure 4: Points & Rewards

Timeframe Completed Milestones		
	• Completed PTR Season 2 with thirteen (13) events called 6/18, 7/2, 7/3, 7/13, 7/16, 7/20, 8/6, 8/7, 8/15, 8/16, 8/27, 8/28, and 8/29/2018.	
3 rd Quarter 2018	• Employed a modified predictive model with 2-tiered points rewards structure for PTR season 2.	
	 Season 2 event criteria consisted of temperature forecasts of 86° degrees Fahrenheit and above for calling an event. 	

PTR season 2 differed from season 1 in two (2) primary aspects; 1) the criteria for calling an event was set as day-ahead weather forecast of 86° degrees Fahrenheit or above for Clifton Park, and 2) a 2-tiered rewards structure for participating customers was implemented as such:

- 100 points rewarded for customers saving 0.1 1.0 kWh (denoted by LOW); and
- 500 points rewarded for customers saving > 1.0 kWh (denoted by HIGH).

The table below summarizes the rewards granted based upon the 2-tiered approach for the 2018 events:

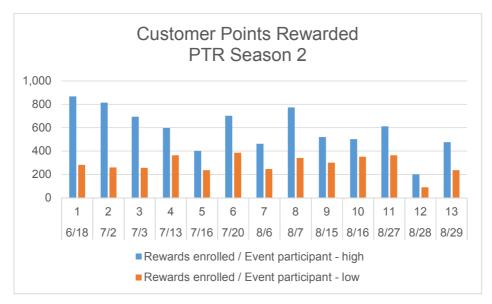


Figure 5: Points & Rewards

2.1.5 Advanced Data Analytics ("ADA")

National Grid's Advanced Data Analytics Project team developed the residential energy use predictive model to determine the expected energy use during a PTR event. The predictive model uses prior customer level energy consumption data and event weather conditions to predict customers' energy consumption during events. The predicted values are compared to the actual AMF data to determine whether curtailment has occurred and to ascertain which customers are to be awarded points. The results of these analyses will be used to determine if the aggregated community load meets certain threshold requirements for bidding into the NYISO wholesale electricity market.

Timeframe	Completed Milestones
3 rd Quarter 2018	Continued to support normal business operations.

2.1.6 Time-of-Use ("TOU") Price Signals

National Grid is exploring alignment between its AMI proposal³ and Project price signals.

Timeframe	Completed Milestones	
3 rd Quarter 2018	 Internal discussions continued regarding the alignment of price signal to be tested in Clifton Park for REV Demo, AMI Proceeding, and Smart Home Rate. 	

2.1.7 Distributed Energy Resource ("DER") Opportunities

National Grid seeks to animate the market by facilitating DER provider opportunities 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.

National Grid is continuing to consider additional DER opportunities spanning renewable energy, energy efficiency, and PEVs. As such, NY Solar Marketplace has been established to help customers evaluate solar energy options and is being promoted in Clifton Park.

³ 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 for Electric Service,* Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans, (issued March 15, 2018), Attachment 1, Joint Proposal, Section 15.4.

Timeframe	Completed Milestones	
3 rd Quarter 2018	• Promoted National Grid NY Solar Marketplace through mailing campaign with vanity URL for Clifton Park customers. Tracking Clifton Park activity separately from rest of service territory.	

2.1.8 Community Choice Aggregation ("CCA")

National Grid engaged with Clifton Park officials and community members on the potential for adoption of a utility-supported CCA in early 2017. After the filing of the Project's Implementation Plan, the Town decided to not pursue a CCA.

2.1.9 **Project Management Group**

The National Grid Project Management Group is a construct of individuals who strive to keep the Project on track regarding scope, schedule and budget, while lending visibility into processes, accomplishments, and financial tracking. This group regularly engages in, and promotes, the following:

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

Timeframe	Completed Milestones		
	• Conducted weekly status reviews with core team leads, monitoring progress, providing corrective measure(s), and escalating issues, as needed.		
3 rd Quarter 2018	 Provided weekly updates to National Grid's Finance Department and Performance Excellence Team regarding the Project for management review. 		
	Conducted PTR season 2.		
	 Continued monthly lunch-and-learn sessions for broader internal audience to raise awareness of project progress. 		

2.2 Challenges, Changes, and Lessons Learned

Qtr	lssue or Change	Resulting Change to Project Scope/Timeline?	Strategies to Resolve	Lessons Learned
Q3.18	Lack of rewards funding source creates PTR viability concerns.	On a longer timeline, the funding for the PTR program could become burdensome without supporting elements in place.	Consider alternatives to rewards funding. Use time variant pricing as an alternative motivator.	Understand and document real and potential revenue sources for funding a rewards program at the outset of the project.
Q3.18	Restrictive PTR system limitations create issues with calling events when warranted.	Fewer events were called than criteria would have otherwise allowed due to inability to call an event on a holiday, the day after a holiday, or after 9:00 AM for the day ahead.	Consider softening the event call restrictions.	Careful consideration must be paid to potential restrictions when in the requirements phase of the project.
Q3.18	Email availability was limited.	Email addresses were not available for 35% of the eligible participants.	Assertive email acquisition campaign is needed.	Inability to reach customers via email restricts customer awareness of PTR events.
Q3.18	Need for progressive notification for events.	Inability to reach out to customers via text or other alternative notification mechanisms (<i>e.g.</i> , App) limits customers' awareness.	Creating an App and making it available to customers could increase awareness and participation.	Caution should be exercised in restricting communications at the outset of the project.

3.0 Next Quarter Forecast

During the 4th Quarter of 2018, the Project team will continue 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; PTR Operations	1/2/17 – 6/16/17	1/2/17 - 7/17/17	Complete	
2	Phase 2: VVO; 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 – 3rd Quarter 2018

Work Stream	Future Milestones	Status
Information Systems ("IS")	 Support Project via National Grid's IS Support team. 	
Meter Installation	 Support normal business practices related to move-in/out of customers. 	
vvo	 Install and commission all VVO field equipment; thirty-one (31) capacitors, five (5) three-phase regulators and twelve (12) circuit monitoring devices. 	
	Commission overall VVO system and activate.	

Work Stream	Future Milestones	Status
	 Begin study to evaluate overall system performance, leveraging AMI data for additional efficiencies. 	
Customer Outreach	 Design and implement annual survey; conduct survey in October. 	
	 Continue outreach on energy saving tips, checking usage and general portal engagement. 	
	 Roll out new marketing materials featuring "voice of the customer" and customer testimonials. 	
	 Conduct monthly dashboard meetings to keep team on track to reach goals. 	
PTR	• Evaluate PTR season 2 results.	
	• Examine needs for modifications to program for season 3.	
ADA	 Provide post PTR Season 2 support to Project team. 	
TOU Price Signal	Work with AMI team to evaluate for future rate structure plans.	
DER	 Continue to promote National Grid New York Solar marketplace. 	
Project Management Group	 Conduct weekly and monthly Project update meetings. 	
	Monitor and report Project success Key Performance Initiatives.	
	 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. 	
	 Work with AMI team on future rate structure strategies. 	
	 Strategize on integration of SHR in Clifton Park. 	

Work Stream	Future Milestones	Status
• Develop Project evaluation plan evaluate potential contractors.		
	• Evaluate additional AMI data analytics to capitalize on availability of meter data.	

4.0 Work Plan and Budget Review

4.1 Updated Work Plan

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

4.2 Updated Budget

The overall Project budget remains unchanged from that reported in previous quarterly reports. 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 process⁴.

Project Task	3 rd Quarter Actual Spend	Project Total Spend to Date	Project Budget⁵	Remaining Balance	
СарЕх					
	\$ 83,513	\$ 8,211,902	\$ 12,516,057	\$ 4,387,667	
OpEx					
	\$ 532,699	\$ 8,577,577	\$ 14,437,176	\$ 6,392,298	
Total	\$ 616,212	\$ 16,789,479	\$ 26,953,233	\$ 10,163,754	

A difference between the Implementation Plan budget (\$26,819,336)⁶ and the current revised budget (\$26,953,233) exists due to an increase in actual meter costs and associated fees. The overall difference is \$133,897.

⁴ Fiscal year 1 consists of April 1, 2016 through March 31, 2017; fiscal year 2 consists of April 1, 2017 through March 31, 2018.

⁵ The Company updated the Project budget to reflect incremental costs, and to illustrate costs that are capital or operating expenses.

⁶ Case 14-M-0101, *supra* note 1, p. 33.

5.0 Progress Metrics

Checkpoint ⁷	Progress / Target Completion		
Infrastructure			
AMF Acceptance vs. Opt Out	Continuing to monitor opt-out rates as Project progresses, and through the life of the Project. Current opt-out rate is eight and eight tenths percent (8.8%).		
VVO System	Establishing infrastructure required to enact VVO and		
Benefits	monitor progress. Completion of equipment installation targeted for 2018 Q3.		
Customer Outreach and Engagement / Deep Energy Insights and Actionable			
	Information		
Customer Outreach	Continuing engagement through life of the Project.		
and Engagement	Annual surveys tracked against initial baseline survey.		
Customer Energy	Continue customer engagement metrics related to portal		
Portal Engagement	use, PTR participation, etc.		
Price Signals			
PTR	Began PTR in July 2017; continue evaluation through life of the Project regarding participation rates and curtailed load.		
TOU Price Signal	Project team conferring with AMI team.		
DER			
DER Opportunities	Promotion of Connected Solutions DR and related		
	technologies, National Grid's New York Solar marketplace,		
	and energy efficient pool pumps and pool pump timers.		

⁷ See Implementation Plan, pp. 24-26, for specific metrics.