Karla M. Corpus
Senior Counsel
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July 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: FRUIT BELT NEIGHBORHOOD SOLAR REV DEMONSTRATION PROJECT – Q2 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 Fruit Belt Neighborhood Solar REV Demonstration Project Implementation Plan covering the period of April 1, 2018 to June 30, 2018 ("Q2 2018 Report") as required by the REV Demonstration Project Assessment Report filed by the New York State Department of Public Service Staff ("Staff") with the Commission on December 2, 2015 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 Fruit Belt Neighborhood Solar REV Demonstration Project.

Respectfully submitted,

/s/ Kara M. Corpus

Karla M. Corpus
Senior Counsel

Enc.

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Fruit Belt Neighborhood Solar

REV Demonstration

Q2 2018 Report

July 31, 2018

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1.0 Executive Summary

The Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid") Fruit Belt Neighborhood Solar REV Demonstration Project ("Demonstration Project" or "Project"), through the partnership with Buffalo Niagara Medical Campus ("BNMC"), Solar Liberty, and the New York State Energy Research and Development Authority ("NYSERDA"), provides solar-generated energy and financial benefits to low-to-moderate income ("LMI") customers while delivering grid efficiencies to the local electric distribution system.

The LMI customer segments have a very low penetration of solar photovoltaic ("PV") systems due to various economic barriers. National Grid is promoting utility-owned "in front of the meter" solar PV equipment mounted on residential roofs and roofs of faith-based and community non-profit buildings located within the Project area, and passing on the economic benefits directly to solar PV host customers through a monthly electric bill credit for the lifespan of the solar PV system. Additionally, up to fifty (50) non-hosting residential customers will be selected through a lottery system to receive a bill credit for two (2) years.

The Project consists of installing residential solar PV systems, ranging in size from 3.1kW to 18.5kW and non-profit organizations from 15.9 to 28.0 kW per system, totaling 500 kW (or 0.5 MW) of solar PV generation capacity within a single neighborhood. This approach provides a real life scenario for exploring the technical aspects of enhancing grid efficiency. The Project also explores the social aspects of building positive relationships within the Fruit Belt community resulting from the effort to increase energy awareness and Project participation.

This Demonstration Project is testing the following hypotheses:

- Leveraging utility ownership model to bring solar PV to underserved LMI segment will expand and animate the market for third-party solar installers;
- Providing solar bill credits to participants in a LMI neighborhood, as well as partnering with NYSERDA to deliver energy efficiency ("EE") programs to further drive energy bill savings, will have a positive impact on bill payment behavior and enable customers to better manage their arrears; and
- Concentrating distributed solar PV resources with reactive power support within an area served by a common substation (versus scattered deployment of conventional solar PV) will deliver measurable grid efficiency benefits.

The Project also aims to develop an understanding of the drivers for cost efficiency and scalability for a utility-owned model, the corresponding economic and job creation impact, and the overall LMI customer perception of renewables, energy efficiency, and the customer-utility relationship.

Progress to Date and Planned Q3 2018 Goals

Solar Installations:

Progress continued in the areas of customer and faith-based non-profit organization engagement for sites awaiting electrical connection, inspection, and commissioning, and pending sites to prepare for solar PV installation. As of the end of Q2 2018, sixty-nine (69) residential solar PV systems have been installed and are connected and commissioned. Additionally, solar PV systems on the buildings of two (2) faith-based non-profit organizations and two (2) non-faith-

based non-profit organizations have been installed, inspected by the City of Buffalo, connected, and commissioned. Activities this quarter consisted of:

- One (1) residential solar PV system was installed, inspected by City of Buffalo, connected to the electric grid, and commissioned;
- Nine (9) residential solar PV systems previously installed were inspected by the City, of Buffalo, connected to the grid, and commissioned; and
- Roof replacement commenced at one (1) faith-based non-profit organization building.

The solar output tracking web site was displaying several solar PV systems as failing to report productivity. Through conducting field diagnostics on the affected solar PV systems, the contractor's field team identified faulty communications equipment and replaced it.

Customer Engagement:

Customer engagement activities included communicating with residential customers awaiting electrical connection, and interfacing with one (1) home owner and one (1) faith-based non-profit organization that previously committed to complete a roof replacement, but had not yet done so. National Grid also attended the Fruit Belt Coalition's annual spring banquet, during which casual conversations were held with various solar hosts.

Bill Credit Lottery:

As described in detail in the Q4 2017 quarterly report, the bill credit pool lottery was divided into two (2) events. The first was held in Q4 2017 based on the installed kW as of 12/31/17. That group started receiving the bill credit on their January 2018 electric bill. The second bill lottery event was to be held following commissioning of all remaining solar PV systems installed under this Project, and was expected to be accomplished in Q2 2018. As discussed in greater detail below, roof replacement on the last building solar host roof was delayed until Q3 2018. Based on the fact that 485kW out of 500 kW being commissioned at the end of Q2, a decision was made to conduct the second bill credit pool lottery.

Arrearage Analysis:

Development of a database for customer arrearage analysis was developed, and a monthly monitoring to determine bill credit effect on the customers in arrears was commenced.

Grid Impact Analysis by GE:

General Electric Global Research ("GE"), continued evaluating solar PV installation impacts on feeder performance, comparing results of the baseline with the solar PV generation. They validated the baseline results using National Grid's calendar year ("CY") 2015 data, which is the most recent year available prior to any solar PV system installation. GE also continued the grid efficiency effects evaluation.

Energy Efficiency Implementation by NYSERDA:

NYSERDA continued their customer outreach and engagement for provision of EE services in the Project area. They completed EE upgrades at seventeen (17) residences, and they are processing applications from another ten (10) customers. National Grid conducted quality control ("QC") checks at four (4) residences to observe the EE customer interface process and to see the steps implemented.

Program Scale-Up:

National Grid commenced developing a plan for a new program consisting of a scale-up of this Project. The proposed program would be made available to National Grid LMI customer home owners located in the Company's upstate New York electric service territory. The offering would continue to use a utility-owned solar system framework, and the expanded program would have a four (4) year lifespan. A group of turnkey solar installation contractors would be hired for the program, rather than hiring just one installer. During Q2 2018, a third-party contractor was selected and hired to conduct a benefit-cost analysis ("BCA"), and that analysis process has commenced. Both the contractor's analysis and National Grid's planning and initial evaluation activities are scheduled to be completed in Q3 2018. Additional evaluation is planned for Q4 2018, and if proven viable, the expanded program will be initiated sometime in CY 2019.

Planned Q3 2018 Goals:

As more fully set forth below, the remaining solar PV system construction and connection efforts needed to reach the Project's goal of 500 kW of installed solar generation equipment are planned for Q3 2018. One (1) solar PV system on a faith-based non-profit organization's building is scheduled for installation, followed by electrical connection, City of Buffalo inspection, and commissioning. Additionally, the arrearage effect analysis will continue in Q3 2018. NYSERDA will continue executing its EE program offerings for Fruit Belt customers, and GE will continue its grid impact analysis.

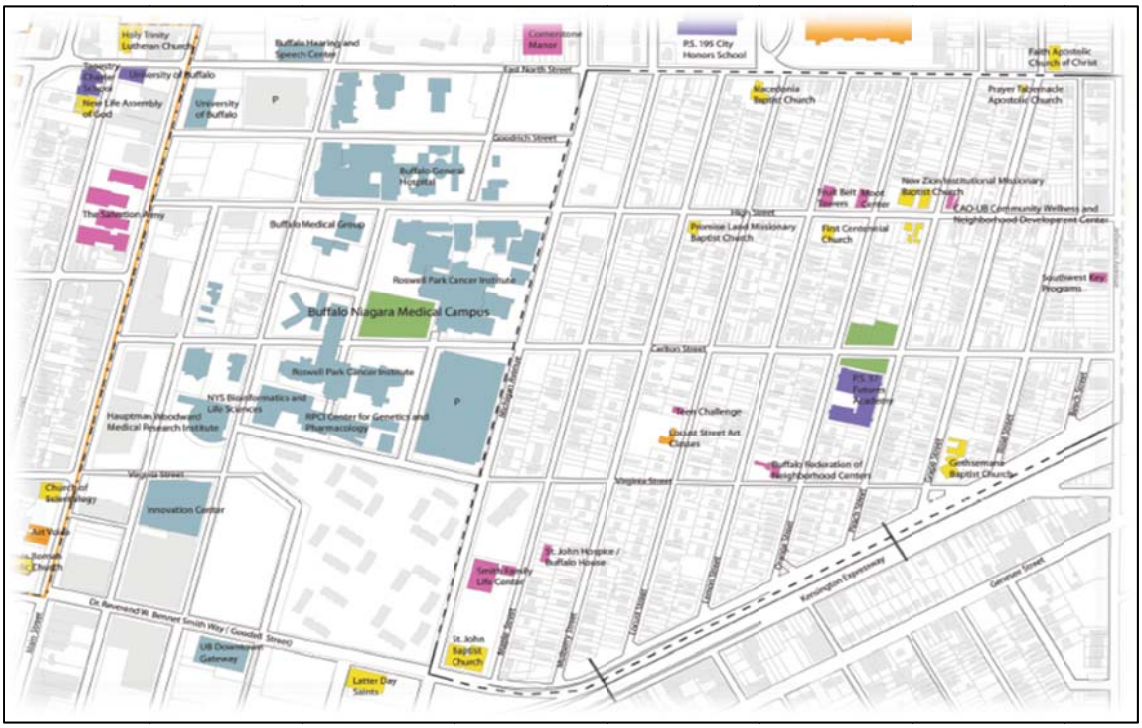

Figure 1-1: Location of the Fruit Belt Neighborhood (dashed perimeter), located adjacent to the Buffalo Niagara Medical Campus

2.0 Highlights Since Previous Quarter

2.1 Major Tasks Completed

- Regulatory Filings:

  The Q1 2018 Quarterly Report was prepared and filed with the New York State Public Service Commission on April 30, 2018.

- Community Engagement:

  - Customer stewardship efforts continued, by maintaining contact with the residential customers in various stages of Project completion.

  - Engagement continued with one (1) faith-based nonprofit organization to ensure it scheduled replacement of the roof section in Q2 2018, so that the solar PV system can be constructed and commissioned in the first few weeks of Q3 2018.

  - National Grid attended the Fruit Belt Coalition's annual spring banquet. Several solar PV system hosts were in attendance, allowing National Grid project staff to chat with them regarding the solar PV systems.

- Internal Engagement:

  - National Grid's Distribution Design Department conducted site visits to guide selection of National Grid's *Electric Service Bulletin 750*-compliant points of attachment locations and code-compliant overhead line re-locations.

  - National Grid's Asset Data and Analytics team provided transformer peak annual load data.

  - National Grid's Account Maintenance and Operation team continued to issue bill credit riders on customer accounts upon solar PV system commissioning, and to issue the bill credit rider to accounts selected through the second part of the bill credit lottery.

  - National Grid's Collection's Department was engaged to work with the overall arrearage impact analysis process. The process was further developed to define how arrearage customers will be identified, and how they will be monitored to determine what impact, if any, the monthly bill credit receipt has on these customers.

- Data Evaluation, Measurement & Verification ("EM&V"):

    - Enphase, Inc. continued to send generation data twice monthly; each deliverable containing either the first fifteen (15) days or second fifteen/sixteen (15/16) days of the previous month's generation data. National Grid's New York Electric Pricing Group calculated and published the bill credit amount each month of the quarter.

    - The quarterly analysis of the bill credit administration system was completed. The automated bill credit system was determined to be delivering the correct credit amount to the bill credit recipients, which during this quarter consisted only of solar PV hosts. Sixty-nine (69) residents and two (2) faith-based non-profit organization buildings were receiving bill credits by the end of Q2 2018. In addition, two (2) non-profit organization buildings were also generating credits, but due to their service class, the organizations do not receive a bill credit.

- Partner Participation:

    - Solar Liberty:
        - Continued to attend (two) (2) separate progress calls with National Grid each week to ensure timely information flow; both to address overall Project matters and specific installation issues.
        - Prepared and submitted one (1) residential solar PV system building permit application to the City of Buffalo; the building permit was issued.
        - Installed one (1) residential solar PV system array.
        - Completed the solar PV system array electrical connection task for ten (10) residential houses.
        - Received one (1) certificate of completion from the City of Buffalo for solar PV system installation at each of nine (9) houses.
        - Commissioned ten (10) solar PV systems on residences.
        - Issued one (1) roofing assistance check to a home owner who replaced the roof on their house to make it solar PV ready. Additionally, two (2) roof replacement checks were issues for roofs replaced in support of solar PV system installations completed in Q4 2017, but for which the home owners had not yet submitted the roof replacement receipts to National Grid.
        - One (1) roof replacement was conducted this quarter. As of the end of Q2 2018, in total, thirty-two (32) residential and two (2) faith-based organization buildings have replaced their roofs to date. The roof replacement of one (1) faith-based organization building is scheduled to be completed in early Q3 2018.

    - NYSERDA:
        - Pursuant to the partnership Agreement between NYSERDA and National Grid, NYSERDA continued delivering no-cost energy efficiency improvements to residents of the Fruit Belt neighborhood.

- To date, two hundred seventy-three (273) residents expressed interest in receiving a home energy assessment, in-home energy education, air sealing, insulation, low-flow devices, high efficiency lighting, and replacement of inefficient refrigerators and freezers. Table 2-1 provides solar PV system host and non-host EE project participant data.

Table 2-1: Metrics for Energy Efficiency Component by Participant Type-as of 6/30/18

Status	Solar Hosts	Bill Credit Lottery Recipients	Non-Hosts	Total
Customers contacted [a]	25	59	189	273
Customers who responded [b]	12	11	54	77
Enrollments (projects currently in process) [c]	4	0	6	10
Projects completed [d]	6	8	31	45

a. *Customers contacted:* Unduplicated number of customers responding to National Grid outreach efforts indicating that they are interested in energy efficiency services as of 6/30/18. (Note: One customer was reclassified from being a solar host to being a non-host.)
b. *Customers who responded*: Quantity of customers that have returned an application for energy efficiency services to NYSERDA as of 6/30/18.
c. *Enrollments:* Quantity of energy efficiency projects in process as of 6/30/18.
d. *Projects completed:* Quantity of energy efficiency projects that have been complete as of 6/30/18.

  - GE:
    - Completed building the time series simulation model ("MATLAB");
    - Implemented the updated load data and solar PV participants; and
    - Validated the baseline (no solar PV) results with National Grid load data (CY2015).

  - BNMC*:*
    - BNMC did not conduct activities in support of the Project during this quarter.

- Community Participation:

  - As of the end of the Q2 2018, one hundred and seventy-six (176) owners had proposed their houses become solar PV system host houses. This total is comprised of the following quantities:
    - Sixty-nine (69) of those houses became solar PV hosts.
    - Sixty-seven (67) houses have been disqualified due to roof orientation, roof pitch, excessive shading, viable roof hosting size, and/or a location outside of the Project area.
    - Twenty (20) homeowners opted out of the Project for personal reasons.
    - Twenty (20) houses need their roof replaced as a first step to becoming eligible to host a solar PV system. However, the owners have not chosen to replace their roof and become a solar PV system host.

2.2 Key Metrics

Attached Appendix C contains the Key Metric Reporting Matrix. Q2 2018 activities consisted primarily of building permit issuance, construction, electrical connection, city inspections, and continued customer engagement.

2.3 Challenges, Changes, and Lessons Learned This Quarter

Challenge or Change	What was the Resulting Change to Scope/Timeline	Strategies to Resolve	Lessons Learned
A customer entered into a contract to replace a roof, which did not include an installation deadline. The roofing contractor first had a subcontractor test for asbestos, which ultimately was determined to be negative. The time the contractor needed to complete the analysis, delayed the roof replacement, which consequently delayed the solar PV installation at this location.	Absence of a written scheduled installation date early in the process resulted in a two (2)-month delay in scheduling the roof replacement, which in turn resulted in a delay in completion of the installation phase of this Project.	Communicate with the customer's roofing contractor to secure assurance of roof installation, by a particular date. If the contractor cannot do so, advise the customer to identify a different contractor who will commit to completing the work within the required time frame.	The owner of any building requiring roof replacement prior to installing a solar PV system should establish, in writing, an estimated installation date at the time of contract execution.

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3.0 Next Quarter Forecast

Annotated below is the status of the open checkpoints and milestones stated in the January 4, 2016 Implementation Plan, with dates as of this Q2 2018 Report.

As previously noted in the Q1 2017 Report, as the Customer/Stakeholder Outreach Phase 1 (Awareness) and Phase 2 (Enrollment) efforts were undertaken during Q2 2016 and Q3 2016, it became evident that these phases are actually occurring simultaneously, with enrollment occurring as an output of these efforts. Also note that the Phase 3 (Installation) Outreach efforts commenced upon the customer's initial expression of interest and continued throughout the analysis, permitting, and installation processes. This differs from the Implementation Plan, which indicates all customers would first be identified, with installation to immediately follow thereafter.

As noted in previous quarterly reports, the overall Project schedule has extended due to the following) primary factors: customer delays in decision making, combined with participation withdrawal, along with adverse winter weather conditions. These factors created a prolonged solar PV installation period. Additionally, NYSERDA required greater than expected time to complete its EE installation work. Finally, this quarter, poor customer roofing contractor scheduling practices delayed installation of the Project's last solar PV system by at least one (1) month.

Table 3.1 Checkpoints/Milestone Progress

	Checkpoint/Milestone	Anticipated Start/End Date Stated in Q1 2018 Report	Revised Start-End Date as of the end of Q2 2018	Status
1	Finalize contracts with Partners	Completed	*Unchanged*	
2	Customer/Stakeholder Outreach: Phase 1: Community Meetings	Completed	*Unchanged*	
3	Customer/Stakeholder Outreach: Phase 2: Enrollment	04/16-4/18	*Completed*	
4	Customer/Stakeholder Outreach: Phase 3: Installation	10/16-5/18	10/16-7/18	
5	Solar PV Assessments	Completed	*Unchanged*	
6	Site Selection and Design	Completed	*Unchanged*	
7	Meter Installation	07/16-05/18	*07/16-07/18*	
8	Permitting	06/16 -05/18	*Completed*	
9	Solar PV Installation	06/16-05/18	*06/16-07/18*	
10	Interconnection	07/16-05/18	*06/16-07/18*	
11	Bill Credits Administrated	08/16 - ongoing	*Unchanged*	
12	Solar Workforce Hiring	Completed	*Unchanged*	
13	GE Grid Efficiency Analysis	10/16 – Q1 2019	*Unchanged*	
14	Internal Systems Capability	Completed	*Unchnaged*	

KEY

On Track

Delayed start, at risk of on-time completion, or over-budget

Terminated/abandoned Checkpoint/Milestone

1. Partner Contracts Executed.

Status: [Completed]
There were no activities conducted under this previously-completed task.

2. Customer/Stakeholder Outreach: Phase 1: Community Meetings.

Status: [Completed]
There were no activities conducted under this previously-completed task.

3. Customer/Stakeholder Outreach: Phase 2: Enrollment.

Status: [Completed]
Complete enrollment of one residence.

Targets/Actuals in Q2 2018:

- Target: Obtain signed host agreements from the last four (4) Project enrollees.
    - Actual: Obtained the signed host agreement from the last home owner to enroll.

4. Customer/Stakeholder Outreach: Phase 3: Installation.

Status: [Ongoing] [(Revised) 7/31/2018]
Customer engagement activities continue throughout the solar PV host approval process for the homeowner who signed up to participate in the Project.

Targets/Actuals in Q2 2018:

- Target: Continue to maintain positive engagement throughout the scheduling, installation, and implementation process with the remaining customers currently committed to hosting a solar PV system.
    - Actual: The target for Q2 2018 was met.

Target in Q3 2018:

- Target: Continue to maintain positive engagement throughout the scheduling, installation, and implementation process with final customer who is hosting a solar PV system.

5. Solar Assessments.

Status: [Completed]
There were no activities conducted under this previously-completed task.

6. Site Selection and Design.

Status: [Completed]
There were no activities under this previously-completed task.

7. Meter Installation.

Status: [Ongoing] [(Revised) 7/31/2018]
As part of each house or building solar PV installation, an electronic metering system is commissioned. This system reports electrical generation date per solar PV panel. Data collected is aggregated by the contracted system operator and sent to National Grid.

Targets/Actuals in Q2 2018:

- Target: All remaining solar PV systems installed under this program, regardless of installation date and regardless of building type, will be connected within five (5) business days following the City of Buffalo's post-construction review of the installed solar PV system**.**
    - Actual: Meter installation was conducted at ten (10) residential solar PV systems; one (1) of which was completed within five (5) days of receiving the City of Buffalo's post-construction review certificate. The other reviews were delayed by one (1) to five (5) days due to weather constraints and the contractor's staffing availability.

Target in Q3 2018:

- Target: The last solar PV system installed under this program will be connected within five (5) business days following the City of Buffalo's post-construction review of the installed solar PV system**.**

Solutions/strategies in the event results are below expectations:

National Grid will maintain contact with the electrical contractors to ensure their installation schedules the solar PV system remaining to be installed under this Project gets commissioned and interconnected within five (5) business days following the City of Buffalo's post-construction review of a newly-installed solar PV system. National Grid will contact the contractor's upper management if their field team fails to meet this schedule.

8. Permitting.

Status: [Completed]
The City of Buffalo has been approving solar PV system permit applications generally within three (3) weeks following receipt of the application. This quarter, one (1) building permit application was submitted and the permit was issued.

Targets/Actuals in Q2 2018:

- Target: The City will issue building permits for the one (1) residence and one (1) faith-based non-profit organization' building that require roof replacement prior to installing the solar PV system.
    - Actual: The City issued a building permit for the one (1) residence and renewed an existing permit for the solar PV system to be installed on the faith-based organization following its building roof replacement.

9. Solar Installation.

Status: [Ongoing] [7/31/18]
Solar PV system Installation continued based on the quantity of building permits received from the City of Buffalo and the prevailing weather conditions.

Targets/Actuals in Q2 2018:

- Install, connect, get inspected, and commission all remaining residential and one (1) faith-based non-profit building solar PV systems.
    - Actual: one (1) residential solar PV systems was installed, connected, inspected, and commissioned. The solar PV system could not be installed on the building of the faith-based organization because the organization's contractor had not completed the roof replacement during this quarter.

Targets in Q3 2018:

- Install, connect, get inspected, and commission one (1) faith-based non-profit organization building solar PV system.

Solutions/strategies in the event results are below expectations:

National Grid plans to maintain more frequent, yet appropriately-timed, contact with customer and the City Buffalo inspection personnel to ensure their schedules do not prevent completion of this remaining solar Project PV system installation, inspection, and commissioning during Q3 2018.

10. Interconnection.

Status: [Ongoing] [7/31/18]
National Grid's Interconnection team is responsible for processing permits for making the electrical connection from the solar PV system to the electric grid.

Targets/Actuals in Q2 2018:

- Complete the remaining solar PV system interconnections within ten (10) business days of the City's inspection of the solar PV system installation.
    - Actual: System connection to the electric grid at houses equipped with overhead electric feeds was completed within twenty (20) days of installation due to the City's inspection schedule and due to weather conditions.
    - Actual: Solar PV systems installed at two (2) houses both required re-locating the service entrance cable connection location on the above-ground service lines.

These were connected within thirty (30) days due to the extensive coordination required between the home owners, the electrician, and National Grid.

Target in Q3 2018:

- Complete the remaining solar PV system interconnection within five (5) business days of the City's inspection of the solar PV system installation.

Solutions/strategies in the event results are below expectations:

If the issue so requires, the National Grid Project manager will meet with the appropriate Project personnel to ensure the process gets initiated and completed. If National Grid determines Solar Liberty or its contractors are the source of the issue, National Grid will confer with Solar Liberty to learn what issues are present, and direct Solar Liberty or its contractors to take action to rectify the situation.

11. Bill Credits Administered.

Status: [Ongoing]
The billing system to calculate and distribute the bill credits was created in Q1 2016. The system has been used each month since its first implementation in Q2 2016.

Targets/Actuals in Q2 2018:

- Target: Continue to distribute all bill credits for the previous month's solar PV credit using the designed bill credit system.
  - Actual: Monthly bill credits are being generated and issued for each of the solar PV systems installed and commissioned to date.
- Target: Once this Project's remaining solar PV systems are installed and commissioned, conduct Part 2 of the bill credit lottery to identify twenty-five (25) additional bill credit recipients. Set up the bill credit riders for a 24-month period on these accounts.
  - Actual: The second portion of the bill credit lottery was conducted, selecting twenty-five (25) additional bill credit recipients. The bill credit rider was placed on the selected customer accounts for a twenty-four (24) month period starting with the July 2018 electric bill.

Targets in Q3 2018:

- Target: Continue to distribute all bill credits for the previous month's solar PV credit using the designed bill credit system.

12. Workforce Development (Recruitment of Local Solar PV Employees).

Status: [Completed]
There were no activities conducted under this previously-completed task.

13. GE Commissioning and Grid Monitoring.

Status: [Ongoing]
GE grid efficiency analysis consists of feeder modeling and simulation, controls integration, and grid testing.

Targets/Actuals in Q2 2018:

- Target: Conduct feeder performance analysis and compare results of the baseline with the solar PV generation.
    - Actual: Continued but did not complete the feeder performance analysis.
- Target: Validate the baseline results with National Grid.
    - Actual: Completed validating the baseline (no solar PV) results with National Grid load data (CY2015).
- Target: Grid impact analysis will be completed in Q3-Q4 timeframe based on field data collected following commission of most solar PV systems.
    - Actual: The grid impact analysis was continued but not completed.

Targets in Q3 2018:

- Target: Collect one (1) year of load data starting from July 2017 to include solar PV participants that have been online for at least one (1) year.
- Target: Conduct the one (1) year scenario (July 2017 to July 2018) to validate the simulation platform (load and solar PV profiles) with National Grid load measurements.
- Target: Prepare to submit final report in Q4 2018.

14. Internal Systems Capability.

Status: [Ongoing]
The toll-free number continued to operate in Q2 2018.

Targets/Actuals in Q2 2018:

- Continue to maintain internal systems in working condition through the quarter.
    - Actual: Maintained internal systems in working condition throughout the Q2 2018.

Targets in Q3 2018:

- Discontinue operation of the toll-free number.

4.0 Work Plan & Budget Review

4.1 Updated Work Plan

As stated in the Q1 2018 report, the Project schedule is extended to the end of Q1 2019. An updated Project completion schedule is forth in Table 4-1, below:

Schedule Milestone*	Implementation Plan Date	Actual/ Projected Date	Reasons for Extension
Project Start Date:	Nov-15	Jan-16	DPS final approval received two (2) months from initial approval required to complete the project.
Host Sites Selection Completed:	Aug-16	Dec-17	Customer enrollment strategy was revamped after initial enrollment efforts were deemed ineffective.
500 kW of solar PV Installed:	Nov-17	July-18	Adverse weather conditions, customer delays, and customers' roofing contractor delays.
Total Project Completion:	Aug-17	Mar-19	Additional time required for completion of Energy Efficiency projects and grid impact analysis.

Table 4-1: Project Milestone Planned and Extended Dates

*As noted in the Q4 2017 report, six (6) tasks (Customer/Stakeholder Outreach – Community Meetings, Installation, Permitting, Meter Installation, Solar PV Installation, and Interconnection) were extended due to the late Q4 2017 addition of new participants, and due to weather conditions adverse to solar PV system construction. See Appendix A, Figure A-1.

4.2 Updated Budget

There were no new items identified this quarter that may adversely impact the Project budget. There was, however, a review of implementation and evaluation costs. This review identified double-listing of two costs. These were subtracted in Q2 2018, resulting in a negative quarterly cost for these tasks, as well as for the quarterly total OPEX and the grand total project spend for the quarter. The Project budget and spending data are presented below in Table 4-2.

Project Task	Quarterly Actual Spend	Project Total Spend to Date	Project Incremental Cost Budget[1]	Incremental Cost to Date	Total Remaining Incremental Budget Balance
CapEx					
	$232,201	$2,429,279	$2,468,868		
Grants Credited Against Incremental Capital Costs					
n/a	n/a	n/a	n/a		($) n/a
OpEx					
Project Administration and Planning	$3,553	$929,660	$30,000		
Marketing and Workforce Development	$858	$156,590	$250,000		
Incentives	$2,000	$14,245	$0		
Implementation	($106,214)	$281,017	$718,332		
Evaluation and Analysis	($112,754)	$184,178	$325,000		
Total:	**($212,556)**	**$1,565,689**	**$1,323,332**		
Grand Total:	**($33,143)**	**$3,994,969**	**3,792,200**	**$3,009,793**	**$782,407**

Table 4-2: Quarterly Project Cost Data

Note: Project *costs* reported in Table 4-2 consist of the total of the incremental and the non-incremental costs incurred. However, the Project *budget* values listed consist only of incremental costs. The Project's total incremental cost as of June 30, 2018 was $3,009,724, leaving a remaining incremental budget of $782,408. Only the incremental costs are assessed to the Project budget.

[1] An internal review of the Project budget revealed certain costs (*e.g.*, installation costs) were incorrectly categorized as operational costs (Opex), when in fact they are capital costs (Capex). The budget was revised starting in the Q4 2017 quarterly report to reflect this re-categorization, and to include incremental costs. However, the total Project budget has not changed.

5.0 Progress Metrics

Table 5-1 presents key Project metric tracking data available as of the end of Q2 2018.

Time Frame		Outreach	Residential Customer Tier						Solar Installation Progress (Houses and Non-profit Buildings)					Generation and Credits (Residential and Non-profit Organization Buildings)			
Project Quarter	Calender Year	Residential Expressions of Interest (Calls Received, Canvass Response)	Tier 1 Eligibility	Tier 1 Enrollment	Tier 2 Eligibility	Tier 2 Enrollment	Tier 3 Eligibility	Tier 3 Enrollment	Roof Assessments Completed	Structural Assessments Completed	Electrical Assessments Completed	Rootop Systems Installed	Roortop Systems Connected	kW online	kWh generated	Quarterly Bill Credit Distributed [$]	Residential Bill Credit Recipient Qty
1	Q1 2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0
2	Q2 2016	34	5	1	0	0	14	0	14	10	14	1	0	0	0	$0.00	0
3	Q3 2016	28	10	1	0	0	16	0	26*	9	5	1	2	12.22	2,408	$33.96	2
4	Q4 2016	78	16	2	0	0	34	0	54	21	24	2	2	10.92	2,631	$116.99	2
5	Q1 2017	14	40	2	0	0	14	0	13	19	16	3	2	12.74	5,670	$268.10	2
6	Q2 2017	12	8	2	0	0	13	0	9	13	13	31	2	13.00	13,775	$361.36	2
7	Q3 2017	8	-1	32	0	0	6	0	19	18	18	15	28	194.219	17,159	$615.00	28
8	Q4 2017	2	-8	15	34	34	10	0	3	9	9	15	20	85.132	6,733	$2,610.00	54
9	Q1 2018	0	-1	4	0	0	0	0	0	0	0	4	7	85.79	9,145	$4,170.00	5
10	Q2 2018	0	0	0	25	25	0	0	0	0	0	1	10	70.885	17,637	$4,560.00	35
11	Q3 2018																
12	Q4 2018																
	Totals:	176	69	59	59	59	107	0	112	99	99	73	73	484.906	75,158	$12,735.41	130

* = Five added after changing minimum roof system size from 4.0 kW to 3.0 kW.

Notes:

1 Although Tier 1 and Tier 2 customers are eligible for the energy efficiency offerings, the customers may not necessarily enroll to receive these offerings.

2 The quarterly bill credit distributed is a function of an algorithm that accounts for participant quantity and the seasonal fluctuation in kWh generated.

Table 5-1

Appendix

Appendix A: Updated Gantt Chart (as of the end of Q2 2018)

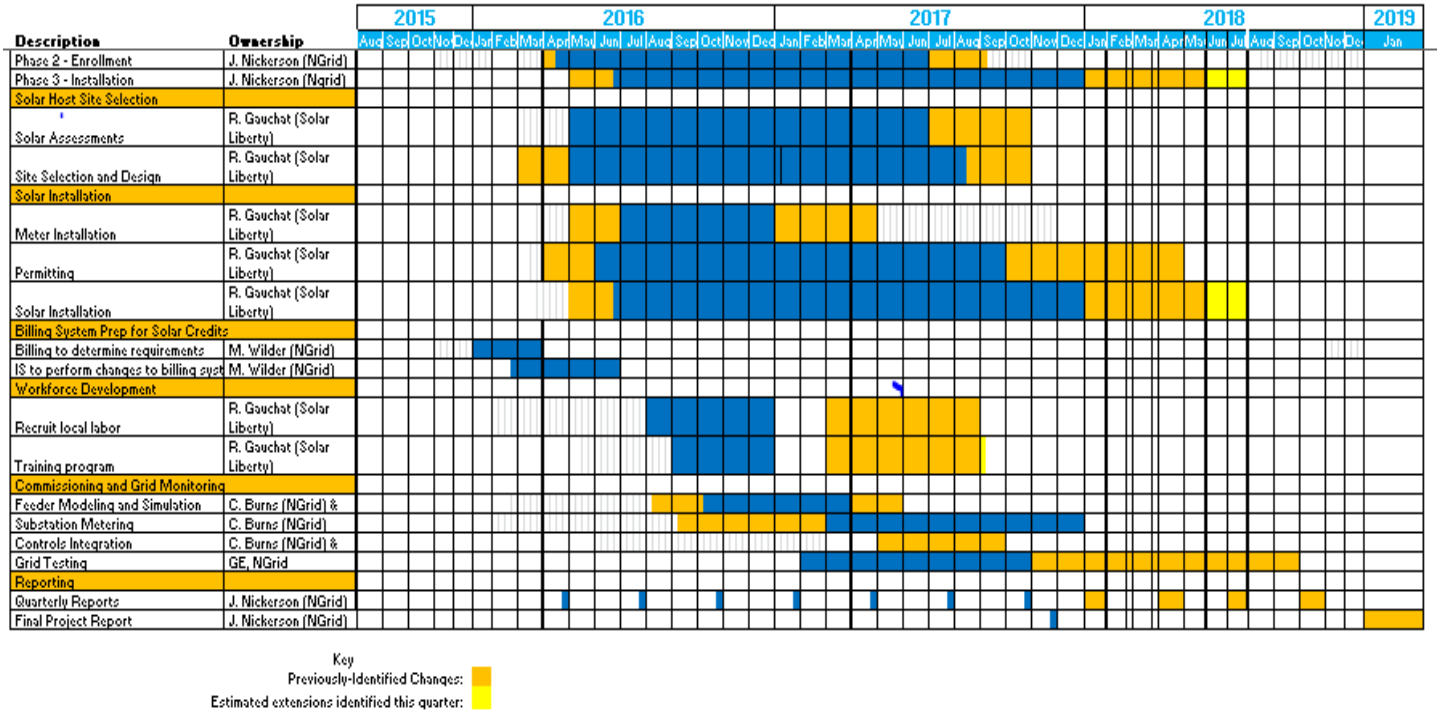

Table A.1 – Updated Gantt Chart