Orange and Rockland Utilities Optimal Export Date (Q1-2019) Overall Status: Active

Project Start Date: 01*/01/2019* **Project End Date:** 03*/31/2019*
Budget: *$1,300,000* **Current Quarter Spend:** *$38,785* **Cumulative Spend:** *$264,912*

Phase 1 Analysis and Engagement

Project Summary: *The Project proposes to use advanced control and inverter functionality, along with supporting technologies, to optimize the export of photovoltaic ("PV") generation to the Company's distribution system. The Company will explore developer interest and acceptance of active network management solutions which may optimize PV export, and/or provide an alternative to traditional system upgrade and protection costs to interconnect. The project is broken up into two classes: Large projects, which are 0.75 MW to 5 MW in size; and (2) Mid-sized projects, which are 0.050 MW to 0.75 MW in size. The Company is working with Smarter Grid Solutions ("SGS") for large projects, and a PV developer for Mid-sized projects.*

Lessons learned: *As O&R integrates these new technologies with its existing utility system, the Company has experienced the following lessons as part of the demonstration project.*

- ***Prospective Candidate Selection:*** *The Company conferred with SGS to identify various metric that could be used to identify candidates that would benefit from this demonstration project. The Company worked internally with their DER interconnection team and SGS to analyze various projects from the Company's DER interconnection queue. The Company also further streamlined their evaluation process within the Co-ordinated Electric System Interconnection Review ("CESIR") to identify prospective projects quicker. The Company continues to streamline this process.*
- ***Integration of Third party equipment with Utility's distribution system:*** *As part of the Mid-sized project group, the Company is currently working on ways to integrate third party equipment with the Company's distribution system and Supervisory Control and Data Acquisition ("SCADA") without compromising cybersecurity protocols. As part of the Mid-sized group, the Company is exploring various third party vendor equipment to lower the cost of Monitoring and Control for developers. As part of the integration of these equipment's with the Company's DSCADA, the Company has been analyzing various vendor protocols to understand how to safely integrate these assets within the Company's distribution system.*

Explanation for budget:

The Company has spent $264,912 on the program through March 31, 2019. The costs are associated with contractor labor, consulting fees, vendor contract, and project management. The project projections remained the same since the last report.

Issues Identified:

- ***Candidate Selection:*** The Company established a process to identify eligible candidates for curtailment analysis. The Company and SGS continue to fine tune the process to analyze more candidates and address any issues with data sharing.
- ***Integration of Third party equipment with Utility's distribution system:*** *As mentioned above, due to the complexity and introduction of new technologies, the Company is working with various vendors to safely integrate third party equipment into the Company's distribution system.*

Solutions Identified: *Focus on change management and internal processes scan can help expedite the process. As new technologies are integrated into the utility distribution system, the Company can streamline certain standards for future use. Educating internal stakeholders on the project scope and new technology can help streamline the process.*

Recent Milestones/Targets Met:

- **Market Engagement and initial Interconnection Assessment:** The Company engaged two vendors and conducted detailed reviews to identify eligible candidates for the Project.
- **Technical Assessment of interconnection applications:** The Company continues to calibrate the technical assessment process for the large projects to foster accuracy and expand the pool of eligible candidates.

Upcoming Milestones/Targets:

In the next quarter, the Project team will continue to work with its Project partners and O&R subject matter experts toward reaching a technical solution that enables O&R to optimize the injection of DER generation into O&Rs distribution system. The Company also completed Project analysis, and identified additional eligible projects that would fit the hypothesis of the demonstration project. The Company continues to streamline the process to reduce the review timeline of projects.

Current efforts are focused on configuring the power-flow simulation model for improved accuracy during the technical assessment of interconnection applications. Progress during the initial analysis has resulted in slower development times than expected (due to the complexity of the power-flow simulation model). The Company has now figured out a streamlined process to further speed up the modelling process. SGS and the Project team continue to make progress toward configuring the power-flow model to optimize the results of the Company's technical assessment.

The Company also plans to reach out to additional high priority developers who are in line with the hypothesis of the demonstration project. The Company is in the process of working with SGS to create education and outreach materials for the prospective vendors.