

**Texas Commission on Environmental Quality
New Technology Implementation Grant (NTIG) Program
Quarterly Project Status Report**

Contract Number:	582-17-72096-2569		
Grantee:	Pedernales Electric Cooperative, Inc.		
Report for the Monthly Period:	Q2 2017 (Apr-Jun 2017)	Date Submitted:	July 6, 2017

Section I. Accomplishments

Provide a bulleted list of project accomplishments as well as a description of their importance to the project.

Pedernales Electric Cooperative, Inc. (PEC) has performed the following tasks to ensure overall project success.

- **Site Studies.** PEC has completed site feasibility studies for installation of the Solar PV array at the Johnson City site to include:
 - Geotechnical Investigation
 - Section 106 State Historical Preservation Review
 - Boundary Survey
 - Interconnection agreement with RES Americas (Solar PV developer)
 - Phase 1 Environmental Site AssessmentPEC is currently evaluating this site to determine the final siting for the energy storage project given the proposed layout of the Solar PV installation.
- **ERCOT Review.** PEC met with ERCOT to discuss the proposed location impacts on market participation and planning for the energy storage project. Site mapping was provided to ERCOT for further review.

Indicate which part of the Grant Activities as defined in the grant agreement, the above accomplishments are related to:

The Site Studies relate to Task 1. The site studies must be completed prior to construction of the Solar PV array. Construction of the Solar PV is required for FNTF for the energy storage project.

The ERCOT Review relates to Task 2. Verification of performance assumptions is necessary to validate the Battery Energy Storage System (BESS) participation in the Fast Responding Regulation Service (FRRS). The finalization of location and energy storage services is required to draft the scope of work and energy storage specifications for procurement.

Section II. Problems / Solutions

Problem(s) Identified: Report anticipated or unanticipated problem(s) encountered and effect(s) on the progress of the project

- FRRS has a limited capacity. Planned generation resources may result in potential dilution of revenues for the energy storage project.
- Recent decreases in BESS component pricing warrants re-evaluation of battery module and sub-chemistry.
- The proposed BESS will be interconnected at distribution voltage. ERCOT is presently evaluating their ability to dispatch the asset given its proximity to the substation.

Proposed Solution(s): Report any possible solution(s) to the problem(s) that were considered / encountered.

- Additional technical and financial analysis will determine the optimal project location, interconnection, schedule of services and technology blend.

Action(s) Conducted and Results: Describe the action(s) taken to resolve the problem(s) and effect(s) had

- PEC is performing additional financial analysis to determine if switching battery vendors would reduce project costs while maintaining system performance.
- The financial implications of additional planned generation resources in FRRS and other proposed nodal protocol revision requests are being carefully considered.
- System mapping was provided to ERCOT for review and pending feedback.

Section III. Goals and Issues for Succeeding Period:

Provide a brief description of the goal(s) you hope to realize in the coming period and identify any notable challenges that can be foreseen

- **Prepare and Issue RFP.** PEC will coordinate a competitive procurement process for the BESS and Integration through a Request for Proposals (RFP) to include:
 - Draft specifications and requirements for RFP
 - Review and obtain approval for RFP
 - Distribute the RFP to public and respond to questions
- **Preliminary Engineering.** PEC will initiate preliminary engineering and site plan work in preparation for construction of the Solar PV and BESS facilities. PEC will coordinate scheduling, scope of work, budget and responsibility for interconnection services including metering, communications, SCADA, site security and accessibility.



Authorized Project Representative's Signature

Date: 6 July 2017