

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

Contract Number: 582-15-53908-1471 **Application Number:** Grantee: NRG Texas Power, LLC Physical Address of **Project:** CR 474 and Long Shore Road, Howard County, TX Report for the Quarterly Date period: September 2016 to December 2016 **Submitted**: January 31, 2017 **Authorized Official Name:** Dan Phillips **Authorized Official Email Address:** Phone **Contact Details:** Number: Dan.philllips@nrg.com 832-357-5781 **Project Summary:** (150 word max) Installation of a 2MW lithium ion battery storage system

Section I. Accomplishments

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

- Filing of ERCOT Resource Asset Registration Form (RARF) data to allow the battery system to be properly modeled in the ERCOT system model.
- Delivery of major equipment components to Toshiba assembly facility in Houston, TX. (see attachment for major equipment list)
- The start of the assembly of the system at Toshiba's facility.
- Completed site control (lease) for alternative site due to ERCOT/Sharyland issues (see attachment)
- Final project design updated for new site (see attachment)

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

- SOW 2.1.4
 - Updated with new Site Lease
- SOW 2,2.6
 - ERCOT RARF
 - Project Design update

Last updated January 2016

- NOTE no construction required for the project
- SOW Task 3 including:
 - delivery, construction, and integration of ESSS with the ERCOT grid.

List any invoices being submitted for reimbursement in reference to the activities above: (Add rows as necessary.)

Date of Invoice	Invoice Number	Vendor	Service/Product	Budget Category (Equipment, Supplies & Materials, etc.)

Section II: Problems/Solutions

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

- Proper interconnection procedures to assure conformance with ERCOT protocols. No impact on overall schedule.
- Hanjin Shipping bankruptcy impact on global shipping industry and potential delays on receiving critical components. No impact on overall schedule.

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

Worked diligently with ERCOT to clearly define and understand protocol requirements

Work with Sharyland to consider physical configuration and communications to meet ERCOT protocols

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

- Successfully completed, with great assistance from ERCOT and Sharyland, the submission of the proper ERCOT RARF to allow for interconnection and operation in the ERCOT system in March 2017.
- Relocated the facility closer to the transmission system interconnection to permit modeling by ERCOT and executed new site lease for the relocated location.
- Neither action is expected to impact the stated project timeline.

Section III. Goals and Issues for Upcoming 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:

- Completion and installation of the Sharyland interconnection facilities.
- Completion of load testing of the battery system at Toshiba facility.

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- Delivery and installation of the complete battery system at project site.
- Completion of ERCOT testing.
- Implementation of Website.
- Project completion and operations.

Authorized Official's Signature

NOTE: Please attach any additional information that you feel should be a part of your report or that may be required to meet the deliverable requirements for tasks completed

Attachments:

1. New executed Site Lease

during this reporting period.

- 2. Layout drawing of project
- 3. Major equipment list of battery system
- 4. Picture of battery enclosure under fabrication at Toshiba Houston shop