



**Texas Commission on Environmental Quality  
New Technology Implementation Grant (NTIG) Program**

**Implementation Phase Quarterly Project Status Report**

**Contract Number:** 582-17-72095-2569

**Application Number:** \_\_\_\_\_

**Grantee:** NRG Texas Power LLC

**Physical Address of Project:** TBD. Tentatively NRG's Langford Wind Farm in Tom Green County, or at NRG's Buckthorn Solar site in Pecos County.

**Report for the Quarterly period:** October 1, 2017 to December 31, 2017 **Date Submitted:** January 10, 2017

**Authorized Official/Project Representative Name:** Forrest Forster

**Authorized Official/Project Representative Contact Details:**

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**Project Summary:**  
(150 word max) Installation of a combined Li-Ion and Flow battery system

**Section I. Accomplishments**

*Provide a bulleted list of project accomplishments since the last report and identify the corresponding task (if applicable).*

- Activities continued this quarter in support of "Task 1 - Detailed Design, Engineering, and Internal Project Approvals"

*List any invoices being submitted for reimbursement in reference to the project accomplishments listed 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.*

- NRG remains optimistic and is moving forward with the project in light of the setbacks identified in previous quarterly reports. In short, those challenges include: (1) materially higher costs on the flow battery piece; and (2) NRG's Transformation Plan announced 2017/Q3 inhibits the original site plan.
- Note that under TCEQ Contract Number 582-15-53908-1471, NRG deployed a lithium-ion battery system that has experienced a much higher dispatch rate from ERCOT than anticipated, consequently necessitating some changes in the design of this system.

*Proposed Solution(s): Report any possible solution(s) to the problem(s) identified above.*

- Reengage suppliers to optimize scope and overall system design; as well as identify parties that would be able to derive benefits from contracting for use of the battery system's capacity.

*Action(s) Conducted: Describe the action(s) taken to resolve the problem(s) identified above.*

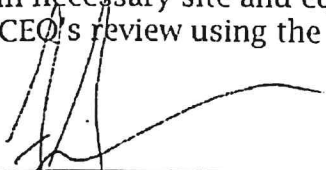
*Describe results of these actions identified above.*

- NRG requested re-quotes from battery suppliers on key equipment - part of this is to help try and get the capex back down in-line with our original cost projections, and the other factor is to get a system robust enough to handle what ERCOT needs now.
- NRG is also evaluating a handful of locations - in conjunction with potential partners - where locating the battery plus renewables at a load source (i.e. "behind-the-meter") helps unlock some additional value by providing increased supply reliability to the load. NRG has engaged ERCOT to provide feedback on various registration, metering & settlement schemes.
- Additionally, NRG is continuing to work with financial intuitions to get them comfortable with the technology and contractual arrangements that will make this a commercially viable project
- Further updates on results will be made in the upcoming quarter.

## 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:*

- Obtain necessary site and equipment commitments and prepare a summary of any such changes for TCEQ's review using the comparison documentation.

  
\_\_\_\_\_  
**Authorized Official/Project Representative's Signature**

1/10/2018  
\_\_\_\_\_  
**Date**

**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 during this reporting period.