



Date: January 8, 2013
To: Board of Directors
From: Mandy Bauld, Director of Commercial Market Operations
Subject: NPRR461, Energy Storage Settlements Consistent with PUCT Project 39917:
Revised Effective Date and Settlement Implementation Process

Issue for the ERCOT Board of Directors

ERCOT Board of Directors Meeting Date: January 15, 2013

Item No.: 11

Issue:

Whether the ERCOT Board of Directors (Board) should: (1) modify the Effective Date of Nodal Protocol Revision Request (NPRR) 461, Energy Storage Settlements Consistent with PUCT Project 39917, from “upon system implementation” to “upon implementation of Release 6”; and (2) approve a settlement implementation process for Operating Days on or after implementation of “Release 6” but prior to system implementation of NPRR461. The “Release 6” date is the date of ERCOT’s next major software update release, currently scheduled for mid-February 2013.

Background/History:

At its December 11, 2013 meeting, the Board approved NPRR461 with an Effective Date of “upon system implementation.” See Attachment A, 12/13/12 Board Report of NPRR461. However, at the Board meeting, a representative for Xtreme Power, Inc. requested that the Board consider an alternative Effective Date for NPRR461 – more specifically, that ERCOT resettle Operating Days for wholesale energy storage settlement treatment by utilizing the settlement logic of NPRR461 once fully implemented in order to more quickly align with the Public Utility Commission of Texas (PUCT) Order in Project No. 39917. At the Board meeting, ERCOT staff described concerns and risks associated with making the wholesale energy storage settlement treatment prescribed by NPRR461 effective prior to ERCOT staff’s capability to implement through systems or manual processes. The Chair of the Technical Advisory Committee (TAC) also commented that TAC had not considered any alternative Effective Dates or implementation approaches prior to TAC’s recommendation of NPRR461. Ultimately, the Board approved NPRR461, as recommended by TAC and modified by the 12/03/2012 ERCOT comments, but directed ERCOT staff to provide true-up information on a possible resettlement option at the January 2013 Board meeting.

Since the Board meeting, ERCOT staff has diligently worked with Xtreme Power, discussed this issue with the Commercial Operations Subcommittee (COPS) on December 14, 2012, and sought input from the Technical Advisory Committee (TAC) on January 3, 2013, in order to propose a recommended Effective Date for NPRR461 tied to “Release 6,” which is anticipated to be implemented between February 11 – 13, 2013. Further, ERCOT staff also proposes that the Board approve a settlement implementation process for Operating Days that occur prior to system implementation of NPRR461, as such process would deviate from the normal timelines

prescribed in the ERCOT Protocols.

Key Factors Influencing Issue:

On March 29, 2012, the PUCT issued an Order in Project No. 39917, which authorized wholesale energy storage settlement treatment for Energy Storage Resources charging from the ERCOT System. On May, 5, 2012, ERCOT staff sponsored NPRR461 to implement the process for Settlement of Energy Storage Resources consistent with the PUCT Order. Although NPRR461 was not approved by the Board until December 11, 2012 and will not be fully implemented for 6 to 9 months thereafter, ERCOT staff does not believe it is out of compliance with the PUCT Order in Project No. 39917 as paragraph (a) of PUC Substantive Rule 25.501 specifically contemplates that ERCOT will have to develop Protocols and other requirements (e.g, ERCOT system changes) to implement sections of the PUC Substantive Rule. New paragraph (m) of PUC Substantive Rule 25.501 requires ERCOT system changes in order to implement the PUCT Order in Project No. 39917 and that is the intended purpose of NPRR461.

Nevertheless, the March 29, 2012 PUCT Order did call for wholesale energy storage settlement treatment for Energy Storage Resources charging from the ERCOT System. Given this mandate from the PUCT, ERCOT staff has worked with stakeholders to seek a means for facilitating wholesale settlement treatment while the necessary system changes are implemented. ERCOT has examined alternatives, and concluded that the best option is the approach recommended by TAC and proposed herein for Board approval. Key considerations include the following factors.

Manual Implementation Option – As stated in the NPRR461 Impact Analysis (IA), there is not a feasible option for manual implementation of the wholesale energy storage settlement treatment. As ERCOT staff made clear at the December 2012 Board meeting, a manual implementation poses unacceptable risk going forward.

Technical Feasibility – Given the one known Energy Storage Resource On-line and providing energy to the ERCOT System (the Xtreme Power NOTREES battery installation), after system implementation of NPRR461, it is technically feasible to utilize the NPRR461 settlement logic to any prior affected Operating Days from on or after “Release 6.” The limited application of the proposed treatment in this case increases ERCOT’s confidence in the technical feasibility of its recommendation.

Audit Risk – In order to address any potential audit risk, to support an application of the EPS Metering Design prior to system implementation of NPRR461, ERCOT staff will take procedural actions different from standard procedures and SSAE16 control objectives in order to measure energy consumed from the Energy Storage Resource and create an eventual price with the NPRR461 settlement logic.

Price Calculations – Data will be available to calculate the price for the one Energy Storage Resource for the affected Operating Days. At this time, ERCOT staff does not expect any other Energy Storage Resources prior to system implementation of NPRR461. However, if other Energy Storage Resources come On-line prior to system implementation of NPRR461, ERCOT



staff may not have the data points necessary to calculate a price for that wholesale storage load back to the recommended Effective Date of “Release 6.” For now, ERCOT staff expects only the one new price (which is load-weighted) to not be available when the Energy Storage Resources is charging from the ERCOT System until the NPRR461 settlement logic is in place.

Settlement Quality Meter Data – ERCOT requires wholesale storage load meter data for resettlement. Consistent with standard practice, the Energy Storage Resource will require an approved EPS Metering Design Proposal and the EPS Meter will need to be installed and certified by the Transmission and/or Distribution Service Provider (TDSP) prior to the recommended Effective Date. Based upon Board approval of NPRR461, the TDSP is working with the Energy Storage Resource to facilitate the installation of the required EPS Meter on the wholesale storage load.

Resettlement Impact – Upon resettlement, a Qualified Scheduling Entity (QSE) representing Load should expect changes to load-based charge types. Presumably, these changes would be small. Additionally, QSEs and Congestion Revenue Right Account Holders (CRRHs) should expect the potential to resettle Operating Days after the 180-day True-Up settlement. The need and extent for resettlement after True-Up is dependent upon the duration of the project to implement NPRR461. At this time, ERCOT staff expects system implementation of NPRR461 prior to the 180-day True-Up window from the recommend Effective Date but there are no guarantees.

Approach for Resettlement – After system implementation of NPRR461, ERCOT staff would apply the NPRR461 settlement logic for any affected Operating Day on or after implementation of “Release 6” using regularly scheduled Final settlement (“59 day settlement after Operating Day”) and True-Up settlement (“180 day settlement after Operating Day”) to the extent possible, and Resettlement after True-Up if necessary. Given the estimated duration (6 to 9 months) of the project for system implementation of NPRR461 and an assumption of an Effective Date coincident with the implementation of “Release 6,” there is potential that a range of 0 to 90 days may require Resettlement after True-Up settlement. ERCOT staff would schedule any necessary Resettlements after True-Up in a manner that helps minimize the impact to resources and invoicing. This approach:

- Eliminates ERCOT staff’s concern about an increased impact to the project resulting because it does not require the logic to be developed on two sets of code.
- This approach helps minimize impact to the market related to Resettlement after True-Up because it uses the normal settlement process in Section 9 of the ERCOT Protocols.

The issue has been addressed in two stakeholder forums since the December 2012 Board meeting. The Commercial Operations Subcommittee (COPS) discussed the issue at its December 14, 2012 meeting. The COPS discussion included substantial input from ERCOT staff and Xtreme Power representatives.

The Technical Advisory Committee (TAC) addressed the issue at its January 3, 2013 meeting. After extensive discussion, TAC voted to recommend the following action to the Board.



TAC's normal course of action would be to avoid (a) implementing Protocols on a retroactive basis and/or (b) making Protocols effective before ERCOT's staff is capable, through systems or manual procedures, of implementing them. However, due to the uniqueness of this situation, TAC recommends the Board modify the effective date of NPRR461 to coincide with the unboxing of Protocols related to the implementation of Release 6 but that ERCOT shall not perform manual implementation of NPRR461 prior to system implementation. Rather, upon system implementation, ERCOT shall correct settlements for the prior effective days through the normal settlement process to the extent possible. TAC acknowledges that this solution will create a delay in the reporting of the Wholesale Storage Load prices during the affected period.

There were four opposing votes from the Generator (2) and Independent Power Marketer (IPM) (2) Market Segments and four abstentions from the Generator (2) and IPM (2) Market Segments.

Conclusion/Recommendation:

ERCOT staff believes that there are enough materially different circumstances in this unique situation to deviate from the normal "upon system implementation" process for revision requests that involve ERCOT system changes. ERCOT staff's view is based on several factors, including: (1) a PUCT Order in its Energy Storage rulemaking, dated March 29, 2012, that calls for the wholesale treatment incorporated in NPRR461; (2) approximately seven (7) months of ERCOT and stakeholder review time devoted to NPRR461 before it came to the Board for a vote (due to the highly technical nature of incorporating settlement treatment of Energy Storage Resources into the ERCOT Protocols); (3) a project timeline of 6 to 9 months to fully implement NPRR461; (4) an impacted Energy Storage Resource that is already On-line for commercial operations, and otherwise entitled to the settlement treatment as contemplated by the PUCT Order and the resulting NPRR461; and (5) the fact that ERCOT can technically accommodate the proposed implementation approach without material cost or audit risk.

Thus, ERCOT staff recommends that the Board (a) modify the Effective Date of NPRR461 from "upon system implementation" to "upon implementation of Release 6", and (2) approve a settlement implementation process as described above for Operating Days on or after implementation of "Release 6" and prior to system implementation of NPRR461.



ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
BOARD OF DIRECTORS RESOLUTION

WHEREAS, after due consideration, the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) deems it desirable and in the best interest of ERCOT to re-evaluate the Effective Date of Nodal Protocol Revision Request (NPRR) 461, Energy Storage Settlements Consistent with PUCT Project 39917, which was approved by the Board at its December 11, 2012 meeting as “upon system implementation”; and

WHEREAS, the Board finds that there are enough materially different circumstances in this unique situation to deviate from the normal Effective Date of “upon system implementation” for revision requests that involve ERCOT system changes to an alternative Effective Date. Such factors, include: (1) a Public Utility Commission of Texas (PUCT) Order in its Energy Storage rulemaking, dated March 29, 2012, that calls for the wholesale treatment incorporated in NPRR461; (2) approximately seven (7) months of ERCOT and stakeholder review time devoted to NPRR461 before it came to the Board for a vote on December 11, 2012 (due to the highly technical nature of incorporating settlement treatment of Energy Storage Resources into the ERCOT Protocols); (3) a project timeline of 6 to 9 months to fully implement NPRR461; (4) an impacted Energy Storage Resource that is already On-line for commercial operations, and otherwise entitled to the settlement treatment as contemplated by the PUCT Order and the resulting NPRR461; and (5) the fact that ERCOT can technically accommodate an alternative implementation approach prior to system implementation of NPRR461 without material cost or audit risk;

THEREFORE, BE IT RESOLVED, that ERCOT is hereby authorized and approved to modify the Effective Date of NPRR461 from “upon system implementation” to “upon implementation of Release 6”, which is currently scheduled for mid-February 2013; and

THEREFORE, BE IT FURTHER RESOLVED, that ERCOT is hereby authorized and approved to use a settlement implementation process which utilizes the NPRR461 settlement logic, after system implementation, for Operating Days on or after implementation of “Release 6” and prior to system implementation of NPRR461. Said settlement implementation process recognizes that ERCOT will use the normal settlement process in Section 9 of the ERCOT Protocols for these affected Operating Days by properly capturing the wholesale settlement treatment on the Initial Statement, Final Statement, True-up Statement, or Resettlement Statement as applicable.

CORPORATE SECRETARY’S CERTIFICATE

I, Vickie G. Leady, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its January 15, 2013 meeting, the ERCOT Board passed a motion approving the above Resolution by _____.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of January, 2013.

Vickie G. Leady
Assistant Corporate Secretary