Control Number: 40000

Item Number: 103

Addendum StartPage: 0

OPEN MEETING COVER SHEET

MEETING DATE: March 7, 2012

DATE DELIVERED: March 6, 2012

AGENDA ITEM NO.: 14

CAPTION: Project No. ~~37897~~ 40000 - P.U.C. Proceeding Relating to Resource and Reserve Adequacy and Shortage Pricing

ACTION REQUESTED: **Memo from Chairman Nelson**

Distribution List:
- Commissioners' Office (6)
- Lloyd, Brian
- Albright, Jim
- Central Records
- Featherston, David (2)
- Flores, Leticia
- Urban, John Paul
- Pemberton, Margaret (3)
- Journeay, Stephen
- Renfro, Mike
- Tietjen, Darryl (2)
- Long, Mick (2)
- Whittington, Pam (3)
- Hunter, Tom

103

Public Utility Commission of Texas

Memorandum

12 MAR -6 PM 3:04
FILING CLERK
RECEIVED

TO: Commissioner Kenneth W. Anderson, Jr.
Commissioner Rolando Pablos

FROM: Chairman Donna L. Nelson

DATE: March 6, 2012

RE: **March 7, 2012 Open Meeting Agenda Item 14;** Project No. 37897 - P.U.C. Proceeding Relating to Resource and Reserve Adequacy and Shortage Pricing

---

The resource adequacy problem in ERCOT is well known and easy to describe: the amount of electricity being demanded by consumers on peak load days threatens to exceed the available supply. We saw this on several days last August, and on one of those days, August 4th, ERCOT deployed Load Resources and Emergency Interruptible Load Service to avoid rotating outages. The reserve margin last summer was approximately 14% when calculated using ERCOT's current methodology, and the reserve margin projected for this summer is hovering around 14%, just above the 13.75% target margin. Looking into the future, the projected reserve margin for 2014 is 9.4%, well below the target margin.

While the reserve margin helps us plan for resource adequacy needs in the future, it has limitations in terms of understanding near term resource adequacy issues and the risk of rotating outages. Last week, ERCOT released its preliminary Seasonal Assessment of Resource Adequacy (SARA) for this summer. ERCOT developed the SARA in response to concerns expressed by me and others last summer regarding the limited near term usefulness of the reserve margin. The SARA uses a deterministic analysis, rather than a probabilistic one, to show the range of possible outcomes given uncertainty about factors including peak demand and unit outages. The preliminary SARA for this summer indicates that we should have sufficient generation with above-average temperatures and a normal rate of unit outages, but extremely hot temperatures, like those seen last summer, or an extreme number of unit outages could provide us with a challenging summer.

While the resource adequacy problem is easy to describe, it has proven difficult to solve in a manner that stays true to the competitive wholesale market we have established in Texas. As with many markets, there are many moving interrelated pieces; we must be mindful of the need to solve problems without unintended consequences that create additional problems. And, of course, the electricity market is unique because of the very critical nature of electricity to all Texans and the need to instantaneously match supply and demand in order to maintain grid stability.

We began this effort by identifying the causes of the problem. Several of the causes—low natural gas prices, tight capital markets, federal renewable energy subsidies—are not within our sphere of influence. But some of the causes—including market distortions resulting from reliability-driven administrative intervention—are issues we can address, and that is where we have focused our efforts. And, although we have no control over the tight capital market, our decisions do affect the ability of generators to access that market. We have already set in motion a number of important changes to market rules that should help improve the resource adequacy situation. These changes include:

- Imposing offer floors for On-Line and Off-Line Non-Spinning Reserve capacity. ERCOT implemented this change on January 5, 2012 (NPRR 428).
- Releasing On-Line Non-Spinning Reserve energy to Security-Constrained Economic Dispatch without the need for ERCOT to issue a Non-Spin deployment instruction. ERCOT implemented this change on January 5, 2012 (NPRR 426).
- Imposing offer floors for Responsive Reserve Service and Regulation Up. ERCOT implemented this change on January 5, 2012 (NPRR 427).
- Formalizing the process used to enter into agreements with owners of generation units needed to avoid emergency conditions. The ERCOT Board approved this change on February 21, 2012, with an effective date of March 1, 2012 (NPRR 432).
- Increasing by 500 MW the amount of Responsive Reserve Service procured by ERCOT and decreasing by 500 MW the amount of Non-Spinning Reserve Service procured by ERCOT. The ERCOT Board approved this change on February 21, 2012 (ERCOT Methodologies for Determining Ancillary Service Requirements governing document and NPRR 434).
- Establishing an offer floor for units committed through the Reliability Unit Commitment (RUC) process for capacity reasons. The ERCOT Board approved this change on February 21, 2012, with an effective date of March 1, 2012 (NPRR 435).
- Publishing the denominator used by Staff to calculate the percentage of installed capacity that a generator controls for purposes of the "small fish" exemption in Substantive Rule 25.504(c) (Project No. 39870).

In addition to these issues that have already been addressed, the ERCOT stakeholder process is currently considering the following issues:

- Price suppression resulting from the "0 to LSL problem" when a unit is deployed for reliability reasons (NPRR 444).
- The compensation for RUC units brought online to provide local reliability and transmission relief and whether and how the RUC claw-back should be adjusted (NPRR 416).

We are also looking at ways to encourage storage technologies and demand response, including:

- Clarifying the rules regarding the regulatory treatment of energy purchased to charge a storage resource (Project No. 39917). We gave Staff direction on the rule language at the last open meeting, and I expect that we will finalize the language at this open meeting.
- Examining whether to give ERCOT authority to conduct pilot projects for new technologies like battery storage (Project No. 40150). We approved a rule for publication at the last open meeting that would give ERCOT this authority.

- Examining changes to the Emergency Interruptible Load Service (EILS) program (Project No. 39948). We proposed amendments to the EILS rule that would allow participation by certain distributed generators and provide more flexibility to ERCOT to encourage greater participation in the program. ERCOT currently acquires 400-500 MW of EILS, and ERCOT projects that it could acquire an additional 130-200 MW depending on the specific changes we adopt. My understanding is that Staff is drafting a proposal for adoption for our consideration at the next open meeting.
- Examining distributed load demand response programs. ERCOT is working with CenterPoint and Oncor on a pilot project that would use advanced meters to aggregate the electric load of participating customers. ERCOT is still gathering data from potential providers to estimate the number of MW of demand response that could be acquired through this program.
- Examining the expansion of energy efficiency load management programs. The utilities acquired 112 MW of demand response through these programs in 2011, and ERCOT estimates that the utilities could acquire a total of 341 MW for 2012 with expansion of their load management programs.
- Publishing non-binding near real-time forward prices to allow electric loads to voluntarily reduce their usage in response to high prices. The ERCOT Board approved NPRR 351 in December 2011, and ERCOT expects to implement this change in June 2012.

I have also been working on conservation messaging and would like to update you on our progress. I hosted a meeting on February 10th to begin the process of crafting a conservation message that engages customers, avoids message fatigue, and assures the public that we will be able to provide them with reliable electricity. We divided the work among three groups (Message Development, Message Delivery, and Curriculum) and had the first group meetings last week. I am very excited about the work being done by these groups and hope to have some concrete results to share with you in April or May. The Commission has also issued an RFP to retain a consultant to develop and operate a new customer education program focused on energy conservation and energy efficiency. I expect that the consultant will help to implement the work done by the conservation messaging groups.

While we have already made significant strides toward a resource adequacy solution, I believe that our work is not yet finished. I believe we should move forward with a two-step approach.

<u>Step One</u>

In both written comments and remarks made at our recent workshop, a broad range of stakeholders (including generators, ARM,[1] CPS Energy, TIEC, and the IMM) support or do not oppose increasing the High System Wide Offer Cap (HCAP) from its current level of $3,000 per MWh. I would note that generators, ARM, and CPS Energy also supported an HCAP in excess of $3,000 per MWh when the Commission considered this issue in 2006. It is important to remember that both the HCAP and the Power Balance Penalty Curve (PBPC) are

[1] While the Alliance for Retail Markets initially opposed an increase to the HCAP, it is my understanding that they now do not oppose an increase.

administratively imposed. In addition, a number of stakeholders support increasing the Peaker Net Margin threshold to more closely track today's cost of new entry for a peaking natural gas generating unit. In light of the resource adequacy challenge facing us this summer and the support of a number of stakeholders for further action, I propose as Step One that we consider the following changes with a target effective date of July 1, 2012:

- Increasing the HCAP to $4,500.
- Increasing the high end of the PBPC to $4,500.
- Increasing the triggering threshold for the Peaker Net Margin mechanism to $262,500.
- Increasing the Low System Wide Offer Cap (LCAP) to $2,000.
- I would also like to encourage generators to enter into Commission-approved Voluntary Mitigation Plans (VMPs) by making it clear that VMPs are available to every generator and that a full contested case with intervenor participation is not required for approval. I understand that getting VMPs approved in time for this summer may be challenging, but I would at least like to explore the possibility.

I believe that prompt action on these items before the hottest days of summer is critical to ensure that Texas has sufficient generating resources to keep our lights on and our air conditioners running. The preliminary summer SARA shows that we will be tight on capacity again this year. By moving boldly to increase the HCAP and PBPC, resource owners will have a strong incentive to bring all available capacity to the market. Likewise, loads will have a strong incentive to respond to high prices by reducing consumption, whether actively through administrative demand response programs or passively by simply dialing back consumption. By pricing scarce resources closer to their cost, load will also have increased incentive to hedge against the scarcity pricing, and REPs will have increased incentive to offer demand response programs to residential and small commercial customers. These programs will help REPs avoid the scarcity pricing and will enhance the use of the advanced meters that are being installed in the ERCOT market.[2] I believe these changes will go a long way toward getting us through this summer. The changes will also have longer term effects. Forward power prices should rise in response to the higher caps, and this in turn should make it easier for developers to finance long term investments in additional capacity.

This summer is fast approaching—as is 2014. We need to continue moving forward aggressively to solve the resource adequacy problem. For this reason, I ask that you join me in directing our Staff to draft a proposal for publication with these Step One items for our consideration at the March 22, 2012 open meeting.

Step Two

ERCOT has hired the Brattle Group to identify and examine the factors that influence investment decisions related to the financing and development of projects needed to meet ERCOT's resource adequacy goals. Based on this analysis, Brattle will provide various options for solving

---

[2] Oncor, CenterPoint and AEP will complete installation of advanced meters in their footprints by the end of the first quarter of 2013, which means that approximately 97 percent of the customers in the competitive area of ERCOT will have advanced meters within the next year.

the long term resource adequacy problem. Given the fact that these are all pieces in the bigger resource adequacy issue, I think we should ask Brattle to analyze a long term solution that includes some or all of the following possible changes:

- Increasing the HCAP to $7,500 over a period of years.
- Increasing the high end of the PBPC in step with the increases to the HCAP. I would also ask Brattle to consider whether the starting value of the PBPC should be increased and whether changes should be made to the slope of the curve.
- Increasing the triggering threshold for the Peaker Net Margin mechanism to $300,000 or some multiple of an updated cost of new entry. I would also ask Brattle to consider whether the Peaker Net Margin mechanism should be eliminated altogether.
- Increasing the LCAP to 50% of the HCAP.
- On the market power issues, I would like Brattle to advise us on the potential advantages and disadvantages of increasing the "small fish" threshold and, although I am not convinced this is necessary, I would like Brattle's input on whether it would be advisable to amend our bidding rules to allow for full cost bidding rather than marginal cost bidding. I believe, as we have heard, that resource owners will continue to bid their marginal costs even if we allow full cost bidding.

ERCOT has said that the Brattle study will be completed by June 1st. Once we have the Step One changes in place for this summer, we will be able to use the results of Brattle's analysis in crafting a long term solution. My goal would be to have this Step Two solution in place for implementation prior to the summer of 2013.

<u>Conclusion</u>
You have probably seen the market reports and news stories describing the increase in forward power prices following our resource adequacy workshop on February 23rd. The market clearly responded to our strong statements, and I think the market expects us to follow-up with strong actions.

I look forward to discussing this with you at the open meeting.