

CSTF Poll Feedback

02 June 2014

Prioritization and degree of support feedback:

- Discuss SWMAAC specific CONE determination issues. May Disagree with PJM/Brattle position once have had opportunity to review data. High priority for examination.
- Answered the "Degree of Support" listed as "Disagree" for all topics. This is to give the stakeholders an opportunity to discuss the topics prior to stating a formal opinion on the changes.
- On neutral items we need more discussion and a better understanding of the PJM recommendation with impacts on price and reliability. We also specifically believe we need to understand the methodology of calculating E&AS offset and then determine the impact of it on other components before making firm decisions.
- A forward looking E&AS offset could be an improvement if it reduces volatility, as long as there is NO explicit adjustment for shortage pricing. Shortage pricing should be captured in the forward prices only.
- Apologize in advance for the quick comments and typo's...but I'm very pressed for time. In total, the proposed changes would seem to suggest that RPM has failed to procure needed capacity levels, but this appears to run counter to prior assertions that RPM has been a success. On the shape issue: We very much want to understand the differences between the Brattle Study and its assumptions as compared to the Hogan model as well as the data provided by PJM (Fallon) concerning LOLE vs. procured reserve model. We seem to have a divergence of analysis when it comes to whether or not the existing VRR curve is providing the adequate capacity levels that needs to be further explained. Additionally, PJM representation of its VRR curve as just an 'additional 1%' seems somewhat disingenuous relative to the present curve and the IRM margins associated with the curve (PJM appears to be more along the lines of a 2-4% right shift depending on the curve point). When we are clearing in the neighborhood of 20% reserves, we struggle to understand why curve should be shifted out at this point to procure even more capacity at even greater clearing prices, unless PJM has decided that we just need to pay generators more money. Brattle included a cost impact of its curve, that while we question relative to Hogan, we would like to see a cost impact for the proposed PJM curve. Reference Technology: Empirical clearing suggests that CC is the new entry unit, and it appear that total market revenues (Net CONE) are more than adequate to support this entry. Given the empirical data, we think we may be either too high on CT CONE or two low on EAS offset. Real vs. Nominal: Respectfully, we think that the consultant has a better understanding than PJM staff relative to developers business modeling as it relates to real vs. nominal CONE and we defer to its analysis and assessment of this issue. Net CONE for sub-LDAs: The logic of this approach escapes us...if constrained areas have higher energy costs this should be reflected in the VRR curve (there is less 'missing money' that needs to recovered and this should be recognized. We could be open to using a minimum of parent LDA and sub-LDA clearing prices for the sub-LDA to protect against an unlikely situation where a lower Net CONE/VRR curve results in a sub-LDA clearing price that is less than parent LDA...that doesn't seem like a desired outcome...but adjusting the entire VRR curve at the outset doesn't appear to hold water, unless the argument is that we just want to pay generation on sub-LDAs more money just because.
- "Empirical" net CONE should be investigated and actual new entry should be considered.
- Establishing a forward-looking E&AS offset is very important. Setting Net CONE by taking into

account actual new entry should be considered.

- Forward looking E&AS approach necessary, with revisions to Brattle recommended approach
- "Neutral" degree of support indicates NJBPU belief that more discussion/education/consideration is necessary. NJBPU "agreement" on dual fuel capability for CONE Area 3 - indeed, dual fuel for all CONE Areas - assumes PJM movement toward requiring dual fuel capability for new gas capacity resources, consistent with NY-ISO rules, and possibly existing units as well. Loads should not be expected to pay for dual fuel via the ultimate Net CONE and MOPR values and then have generators claiming uplift payments for expensive spot gas during weather events such as occurred this past January (in addition to pushing for general offer cap increases on energy offers). If loads are paying for dual fuel capability in the Gross CONE computation, then that capability should be required of actual cleared gas generation capacity.
- All indications of "degree of support" are preliminary and subject to change depending on stakeholder process.
- Need a better understanding of the forward E&AS and the CONE escalation methodology
- We are registering "degree of support" as neutral, as we don't care to indicate our level of support prior to discussing what the solutions may be.
- Curve shape, reference resource and nom vs real are important, but consensus will not be reached and it is a waste of time to do more than education on these items.
- FirstEnergy has concerns with the subjectiveness of the forward-looking E&AS offset, such as: What forward curves will be selected?; How will basis be handled?; Who will be responsible for administering this?

Which System VRR curve shape do you/your organization currently support?

- Am not committed to any Curve shape, but require full examination of Brattle/PJM proposal. Have specific concerns that it may overstate/double count service reliability risks.
- While PSEG supports the convex curve recommended by both Brattle and PJM, we believe that the curve should be right-shifted 2 percent (rather than 1 percent as recommended by PJM) to ensure that the 1-in-10 objective is met.
- No answer at this time.
- No evidence that any change is needed.
- We should not change curves without understanding the full consequences of doing so and if PJM cannot demonstrate that the current curve has fallen short.
- There is no credible evidence that the current curve is not effective or reliable.
- No evidence that changes are necessary.
- Absent an open discussion, over an adequate duration of time, of each of the bases asserted by Brattle/PJM as justification for changing the shape/location of the VRR curve, it should remain unchanged. For example, actual data indicates that the BRA has consistently over-procured capacity relative to actual DY requirements, yet there is the assertion that the VRR curve and the BRA are failing to adequately ensure reliability. Such apparent contradictions must be resolved through proffers of data, argument and subsequent discussion among the stakeholders prior to consideration of any adjustment to the VRR curve. Moreover, attendant issues currently deemed outside of the scope of the review by Brattle (e.g., load forecasting methodology and its impacts on the RR computation) should be placed explicitly within the scope of the discussion/review.

- Indicated support is preliminary and subject to change based on stakeholder process.
- no answer at this time
- VRR +2% was preferred. Proposed changes should eliminate administrative volatility problems.

Which LDA VRR curve shape do you/your organization currently support?

- See note above.
- Again, we support the convex shape, but believe that the LDA VRR curve should be right-shifted 2%.
- No answer at this time.
- No evidence that any change is needed
- There is no credible evidence that the current curve is not effective or reliable.
- No evidence that changes are necessary.
- Same comment as above.
- Indicated support is preliminary and subject to change based on stakeholder process.
- No answer at this time

Which Reference Resource technology do you feel is most appropriate for purposes of CONE in the VRR Curve parameters?

- Support PJM judgment.
- PSEG disagrees with the proposal to maintain the GE Frame 7FA model CT as the reference technology. Instead, we believe the use of the LMS 100 is more appropriate. We also believe that there may be some scaling issues associated with the use of a 2X configuration rather than a 1X.
- No answer at this time.
- A weighted average approach (with somewhat higher weight to the more economical resource) should be considered
- This needs to be explored and studied in the stakeholder process before a decision is made.
- Reference Resource should be consistent over long periods of time, and should be able to be added in the smallest increments possible.
- A weighted approach should be investigated.
- Should be a weighted average approach.
- The question requires more information, education and discussion before NJBPU can offer a definitive opinion. For example, why should the CT serve as the reference unit if the CC is, in fact, the prevailing current new gas entry technology?
- Indicated support is preliminary and subject to change based on stakeholder process. It is important not to switch reference resource year-over-year for continuity and appropriate capacity price formation that leads to investment decisions.
- No answer at this time
- Reference resource shouldn't chase the market as RPM is supposed to provide a necessary component for the long run marginal costs signal.

Please describe any other high priority items within scope that you feel should be addressed during the CSTF this summer, as it relates to the VRR Curve Parameter Review.

- SWMAAC specific CONE determination issues.
- PSEG believes that Brattle's recommendation of 8% FOR ATWACC has raised a number of questions and concerns that warrant further discussion. Another high priority item that should be addressed is PSEG's belief that the curve should be right-shifted 2%. We also believe that there should be further discussion regarding PJM's suggestion that it could operate at levels below the 1-in-10 standard for multiple planning years given that this does not comport with PJM's transmission planning process, which is premised on meeting the 1-in-10 standard at all times.
- If VRR curve shape remains in the work plan: 1. Any new criteria to be applied for evaluating VRR curve shapes (such as Brattle's proposal to interpret base residual auction three-year-forward cleared quantities, as estimated by simulation, as "loss of load expectation", and requiring that such values average ≥ 0.1 ; or Brattle's proposal to consider IRM-1 a result to be avoided by setting price at the cap) must be discussed and agreed among stakeholders with state commission involvement.
- None additional relating to VRR review.
- Dominion believes there should be discussion and debate about the PJM recommendation that Dominion be eliminated as a CONE Area. On December 1, 2009 PJM filed with FERC (ER10-366) tariff revisions to expand the number of CONE Areas which included the addition of CONE Area 5 ("PJM South" – Dominion Zone). Supporting this change, PJM stated: "The highest and lowest gross CONE values of the three existing CONE Areas vary by only about nine percent. By contrast, energy market revenues can vary considerably among zones." PJM should contemplate the role that Net Cone plays from a locational basis and be prepared to defend why its reasoning in the 2009 filing, accepted by FERC on January 1, 2010, is no longer valid.
- We strongly believe that any new criteria to be applied for evaluating the VRR Curve should be thoroughly discussed by the pertinent stakeholders.
- None.
- Weighted Avg. Cost of Capital methodology and level
- No answer at this time
- PJM please stick to your guns and don't compromise the best opportunity yet to fix the VRR curve problems. Fishing for votes at the stakeholder level will not translate into support at FERC.

Please list any other items that you feel should be considered that are beyond the current scope of work of the CSTF?

- While we acknowledge PJM's objections, we continue to believe that access to the simulation model is necessary to allow market participants to test it. We further note that the Hobbs model was available during the previous VRR Curve parameter review.
- If VRR curve shape remains in the work plan: 1. The potential impact of different VRR curve shapes on reliability is important; but to assess that, it is necessary to evaluate how Delivery Year reserve margins (that determine reliability) are related to base residual auction clearing results. For that, it's necessary to consider what can happen after the three-year-forward base residual auction, such as: reductions in load forecast, procurement of additional capacity by

PJM, procurement of additional capacity by market participants to hedge, etc. 2. Brattle suggests clearing at IRM -1 in the three-year-forward base residual auction is a bad reliability outcome to be avoided by changing VRR curve shape. Whether IRM-1 in the three year forward auction is a bad outcome is an issue to be discussed and evaluated; and to the extent such outcomes raise concern, additional options for maintaining adequate reliability when clearing below IRM three years forward should be considered, including changes to incremental auction rules about PJM purchasing additional capacity, "backstop" rules, etc.

- This effort largely addresses the future of RPM when (hopefully) RPM will be operating in stable, steady state conditions. It does nothing to address what is the biggest problem currently facing RPM -- how to address the reliability problem that would result from a precipitous retirement of coal (and even nuclear) generation because of environmental issues and low natural gas prices. Perhaps if we don't address this impending problem, RPM won't make it to steady state?
- Delivery year reserve margins relationship to BRA clearing results. A complete discussion among stakeholders concerning whether the IRM-1 in the 3 year forward auction is an inappropriate outcome.
- PJM's load forecasting methodology used in determining the Reliability Requirement, which according to PJM is a third-party forecast product and which appears to consistently overstate load requirements. This item is "outside the scope" of Brattle's review, but should not be as it affects Brattle's/PJM's contention that the VRR curve is not adequately producing BRA results consistent with reliability objectives. If the forecast is consistently long, as it appears to have been, then the claimed reliability problem is not a genuine problem driving a need for VRR curve modifications. It should be subject to review as a pre-condition for any VRR curve modifications.
- With the exception of the CONE update, VRR curve update, and E/AS calculation review, no other items should be considered by the CSTF as part of its current scope of work.
- No answer at this time
- Problem statements should be created at MRC and not mixed with Tri Review work.
- PJM/Brattle should evaluate Limited and Extended Summer DR reliability caps in winter peaking LDAs for potential separation. These products are not as worthwhile in winter peaking LDAs and, as it currently stands, are being otherwise over-procured.