



Summary of Statement of Steven R. Herling
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Summary

- Solutions need to be integrated across planning, markets, and operations.
- An effort has been initiated to evaluate significant changes to the planning process, including extending the planning horizon and expanding the focus based on what it takes to support a robust competitive market.
- Our recent experience illustrates the need for integration of generation and transmission solutions and for longer-term certainty.
- The deliverability problems that we are currently dealing with in New Jersey highlight the need for appropriate market signals to generators so that generation and transmission can be more effectively integrated in the planning process.
- The RPM proposal builds on the relationship between generation and transmission, using deliverability tests to drive the signals sent to the market.
- RPM specifically provides an opportunity for transmission to compete with generation and demand resources to resolve capacity shortages on a forward looking basis.
- Our experience with deliverability over the last seven or eight years also illustrates the need for granularity in the evaluation of problems and the development of the market signals needed to drive solutions.

Background

- The current PJM planning process uses a 5 year horizon to test for reliability criteria violations and performs an assessment for potential violations using a 10 year horizon.
- Transmission upgrades are identified for the criteria violations in the 5 year horizon and it is these upgrades that are included in the Regional Transmission Expansion Plan which is approved by the PJM Board.
- The 5 year horizon establishes a reliable baseline which is then used to perform System Impact Studies to identify the network upgrades required to interconnect generation and merchant transmission projects.
- Until recently, the 5 year horizon has been sufficient to identify baseline transmission requirements related to load growth. The required upgrades were able to be constructed within the 5 year horizon and, as a result, the baseline provided a reasonable degree of certainty for interconnection customers as a starting point for their analyses.

- The 5 year horizon was originally chosen because it was impossible to predict where generation would be sited beyond the timeframe of the projects under development in the interconnection queue, typically 3-4 years.
- While there was no requirement for a long-term commitment of generation resources, there were a substantial number of generation projects under development in the interconnection queue, spread over virtually the entire PJM system.
- The 5 year horizon seemed to provide the right balance of certainty with respect to expected system conditions and the ability to construct transmission in a timely fashion in order to ensure continued reliability.

**An Example of the Problem of Lack of Long Term Commitment of Generation:
Proposed New Jersey Retirements**

- A large number of generation retirements were announced in 2003 and 2004 in eastern PJM, in particular in New Jersey.
- Generally, these retirements are due to the current excess of generation in the PJM market and the inability of these particular units to compete economically.
- While generation is critically needed in the east for reliability, there is currently no locational valuation for generation capacity.
- Because there is no required long term resource commitment, these generators were essentially able to announce their immediate retirement.
- As a result, violations of PJM's load deliverability criteria were identified in all years of the planning horizon beginning with 2005.
- Because of the number of generation retirements, the number and scope of the required network transmission upgrades are such that they can not be completed in a timely fashion, so as to ensure a reliable system.
- In order to ensure compliance with reliability criteria, it was determined that a number of generators would be required to remain in service beyond their desired retirement dates.
- As a result of retaining a number of generators through RMR payments and the completion of a number of transmission upgrades, the PJM system is compliant with all applicable reliability criteria for the 2005/06 planning period.
- Additional transmission upgrades will be required prior to each of the next four summer periods to ensure continued compliance with criteria. It will also be necessary to retain the RMR generators for a number of years beyond the 2005 summer period, depending on the pace of transmission construction.

A Short Term Solution: The Role of RMR

- RMR generation is a short-term solution that provides a reliable transition until a long-term solution, such as a transmission line, can be built.
- RMR contracts are a short-term stand-in for the transmission solution that will be built later. They resolve the same reliability problems and should therefore be charged to the same load that will eventually pay for the transmission line when it is built.

- If generation capacity in a given location is critical to reliability, it should be valued accordingly. With the appropriate locational valuation of generating capacity and a longer-term resource commitment, existing resources will have the appropriate incentive to invest to stay in the market and developers will have the incentive to locate new resources where they are most needed.

Enhancements to the Planning Process: PJM Board Commitments

- Following the identification of reliability criteria violations as a result of the generation retirements, the PJM Planning Committee began discussing a number of changes to the planning process, including extending the planning horizon and identifying and planning for at-risk generation.
- More recently, the PJM Board has committed, in an open letter to our membership (copy attached to this statement), to a number of initiatives, including an assessment to extend the planning horizon and to expand the focus of planning based on the needs of a robust and competitive market.
- Longer horizons for the reliability criteria tests are feasible, but the uncertainties and interactions among elements of the planning process must be understood.
- While it is not yet clear how at-risk generation will be addressed, the challenge of identifying at risk generation increases when projecting more than 5 years into the future
- By extending the planning horizon, it will be more critical that a longer term resource commitment be established in order to provide some of the certainty required to enable that longer term horizon.
- Linkage to the RPM auction cycle can readily be accomplished as long as the deliverability margin is balanced with the auction cycle and the RTEP reliability horizon.

Granularity of Locational Requirements

- The premise of RPM is that generation, transmission and demand solutions can compete to resolve deliverability constraints.
- Deliverability constraints are identified for a wide range of load areas including individual TO service territories, parts and combinations of such territories, and large regions comprised of multiple service territories.
- Transmission solutions are specific to the constraint that limits deliverability to one of these areas.
- Generation solutions must be implemented within the area experiencing the deficiency.
- Without sufficient granularity and consistency among load deliverability areas (“LDAs”) and RPM generation sited in response to elevated capacity prices might not resolve the deliverability problem – generators would receive the higher capacity price and a transmission solution would still be required.
 - Example – if there are high capacity prices for all of eastern PJM based on a deliverability problem for northern NJ, generation added on the

Delmarva Peninsula would not solve the problem, but would get paid the higher capacity price

- Granularity must also be dynamic in order to be responsive to future needs. Large regions may be appropriate for part of PJM today, but may not resolve more local problems in the future after the large regional problems are resolved.