

November 14, 2011

Steve Herling, Vice President  
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Dear Mr. Herling:

The Mid-Atlantic States thank you for the opportunity to provide PJM with comments regarding revisions and updates to the PJM planning process. We appreciated the briefing and updates provided in the May 24, 2011 PJM planning process strawman and the very informative symposium held on June 20-21, 2011. On several occasions PJM has requested state input in shaping these new approaches and in response, the states of *Delaware, Maryland, and Virginia* ("the States") have joined together to provide their thoughts on the key planning principles that should be considered by PJM. While the States and their various agencies take no formal position on the proposed discussions, we do think the new planning process and subsequent FERC 1000 filing should consider key guiding principles.

### **Overview**

The Mid-Atlantic States understand that PJM is aggressively pursuing a process of developing a new structure for its Regional Transmission Expansion Plan (RTEP) in response to directives received from the FERC and the PJM Board of Managers. As we understand, the new proposed RTEP structure would involve at least four linked and complimentary approaches, those being the "FYI To Market Approach", "State Agreement Approach", "Critical Mass Approach" and "Proactive Build Approach." While we have gained some understanding of these approaches via PJM discussions, our comments can only reflect our understanding of what appears to be a very fluid process of discussion.

There are several key planning principles that the States view as critical and which can have major impact on PJM's new planning approach. We offer comment on the following principles:

- The requirement for more open and transparent scenario planning and analysis
- The need to expand opportunity for participation by additional state agencies
- The need to maintain a flexible approach for incorporating public policy initiatives

### **Open and Transparent Scenario Planning**

PJM has been moving toward a more open and transparent transmission planning process and the States appreciate PJM's efforts in this regard. However, it is critically important that PJM adopt a scenario planning process that includes more transparent and rigorous alternative analyses with consideration of the key roles generation

interconnection, economic builds, reliability planning and consumer load play in helping to achieve maximum reliability and economic benefits in the PJM region.

The current transmission reliability planning process entails: developing a series of input assumptions, including load forecasts; power flow analyses designed to identify reliability criteria violations; identification of transmission solutions to reliability violations; and resulting in PJM-Board approved transmission reliability projects. However, the methods PJM employs to identify and analyze alternative solutions to reliability violations, and the various economic and environmental benefits of those solutions, lack the rigor and openness that could lead to the best possible planning decisions for the region.

Scenario analyses involving key input assumptions and their ultimate affect on PJM-Board approved decisions would enhance the planning process. It is unclear how PJM's Board addresses the various uncertainties associated with reliability planning without having the benefit of scenario analyses that identify the confidence that can be placed in what may be billion dollar decisions to expand the regional transmission system. It is also unclear how PJM's Board addresses various uncertainties associated with regional generation supply, demand side management, and energy efficiency in its role as the region's decision-making body for reliability planning.

PJM's review of the transmission planning process is particularly timely given the new transmission planning requirements set forth in FERC Order 1000. A more rigorous and transparent planning process, and one that examines the interrelationships between and dynamics of transmission, generation, and demand side management solutions, should lead to improved PJM reliability planning decisions, and the effective implementation of the transmission planning reforms directed by FERC. **Attachment A** identifies additional recommended planning changes and scenario approaches needed to help drive maximum benefits.

In moving to a more rigorous and transparent review process, all input assumptions, alternatives studied, cost/benefit analyses, timing sensitivity, and major risks to any decision to direct the construction of a backbone or major transmission line should be presented in support of that proposal. This provides for transparent decision making.

### **Essential State/Stakeholder Participation**

Initial regional planning discussions in early 2010 focused on how PJM could incorporate states' public policy requirements in the RTEP process. There were multiple questions on whether to include state laws and regulations that were aspirational, how to forecast renewable generation to meet RPS goals, and what, if any, requirements beyond laws and regulations should be considered. Under the existing stakeholder structure, it was anticipated that PJM would be making those determinations in cooperation with voluntary state participation in the PJM Planning Committee, the Transmission Expansion Advisory Committee, and the various Sub Regional RTEP Committees. While state participation in these meetings has never been overwhelming, it may have been sufficient to provide guidance to PJM. However,

with FERC Order 1000 and more recent PJM proposed planning approaches, the need for some type of “official” state/stakeholder participation becomes critical.

Within the current stakeholder planning process, only electric utility regulatory agencies (via the Organization of PJM States, Inc. (OPSI)) and the offices of the various consumer advocates are recognized as “official” participants.<sup>1</sup> While this does constitute state representation, it is not necessarily the policy making branch of state government. Regulatory agencies find themselves in mostly a monitoring or advisory status with no sector voting privilege and unable to take any official position due to their regulatory oversight role. State consumer advocate offices do have “official” member recognition with stakeholder voting privileges as part of the End Use Customer sector. However, there are many other state agencies<sup>2</sup> that play a principal role in the formulation of state energy strategies that are simply other interested parties in the PJM stakeholder process. While PJM very graciously provides for their inclusion in almost all meetings, there is no “official” status available within the PJM Operating Agreement.

FERC Order 1000 requires PJM to amend its Open Access Transmission Tariff (OATT) to ensure consideration of public policy requirements.<sup>3</sup> Further throughout the order, FERC requires amendment of the OATT to ensure stakeholder review and involvement in public policy initiatives. PJM in its NOPR comments further identified the need for a legally empowered coordination among the states with respect to public policy initiatives. In the reality of today’s world, there is limited possibility of creating such an entity via a State Compact. The best that could be hoped for is a close coordination on public policy initiatives, and that will take a broader inclusion of state agencies and some organizational structure to help meet PJM needs.

The States understand that PJM has recently proposed a voluntary State Stakeholder Committee, that would allow state representatives (chosen by the States) to participate in State PJM planning meetings, helping to review public policy requirements and to suggest projects on which PJM could provide a more detailed technical analysis. We understand OPSI has agreed to draft the charter for this committee and we are encouraged by this approach.

The creation of a State RTEP Committee to help address public policy requirements is a step in the right direction; but however chartered, it must reflect PJM's open and transparent planning approach, have mechanisms that promote active state participation in the planning process and provide a reasonable level of technical analysis for state suggested projects. Broad state participation is important to create an

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<sup>1</sup> Amended and Restated Operating Agreement of PJM Interconnection, L.L.C., dated 8/10/2011, pages 438-439

<sup>2</sup> Governor’s Office, State Energy Offices, Environmental Agencies, and others, depending on state structure.

<sup>3</sup> FERC Order 1000, Paragraph 203, page 158, “Moreover, these reforms will remedy opportunities for undue discrimination by requiring public utility transmission providers to have in place processes that provide all stakeholders the opportunity to provide input into what they believe are transmission needs driven by Public Policy Requirements, rather than the public utility transmission provider planning only for its own needs or the needs of its native load customers.”

effective regional planning committee, but PJM resource support and technical guidance is critical as the committee grows and evolves.

To create an open and participative environment for public policy initiatives, with the substantial stakeholder involvement envisioned by FERC, will require multiple actions:

- PJM needs to continue playing an integral part in reviewing state public policies and suggesting the most effective and cost efficient approach to incorporating such needs.
- The State Agreement approach needs to determine and reflect public policy transmission builds in similar fashion to economic or reliability builds. When incorporated in RTEP, they become a mandatory build for the local Transmission Provider(s) (TP), unless another Independent Transmission Company (ITC) has proposed new transmission or non-transmission projects that meet the requirements.
- PJM's state representation and stakeholder status needs to be inclusive to ensure that all state agency representatives are able to work together to actively promote public policy initiatives under the PJM organizational umbrella without conflicting interests.
- PJM should consider opportunities to expand participation of State agencies in the PJM decision-making process. **Attachment B** is a summary of state participation in other RTO venues. It can be clearly seen from comparison of the governance structures of other RTOs that PJM affords the minimal opportunity for meaningful participation within the group. PJM should take a more proactive role in the inclusion of State governmental agencies in its stakeholder and decision making processes.

### **Flexible Public Policy Response**

FERC Order 1000 requires the consideration of transmission needs driven by public policy.<sup>4</sup> Beyond that, it does not specify how such consideration should be given or to what public policies it should apply. The Order leaves it to the filing party to describe the procedures it will use to identify public policy projects and the evaluation process it will use to select such projects for their regional plan.

Most parties that commented on the FERC proceeding identified federal or state law or regulation as the only legitimate driving factor for this type of transmission project. There were concerns that this might overlook planned policies, but most comments favored the law or regulation limitation. While this may well be appropriate in some cases, there may be times when state economic development practices or performance below aspirational state mandates is readily apparent and could change transmission needs. As an example, Maryland's joint state and county initiative, "Generating Clean

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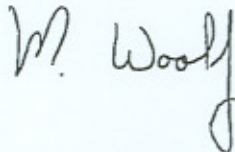
<sup>4</sup> FERC Order 1000, Paragraph 203, page 157

Horizons," is playing an active role in seeking 133 megawatts of clean renewable generation without a statutory mandate. Efforts such as this, while not statutory, need to be considered in an effective planning process. The States supported the original PJM proposed definition of Public Policy Requirements as it seemed to offer the flexibility needed for such consideration; however recent changes suggested by member stakeholders and apparently accepted by PJM eliminate that necessary flexibility.

- The States encourage PJM to adopt a public policy requirements definition that provides for a more flexible approach to the drivers of public policy initiatives. It makes little sense to build transmission for laws or regulations that are not being fully achieved. Similarly, not considering economic or port authority energy development strategies that are being successful, simply because they are not law or regulation, is not helpful. PJM should work with state agencies to temper state laws and regulations with the likelihood of success. In addition PJM should maintain the flexibility to consider any public policy initiatives where the impact on transmission may be significant.

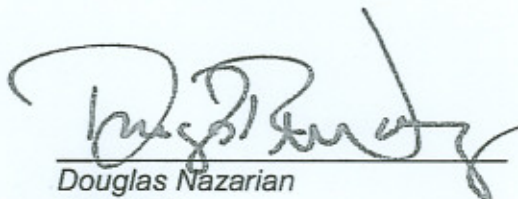
The States appreciate the opportunity they have had to participate in all of PJM's activities and look forward to even more meaningful participation as PJM moves forward in revising its planning process and submitting its revised OATT for FERC compliance.

Sincerely,



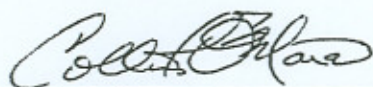
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## **ATTACHMENT A – Recommended Planning Changes**

### Maximizing the Benefits of Reliability Planning within the Region

Transmission planning in isolation and without recognition that generation solutions can obviate the need for transmission solutions to reliability criteria violations will not lead to the maximum potential reliability and economic benefits for the PJM region. Changes to PJM's planning process to address this issue should include, and not be limited to the following:

1. PJM must develop a new robust System Planning Process that will promote and encourage total parity between generation expansion and transmission expansion proposals to address PJM identified load deliverability, generation deliverability and reliability issues. PJM must recognize that both generation and transmission options need to be considered throughout the planning process.

For example, how much new generation could be sited in New Jersey such that it would relieve the constraint on the PJM eastern interface, and what regions of New Jersey should it be sited in?

2. PJM must perform robust sensitivity analyses that evaluate generation placement opportunities for functional enhancement of overall grid operation.

The Warren generation plant currently under development by Dominion is proving to be a vital enhancement to the operation of the PJM transmission network. Where else within PJM could additional generation be sited that could achieve similar operational improvements for the transmission grid?

3. PJM must develop a new generation interconnection process that dramatically reduces the maximum time required for new generation resources to become interconnected and operational. Expediting the generation interconnection queue process would allow new generation resources to become interconnected and operational sooner and thereby allow these vital resources to compete on an equal basis with transmission solutions.

The current PJM generation interconnection process can require 3 to 5 years for a new generation project to achieve a signed Interconnection Service Agreement. The time required for this process must be drastically reduced so that new generation resources can fully compete in a timely manner with new transmission resources as viable solutions to grid problems.

4. PJM must develop a new robust System Planning Process that enables PJM to annually determine a broad list of optional transmission improvements which would provide for improved load and generation deliverability as well as the solution of reliability violations and such a list of optional improvements cannot be restricted to only those options proposed by the Transmission Owners. Multiple lower voltage transmission and reactive system improvements should be given equal consideration with higher voltage solutions.

Recent transmission studies performed by PJM have revealed that reactive limitations instead of thermal limitations are often the restricting constraints on major transmission flow-gates. The reactive improvements proposed by Dominion in the regions around the Meadowbrook 500 KV Substation show great promise for improved operational

efficiency of PJM's transmission network. What other locations across the PJM transmission system might be available where similar reactive improvements could enhance grid operation?

5. PJM must develop a new System Planning Process that evaluates the potential for growing problems from Aging Infrastructure in both the generation fleet and the bulk electric system network. This new System Planning Process must produce published reports that prospective planners of both generation and transmission can utilize in the development of solutions in parallel with PJM's Planning Department for such Aging Infrastructure problems.

The on-going investigation by PJM of older generation plants that are at-risk for retirement is a vitally important risk evaluation. PJM should also be performing similar analyses for future problems with at-risk and weakened transmission facilities due to advanced age and related factors. The investigation of and ultimate replacement of 500 KV transformers was a very prudent action on the part of PJM's Planning Department. PJM should be undertaking this type of evaluation on an on-going basis for all of the transmission substations and lines under PJM's control.

6. Once new transmission enhancements have been suggested by Transmission Owners, independent developers and PJM's Planning Department, PJM must perform independent and thorough evaluations of possible alternative transmission solutions and alternative routes to provide a sound basis of information which will aid State Agencies in the requisite CPCN processes that ultimately must precede any siting of new transmission facilities. These evaluations should include examining alternatives to constructing new lines, including rebuilding, replacing or upgrading existing facilities and integrating an evaluation of sensitive lands and ecological issues at this early stage of evaluation consideration.

The recent evaluations performed by PJM on alternative proposals for the improvement of grid operation in the State of Illinois show great promise for the development of the most effective and least cost solutions. This type of study and analysis should be undertaken by PJM throughout the PJM transmission network.

#### Expanding Scenario Analyses for Stakeholders and Subsequent Board Review

The current planning process, while attempting to provide a high level justification for a project, does not provide for a sufficient understanding of the rationale behind PJM's decisions. PJM should consider the following changes to its decision making process:

- Discussions of key input assumptions should accompany backbone and other major transmission line proposals. Projects involving multiple segments should include justification for each major segment of the project. PJM's analyses of alternative solutions and its decision to recommend a specific solution to significant reliability issues should be open and transparent to stakeholders.
- It is prudent within the utility industry to evaluate least-cost solutions within the context of resource planning decisions, and to evaluate those solutions against other alternatives that may produce additional system benefits. The rigor with which PJM evaluates and weighs the cost of backbone or major transmission projects versus alternative solutions is unclear. Cost should always be a prime consideration if multiple solutions to a



reliability violation are available. With FERC Order 1000, it is imperative that PJM introduce more cost discipline into its decision making process.

- It is important that PJM consider interim solutions to reliability criteria violations. Consideration should always be given to upgrading, rebuilding or consolidating existing rights of ways, even for lower voltage facilities, when conducting scenario analyses. But in so doing, PJM should also consider implementing more beneficial long-term solutions to reliability criteria violations that could not otherwise be implemented in time to comply with reliability standards.
- Proposals to construct HVDC transmission lines (or other advanced technologies) within the PJM region should include proposed protocols for operating the HVDC line (or advanced technology) and analyses that show how those protocols maximize the benefits of the proposed investment in the HVDC transmission line (or technologies).
- Any planning decision is at risk as key factors change over time. Risks to planning decisions involving major transmission projects should be presented with proposals to construct these projects, including risks that the project may need to be either accelerated or deferred.

PJM should utilize one “base case” set of input assumptions, as it does today, including one base case load forecast. PJM should also develop alternative input assumptions that allow stakeholders and the PJM Board to understand the sensitivity of planning decisions to changes in key input assumptions. Meaningful scenario analyses involving changes in these key input assumptions would provide stakeholders and the PJM Board with useful information for evaluating the benefits of and the certainty associated with whether a backbone transmission project is needed. Other scenario analyses that might materially affect the need for a project should also be studied and presented with any recommendation to proceed with major projects. Specific scenario analyses should include, and not be limited to the following:

1. A range of load forecasts should be developed, and the potential need for backbone transmission projects should be presented under base case, low case, and high case load forecasts.
2. Low and high cases for increases in demand response programs should be evaluated if they could materially affect the need for a backbone transmission project.
3. Scenario analyses involving varying levels of renewable energy penetration within sub-regions and transmission requirements for those scenarios should be considered. These analyses should directly support PJM’s efforts to implement the public policy considerations of FERC Order 1000.
4. Increases and decreases in projections of generation within sub-regions are likely to have a material effect on backbone transmission projects that may be under consideration for resolving reliability criteria violations. Scenario analyses that show how new generation within a sub-region could obviate the need for a proposed transmission line would help the planning and decision-making process. Likewise, scenario analyses showing the effect of generation retirements within a sub-region on reliability criteria violations, and the possible need for accelerated solutions would be useful.



5. Proposals for backbone transmission projects should include scenario analyses that identify the interrelationship between the project and the generation located in the sub-region where the project originates. For example, if a backbone transmission project is expected to support west to east power flows, the interrelationship between the project and generation located at the western terminus of the line would be useful information.
6. Reduced capacity and congestion costs that could result from a proposed backbone transmission project could materially affect the decision to proceed with the project. Relevant scenario analyses involving these economic benefits of a proposed backbone transmission project should be considered.
7. Scenario analyses involving any other key factor that could materially shift earlier or later the in-service date for a proposed backbone transmission project should also be considered.
8. Scenario analyses for the potential of repowering existing “at risk” coal fired generation sites with new efficient gas fired combined cycle combustion turbines should be performed as a compliment to PJM’s recent study entitled “Coal Capacity at Risk for Retirement in PJM”.

## **ATTACHMENT B – State Involvement as Stakeholder**

### MISO

The Board of Directors of MISO has seven independent directors with three distinct groups providing advice to the Board. These three advisory groups are: MISO CEO & Management Team; Transmission Owners; MISO Advisory Committee. The MISO Advisory Committee has 23 members and serves a major oversight function within MISO's committee structure. State Regulatory Authorities have three seats on the Advisory Committee, Public Consumer Advocates have two seats on the Advisory Committee and Environmental Advocates have two seats on the Advisory Committee. Thus, public policy agencies have seven of the 23 seats on this important committee which gives advice directly to the MISO Board. The Organization of MISO States selects the three State PUC members to serve on the Advisory Committee. In addition, MISO has a Governmental Relations Liaison Department to work with state-based regulatory agencies, commissions, consumer councils and legislative policy makers on a range of issues.

### ISO-NE

The Board of Directors of ISO-NE has ten independent directors including the CEO who is a non-voting member. Several New England states have governmental agencies that hold individual membership within the ISO. These agencies include such diverse organizations as offices of consumer advocates, environmental agencies, port authorities, asset management authorities, transportation authorities and state universities. In addition to the standard stakeholder process available through the technical and market committee meetings, ISO-NE maintains an on-going program to engage state policy makers and regulators through meetings with the ISO Board of Directors, senior ISO management as well as ISO subject matter experts. ISO-NE also meets with the New England States individually and with the state regional organizations including the New England Conference of Public Utilities Commissioners (NECPUC), the New England States Committee on Electricity (NESCOE), the New England Consumer Liaison Group (CLG) and the New England Governors' Conference Power Planning Committee (NEG-PPC).

### NY-ISO

The Board of Directors of the NY-ISO has ten independent directors including the CEO. Several governmental agencies are voting members of the NY-ISO. They include the New York Consumer Protection Division, the City of New York Energy Conservation Agency and the New York State Energy Research & Development Authority. The Long Island Power Authority and the New York Power Authority are also members. There is also a separate membership category for Public Power Environmental Groups.

### ERCOT

The Board of Directors of the Electricity Reliability Council of Texas (ERCOT) has sixteen independent directors of which three seats are required to be filled by Public Counsel representatives. One is required to represent the Commercial Class of consumers and one is required to represent the Industrial Class of consumers. The third board member is required to be a member of the Office of Public Utility Counsel and is the representative of the Residential Class of consumers. In this manner, public policy agencies have direct involvement at the Board of Directors' level.