



Public Interest & Environmental Organizations User Group

**PJM Board of Managers
May 4, 2010**



Topics of Interest

- Transmission System Planning Focus
- Participation in State Processes
- Environmental Considerations in Transmission Planning
- Considerations Regarding Compensation of Demand Resources
- Consumer Advocate Organization
- Board Topics for PIEOUG members



Transmission System Planning Focus

Planning Focus Improves

Moving from Regional Transmission Expansion Plans (RTEPs) to Regional Transmission System Plans

PJM Planning Studies & Analyses that Evaluate the System Impacts of Meeting Renewable Energy and Energy Efficiency Requirements as well as Reliability and other Policy Imperatives

A Broader PJM Planning Focus

During 2008-2009 – PJM responded to new imperatives:

- Adding Energy Efficiency Resources (lower cost options) to the PJM capacity market to meet/offset future demand
- Integrating Demand Response Resources into the capacity market on a basis more comparable to generation
- Taking a leadership role in bringing EI planning authorities together to initiate interconnection-wide planning (the EIPC process) and secure DOE funding for the effort
- Recommending that FERC provide direction to PJM on how its planning processes should be broadened to meet policy imperatives beyond reliability and congestion relief mandates
- Proposing to the TEAC that sensitivity analyses be used in the RTEP process to account for demand side resources mandated at the state level.

Capacity Market Integration of Energy Efficiency and Demand Response Resources – A Good Start!

- In the May 2009 Base Residual Auction, 568.9 MWs of Energy Efficiency resources cleared out of 652.7 MWs bid (87%) for Delivery Years 2012-2013.
- 7,047.3 MWs of DR cleared in the auction out of 9,847.6 MWs that were bid (72%).
- PJM will re-examine the appropriate length of revenue stream for EE resources that clear in the RPM & the FERC has initiated a DR compensation rulemaking
- EE and DR resources will be integrated into scenario and sensitivity analyses for the 2010 RTEP.

PJM's Role in EIPC Process

- Advocate for a balance of stakeholder interests on the EIPC's Stakeholder Steering Committee
- Help to facilitate effective participation by a broad array of non-traditional electric grid stakeholders in EIPC Work Groups
- Provide technical & other support necessary for effective PIO/NGO and Consumer Advocate Office participation in the planning process
- Ensure robust future resource scenario and sensitivity analyses to address the wide range of stakeholder concerns and options for meeting energy & environmental policy goals

PJM to Study Reliability & Other Impacts of State Renewable Energy and DSR Mandates

- PJM plans to perform sensitivity analyses on the integration of over 40,000 MWs of renewable resources and about 11,000 MW each of DR and EE resources for 2025 to address existing state mandates within the region.
- In addition to studying the reliability and grid congestion impacts and transmission solutions to integrate these new resources, PJM should also analyze the potential reliability and economic benefits of their integration and evaluate the potential of non-transmission solutions, including demand-side resources, to meet system needs.

Role Of PJM In State Transmission Siting Cases



ROLE OF PJM—STATE TRANSMISSION SITING CASES

- Over the past two years, many of us have participated in state cases related to the siting of high voltage transmission lines, often referred to as Certificate of Public Need cases
- Through our participation, we have identified concerns with the role of PJM employees in these cases
- Our PIEOUG group had a good discussion with a number of PJM executives in March about these concerns and wanted to highlight them for you today

ROLE OF PJM—STATE TRANSMISSION SITING CASES

- In the cases that have occurred to date, the PJM employee is presented as an expert witness for the Company requesting siting authority
- As a witness for the Company, the PJM employee is subject to decisions on litigation made by the Company's attorneys, particularly in regard to such things as discovery

ROLE OF PJM—STATE TRANSMISSION SITING CASES

- This approach can place in jeopardy PJM's role as an independent information provider and analyst of the reliability needs of the system
- And it can place the PJM employee in a difficult position

ROLE OF PJM—STATE TRANSMISSION SITING CASES

- PJM Management assured us in discussions that agreements with the utilities for such testimony call for the PJM employee to provide their own expert testimony and opinions
- But, the *appearance* that is created can be difficult to overcome and is often made worse when decisions regarding discovery or access to information are governed by the utility's litigation strategy

ROLE OF PJM—STATE TRANSMISSION SITING CASES

- In effect, in these cases, PJM becomes represented by Companies that have transmission incentives and other motivations for the proposed lines
- In our view, the current approach runs the risk of harming PJM's credibility at the state level and with the public

ROLE OF PJM—STATE TRANSMISSION SITING CASES

What the states and the public need in order to make the best decisions regarding transmission is unbiased information from a source that both the state and public find to be credible and helpful

ROLE OF PJM—STATE TRANSMISSION SITING CASES

- PJM should further consider its means of participation in these cases
- Other approaches to PJM's participation could include
 - PJM as an intervenor with employees presented by PJM counsel as independent expert witnesses
 - PJM employees presented by PJM counsel at the request of the state commission
 - Other??

ROLE OF PJM—STATE TRANSMISSION SITING CASES

- One example from Pennsylvania—the TrAIL collaborative that followed litigation of the Pennsylvania portions of the proposed TrAIL line
- The PA OCA worked with the collaborative which PJM employees participated in fully on an independent basis
 - PJM employees were extremely helpful in providing information, analyzing potential solutions and working toward a resolution of the identified reliability violations
 - A solution was identified that met the needs of all parties in a cooperative manner



Environmental Considerations in Transmission Planning

Environmental Considerations with Transmission

PJM Regional Transmission Expansion Planning Protocol requires that PJM determine how to meet transmission needs on a “reliable, economic and **environmentally acceptable basis.**” *PJM Third Revised Rate Schedule, FERC No. 24, Schedule 6, Section 1.1.*

Interregional Planning Stakeholder Advisory Committee (IPSAC)

- Has acknowledged key environmental issues affecting generation planning
- Provides basic information on status of air and water regulations and policies that affect generation planning and operation
- Necessary to apply similar investigations to environmental regulations that may impact transmission development

Issues of Concern

- Land use and development
 - Parks and recreation
 - Residential areas
- Preservation actions
 - Historic and cultural resources
 - Heritage areas
 - Protected species
 - Agricultural protection zones

Issues of Concern (con't.)

- Aquatic resources
 - Scenic rivers
 - Species of special concern
- Land cover issues
 - Forestry resources
 - Wetland and waterway resources
- Collateral issues
 - NEPA mandates
 - Regional Greenhouse Gas Initiative (RGGI)
 - Criteria pollutants

Recommendations

- Transmission owners need to identify significant environmental concerns so that PJM can take the potential adverse impacts into account as they evaluate alternatives to transmission expansion.
- PJM needs to work with Environmental organizations to ensure appropriate issues are addressed



Considerations Regarding Market Participation of Demand Response Resources



Considerations Regarding Market Participation of Demand Response Resources

- Positive Market Impacts
- More Accurate Price Signals
- Value for Integration of Variable Energy Resources
- Barriers

POSITIVE MARKET IMPACTS

- Increased DR participation in wholesale Markets:
 - direct and indirect effects on wholesale prices
 - Lowers average cost of producing energy
 - Flattens load profile
 - Reduces electric demand at critical times/enhances reliability
 - Decreases congestion
 - Offsets current need for additional capacity investments
 - Reduces generator market power
 - Consideration as non-transmission alternative

MORE ACCURATE PRICE SIGNALS

- Efficient competitive markets require accurate price signals to those that can respond
- DR improves elasticity of demand/reduces need for high-priced, little-used reserves
- Dispatchable DR as key Smart Grid functionality
- Provides economic value to load participation
 - Incorporation into dispatch and planning models

VALUE FOR INTEGRATION OF VARIABLE ENERGY RESOURCES

- Reserve and regulation service needed to support broader integration of renewable VERs
- Shifts usage from peak period to off-peak period
 - > absorbs more renewable VER generation
 - > improves load factors = more efficient grid
- Preserves environmental benefits of integrating renewable VERs
 - > no NOx or SOx or CO2
 - > displaces need for fossil fuel firming

Can be used as a load following product, improve capacity factors

Barriers to DR Participation- Economic Program

- Enable and support ARC/CSP/RES business models
- M&V
- Notification Protocols [EDU/LSE, DR provider, RTO/ISO]
 - Accurate daily load forecasts and scheduling needs
- Enabling Technology
 - Metering, web portal, cybersecurity, HAN, SmartGrid
- Existing Market Structure –
 - Progress has been made but still does not fully accommodate unique characteristics of DR
- Payment/Settlement Issues



Consumer Advocate Organization



Consumer Advocate Organization

Order No. 719 requires that the RTOs make reforms to increase its responsiveness and consider the needs of customers to ensure that responsiveness continues into the future.

The consumer advocates raised the issue of consistent consumer advocate participation in the stakeholder process at the technical conference on RTO Responsiveness and in PJM's Order No. 719 compliance docket (ER09-1063).

Consumer Advocate Organization

- Consumer advocate offices play a unique role in state and federal regulation because they are designated by the laws of their respective jurisdictions to represent the interests of retail utility customers.
- Generation and Transmission costs make up more than 70% of a small retail customer's electricity bill in most of the PJM region.
- For most retail customers in PJM, particularly those in the restructured states, retail rates are tightly linked to the wholesale prices set by PJM energy and capacity markets. Even in traditionally regulated states, retail customers are directly impacted by the prices their local utility pays or receives for wholesale purchase power transactions, as well as by capacity requirements.

Consumer Advocate Organization

- PJM rules on demand response and energy efficiency have a direct effect on retail customers' opportunities to participate in those types of programs.
- PJM is now the primary transmission planner. Retail customers ultimately pay the bills for new transmission construction.

Consumer Advocate Organization

- There are many stakeholder meetings and numerous committees, subcommittees, work groups, taskforces, etc. in the PJM stakeholder process.
- Consumer advocates still have the responsibility of representing customers in state commission proceedings and now have the additional challenge of participating in the PJM stakeholder process.

Consumer Advocate Organization

- The PJM consumer advocates appreciate measures such as phone and web participation in meetings, more transparency in the process, and additional access to PJM personnel and the board (including the Liaison Committee). However, those measures are not adequate substitutes for personnel dedicated to the process and participating in person.
- If PJM consumer advocates were to be afforded a reasonable funding source to enable us to consistently participate in the PJM stakeholder process, we could more fully take advantage of those measures.

Consumer Advocate Organization

- Consistent and effective participation of consumer advocate representatives in the stakeholder process would not only be beneficial to consumers, but it would also be beneficial to the process and to the RTO/ISO and other stakeholders.
- Consistent participation would provide a good point of contact for the PJM consumer advocates, which would facilitate communication between the consumer advocates, PJM, and other stakeholders.
- Additional resources for the consumer advocate offices would allow them to identify issues and concerns earlier in the process, and improved communication would allow for PJM and other stakeholders to learn of the consumer advocates' concerns and positions earlier in the process. This would increase the opportunities for those concerns to be addressed early in the stakeholder process and, hopefully, resolved prior to litigation of the issues before Commissions.

Consumer Advocate Organization

- Because of legal and ethical restrictions, funding for the consumer advocate offices must be accomplished in a manner that does not create a conflict of interest or the appearance of a conflict of interest with respect to the receipt of such funding support from PJM or any other utility.
- A dedicated source of funding through the PJM tariff would avoid the appearance of impropriety or a conflict of interest.

Consumer Advocate Organization

- The PJM consumer advocates plan to propose to the MC a tariff amendment to add a schedule to the OATT which would provide a funding source for a not-for-profit organization of PJM consumer advocate offices.
- The level of funding should be sufficient to support an executive director and an assistant, associated office expenses, and reimbursement of travel expenses for employees of consumer advocate offices to attend meetings.



**Board Topics For
PIEOUG Members**





**Public Interest & Environmental Organizations
User Group
Concluding Remarks - Questions?**