PIEOUG Environmental Sector Presentation to PJM Board of Managers
PJM Annual Meeting
May 13, 2014

Sustainable FERC Project
Policies for a Clean Electric Grid
WHAT IS THE SUSTAINABLE FERC PROJECT?

NGO COALITION

- Founded in 1995
- Housed in NRDC

REPRESENTS ENVIRONMENTAL COMMUNITY VIEWS AT:

FERC • RTOs • ISOs • REGIONAL TRANSMISSION PLANNING PROCESSES
WHO IS
THE SUSTAINABLE FERC PROJECT?

JOHN
ALLISON
DEPLOYING RENEWABLES AND DEMAND SIDE RESOURCES, AND CARBON POLLUTION STANDARDS
NGO PJM PRIORITIES

- Capturing EE in Load Forecasting

- Planning
  - Full consideration of public policies, demand response, efficiency and distributed generation
  - Implementing carbon pollution standards

- Fair treatment of demand response
ISO-NE
- ISO study shows almost all EE bids into FCM
- Via EE Working Group, net forecast development beyond FCM delivery years – nets out planned EE based on data from program administrators; used for all long-term planning
- **NYISO**
  - Both short and long-term reliability forecasts deduct EE projections (from program administrators) from econometric forecasts

- **PJM**
  - Uses econometric forecasts; nets out EE that clears in RPM from peak forecast only (not from energy forecasts)
  - Percentage of planned EE that bids into RPM unknown
  - No required EE input from EE program administrators, LSEs, or others
NGO BRATTLE STUDY

- Attempted to estimate planned EE based on information from state IRP, demand-side management filings, or other publicly available documents

- Now using EIA Form 861 data, Utility IRP and EE filings, and ACEEE state EE goals and targets to derive reasonable projections (avoiding double counting of “baked in” EE)

- Using estimated EE, predict impact of “missing EE” on planning and market prices
NGO RECOMMENDATIONS

- PJM and states should conduct study to project future EE levels and assess the percentage bidding into the capacity market (and reconsider criteria for EE qualification to bid)

- Based on study process and results, PJM should establish EE Working Group or otherwise develop methodology for accurate EE forecasts

- PJM should recognize full contribution of EE by counting its entire measure life value for long-term planning
PLANNING – CONSIDERATION OF PUBLIC POLICIES

- Post Order 1000, will public policies actually drive new transmission infrastructure?
  - NGOs are concerned that Transmission Owners cost allocation approach for multi-driver projects will discourage public policy projects
  - NGOs recommend PJM take proactive approach to supporting states interested in public policy projects

- Facilitating carbon pollution standards compliance (Section 111(d) of the Clean Air Act)
PJM should not go forward in supporting TOs’ cost allocation proposal without further consideration of stakeholders’ views.

Incremental apportionment of benefits used when Public Policy driver can be accommodated by an upgrade to an RTEP project already identified for Reliability and/or Market Efficiency drivers.

Estimated Cost of 3 Projects in isolation = $800M
(R=$200M, ME=$100M, PP=$500M)

Approach suggests an incremental (direct) apportionment by driver type.

Apportioned as follows:
R = $200M
ME = $50M
PP = $350M

Resulting Solution = $600M

500kV Multi-Driver Project (Regional)

Cost Apportionment of Incremental Multi-Driver Project

Incremental Cost/Multi-Driver Cost = $100M/$400M = 25%
Credit to original (reliability) driver = 25% x $300M = $75M
Public Policy driver of Multi-Driver project: $100M + $75M = $175M
Reliability driver of Multi-Driver project: $300M - $75M = $225M
Total: $400M

Stand-alone Project

Resulting Solution = $400M
CARBON POLLUTION STANDARDS

NGO PRIORITIES

- Reduce emissions at lowest cost
- Wind, solar, energy efficiency can be used for compliance
- Regional compliance *may* be superior under right conditions
- Avoid open-ended compliance deadlines for power plants
Clean Air Act allows flexible, off-plant compliance mechanisms, such as:

- Modified plant dispatch order
- Energy efficiency
- Wind, solar, other low-GHG energy

Rules must:

- Prevent “leakage” between states
- Gaming of emissions accounting
“**Coordinated regulatory programs** across states can help to ensure that the efficiencies of **least-cost compliance** across a regional, if not national, footprint **can be maximized.**”

(ISO/RTO Council Comments to EPA, February 2014)

- **RTO strengths include:**
  - Regional economic dispatch
  - Regional planning expertise – useful to facilitate states’ crafting of State Implementation Plans
OPEN-ENDED EXEMPTION?

- ISO/RTO Council supports a “reliability safety valve” for some plants
- Our primary concern – lack of a firm compliance deadline – could frustrate carbon reduction goals
- A long-term safety valve probably unnecessary if compliance includes efficiency, renewables, and effective regional solutions
PLANNING – COMPARABLE TREATMENT FOR ALTERNATIVES

- Increasing amounts of EE, distributed generation and DR impact system needs

- Planning tests do not fully value existing DR resources, or properly evaluate Non-Transmission Alternatives

- PIO Recommendations:
  - Establish working group to study new EE and distributed generation in PJM and incorporating these resources into planning assumptions
  - Modify PJM planning tests to capture existing annual DR
  - Evaluate Non-Transmission Alternatives to fix reliability issues
PLANNING – PJM’S POLAR VORTEX EXPERIENCE

- 8 of 10 PJM highest all-time winter peak demands, highest winter outage level (22%)

- Despite extremely challenging conditions, no firm load shed

- We support PJM’s efforts to improve gas/electric market coordination, real-time communication/coordination, outage reduction

- Notably, DR played an important role during the extreme cold earlier this year
MARKETS – COMPARABLE TREATMENT FOR DEMAND RESPONSE

- Five significant changes over past few months that will affect DR; the full impacts of these changes are not yet understood.

- NGOs recommend PJM:
  - Refrain from making more changes that affect DR
  - Analyze in-depth the impacts of these changes
  - Consider factoring cleared DR into more aspects of planning after evaluating RPM results
  - Consider DR products that can support reliability during extreme winter conditions
THANK YOU.