PJM/MISO Cost Allocation For Economic Upgrades

Stakeholder Meeting
Pittsburgh, PA

March 8, 2006

Topics for Discussion

Background

- FERC Order / Schedule
- Planning for Reliability
- Cost Allocation for Reliability Upgrades

Definition of Economic Upgrade

How Planning for Economics Differs from Planning for Reliability

Cost Allocation for Economic Upgrades

Next Steps

Must file a proposal by June 1, 2006:

- “addressing the distinction between reliability and economic transmission projects,
- whether and how these categories of projects should be planned for differently; and finally,
- how costs should be allocated for economic projects to produce just and reasonable results.”

Definition of Reliability Upgrades

- Transmission Upgrades Required to Mitigate a Violation of Applicable Reliability Planning Criteria During the Planning Horizon
- Applicable Reliability Planning Criteria (E.g. NERC, NERC Region, RTO, and Transmission Owner Criteria)

Planning for Reliability

- 5-year (or longer) baseline
- Projects based on defined Criteria (ERO/NERC)
- Bright line measures of performance – pass/fail design standards (e.g. ratings)
- Ensure adequate transmission to reliably supply load capacity – “firm loads / reservations”
- Planned for select discrete conditions (e.g. Peak Hour, Light Load, Heavy Loop Flows)
- “Keep the lights on at reasonable costs”

Cost Allocation for Reliability Upgrades

- Based on Contribution to Need
- Impact of Load on Constrained Facility is Based on Distribution Factors
- Distribution Factors are Calculated from all Generation in each RTO to Load Buses in each RTO
- Total MISO Load Impact is Compared to Total PJM Load Impact to Determine RTO Shares
- RTO Shares are Allocated Within Each RTO Based on Tariff Procedures

Proposed Definition for Economic Upgrades

- Transmission Upgrades Required to Mitigate a Violation of Applicable Economic Planning Criteria During the Planning Horizon
- All Transmission Upgrades That Are Not Reliability Upgrades, i.e.
  - Upgrades That Resolve Issues Other Than Violations of Applicable Reliability Criteria
  - Upgrades Above and Beyond That Required to Resolve Violations of Applicable Reliability Criteria
- Applicable Economic Planning Criteria (Under Construction)

Planning Differences

Reliability	Economics
■ Based on defined Criteria (such as n-1 and n-2 with defined limits to allowable consequences)	■ Economic criteria to be developed (Prod. Cost, Load Costs, etc.)
■ Bright line measures of performance – pass/fail design standards (e.g. ratings)	■ No specific violations - Decisions based on cost/benefit ratios – confidence levels for uncertain economic futures / benefits
■ Planned for compliance at select discrete critical conditions (e.g. Peak Hour, Light Load, Heavy Loop Flows), at need date	■ Planned for full spectrum of conditions (e.g. 8760 hours, sensitivities to forecasts, fuel costs, other cost variables), periods beyond in-service date
■ Ensure adequate transmission to supply load capacity – “firm loads / reservations” reliably	■ Ensure adequate transmission to supply load energy – “economy energy” most cost effectively
■ Generation and pattern specified in criteria	■ Generation scenarios

OVERALL

Reliability	Economics
Keep the lights on at reasonable costs	Realize the benefits of the energy markets

Cost Allocation Principles

- Justification is robust but keep allocation simple
- Economic beneficiaries pay
- Correlate project economic justification with economic beneficiary determination

Possible Measures of Beneficiaries

- Entire System Benefits to Some Degree
- Load LMP reductions provide identifiable beneficiaries
- Production cost?
- Generator revenue?

- Discuss issues with stakeholders
- RTOs propose mechanisms at future meetings
- Meetings:
  - April 7 Carmel
  - Early May (TBD)