

PJM Long-Term Transmission Planning: Comments on the NOPR



Long Range Scenario Planning is Vital

Reasonable planning must include multiple scenarios:

- Not explicitly considering system changes is just using a “business as before” scenario.
- Scenarios should consider load growth, changes in the generation mix, and interconnection needs, all of which are influenced by state policy.
- PJM routinely uses scenarios in planning, e.g., Grid of The Future, Fuel Security, Renewable Integration, Offshore Wind Transmission.

Twenty Year Horizon is Reasonable

Noting that the 20-year period is really 25-28 years from the study date, PJM questions the “inherent uncertainty and speculation” of the NOPR’s proposal.

- Using multiple scenarios manages speculation; appropriate discount rates reflect uncertainty.
- Far future value has little effect on benefits and matters most at the margin.
- Early warning of major issues is valuable in itself.
- Major projects are likely to take several planning cycles to ripen.

PJM Should Support Minimum Benefits

- Standard minimum benefits for evaluating transmission projects will help keep consistency between RTO and non-RTO regions.
- May improve interregional planning and affected systems issues.
- At a minimum, benefits considered in long-term planning should match those used in existing reliability and economic planning studies.
- Long term planning should also evaluate potential cost reduction to interconnect in-queue projects.
- Additional benefits or requirements should be evaluated at request of stakeholders.

Cost Allocation Follows Benefits

- Costs justified by minimum benefits should be allocated consistent with existing near-term cost allocation.
- Costs justified by additional benefits voluntarily paid by sponsoring entity.
- Projects can only be selected after cost allocation is complete.

Oversimplified Example

States X and Y have laws requiring changes to their supply mix. States Y and Z have set a price on carbon. State X and Y requirements incorporated into scenarios, and carbon benefits evaluated at the request of states Y and Z.

PJM determines \$100M transmission investment needed to meet state X and Y goals, bringing following benefits:

- \$60M in economic and avoided reliability projects
- \$15M in reduced interconnection costs
- \$10M in carbon benefits

Project costs would be recovered:

- <60% from load, discounting economic benefits to meet B/C threshold. Allocated using same method as near-term projects
- 15% allocated as interconnection costs
- 10% by state agreement between Y and Z
- remainder (15%+) by state agreement between X and Y

Project can only proceed when all three voluntary cost allocations have been agreed to.

Benefits of proposed approach

- Process can be used by states to influence project selection or sizing while bearing an appropriate portion of costs
- Allows right-sizing of reliability and economic projects
- Leverages existing cost allocation as much as possible

Local and Regional Planning Must be Linked

- Information used to make local planning decisions must be included in long-term planning process, including projected end of life and local reliability requirements.
- Near-term planning and supplemental projects cover residual needs not addressed through long-term planning.
- Near-term and supplemental projects should be subject to challenge if their drivers were not included in long-term planning.

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