



Storage as a Transmission Asset Discussion

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Market Surveillance Committee Meeting

General Session

December 7, 2018

Scope: If storage is selected for cost-of-service based transmission service, how can that resource also provide market services to reduce costs to ratepayers?

- Issues within the scope of this initiative:
 - Storage resources providing reliability-based transmission services, economic, and policy projects
 - Indifferent to transmission or distribution connection
 - FERC Policy statement
- Issues outside the scope of this initiative:
 - The TPP evaluation methodologies
 - All aspects of the competitive solicitation framework
 - Cost allocation of the cost-based revenue requirements
 - Resource adequacy value

Storage, to be a Transmission Asset as a subset of Advanced Transmission Technologies, must:

- Provide a transmission service (e.g., voltage support, mitigate thermal overloads)
- Meet an ISO-determined need under the tariff (reliability, economic, public policy)
- Be the more efficient or cost-effective solution to meet the identified need
- “Increase the capacity, efficiency, or reliability of an existing or new transmission facility”
- Be subject to competitive solicitation if it is a regional transmission facility

The ISO is proposing four cost recovery options for regional SATA projects

1. Full cost-of-service based cost recovery with complete energy market crediting back to ratepayer
 - Option 1 - Includes must-offer obligation, covers maintenance
 - Option 2 - No must-offer obligation, no maintenance coverage
2. Partial cost-of-service based cost recovery and retain energy market revenues
3. Full cost-of-service recovery with partial market revenue sharing between owner and ratepayer
 - Direct assigned projects limited to no more than 50-50 split
4. Partial cost-of-service recovery with partial market revenue sharing between owner and ratepayer

Prior to Day-Ahead Market, the ISO will perform a load based notification test

- Load studies will including an additional 15% operational reliability margin
- Will identify when SATA resources are needed as a transmission asset based upon:
 - Load forecast for the local load pocket area,
 - Available capacity from other local area resources, and
 - Import capability into the load pocket
- All other constraints will be managed in the market though Minimum Online Commitments or Contingency Modeling Enhancements

Most stakeholders support the ISO's proposed options, however the ISO has identified concerns about effectively managing SATA resources

- The majority of stakeholders generally support the ISO's proposal
 - Generators express minor concerns about potential for market price suppression
- The ISO requires additional policy to ensure it can efficiently manage (i.e., protect and/or recall) SATA resources
 - “Spread bidding” functionality needed
 - Local market power mitigation for NGRs
 - Better protection of day-ahead awards and/or longer STUC outlook needed