



Storage As A Transmission Asset (SATA)

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Planning Committee
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- PJM looking to explore how we might establish rules and processes to enable the integration of new resource types into PJM's planning
 - Evaluate business rules and assess opportunities associated with storage as a transmission asset
- Draft and propose changes to the applicable manuals and governing documents based on stakeholder input that leverage opportunities for storage as a transmission asset by the end of 4Q20

Existing Rules

Investigation

Energy Storage Resource (ESR)

- Tariff definition
- *Electric Storage Resource* that “participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant”
- New Services Queue

ESR Participation Model

- Optional
- Self-Scheduled
- Dispatched by PJM
- 3 modes of operation
- Operating parameters
- State of Charge managed by participant

Storage As Transmission Asset (SATA)

- No market participation
- Dispatched for constraint / reliability
- Dispatched by PJM
- State of Charge managed by Owner
- Non-cost controlling action

- **Reliability Planning Criteria**
 - Thermal, voltage & stability violations
- **Market Efficiency**
 - Congestion relief
- **Operational Performance**
 - Mitigation of real time violations not identified in planning studies
- **Public Policy**
 - Grid enhancement / expansion requested by individual states to further their policies and objectives

- Size Appropriately
 - Peak load, load duration
- Modeling
 - Treat similar to pump storage?
- Operate as a Transmission Asset Only
 - Analogous to a “wired” asset
 - Targeted use intended to address specific constraint / reliability issues
 - Scheduled and dispatched by PJM
- Recognize Operations & Markets Impacts

- Draft Issue Charge and review at April 14, 2020 PC
 - Gather stakeholder feedback and incorporate appropriate feedback
- Approve Issue Charge at PC May 12, 2020
- Discuss and develop proposal May – October
- Present proposal to MRC November 19, 2020