



# Storage As A Transmission Asset (SATA)

April 14, 2020  
Planning Committee  
Jeff Goldberg

- 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