



TSEP Cluster Study Process Update

September 2022



Problem Statement

Current TSEP Cluster Study cycle has been experiencing multiple issues that impede a sustainable, repeatable, and acceptable quality study product. Key issues include:

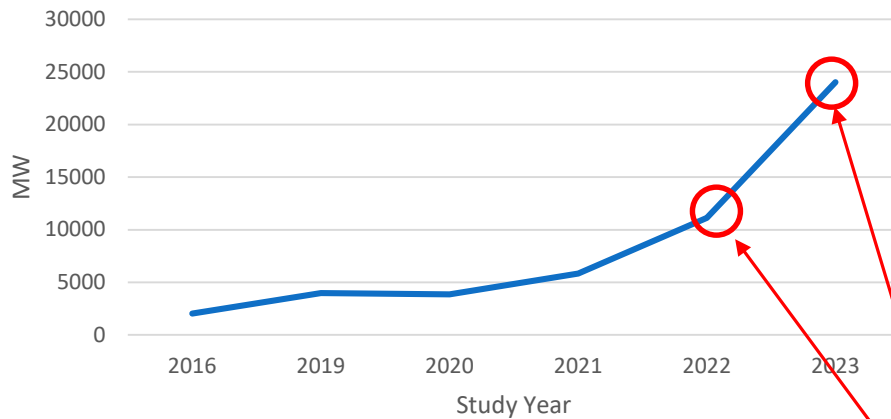
1. Increased volume of requests
2. Increased complexity of requests
3. Increased speculation of requests
4. Increased physical TX system constraints

KEY TAKEAWAY: PRESENT STATE IS UNSUSTAINABLE.

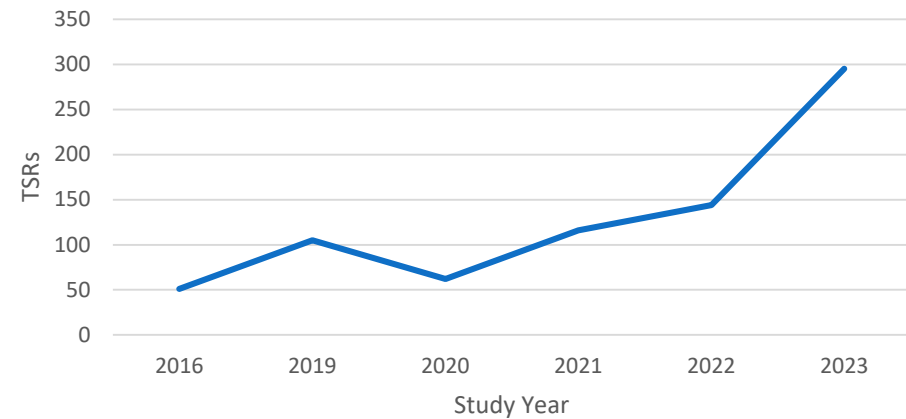
1. Increased volume of requests

- Increasing MWs, amount of TSRs, and number of participants

Transmission Service Requests:
Total MW by Study Year (2016-2023)



Transmission Service Requests:
TSRs Submitted by Study Year (2016-2023)



For context, the eligible MW for the 2023 cluster study is more than 2x higher than what was studied in 2022, and is approximately 4x higher than what was studied in 2021.

2. Increased Complexity of Requests

- Wide geographic diversity and complexity of resource mix
- Cumulative demand
 - Resources submitting multiple sets of TSRs in excess of nameplate capacity
- Generation & load imbalances
 - TSEP primarily supply-side (generation), request-driven process
- Increasing need for conditional firm service evaluation
- Increasing 3rd party impacts and associated coordination processes

3. Increased Speculation of Requests

- Lower quality data submissions
 - E.g., “TBD” provided for resource types or location
- Less specific resource and load locations
 - Customers’ requests suggested multiple possible POIs, but lacked specificity in resource supply characteristics
- Less certainty about reliability of the sub-grid areas
 - Requires de-facto POI ‘feasibility’ study of the resource during the cluster study, to ensure sub-grid impacts are mitigated
- Implication: A small but growing proportion of participants with less specific TSR information cause disproportionate impacts to other study participants that are able to provide higher granularity
 - Increased risk of study delays
 - Lower-quality plans of service

4. Increased Physical System Constraints

- Near full-subscription all over the existing BPA transmission system
- More scenarios must be analyzed due to diversity of resource mix (i.e. onshore wind, solar, energy storage, off-shore wind)
- Tariff-driven 120-day study timeline does not allow for development of high-quality flexible, scalable plans of service
- New transmission constraints showing up in areas of the transmission system that require creation of a new managed path

Proposed Decision Guidelines

- Aligned with BPA Strategy to meet customer needs efficiently and responsively.
- Align with industry best practice when the FERC pro forma tariff is lagging behind industry best practice, including instances of BPA setting the industry best practice
- Delivers scalable transmission solutions aimed at meeting the region's energy goals
- Implementable and repeatable
- Provides for best use of limited staffing resources
- Ensures participants identify feasible generating resources and feasible load locations such that Transmission Service can be evaluated.

Key Takeaway: With a multi-dimensional problem, we must identify a multifaceted solution set.

Next Steps

- Staff will focus on vetting and implementing proposed modifications through Q2 FY23
- Implementation will be primarily through the business practice process and may include:
 - TSEP Business Practice
 - Requesting Transmission Business Practice

Implementation Timeline

