



Studies Subcommittee Update

July 11, 2024

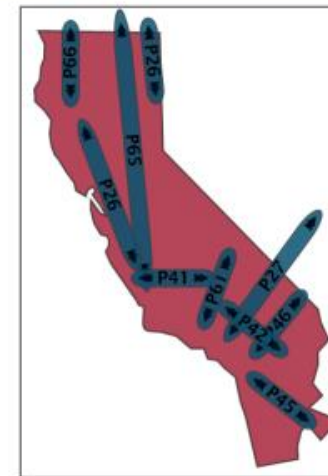
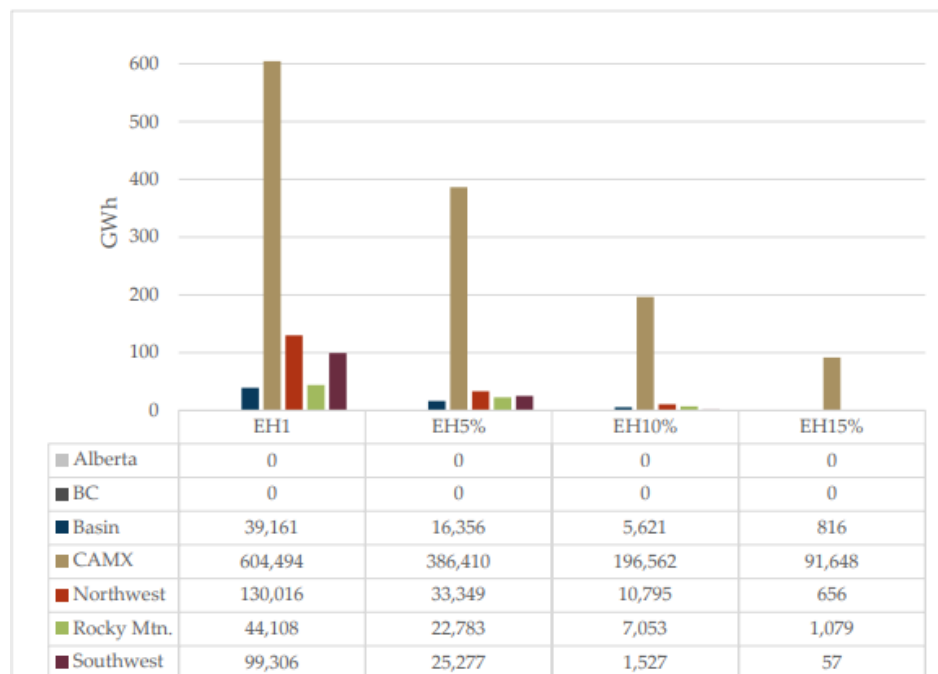
Thomas Carr

Updates

- New Vice Chair: Eepsita Priye, PSE
- Year 20 (Y20) assessments published and available on StS Site:
 - Foundational Case (FC)
 - Extreme Heat Event
 - Cold Weather Event
 - Compound Load Impacts
 - Transmission Trends
 - Load, Resource, and Transmission Trends
- Addressing Path Rating Task Force recommendations group formed

Preview of Y20 Extreme Heat Event

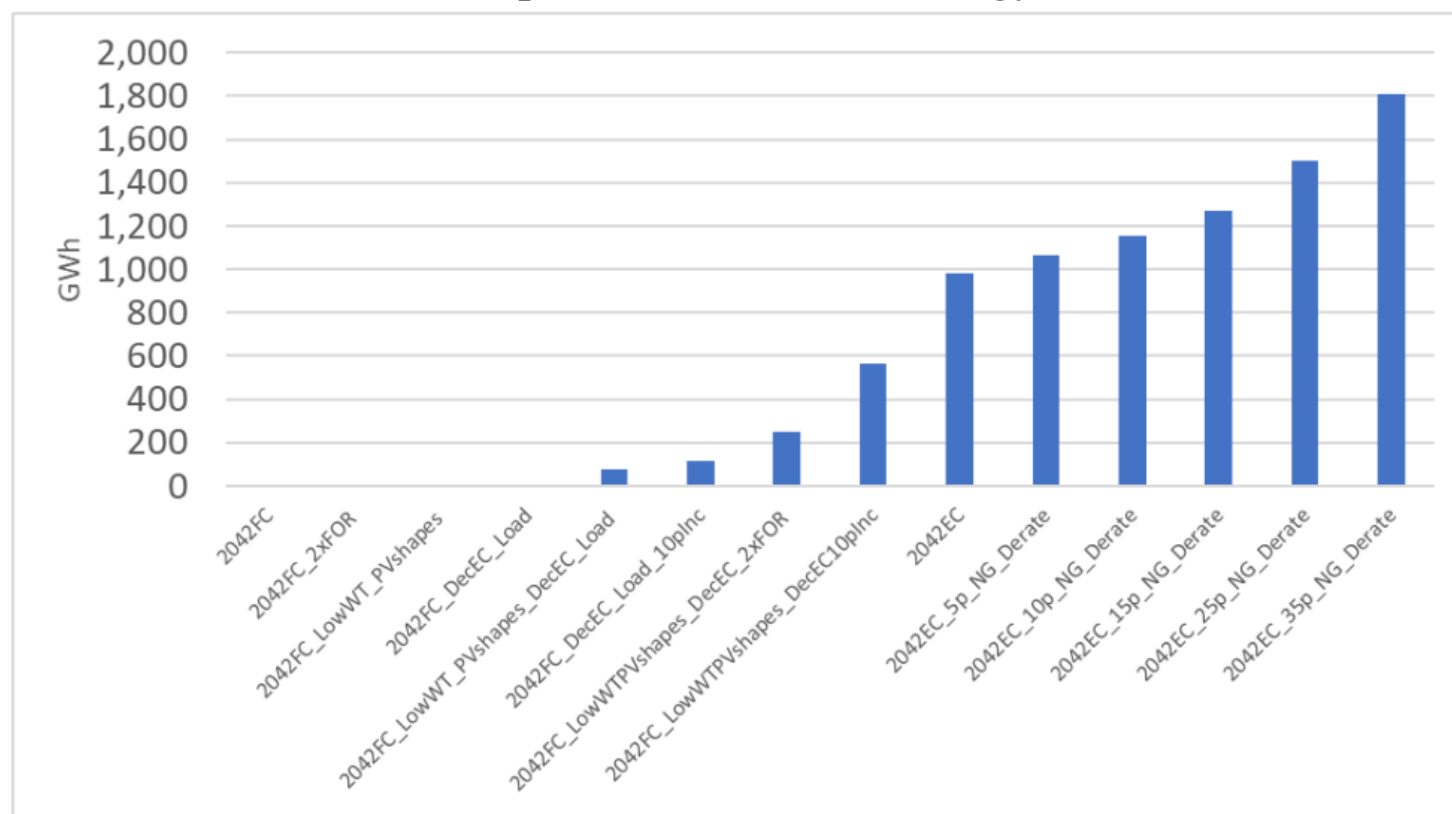
- Observation 1: Unserved load is present in all regions modeled, primarily due to lack of available generation. CAMX showed greatest EUE due to concentration of heat event in that area. No EUE in Canada.
- Observation 2: Much of the loss of load was overnight. This was due to modeling limitations regarding BESS.



Preview of Y20 Cold Weather Event

- **Observation 1:** The system appears to be more sensitive to extreme cold weather events in the 20-year time frame than in the 10-year time frame.
- **Observation 2:** The timing of unserved energy was heavily influenced by the energy storage charging schedule.
- **Observation 3:** The system relied heavily on natural gas generation to prevent unserved energy. This is a risk during extreme cold.

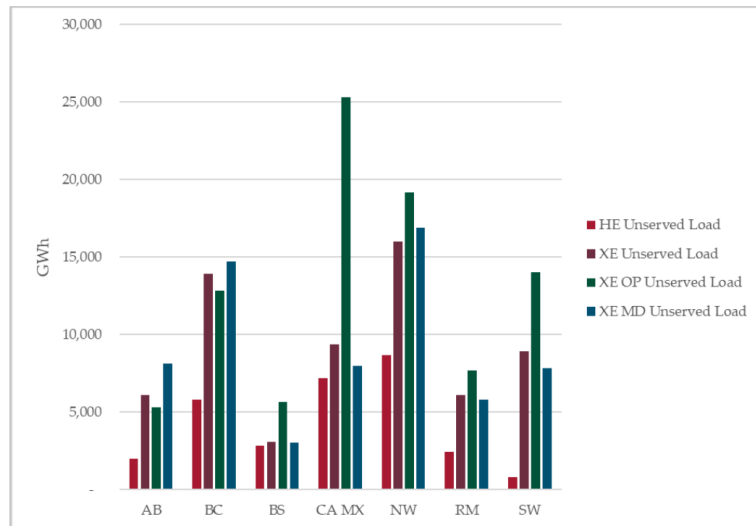
Expected Unserved Energy



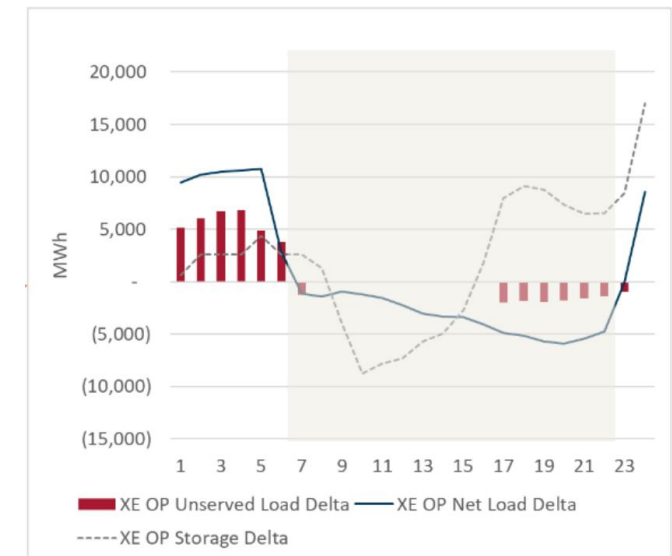
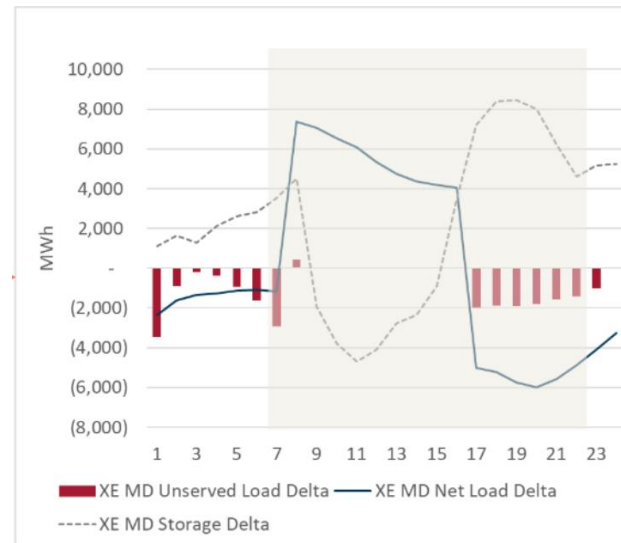
Preview of Y20 Compound Load Impacts

- **Observation 1:** Resource and transmission plans need to account for not only an increase in demand, but also a change in the demand shape from what has been observed in the past.
- **Observation 2:** Taking advantage of excess renewable energy in certain times of the day may be an untapped opportunity. BESS can play a major role in adjusting demand patterns.

Expected Unserved Energy



Southwest



Addressing PTF Recommendations

- Formed team: 20 stakeholders, 6 WECC staff
- Determined that the Project Coordination and Progress Report processes sections require minimal updates
- Consensus to supplement document and not replace
- Identified non-path-based methods used in the West for long-term transmission planning and the entities that use them
- Held initial conversation with non-path-based planners to understand their process
- Plan to start working sessions with non-path-based method transmission planners. Results of session to be taken back to larger group

Upcoming Meeting

Date: July 16, 2024 (10:00 a.m.–1:00 p.m. MT)

Agenda:

- Review and Approve 2024 Annual Progress Report—Waiver of Significant Impact Status
- Study Program Y20 Assessment Presentations
 - Y20 Extreme Heat Event
 - Y20 Cold Weather Event
 - Y20 Compound Load Impacts
- Geomagnetic Disturbance Study Discussion

