

Underfrequency Load Shedding Work Group Update

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Electric Reliability & Security for the West

Model Diagnostics and Improvements

- Taking a deeper look at WECC RAS-1 and how the North and South Island cases are being created for the assessment
 - PDCI Active in RAS-1
 - Generation drop for BC Hydro and AESO
 - Some shifting of generation and load between North and South Islands (LADWP, Sierra, WAPA Rocky Mountain)
- Still receiving topology updates and LSDT9 updates
- Overall seeing better results, however still seeing frequencies dip below 58Hz

Most Recent Plots for North Island 25% Imbalance



SAR Approved for PRC-006-5 WECC Variance

- The WECC variance for PRC-006-5 inadvertently left out language that allowed Corrective Action Plans to be developed
- On May 21, 2025, the WECC Standards Committee (WSC) approved the Standard Authorization Request (SAR) and authorized the solicitation of drafting team members for the project
- SAR is available here: https://www.wecc.org/wecc-document/21391

SAR from NERC Load Modeling Work Group (LMWG)

- There is an additional SAR submitted by the NERC LMWG regarding PRC-006-5
- The SAR in summary:
 - A requirement for UFLS entities (TOs and DPs) to implement real-time verification monitoring of each stage percent actual load under UFLS supervision vs. the percent obligation at each stage.
 - A requirement for PCs to factor in variability of percent load under UFLS supervision at each stage into PRC-006 assessments and to consider specifying percent UFLS supervised load tolerance bands at each stage in their UFLS plan designs.
 - [Optional] A requirement for battery GOs to reverse mode to either discharge or idle if they are charging and frequency falls below a certain level or to charging or idle if they are discharging and frequency rises above a certain level.
 - [Optional] A requirement for PCs to consider the balancing and staging of UFLS between importing and exporting areas where applicable to avoid imposing or increasing stress on transmission between exporting and importing areas.

SAR from System Planning Impacts from DER Workgroup (SPIDERWG)

- There is an additional SAR under review by NERC SPIDERWG regarding PRC-006-5
- The SAR in summary:
 - Clarify the terms "load" and "generation" in the R3 Requirement language to account for DER output. The standard drafting team should consider "gross load" to replace "load" as well as noting that "generation" includes both distribution-connected and BPS-connected generators.
 - Update the imbalance equation in PRC-006 to account for distribution-connected and BPSconnected generation output. This equation should resolve for all penetrations from 0 to 100% based on clarifications from Scope Item 1.
 - Align the R6 UFLS database modeling information with the MOD-032 dynamic representation. Project 2022-02 is updating these requirements to include aggregate DER and whether such DER is affected by the operation of UFLS or UVLS protective relaying (e.g., tripping on such relay action).



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