

Dear CAISO Regional Transmission group,

Thanks for the update on the 2020-2021 TPP stakeholder meeting on September 23 and 24, 2020. We appreciate that both the ISO and SDG&E studied the Friars area contingency overload, especially for the Doublet Tap-Friars 138kV line constraint. After investigation, we support the evaluation of the permanent resolution of the rearrangement of TL23013 and TL6959 as SDG&E proposed. We notice that this permanent resolution proposal will not be in service until 2026 while the overload issue will become quite severe starting from 2022. We also appreciate the mitigation solutions proposed by CAISO for the above overload issue, i.e. unit re-dispatch, RAS to trip generation and upgrade the relay or adjust relay settings.

The following are our comments on the mitigation of the Doublet Tap-Friars 138kV line constraint in San Diego area.

- We think that the CAISO's options as interim or near-term resolution are viable, considering the permanent resolution's timeline being several years out.
- We have observed the not-so-effectiveness of overloading relief provided by unit re-dispatch between November 2019 and March 2020, when there was severe congestion in the area under outage conditions. We do not think the unit re-dispatch is an efficient way to relieve congestion.
- Considering that several RAS have already been proposed and implemented to address various issues in the area, and more RAS will increase operational challenges, we think a permanent approach as the proposal submitted by SDG&E will be a good choice as a long-term resolution.
- With more renewable coming online and system changes in the future, we will appreciate that CAISO and stakeholders will continue investigating any viable resolutions to mitigate congestion and reliability issues in that area, including the above-mentioned options or economic transmission upgrade. The successful mitigation could bring more economical power flow to the load and benefit the whole society.

An independent third-party consultant has helped to evaluate economic benefit of transmission upgrade options based on 2029 CAISO TPP cases. Some upgrade options show positive economic benefit based on CAISO's TEAM approach. We will follow up with you to discuss these findings.

Best Regards,

LI ZHANG
DIRECTOR, TRANSMISSION ANALYSIS
CALPINE CORPORATION