

**COMMENTS OF THE STAFF OF THE CALIFORNIA PUBLIC UTILITIES COMMISSION REGARDING THE 2020-2021 TRANSMISSION PLANNING PROCESS STAKEHOLDER CALL HELD SEPTEMBER 23 and 24, 2020**

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**October 8, 2020**

The Staff of the California Public Utilities Commission (CPUC Staff) appreciates this opportunity to provide comments on issues raised during the September 23-24, 2020 stakeholder engagement hosted by the California Independent System Operator (CAISO).

CPUC Staff appreciates this third stakeholder meeting in 2020 where the CAISO reported on its latest assessment of reliability based upon the assumptions of a future resource mix identified in the CPUC's updated 2018 Preferred System Portfolio. The CAISO's reliability assessment mostly focuses on 2022 and 2025 scenarios while the policy-driven assessment that will be reviewed in November is expected to focus more on 2030 study scenarios. This Transmission Planning Process (TPP) cycle also includes analysis of local capacity requirements and, for the first time, CAISO's assessment of wildfire risk and potential mitigation measures.

- **CAISO could better explain advantages and disadvantages of short-term versus long-term mitigation measures for identified reliability needs.**

The CAISO's presentation nicely summarizes the identified need for several dozen potential new upgrades in the PG&E area, including upgrades to address Category P5-5 contingencies on the Round Mountain 230 kV in the North Valley area, the Gates 230kV bus in the Fresno area and the Gold Hill and Bellota 230 kV facilities in the Central Valley. CAISO also identifies need for one new potential upgrade to address a Category P1 contingency in the SCE service area; no new projects are identified in the SDG&E or Valley Electric Association areas.

For all the identified reliability needs, CAISO notes a range of potential options including special protection schemes, remedial action schemes, unique operating procedures, and generation dispatch limitations. These are often considered "short-term fixes" as opposed to longer-term solutions like line and substation upgrades.

At some point in this or future TPP cycles it would be useful for the CAISO to review with stakeholders the tradeoffs between these types of mitigation measures and the considerations that CAISO believes are important in determining the best solution. For example, what are the limitations, if any, for using remedial action schemes and what are the specific consequences of resorting to this type of mitigation procedure? CPUC Staff is especially interested in temporal considerations -- how transmission needs that are identified from long-term resource portfolios might influence the type of solution that CAISO believes is best suited for system reliability.

- **CPUC Staff appreciates the CAISO's latest analysis of battery limitations in its 10-year Local Capacity Technical Study.**

In this long-term capacity technical study, for the first time the CAISO is identifying charging restrictions and limits on 4-hour battery storage for each of the applicable local areas and sub-areas to assist in future procurement and planning.

The CAISO's preliminary findings for each LCR identify the maximum storage (MW and MWh) that can charge under contingency conditions to be available the next day to meet local needs, as well as the maximum MW value of 4-hour storage. For example, for the overall LA Basin the CAISO has identified a 2030 LCR need of 6,194 MW. The CAISO has further determined that the storage charging limitation is 3,310 MW and 33,100 MWh and the 4-hour storage maximum is 740 MW in the LA Basin.

CPUC Staff greatly appreciates CAISO's efforts and recognizes these long-term capacity technical study results for every LCR will inform IRP portfolio mapping and improve the rigor of future resource planning in California.

- **CAISO should expand its assessment of wildfire risk to southern California and incorporate impacts from distribution systems in its analysis.**

While CPUC Staff appreciates this first-time effort to incorporate wildfire risk into transmission planning activities, we strongly encourage the CAISO to expand its assessment beyond the PG&E service area and to include SCE and other Transmission Owners in future assessments.

We also urge more transparent coordination with the Transmission Owners to account for the load drop due to distribution lines also taken out for PSPS events. It seems appropriate that distribution load loss should be considered in these assessments as well as the potential mitigation projects that would be considered. We anticipate that as the methodology matures for this new and unique wildfire assessment, the CAISO will better integrate the analysis of distribution and transmission facilities.

For each of the PG&E local areas, the CAISO identified the number of facilities that were impacted at various voltage levels along with the amount of direct and indirect load impacts. The CAISO indicated its next steps will be to develop two more scenarios to apply for PG&E areas and then identify potential mitigation measures, including expediting implementation of active projects, minor scope changes to active projects and potential new upgrades. The CAISO indicated it is looking into three mitigation measure buckets and new upgrades would be more of a last resort for mitigation.

CPUC Staff looks forward to further discussion at the November stakeholder meeting on this foundational assessment. Given the urgency of wildfire risk in California, CPUC Staff encourages CAISO's efforts to disseminate its findings and expand upon this important assessment in future TPP cycles.

- **CPUC Staff continues to encourage CAISO's active involvement in the interregional transmission planning process.**

Slide 9 of the CAISO's Day 1 presentation graphically displays interaction between the TPP and the process for studying interregional projects with neighboring planning authorities – the biennial planning process in which the CAISO commendably plays an active leadership role.

CPUC Staff suggests an update be given at the November 17<sup>th</sup> meeting on the status of the four interregional projects under consideration in this interregional planning cycle. This would help stakeholders understand the viability and potential impacts of these projects on the CAISO system.