

March 11, 2021

GridLiance West Comments on 2021-2022 TPP Draft Study Plan**Summary**

GridLiance West (GLW) appreciates the opportunity to comment on the CAISO's 2021 – 2022 TPP Draft Study Plan.

GLW submits comments on two aspects of the study: Consideration for expanded assumptions regarding certain renewable siting to study the impacts of the CPUC's February 22, 2021 Procurement ruling, and the presumed application of RAS management within the study.

Request for Expanded Renewable Siting In Accord with CPUC's Procurement Order

On February 11, 2021, the CPUC issued its Final Decision transmitting portfolios to the CAISO for use in the CAISO's 2021-2022 TPP. Before sending the final portfolios the CPUC added in 651 MW of geothermal resources to ensure the portfolios had diversity.¹ 600 MW of these geothermal additions were mapped to Imperial Valley and 51 MW to the Solano area.²

On February 22, 2021, the CPUC issued a staff report identifying substantial shortfall in resource adequacy starting in the next couple of years and growing by the year 2025, and the CPUC issued a ruling proposing emergency procurement by LSEs of resources.³ In this ruling the ALJ proposes procurement of 1000 MW NQC of geothermal resources by 2025 and 1000 MW NQC of long-duration storage. This is proposed to provide needed reliability during non-solar peak production, including to compensate for Diablo Canyon retirement as well as retirement of other OTC units.

This 1000 MW of geothermal RA capacity by 2025 will greatly benefit the CAISO's operation, especially given the penetration of variable clean resources. However, given the current grid configuration it is unlikely that this geothermal can be interconnected and delivered to load without substantial system upgrades. GLW also expects that it will not be the most efficient solution to burden all the contracting with LSEs through the generation interconnection process, and that there may be system-related upgrades that would be cost effective for supporting the delivery of this geothermal energy to CA LSEs. In either case, near-term action is required to ensure delivery by 2025. As a result, GLW respectfully requests that the CAISO study not just 651 MW of geothermal as conveyed by the February 11, 2021 IRP decision but that the CAISO study 1000 MW of geothermal energy on the grid in its 2021-2022 TPP. GLW also intends to file this request with the CPUC in response to the procurement ruling.

Further, GLW recommends that up to 500 MW of the geothermal energy be mapped to Nevada geothermal resources, interconnecting to the GLW system. As indicated above, the portfolios transmitted to the CAISO on February 11 show 600 MW of the geothermal resources for study being interconnected to IID. This 600 MW of capacity on IID may translate to well less than 600 MW NQC because they will not be

¹ CPUC Final Decision IRP, February 11, 2021 p. 19.

² *Id.*, 36.

³ CPUC ALJ Ruling Seeking Feedback on Mid-Term Reliability Analysis and Proposed Procurement Requirements, February 22, 2021.

interconnected to the CAISO grid. Rather they will require firm transmission delivery to the CAISO import points, and the LSEs will need to obtain Maximum Import Capability (MIC) capacity in order to count these resources towards the CAISO's RA requirement. Transmission service from IID to the CAISO is limited, and there is very little – if any – excess MIC available from IID imports to support using any geothermal capacity in IID towards the CAISO's RA requirement. Geothermal fields in Dixie Valley portion of Nevada and other areas in NV are ripe for development. Capacity from these resources can be directly connected to the CAISO grid by direct interconnection to the VEA/GLW footprint.

GLW is also submitting with this recommended change in quantity of geothermal under study (and the location of that incremental geothermal energy) an economic study request to study an interconnection between GLW and the Oxbow line (SRC2), which would provide relief from congestion/overloads downstream in the Bishop, CA area. Developing infrastructure to directly connect additional geothermal assets to serve CAISO's RA needs and allow LSEs to fill this procurement requirement will likely be efficient.

For the reasons stated above GLW respectfully requests the CAISO to add to its study plan 500 MW of additional geothermal capacity interconnected via the SRC2 project detailed in the GLW economic study request.

Request for Not Over Relying on RAS or SPS Schemes in the 2021 – 2022 TPP in Lieu of Cost-Effective Infrastructure Upgrades

While the draft plan lists RASs the CAISO intends to enforce in the 2021 – 2022 TPP, it is GLW's experience that the CAISO expands or refines the definition of that set of schemes in the conduct of its studies. For example, at this time no RAS schemes are listed in the appendix for the GLW facilities, yet in the past TPPs the CAISO has indicated that rather than upgrading elements the CAISO would instead plan to RAS facilities. As such the RAS schemes assumed in the planning process seem to extend well beyond the RAS schemes actually defined and in place at the CAISO for operations. GLW is concerned that some beneficial upgrades otherwise identified in the TPP get dismissed through presumed RAS alternatives – alternatives that may not be defined or included in the assumptions sets.

GLW commented on the potential overuse of RAS in response to the CAISO's Draft 2020-2021 Transmission Plan and asked at that time for dedicated discussion about the use and expansion of those mechanisms in planning.⁴ We summarize our concern and request again in these comments for the purposes of the CAISO's 2021-2022 TPP.

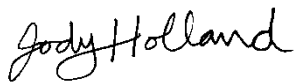
At the levels of renewable build out called for in the Base Case and Policy Change Case portfolios, the CAISO's transmission grid is becoming increasingly taxed. The reliance on RAS and SPS schemes continues to grow. Especially in light of the WECC August heat storm events and the catastrophic outcomes of outages demonstrated in the ERCOT region this month, careful consideration should be given to the trade-offs of presuming RAS solutions over infrastructure development. Continuing to stress the grid by choosing RAS and SPS schemes does not afford the CAISO grid users the benefits of transmission enhancements, and it denies them the benefit of the energy deliveries that have to be curtailed by the CAISO under stressed conditions. The impacts of curtailment schemes and not enforcing contingencies has growing real-world significance. NERC and WECC standards including TPL-001-4 concerning the long-term reliability of the transmission grid

⁴ GLW Comments on CAISO 2020-2021 TPP Draft Plan and Meeting on Feb 9 2021

must be carefully considered in relationship with CAISO's current practices to use RAS and SPS to drop load, curtail generation, and delay long-term transmission solutions in light of future green goals and mandates. For these reasons we request that the CAISO hold a dedicated discussion of the merits of its planning choices regarding the use of RAS and SPS approaches to avoid upgrades, even when such schemes are technically allowed by published standards. We also ask for more clarity in the study plan about when RAS solutions that are not vetted in the assumption set will be presumed to alleviate the need for upgrades in the face of congestion or other system needs.

GLW appreciates the CAISOs consideration on both the issue of expanded geothermal siting and the presumed use of protection schemes in its planning.

Sincerely,



Jody Holland
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