

## CAISO 2021/22 Transmission Plan: Stakeholder Comments

Submitted by	Company	Date Submitted
Peggy Beltrone, Public Policy Advisor ( <a href="mailto:peggy.beltrone@gmail.com">peggy.beltrone@gmail.com</a> )	Cat Creek Energy & Water Company, LLC	4/23/21

Cat Creek Energy & Water (“CCEW”) appreciates the opportunity to submit comments on the February 18, 2021 California Independent System Operator’s (“CAISO”) 2021/22 Draft Transmission Planning Process Unified Planning Assumptions and Study Plan. CCEW is an 870 MW Trybrid renewable energy facility with its main attribute a 720 MW Pumped Storage Hydro (“PSH”) facility incorporating a Pumped Hydro Energy Storage (“PHES”) capacity of 87,120 MWh in southern Idaho operational Q2-2026.

The current reports on the adequacy of resources to achieve the 2045 100% clean energy and grid mandates in California have led to a supplemental submission from Cat Creek Energy & Water Company (“CCEW”) to address the need to examine in more detail the SWIP-North transmission system as a valuable component in the CAISO’s transmission planning to implement the mandate.

CAISO should conduct a transmission needs analysis for delivering to the CAISO boundary the 870 MW of out-of-state (OOS) resource in Resource Adequacy, Flexible Capacity, and Ancillary Services, along with capacity of up to 845 MW per hour of South to North transmission from California to charge/absorb in energy storage up to 87,120 MWh of total storage capacity. This analysis should consider the California Public Utilities Commission (CPUC) Base Case Portfolio, not just transmission needs within the CAISO boundary. This would be in addition to and/or in collaboration with the LS Power request of further analysis on the 1062 MW of VRE resource.

It is well established the SWIP-North system can contribute valued VRE resources for California; the transmission also terminates in an area where adjacent power stations and storage such as CCEW create a broad spectrum of Ancillary Services, Resource Adequacy, Flexible Capacity, and a full response range for Frequency Regulation to multi-day storage substitution for baseload generators. With SWIP-North built, CCEW can mitigate the California VRE resource curtailment that all studies show will continue to increase in the quest to reach Net Zero by 2045.

Further investigation into the SWIP-North transmission line to Midpoint, ID would reinforce the critical path of ensuring variable renewable generation stabilization by increasing shifting of overproduction of Variable Renewable Energy resources and relieving transmission congestion both north to south and south to north.

In support of these comments, CCEW makes the following requests:

1. **CAISO should conduct a transmission needs analysis for delivering to the CAISO boundary for 870 MW of out-of-state (OOS) of Resource Adequacy, Flexible Capacity, and Ancillary Services in the California Public Utilities Commission (CPUC) Base Case Portfolio, not just transmission needs within the CAISO boundary.**
2. **CAISO should conduct a transmission needs analysis for delivering from the CAISO boundary for 845 MW of in-state VRE resources that are subject to curtailment daily to an out-of-state (OOS) energy storage facility that can charge at 845 MW and deliver at 720 MW hourly for up to 87,120 MWh of total storage capacity in the California Public Utilities Commission (CPUC) Base Case Portfolio, not just transmission needs within the CAISO boundary.**
  - a) This energy storage resource should be studied as providing instantaneous, short-term, midterm, and long duration, large volume energy services to and from CAISO.
  - b) Evaluate how a Large Volume, Long Duration (“LVLD”) OOS energy storage system that is capable of absorbing large volumes of potentially low price and curtailed VRE resource energy production enhances the reliability and deliverability to the CAISO boundary currently at Eldorado and/or Harry Allen substations and conduct a transmission needs analysis as to the efficacy of the SWIP-North transmission system into the CAISO system.

In addition to these comments, CCEW supports the requests by LS Power (see Stakeholder Comments 3/11/21):

1. **CAISO should conduct a transmission needs analysis for delivering to the CAISO boundary the 1062 MW of out-of-state (OOS) wind in the California Public Utilities Commission (CPUC) Base Case Portfolio, not just transmission needs within the CAISO boundary.**
  - a) CAISO should evaluate potential transmission needs to deliver OOS wind to the CAISO boundary.
  - b) LS Power recommends that CAISO conduct three (3) study scenarios for 1062 MW of OOS wind from different locations: Wyoming, Idaho, and New Mexico. Each study should consider transmission required to deliver to the CAISO boundary (as noted above). For instance, the studies for New Mexico wind should include injection at Palo Verde substation and Eldorado or Harry Allen substation to be injection points for OOS wind from Idaho and Wyoming. While the CPUC Decision did not note Harry Allen as an injection point, given the completion of the new DesertLink 500 kV transmission line that now extends the CAISO boundary from Eldorado to Harry Allen, CAISO should also consider injection at Harry Allen. ITP projects that were submitted to CAISO in the last

ITP request window should be studied for as potential transmission solutions to deliver OOS wind from these locations.

**2. CAISO should evaluate potential policy projects including the combined reliability, policy, and economic benefits, as directed by the CPUC.**

**3. Economic Study Request and Economic Project Submission for SWIP-North**