May 31, 2023

Neil Millar
VP Transmission
California Independent System Operator Corporation
250 Outcropping Way
Folsom, CA 95630

RE: Support to Approve Trout Canyon-Lugo Project from Draft 2022-2023 Transmission Plan

Mr. Miller:

The Coalition for the Optimization of Renewable Development (C.O.R.D.) is a nonpartisan coalition of renewable energy developers, energy and transmission companies dedicated to advancing renewable energy development in the West with particular focus on solar, wind and geothermal development in the Southern Nevada region of the California Independent System Operator's (CAISO) grid.

This letter comes in response to the letter from Lotus Infrastructure Partners (Lotus) dated April 25, 2023 which seems to have prompted changes to the 2022-2023 Transmission Planning Process (2022-2023 TPP) resulting in the removal of the the Trout Canyon-Lugo 500 kV project (TC-L project) from the list of Policy-Driven Transmission Projects Recommended for Approval in the May 10, 2023 Revised Draft 2022-2023 Transmission Plan[1].

C.O.R.D. shares the concerns outlined by both NextEra Energy Resources (NEER) and GridLiance in their communications directed to you on May 17, 2023[2]. C.O.R.D's concerns primarily stem from GridLiance's assessment of the potential for increased costs and scheduled in-service delays associated with Lotus' proposed alternative (MAP Upgrade Project) to the TC-L project and its inability to guarantee it can address the same cumulative policy-driven needs established in the Draft 2022 -2023 TPP including: the mitigation of the GLW 230 kV area constraints; improving access to the Southern Nevada Region of CAISO and deliverability of its abundant renewable resources; and unlocking transmission access to Nevada's geothermal resources.

C.O.R.D. believes that the mitigation of GLW 230kV area constraints coupled with improving access to the Southern Nevada Region of CAISO and delivery of its abundant renewable resources will be of significant consequence to the future reliability of CAISO's grid. The Southern Nevada region of CAISO has excellent excellent solar insolation; access to large unparcelized areas with favorable topography; access to rich geothermal resources in Nevada; reasonable proximity to qualified labor; a stable and predictable permitting environment; fewer endangered or threatened species in comparison with California by a factor of approximately 4 (28:121 as of July 2016); as well as low population density. As a result, the region is an area of high commercial interest for renewable development that is well-suited to provide timely, low-cost, reliable, renewable energy to California in order to help meet its green house gas (GHG) reduction and renewable portfolio standard (RPS) goals. This is demonstrated by the fact that there are currently over 6,200MW of renewable generation requesting interconnection to the CAISO grid from the region[3].

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[1] Table ES -2 on Page 6 of the 2022-2023 Revised Draft of the 2022-2023 Transmission Plan

[2] Alternatives to Trout Canyon-Lugo 500 kV: https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/2022-2023-Transmission-planning-process

[3]Formatted Generator Interconnection Report: https://rimspub.caiso.com/rimsui/logon.do

Additionally, the Southern Nevada region of the CAISO grid is subject to much less potential fire-risk comparatively than a vast majority of CAISO's grid as demonstrated in the CPUC's Fire-Threat map[4], Nevada Division of Forestry's Wildfire Threat map[5], and illustrated in Figure 1.

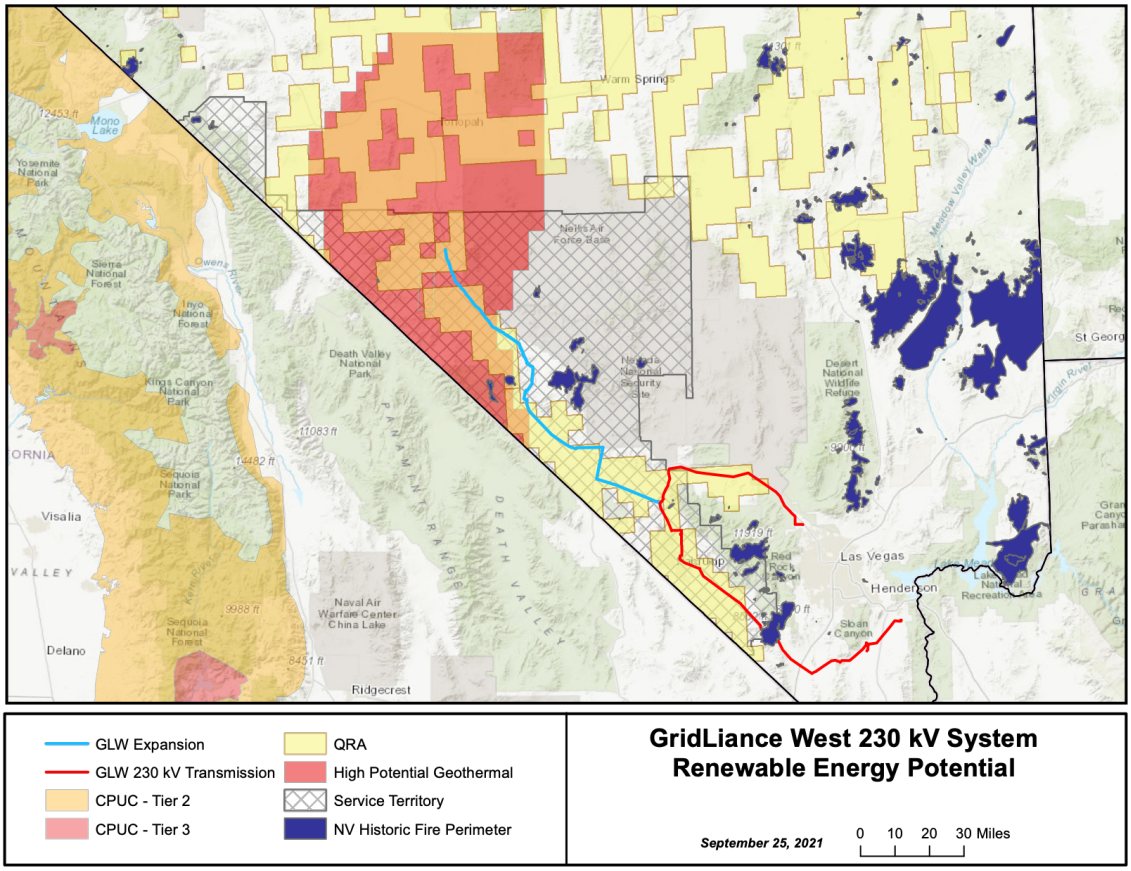

Figure 1: Map of GLW's Renewable Energy Potential, Fire-threat risk, and historic fire perimeter in NV.

C.O.R.D. believes the region's comparatively reduced fire risk makes its future resource and infrastructure development even more cost-effective and important hedges against the devastating impacts of future climate change-related fires to California's grid. This is demonstrated by recent events such as the derating, from 4800 MW to 428 MW, of the California Oregon Intertie (COI/ Path 66) due to the impact of the Bootleg fire that burned in early July 2021 and the resulting intermittent loss of firm hydropower resources from the Pacific Northwest[6]. Wildfire risk is becoming increasingly relevant year after year and, as a result, C.O.R.D. is highly concerned with the potential impact of any in-service schedule delays and increased costs associated with the Map Upgrade Project on the Southern Nevada Region of the CAISO. Especially if those factors impact the cost-effectiveness and delivery of resources from the region that can and likely will serve as a positive buffer to the reliability of the grid during peak fire season in the rest of the CAISO.

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[4] https://capuc.maps.arcgis.com/apps/webappviewer/index.html?id=5bdb921d747a46929d9f00dbdb6d0fa2

[5] https://nevadaresourcesandwildfireinfo.com/Map/Public/#whats-your-risk

[6] "CAISO DECLARES EMERGENCY AS FIRE DERATES MAJOR Tx LINES": https://www.rtoinsider.com/articles/28185-caiso-issues-warning-as-fire-derates-major-tx-line

Finally, C.O.R.D. shares GridLiance's perspective that access to Nevada's geothermal potential will be important to ensuring California can reach its clean energy goals by 2045. C.O.R.D. would like to expand on GridLiance's comments with specifics about Nevada's geothermal potential and point to several sources that inform our position:

1. First, in 2008 a report was issued by the United States Geological Survey (USGS) assessing geothermal resources in the United States[7]. The study found Nevada to be the 2nd largest geothermal producer in the U.S. and the state with the largest area of geothermal potential with a significant volume of land in Western Nevada with high "geothermal favorability" (see Figure 3 of study). Further, the study determined mean values of geothermal resources in the state totaled 5,755 MW when combining Identified Resources (1,391MW) and Undiscovered Resources (4,364MW).
2. Additionally, the Nevada Division of Minerals' NV Geothermal Production Summary - 2021[8] shows that from 2008-2021, geothermal production in Nevada grew by 488MW.
3. The GeoDAWN survey[9], started in September 2020 and currently underway, was established through a joint effort of the USGS, United States Department of Energy (USDOE), and other federal agencies. One of the primary goals of the survey is to collect additional information to further identify and locate geothermal resources in Nevada.

C.O.R.D. finds these sources to indicate that a reasonable estimate for geothermal resource potential in Nevada is 5,267 MW. C.O.R.D. derived this estimate by subtracting the 488MW of geothermal production occurring in Nevada from 2008-2021 from the mean values of geothermal resources in the state (5,755MW) established by the 2008 USGS Survey. This estimate can be further refined as additional information is obtained from the GeoDAWN survey once it reaches completion. Expanded transmission access will be necessary to unlock the potential deliverability of these baseload renewable resources. C.O.R.D. believes that the CAISO should place considerable significance on this factor when analyzing the potential negative impacts of replacing the TC-L project with Lotus' Map Upgrade Project.

C.O.R.D. appreciates the opportunity to weigh in on this important matter and respectfully requests that the issues raised in this communication are considered as the CAISO analyzes the comparative benefits of the TC-L project and the Map Upgrade Project. Should you require any additional information, please feel free to contact me at your earliest convenience.

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[7] Assessment of Moderate- and High-Temperature Geothermal Resources of the https://pubs.usgs.gov/fs/2008/3082/pdf/fs2008-3082.pdf

[8] https://minerals.nv.gov/uploadedFiles/mineralsnvgov/content/Programs/Geo/GEO%20PROD%20SUMMARY%202021.pdf

[9] GeoDAWN - Geoscience Data Acquisition for Western Nevada: https://www.usgs.gov/media/images/geodawn-geoscience-data-acquisition-western-nevada