



Comments of American Clean Power (ACP) – California on the CAISO’s 2023 Transmission Capability Estimates for use in the CPUC’s Resource Planning Process

July 19, 2023

ACP-California is the voice of the clean power industry in California, focusing on California’s market and policies for a reliable and affordable transition to 100% clean energy.¹ We appreciate the opportunity to comment on the CAISO’s Updated Transmission Capabilities Estimates for Use in the CPUC’s Resource Planning Process” as discussed on the July 5, 2023 stakeholder call. We greatly appreciate CAISO’s work to provide this information to the CPUC, as it becomes an important input for the IRP which, in turn, is a critical component of the CAISO’s transmission planning process. In these comments, we do not offer specific feedback on the individual transmission capability estimates themselves. Rather, we highlight that, to the extent it is feasible, it would be highly beneficial for the CAISO to also communicate information on transmission upgrades contemplated in the 20-Year Outlook to the CPUC for use in its resource planning processes.

The CAISO’s 20-Year Outlook, while useful and informative, does not currently have a direct tie into the CPUC’s resource planning process or into the TPP. However, both of these planning processes (IRP and TPP) are looking to expand to longer timeframes, with the TPP moving to a 15-year planning horizon and the CPUC needing to develop resource portfolios that look 15-years out both by 2024 in order to comply with SB 887. This longer time horizon for resource and transmission planning is necessary and should offer a host of benefits. However, in order to be effective, both processes will need to have information about the longer-term transmission solutions that may be necessary, such as the 20-Year Outlook. To that end, in addition to providing to the CPUC the information CAISO has identified through the GIDAP on transmission projects and their costs, CAISO should also provide the CPUC with information on the cost and capabilities of the projects in the 20-Year Outlook (which are not already in the transmission capability estimates spreadsheet).

¹ [American Clean Power](#) is the voice of the clean power industry that is powering America’s future, providing cost-effective solutions to the climate crisis while creating jobs, spurring massive investment in the U.S. economy and driving high-tech innovation across the nation. We are uniting the power of America’s renewable energy industry to advance our shared goals and to transform the U.S. power grid to a low-cost, reliable and renewable power system. ACP-California is a state project of the national trade association.



ACP-California believes that data on the transmission capabilities of projects included in the 20-Year Outlook will provide critical information to the IRP modeling through RESOLVE. Providing RESOLVE with more information on transmission costs for future resource build outs (beyond the transmission capability assessments CAISO provides today, which are only based on GIDAP studies) could enable the IRP to select resources that rely on the 20-Year Outlook projects. We believe that this simple addition to the transmission capabilities estimates provided by the CAISO would enable the 20-Year Outlook to be more actionable, if warranted, and would also create more alignment with the IRP.

We also highlight that, having this type of forward-looking transmission capability information may be critical to the timely development of necessary transmission, especially when changes occur that require the accommodation of additional capacity. For instance, when the IRP portfolios were developed for use in the 2023-24 TPP they included estimates of offshore wind capacity at the Morro Bay and Humboldt lease areas that we now know to underestimate the capacity potential in these zones given trends in technology development and layout design. Leaseholders now estimate that the capacities in Morro Bay and Humboldt will be closer to 6,000 MW and 3,600 MW, respectively.² For quickly evolving technologies that are also developed over long-lead times, incorporating a longer-term outlook and allowing for regular adjustments to inputs and assumptions will allow for better alignment and forward-looking decisions for both the IRP and TPP.

ACP-California, therefore, asks the CAISO to work to provide the transmission capability estimates from the 20-Year Outlook to the CPUC. The CAISO could work with the CPUC to determine if simplified information could be provided based on what is available from the existing 20-Year Outlook.

² These estimates are based on capacity assumptions of 6-7 MW/km² of lease area. This density factor is based on manufacturer and market intelligence projections that individual turbines will be sized up to 18 MW by the early 2030s (see DNV report here: https://topsectorenergie.nl/documents/334/20220519_RAP_DNV_Optimal_Offshore_Wind_Turbine_Size_and_Standardisation_F.pdf; DOE market report at pg 87 <https://www.energy.gov/sites/default/files/2022-09/offshore-wind-market-report-2022-v2.pdf>; and GE March 2023 Investor Conference, Cincinnati, OH) as well as developer turbine spacing assumptions. We also reference Empire Wind and Dominion Wind density factors of 6.5 and 5.8 MW/km² as cited by NREL in report to CEC, here: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=243707&DocumentContentId=77539>