



Comments of the American Wind Energy Association of California (AWEA-California) on the CAISO's 2019-20 Draft Transmission Plan

February 21, 2020

Comment Summary

AWEA-California appreciates the opportunity to comment on the 2019-20 Draft Transmission Plan prepared as part of CAISO's annual Transmission Planning Process (TPP). AWEA-California thanks CAISO for the significant efforts that were expended to develop the 2019-20 Transmission Plan, including the extra time and effort CAISO put forward to conduct various sensitivity analyses of the public policy sensitivity cases transmitted by the California Public Utilities Commission's (CPUC) based on results from the Integrated Resource Planning (IRP) process. In addition to the sensitivity analyses, the 2019-20 TPP represents the first time that the CAISO has, on a "base case" basis, studied a Renewable Portfolio Standard (RPS) above 33%. This marks a significant milestone for transmission planning in California. And while AWEA-California continues to believe there are areas of IRP and TPP coordination that could be improved to further efficient transmission and generation planning in the state, the results of the 2019-20 TPP provide useful information regarding the ability of the existing transmission system to accommodate significantly higher levels of renewable resources, including regional wind resources.

The 2019-20 TPP included analysis of two public policy sensitivity cases, which would both achieve a higher RPS (of ~71%) and move closer to achievement of California's long-term climate goals. Sensitivity #2, includes significant amounts of wind resources in Wyoming and New Mexico that contribute to a 71% Renewable Portfolio Standard (RPS) in this case, while Sensitivity #1 is more heavily weighted toward solar resources. CAISO's analysis of Sensitivity #2, while lacking consideration or analysis of the regional transmission that would be needed for these resources to deliver to CAISO's borders, still offers some important insights and illustrations of the benefits of diverse renewable procurement in achieving California's clean energy goals.

CAISO's analysis demonstrated that, for both Sensitivity #1 and Sensitivity #2, there was an increased likelihood for reinforcement of the transmission system, but no major transmission expansion requirements were identified to accommodate these portfolios. CAISO's analysis also found that the resources selected were generally deliverable to load under both sensitivity cases. For Sensitivity #2 this helps illustrate that, if regional wind is transmitted to CAISO in the quantities analyzed in this study, the existing and planned system appear sufficient to accommodate them.



Additionally, the production cost modeling analysis of Sensitivity #2, even while utilizing modeling constructs that serve to limit the benefits that would accrue with the construction of new transmission lines to deliver resources to the CAISO, shows that a more diverse renewable portfolio (such as that studied in Sensitivity #2) can reduce renewable curtailment and provide associated benefits to ratepayers. CAISO's assessment shows that, relative to Sensitivity #1, Sensitivity #2 reduces curtailment by 610,000 to 640,000 MWh/year and provides an additional $\approx 2,700$ GWh of GHG-free, renewable generation to the grid. If the "value" of reduced curtailment associated with this sensitivity is in the \$20-\$30/MWh range, the benefit of avoided curtailment associated with Sensitivity #2 (relative to Sensitivity #1) is between about \$12M-\$19M/year. This study framework does not fully capture the benefits of diverse renewable resources, but does illustrate some of the benefits and CAISO's analysis also illustrates that regional renewable resources, if delivered to CAISO can be reasonably accommodated and delivered to CAISO load, which are important findings the CAISO should highlight for stakeholders.

In previous comments in the 2019-20 TPP and in the IRP proceeding, AWEA-California has noted the need for improvements in the coordination of the TPP and IRP processes. Some of these improvements are relatively easy to implement, such as improving RESOLVE's transmission constraints to more accurately reflect diverse resource delivery to renewable zones and to reflect the expected implementation of the new deliverability methodology, but others will require a more comprehensive review and consideration of restructuring of the IRP-TPP interaction. AWEA-California encourages CAISO to be open to exploring manners in which the IRP-TPP coordination process can be improved as conversations in the state evolve.

AWEA-California appreciates CAISO's consideration of these comments and CAISO's efforts to complete the 2019-20 Draft Transmission Plan. We look forward to continuing to work in collaboration with the CAISO on transmission planning process improvements in the upcoming (2020-21) cycle and beyond.