



## **Comments of the American Wind Energy Association of California (AWEA-California) on the CAISO's 2019-20 Transmission Planning Process (TPP) Stakeholder Meetings (Held November 18, 2019)**

December 2, 2019

### **Comment Summary**

AWEA-California appreciates this opportunity to comment on the discussion and materials presented during the November 18<sup>th</sup> TPP stakeholder meeting, including the preliminary results of the two sensitivity cases assessed as part of the CAISO's policy assessment in the 2019-20 TPP. Based on the estimates from the California Public Utilities Commission's (CPUC) Integrated Resource Planning (IRP) process, Policy Sensitivity #2 would save ratepayers \$300M-\$558M/year, after paying for the transmission required to deliver Wyoming and New Mexico wind resources to CAISO. It is, therefore, important that CAISO accurately model this case and the expected operational impacts associated with it, so that all interested parties have a better understanding of this cost-effective case and the benefits it may bring through delivery of a more diverse portfolio of resources to CAISO and increased opportunities for export from CAISO during oversupply conditions.

AWEA-California's comments on the November 18<sup>th</sup> TPP meeting are focused on three topics:

- The modeling of Sensitivity #2 does not reflect operational realities of delivering remote renewable resources from New Mexico and Wyoming to CAISO and, therefore, its results are inaccurate and underestimate the benefits of the portfolio associated with the case. Going forward, adjustments need to be made to accurately model system operations associated with the delivery of remote resources to CAISO.
- Once CAISO has corrected the modeling assumptions for Sensitivity #2, it should provide additional information on the operational impacts of various cases.
- AWEA-California also repeats the comments submitted during the last round of TPP meetings, which urge the CAISO and the CPUC to review and improve the deliverability assumptions and transmission constraints used in RESOLVE.

AWEA-California looks forward to continued involvement in CAISO's TPP and related initiatives and appreciates CAISO's consideration of these comments.

### **Discussion**

- I. Modeling Conventions for Sensitivity #2 do not Reflect Operational Reality and are Inaccurate and Require Adjustment**



Policy Sensitivity #2 includes 4,250 MW of new wind resources in Wyoming and New Mexico. Per the CPUC's transmittal of this case, these resources would require new transmission in order to be delivered to the CAISO interties. However, CAISO has not modeled this policy sensitivity case as including remote resources in these locations connected to CAISO by new transmission and, instead, has made simplifications that distort the operational results of this case. These simplifications must be addressed and remedied in order to produce reliable and accurate information on the transmission and policy impacts of Sensitivity #2.

While this policy case transmitted by the CPUC clearly requires the construction of new transmission to deliver the New Mexico and Wyoming resources to CAISO, CAISO did not (as AWEA-California and others advocated early in the 2019-20 TPP Study Plan development) model incremental transmission that extended out from the current CAISO boundaries to these resources. Instead, to analyze this case in the 2019-20 TPP, the New Mexico and Wyoming wind are effectively assumed to be located inside the existing renewable energy zones of Riverside East/Imperial renewable and Southern Nevada/Eldorado/Mountain Pass renewable energy zones, respectively. And no new transmission capacity to deliver these resources, or to facilitate exports of oversupply inside of CAISO to other loads, is included in the CAISO's modeling of Policy Sensitivity #2.

While this simplified modeling convention did not require CAISO to model any proposed or generic transmission projects that might be used to deliver the output of this significant wind build out to CAISO, this assumption does not reflect the electrical reality of delivering power from these locations. The changes to the electrical system that will result from the addition of these wind resources and new transmission lines will be material different than simply assuming their output is located inside existing renewable energy zones. For instance, by adding new transmission capacity to deliver these wind resources, new export opportunities to loads elsewhere in the Western Interconnection are facilitated. But CAISO's current approach to Policy Sensitivity #2 does not account for this and, therefore, the results CAISO presented during the November 18<sup>th</sup> stakeholder meeting are unreliable and likely highly inaccurate.

Specifically, this modeling convention/over simplification increases the amount of curtailment attributable to this case and may also increase congestion. It is logical that, by not including the associated new transmission within the study assumptions for Policy Sensitivity #2, CAISO has unrealistically restricted export opportunities utilizing these new lines and, therefore, also underestimates revenues CAISO may receive from selling overgeneration into these markets. But this can be demonstrated by comparing the results of CAISO's assessment of Policy Sensitivity #2 to other regional studies, including the CAISO's previous efforts of a similar nature. The Special Study on a 50% Renewable Portfolio Standard and Interregional Transmission Projects, finalized by CAISO in early 2018, demonstrated that a portfolio very similar to Policy Sensitivity #2, when modeled on actual transmission lines connecting the resources to potential terminus points, is likely to have significantly reduced levels of



generation curtailment compared to a less diverse portfolio. The modeling simplification that CAISO has utilized for Policy Sensitivity #2 is inappropriate and distorts any comparisons that may be made between different policy cases.

Going forward, when reviewing the transmission system impacts of renewable resources located outside of the CAISO's current boundaries, CAISO should utilize generic or actual proposed transmission projects to mimic actual system conditions associated with this type of resource build out. This treatment would be consistent with the modeling CAISO performs for existing remote resources delivered to CAISO on existing transmission. Failing to change CAISO's current modeling practice for Policy Sensitivity #2 and similar cases studying regional resources that require new transmission will continue to result in distorted operational information and will fail to provide the CAISO, the CPUC, and other stakeholders with the information they need to appropriately consider the impacts of this case and to compare it against.

## **II. CAISO Should Provide as Much Information as Possible on the Operational and Other Impacts Associated with the Policy Cases Studied in the 2019-20 TPP**

As noted above, CAISO must address the modeling conventions used for Policy Sensitivity #2 and correct the current practices that are being utilized for remote resources to more accurately reflect actual system operations. This is paramount to producing credible and reliable data and results for the TPP's assessment of this case. Once that issue is addressed, CAISO should provide additional information to the CPUC and stakeholder regarding the operational impacts of the various policy cases.

AWEA-California reiterates the comments made on the September TPP meetings, which request for additional operational information for the various cases. But, importantly, the modeling conventions discussed above must be addressed first, in order to make the comparison of operational information appropriate and reasonably accurate.

## **III. The CAISO and the CPUC Should Improve RESOLVE's Transmission Constraints**

In the last set of comments on the TPP, submitted on October 11<sup>th</sup>, AWEA-California discussed the transmission constraints that are incorporated into RESOLVE. Specifically, there is a pressing need to update and revise some of the transmission constraint assumptions in light of:

- The expected implementation of a new deliverability assessment methodology
- The need to better reflect the diversity of regional resources that may be delivered to the CAISO and
- The need to begin to assess the deliverability of significant quantities of offshore wind.



AWEA-California reiterates that request and points the CAISO back to our prior set of comments in the 2019-20 TPP.

### **Conclusion**

AWEA-California appreciates CAISO's consideration of these comments. Specifically, AWEA-California hopes to work with the CAISO to address the modeling assumptions used for Policy Sensitivity #2 and to create a framework that results in more accurate information on the transmission and operational impacts of this case. We look forward to additional input opportunities to ensure the 2019-20 TPP can provide useful and accurate information to a variety of stakeholders, including the CPUC and the LSEs subject to the CPUC's IRP process.