# Comments of the American Wind Energy Association of California (AWEA-California) on the CAISO's Proposed New Generation Deliverability Assessment Methodology

January 7, 2019

## Comment Summary

AWEA-California appreciates the additional stakeholder process that CAISO undertook to allow stakeholders to consider the implications of the proposed changes to the Generation Deliverability Assessment Methodology. While AWEA-California supports additional stakeholder engagement on this topic, such as the technical conference(s) suggested by CAISO, we recognize the importance of allowing the new deliverability methodology to be implemented as expeditiously as possible. Therefore, AWEA-California supports implementation of the new deliverability methodology in January 2019 for use in the 2019 Reassessment Study without additional technical workshops (which would have taken place in February 2019). *AWEA California supports this immediate implementation of the new deliverability methodology on the condition that CAISO open up another stakeholder process as a result of this change.* The new stakeholder process would evaluate whether there are additional changes to CAISO's current practices, especially the assessments that will take place in the Transmission Planning Process (TPP), as a result of the new deliverability methodology. For instance, the new deliverability methodology will likely increase renewable energy curtailments and may also push approval of transmission upgrades from the Generation Interconnection Procedures (GIP) to the TPP. Therefore, CAISO should evaluate whether the current Transmission Economic Assessment Methodology (TEAM) or other aspects of the TPP require any modification as a result of the changes to the deliverability methodology.

## A Review of the TEAM is Necessary under the New Deliverability Methodology

The ISO and stakeholders have noted that one of the impacts of the new deliverability assessment methodology is that more renewable generation, especially solar, will be able to be accommodated as deliverable on existing and already approved transmission facilities. That will occur because, under the new deliverability methodology, solar will be studied at lower percentages (due to the different hours of study) than what is currently analyzed for deliverability purposes. One likely result of adding incremental solar resources to the existing transmission system is increased renewable energy curtailment and increased congestion on the system as more solar generation utilizes the same amount of transmission capacity.

While, without additional study work, the magnitude of the impact of the new deliverability methodology on renewable curtailment and congestion is not known, it is reasonable to assume that the impact may be relatively high. The new deliverability methodology will study

solar at between 3-10.6% of nameplate capacity under the highest system needs scenario (and between 35.9%-55.6% under the secondary system needs), this is in contrast to today's methodology which studies solar generation at ***at least 87%*** of nameplate capacity (and generally closer to 100%). Therefore, we could estimate that between 2-10 times as much solar as is accommodated today can be accommodated under the new deliverability proposal.[1]

The increased amounts of renewable generation that can be accommodated as fully deliverable under the new methodology could substantially increase renewable energy curtailments and economic congestion on CAISO's system. It is not immediately clear whether the current TEAM is properly equipped to handle this increase and to approve any transmission upgrades that may be warranted to alleviate curtailment and congestion. Therefore, CAISO should undertake a stakeholder process to review TEAM and evaluate potential economic upgrades that might result from the 42 MMT portfolio supplied to the CAISO by the CPUC (alternatively, and perhaps preferably, the updated portfolios from the CPUC that will be provided in early 2019 could be utilized for this "test case"). This exercise should take place outside of the formal TPP, as an informational exercise, to allow the CAISO and stakeholders to consider whether TEAM is adequately evaluating the congestion and renewable curtailment without forcing approval of any new transmission upgrades as a result of the analysis.

There are several discrete items that should be evaluated as part of this review, as outlined below and there are likely more issues that should be considered as well:

1. **How are congestion costs reported when the model's "penalty price" is triggered?**

   During the November 16, 2018 TPP stakeholder meeting, CAISO indicated that it had not published the congestion costs associated with the congestion that was observed in the model, as it typically does. One of the reasons that CAISO indicated it had not published these costs was that the level of curtailment observed on the system was very high, in part because the production cost model was often pushed to the "penalty price" in order to solve. That means that congestion costs, if reported as a direct output of the model, would be artificially high and would not represent the actual cost of congestion on the system, but would reflect the use of the penalty price as a modeling parameter. This result, and the likelihood that it will persist in cases with increased renewable penetrations, warrants further exploration of what cost should be used for congestion in the event that the penalty price is triggered in the model. AWEA California also believes additional exploration of this topic would be appropriate for a stakeholder process on TEAM and the TPP.

[1] AWEA California recognizes that this figure is likely not accurate and additional study work would be necessary to determine the actual increase in solar generation that might result from the new deliverability methodology. However, this high-level estimate at least helps provide a feel for the order of magnitude impact of the new proposal.

2. **Are renewable energy curtailments appropriately valued in TEAM?**

   The current TEAM documentation, which was updated in November 2017, includes a category of benefits referred to as "public-policy benefits" (Section 2.5.5) which discusses significant curtailment of renewable generation and the potential procurement of extra renewable generation to meet RPS requirements as a benefit of transmission project. It is unclear when and if this category of benefits would be applied and how CAISO would quantify this benefit. Further specifying how these benefits would be quantified and in which circumstances they would apply likely requires coordination with the CPUC and such coordination could begin to be established through a stakeholder process on TEAM and the TPP.

3. **Which resources will be counted as "under contract with an ISO load serving entity" in calculating the generator profit as part of the net load payment?**

   When CAISO calculates the production cost benefits of a transmission project, it compares the net load payment between a case with the project and a case without the project. In calculating the net load payment, CAISO subtracts from the gross load payment generator profit for generators owned or under contract with utilities serving load in the ISO. However, it is unclear how the ISO will treat the resources that are part of the portfolios submitted by the CPUC (e.g. the 42 MMT portfolio). How will the ISO determine which resources in the portfolios submitted by the CPUC are "under contract" to LSES? The ISO should evaluate the criteria for this assessment and whether any changes are necessary as part of a stakeholder process on TEAM and the TPP.

There are certainly other areas that should be explored, including the impact of substantial curtailment on the gross load payment (and net load payment) in the CAISO. And other stakeholders will likely suggest areas where additional study and clarification may be necessary. Because of the increased likelihood that transmission projects will be approved in the TPP, and will be approved using TEAM, under the new deliverability methodology, CAISO should open a stakeholder process to address these issues and evaluate whether modifications are necessary.

Absent the evaluation and stakeholder process requested by AWEA-California, it is possible that the new deliverability methodology could result in significant renewable energy curtailments for existing and new generation and the TPP may not be properly equipped to consider and approve project to alleviate curtailment.

The ISO itself has recently discussed the increasing complexity and iterative nature of the TPP assessments. Specially, the delineation between economic and public policy transmission needs is becoming increasingly blurred and, with this change in deliverability methodology, that

delineation is likely to continue to be blurred and the need to approve transmission projects in the TPP, which have both an economic and public policy component will occur more frequently. There are, no doubt, multiple other areas the ISO should consider in a TPP stakeholder initiative, including better defining how the ISO considers renewable generation additions and new transmission projects to deliver those resources that are not inside of the CAISO Balancing Authority Area (BAA)**.** While the scope of this particular initiative should be somewhat limited, in order to allow for a manageable scope for CAISO, the time is ripe for review of the TPP, TEAM and the interaction with public policies in California, especially as a result of the new deliverability methodology proposed by CAISO.

**Conclusion**

In various other comments, AWEA-California has sought a stakeholder process on the TPP, but CAISO has yet been unwilling to open a significant stakeholder initiative on this topic. The implementation of the new generation deliverability methodology necessitates a thorough examination of the TPP and, in particular, TEAM and whether the current practices are sufficient to accommodate this change and approve transmission upgrades that may be necessary. Conducting a stakeholder process and reviewing potential transmission upgrades and implications outside of the TPP will allow the CAISO a chance to evaluate the best approach to these upgrades in future TPPs. Therefore, AWEA-California urges the CAISO to implement the new deliverability methodology quickly, but under the condition that the TPP and TEAM be evaluated under this new methodology in the coming months and that any necessary changes would be implemented expeditiously.

Such an evaluation is necessary and prudent and will help to ensure transmission upgrades are cost effective and to protect existing generators from unbridled curtailment, which may cause significant financial harm for certain generators that are most impacted by curtailment and do not have contractual provisions for unlimited curtailment.

AWEA-California hopes to work with the CAISO on the TPP-related stakeholder process and appreciates CAISO's effort on this front to date.