Comments of the American Wind Energy Association – California (AWEA-California) on CAISO's Generation Deliverability Straw Proposal

August 16, 2019

Comments

AWEA-California appreciates the CAISO's continued work on developing updates to the Generation Deliverability Assessment Methodology ("methodology" or "deliverability methodology") and considering options to address the potential for increased curtailment that might result from changes to this methodology. While CAISO is not proposing to pursue the precise direction that AWEA-California advocated for in prior comments, we are encouraged by the direction that CAISO appears to be headed and look forward to continued participation in this initiative. While we support CAISO's general direction, we recommend some simplifications to ease the implementation burden and increase the likelihood of timely implementation of the new deliverability methodology.

With the federal production and investment tax credits winding down, this is a crucial time for the CAISO to be able to accommodate incremental, clean-energy resources and it will be important for those additions to be capable of achieving Full Capacity Deliverability Status (FCDS). Moreover, system dynamics have changed substantially over the last several years and the deliverability methodology needs to reflect the changed system conditions to appropriately study deliverability within CAISO. For these reasons, AWEA-California has previously commented that the new methodology should be implemented expeditiously while also working to develop solutions to the potential for increased (or excessive) curtailment.

AWEA-California Supports Option 5, *with Modifications that eliminate the proposed Off-Peak Deliverability Status* (OPDS)

Of the various Options presented by CAISO, AWEA-California believes that Option 5 may be the best approach to providing a path to mitigate excessive local curtailment while also providing developers (and offtakers) with additional information on expected levels of curtailment. While AWEA-California generally supports Option 5, we are concerned that the creation of the new OPDS interconnection service may unnecessarily complicate the implementation of the new deliverability methodology, without providing significant benefits to developers, offtakers, or the market.

While AWEA-California was initially encouraged by the OPDS concept, upon further review, we believe its usefulness will be limited, that it may cause question/hesitation when proposed to FERC, and that it may overcomplicate or delay the new deliverability methodology proposal.

After further reflection on the impacts of OPDS, AWEA-California now supports its elimination from Option 5.

The implementation of OPDS would require the development of a number of details which, as we understand it, are not yet fully fleshed out by CAISO. Additionally, OPDS would create a "preferred" economic status for a certain set of generators (through implementation of a more negative penalty price for these self-schedules). While this concept may potentially be able to garner FERC approval, it is also likely to raise a number of questions and concerns. If OPDS is included with the new deliverability methodology proposal, those questions and concerns could unnecessarily delay implementation of the new deliverability methodology.

At the same time OPDS has the potential to delay deliverability methodology changes, the commercial value of OPDS may be extremely limited. OPDS would only apply when the market operator runs out of effective economic bids and must make cuts to self-schedules. The priority curtailment status of OPDS resources would only apply when CAISO moves in to curtailment of self-schedules, which is relatively infrequently. Thus, the benefit of OPDS would be limited to those resources that choose to self-supply and would be expected to apply infrequently.[1]

Moreover, we expect that, from a commercial perspective, many offtakers will require generators they contract with to obtain OPDS. Current FCDS/PCDS resources would also be granted OPDS, making it likely that most resources in CAISO would have the OPDS designation. If virtually all generators have the same OPDS curtailment "priority", OPDS will become a distinction with little difference as all OPDS resources would be subject to curtailment when the market operator must cut self-schedules.

For these reasons, we see little benefit in creating a somewhat complicated, new interconnection service status for OPDS resources. Instead of developing OPDS, CAISO should provide generators with the option to fund these local, off-peak deliverability network upgrades and receive full reimbursement for the upgrades. Even with reimbursement of these upgrades, developers are unlikely to fund them unless they are required to do so in a commercial contract or if they see substantial value in the ability of the upgrade to mitigate curtailment in the area.[2] This construct will allow for some economic consideration by offtakers of whether these upgrades are necessary or not.

[1] Additionally, providing a benefit to self-schedules has the possibility of creating an incentive for self-scheduling into the market. In general, CAISO should be seeking to incent economic bidding and discourage self-scheduling to improve economic outcomes.

[2] Note that AWEA-California does not believe OPDS is needed to provide an "incentive" to get these upgrades funded, because, as discussed in these comments, OPDS actually provides very little benefit. However, in order to provide a path for these upgrades to be funded, it is important for CAISO to provide information regarding curtailment and the effectiveness of the identified off-peak deliverability upgrades in mitigating that curtailment.

Option 5, with the removal of the OPDS component, as recommended above, would provide a path to approval of local upgrades that could help mitigate excessive curtailment in local areas, helping to address some of curtailment concerns AWEA-California and other stakeholders have raised. Under Option 5, these upgrades would be optional and fully reimbursable. This construct allows for generators, and importantly the parties they are contracting with, to determine whether these local upgrades are necessary and beneficial. Option 5, with OPDS eliminated, will simplify the implementation and approval processes for the new deliverability methodology while still addressing some of the concerns that were raised about curtailment impacts. Thus, AWEA-California support Option 5 with OPDS eliminated.

Off-Peak Deliverability Assessment Methodology

Under all of the options being considered in the Straw Proposal, CAISO is proposing to revise the existing off-peak deliverability assessment methodology. Given the anticipated use for these off-peak deliverability assessments, the proposed revisions seem appropriate.

The off-peak studies would focus on system conditions that occur, not during typical system oversupply conditions, but during periods where local oversupply issues may cause increased curtailment. If these studies focused on system oversupply conditions, then would potentially cause the identification of upgrades which would not be useful in mitigating curtailment. But by focusing on conditions where solar generation is higher than the On-Peak studies, but not as high as system oversupply, the Off-Peak Deliverability studies should be able to identify the local deliverability upgrades that would help to alleviate excessive curtailment that might occur due to local system constraints. AWEA-California support the general approach to off-peak deliverability assessments outlined by CASO in the Straw Proposal.

If OPDS Must be Retained, it should be "Unbundled" from the Other Changes to the Deliverability Assessment Methodology

AWEA-California supports CAISO's proposal to move forward with the new deliverability methodology implementation concurrently with a revised Option 5 (that eliminates OPDS). AWEA-California believes this should be achievable on the timeline CAISO has outlined.

As discussed above, AWEA-California supports removing the OPDS designation from Option 5. But, in the event CAISO believes that OPDS is critical to the success of this initiative and that development of the deliverability methodology cannot move forward without OPDS, we urge CAISO to further evaluate the concept and to structure this initiative (and future tariff filings) in such a way that the delay or rejection of OPDS will not cause delay/rejection of the new deliverability methodology. For instance, this may be accomplished by creating a separate tariff filing package for OPDS if CAISO feels OPDS must be retained.

Curtailment Information

The provision of information on expected curtailment will be important to developers and should be a priority data point as CAISO develops more of the details on how the Off-Peak deliverability studies would be conducted and what information would be provided.

AWEA-California understands that under a variety of the options, including Option 5, CAISO would provide information about "*how much renewable generation needs to be curtailed in order to mitigate the remaining overloads after the re-dispatch described above without the area network upgrades*."

AWEA-California seeks clarification from the CAISO on the information it is planning to provide regarding generation curtailment. It appears unlikely that CAISO will provide *annual* total curtailment figures and, instead, we expect CAISO would provide the MW of curtailment that would be needed, without area network upgrades, to mitigate overloads in the off-peak deliverability study case. CAISO should clarify, specifically, what curtailment information it proposes to supply as part of the Off-Peak deliverability studies.

If, as AWEA-California believes to be the case, CAISO would only provide the MW curtailed in the off-peak deliverability assessment case, we ask CAISO to consider if it might be feasible to provide any incremental information on curtailments, such as annualized figures or figures under different load/resource conditions. These details do not need to be developed now, but should be developed as part of the implementation details and will be helpful in ensuring the market can react appropriately to expected curtailment impacts associated with the deliverability changes.

Revised Transmission Limitations in the Integrated Resource Plan (IRP)

As CAISO is well aware, changes to the deliverability methodology will have wide ranging impacts, including (indirectly) affecting the portfolio selection that is part of the California Public Utilities Commission's (CPUC's) IRP. Specifically, CAISO provides the CPUC with information on the amount of FCDS and energy-only resources that could be interconnected in each renewable energy zone, based on the capacity of the current and already approved transmission system. These "transmission constraints" are a crucial modeling parameter that drive the selection of resources in RESOLVE, the tool used for IRP portfolio selection. Thus, the transmission capability assumptions affect the selection of the Reference System Plan which may be used by the CAISO in identifying policy-driven transmission needs in the Transmission Planning Process (TPP).

The implementation of new deliverability methodology is likely to result in increased estimates of the resources that can be accommodated on existing and currently planned transmission in many renewable energy zones, which will significantly affect the resources selected by RESOLVE. It will be important for the CAISO to provide the CPUC with updated transmission constraint estimates (based on the new deliverability methodology) as soon as possible, so that

the portfolios developed in the IRP are more consistent with commercial expectations going forward.

In order to account for the expected changes associated with the new deliverability methodology, AWEA-California and other parties have advocated for the CPUC to relax the transmission constraints in RESOLVE during the 2019-20 IRP modeling process. We encourage the CAISO to offer support for that approach at the CPUC going forward. Allowing the IRP to begin to account for the possibility of increased accommodation of renewable resources on existing transmission will be critical to ensuring that the portfolios which come out of the IRP, and are used by the CAISO to determine the necessary area network upgrades in the TPP, are more accurate.

Timely implementation of this change at the CPUC will allow for development of more cost-effective renewables, which can take advantage of high level of the federal production and investment tax credit. For that reason, CAISO should support a relaxation of the transmission constraints currently used in RESOLVE in the 2019-20 IRP modeling exercise and portfolio development.

Conclusion

AWEA-California generally supports the proposed direction CAISO has taken in the Straw Proposal and during the stakeholder meeting, but suggests streamlining the proposal by eliminating the addition of OPDS interconnection service. We look forward to working with the CAISO and other stakeholders as this initiative continues.