

November 30, 2018

Submitted to the CAISO at regionaltransmission@caiso.com by Tim Mason, Policy Director

RE: Comments of the Large-scale Solar Association on 2018-2019 TPP Preliminary Policy Results and Economic Study Update.

LSA appreciates this opportunity to comment on the CAISO 2018-2019 Transmission Plan Preliminary Policy Results and Economic Study Update of November 16, 2018. These comments are based on the slides and presentations prepared for the November 16 TPP stakeholder meeting.

CAISO Must Provide Detailed Resources Adequacy Methodology Prior to TPP Modeling

The CAISO presented a summary of a new methodology for assessing RA on the November 16 call, which it intends to implement in the 2018-2019 TPP plan development. While the methodology appears to be reasonable, the "devil is in the details" and CAISO has provided insufficient information in the presentation to determine if this methodology is robust.

To illustrate this concern, the CAISO identifies as a data source for the analysis "CPUC ELCC data." This is a critical input into the RA assessment, but this has not been vetted to determine whether the CPUC data is appropriate for use in the TPP. CPUC calculates an ELCC value for solar in several different proceedings, including IRP, RA, and RPS, and these values are updated annually. The TPP presentation does not specify which CPUC proceeding the data is from, nor the vintage of the data. This is very concerning because the CPUC uses a variety of ELCC methodologies and different assumptions are used in each proceeding, making it is impossible for a TPP participant to understand if the ELCC methodology is appropriate for the TPP, and if the assumptions are consistent with CAISO TPP assumptions.

TPP Should use CPUC IRP Reference System Plan as Base Portfolio

LSA reiterates its concerns, originally expressed in comments on the TPP submitted on October 5, 2018, that the 2018-2019 TPP does not present a realistic CAISO operating future and substantially understates the need for additional transmission in the CAISO. Per the CAISO, the CPUC IRP 50% portfolio is used for the TPP reliability assessment. The CAISO states "No base portfolio was transmitted for the policy-driven assessment" though the "CPUC IRP Reference System Plan is being studied as a sensitivity in the 2018-2019 TPP policy-driven assessment to identify Category 2 transmission."

LSA is unclear why the CAISO does not consider the IRP Reference System Plan as the "base portfolio" and recommends it treat this as the base portfolio rather than a sensitivity. As the Reference System plan, this is the CPUC "base case". LSA understands that the point of CAISO using the CPUC IRP portfolio in the TPP process is to have greater coordination between resource procurement and transmission planning, and not using the Reference System Plan as the base portfolio undermines the goal and the process.

TPP Assumptions on EODS Resources are Unrealistic

LSA is deeply concerned over the TPP assumption that approximately 40% of new resources will have energy-only interconnections. This may be consistent with CPUC IPR RESOLVE modeling, but it in no way reflects the market for RPS-complaint resources. The CPUC portfolio of EODS resources was developed solely on the basis of total system economics, ignoring any market signals or individual LSE resource preferences. This is a fundamental flaw with the RSP and LSEA believes it will provide misleading information to market participants and policy-makers about the need for new transmission.

Market buyers have no appetite for long-term contracts with EODS resources, as borne out by recent RFPs from Community Choice Aggregation (CCA) entities. Further, developers are not seeking to interconnect resources as EODS, a fact confirmed in the CAISO interconnection queue. Only one of the 29 solar resources seeking interconnection in 2018 selected EODS as the preferred interconnection. Unless there is a substantial market alteration, is unlikely that we will see the assumed contracting and development of EODS resources. Failure to plan sufficient transmission to interconnect resources requiring FCDS will result in California neither achieving its mandated RPS requirements nor its GHG emissions goals.

Energy Delivery from EODS Resources will Require New Transmission

The TPP Default Portfolio includes 3,487 MW of new variable resources added by 2030, and the 42 MMT sensitivity portfolio includes 10,266 MW of new resources. In both cases CAISO assumes that 40% of the solar resources will be EODS. Per the reliability assessment discussed on the November 16 call, no additional transmission is needed since EODS resources are not required for reliability. This however, understates the need for transmission for these resources. While the EODS resources do not require new transmission for capacity delivery, it is highly likely that without new transmission there will be substantial curtailments due to transmission constraints. Most of the new EODS resources are located in areas of Southern California that already face critical transmission constraints and, indicated on the CAISO chart below, the addition of these resources without new transmission will only exacerbate this.



It is impossible to provide more specific comments on the resource curtailment, or at what point additional transmission for EODS is justified by either economics or the need to comply with the SB100 requirements, since the CAISO TPP analysis to date has not included the production cost modeling of the portfolios. We are concerned however, that the production cost modeling will show a level of transmission- caused curtailments from the solar resources in these areas that will render these resources commercially infeasible.

Recommendations:

Moving forward with the 1028-2019 TPP LSA recommends that the CAISO:

- Provide comprehensive documentation of the new Resource Adequacy methodology and assumptions and allow stakeholders the opportunity to review and comment on this information prior to implementation in the TPP process.
- To identify Category 2 transmission needs, conduct a reliability analysis assuming all incremental solar resources are FCDS resources and a case with all EODS solar. Compare the cost difference between these cases to the value of curtailment from a production cost model from the same quantity of solar resources.
- For the production cost model results in the TPP Economic Assessment, provide aggregated monthly and detailed hourly curtailment data for individual resources modeled for all resources in each area where EODS resources are located. This will allow for the identification of specific areas of transmission constraint and quantify the value of reliving these constraints.