



Submit comment on Draft study plan

2022-2023 Transmission planning process

1. Comment on chapter 1 Introduction: *

CESA continues to express our appreciation for the work and effort by the California Independent System Operator (CAISO) as part of the annual Transmission Planning Process (TPP), which will play a critical role in planning, identifying, and approving transmission buildout to accommodate resource buildout needs to meet our long-term decarbonization objectives. Overall, the Draft 2022-2023 TPP Study Plan is reasonable and smartly plans to conduct additional studies to address various reliability questions (frequency response, Aliso Canyon, high-electrification scenarios). We also continue to support and encourage the CAISO's assessment of non-wires alternatives like energy storage to meet transmission needs in a cost-effective way.

In these comments, we focus on the need to conduct a policy-driven sensitivity scenario using the 30 million metric ton (MMT) greenhouse gas (GHG) emissions target in the 2022-2023 TPP cycle, as well as requesting clarification on one discrepancy identified by CESA in our review of the planned inputs and assumptions for the economic planning study.

2. Comment on chapter 2 Reliability Assessment: *

CESA has no comment at this time.

3. Comment on chapter 3 Policy-Driven RPS Transmission Plan Analysis: *

CESA has no comment at this time on the CAISO's proposed study plan for the policy-driven analysis, which leverage the portfolios transmitted by the CPUC (38 MMT using 2020 IEPR High EV base case portfolio) in accordance with Decision (D.) 22-02-004. Notably, Ordering Paragraph (OP) 8 of D.22-02-004 also delegated to the CPUC Energy Division, in collaboration with the California Energy Commission (CEC) and CAISO, the development of a policy-driven sensitivity portfolio based on the 30 MMT GHG emissions target, along with associated busbar mapping. In light of the CAISO's Draft 20-Year Transmission Outlook, we strongly encourage the CAISO to work with the other agencies to make this portfolio a reality and be produced within the next few months to be incorporated in the 2022-2023 TPP cycle.

While the development of such a portfolio is not within the CAISO's control, we request that the CAISO provide as much assistance as possible to make this a reality because it could potentially make the CAISO's Draft 20-Year Transmission Outlook more actionable and/or help meet the intent of developing that outlook in the first place by assessing a longer-term timeframe. As noted by the CAISO in its rollout, the Draft 20-Year Transmission Outlook is largely conceptual and will be incorporated in the Senate Bill (SB) 100 modeling and stakeholder process, but the development of

the 30 MMT sensitivity portfolio presents an opportunity to make the long-term outlook more actionable. Short of modifying the CAISO’s current tariff authority to study and approve transmission needs in the TPP under a 10-year outlook, the sensitivity study of a more aggressive 10-year portfolio could help identify transmission investments that may be co-optimized for both a 10-year and long-term outlook, avoiding the year-by-year incremental approve and build in the TPP. For example, the 2022-2023 TPP could identify transmission investments that are larger in nature that could be approved in the near term but are not necessarily cost-effective or needed until later dates, thus recognizing the lumpy and long lead-time nature of transmission investments. In other cases, there may be transmission investments that could be identified that present potential option value, which could be canceled or modified in future TPP cycles. In essence, by looking at a more aggressive sensitivity scenario, we can gain an additional data point to assess transmission needs and solutions that captures long-term needs but do not bind the CAISO to approve projects to those long-term needs within their tariff-based 10-year planning process, especially given the uncertainties associated with longer-term forecasts.

4. Comment on chapter 4 Economic Planning Study: *

CESA appreciate the approach of the CAISO for the economic assessment for the 2022-2023 TPP cycle and understand that this type of analysis is challenging to model accurately and computationally intensive. Yet, detailed modeling sends adequate signals to the industry to motivate investment and deployment while also achieving the state clean energy goals. Furthermore, it identifies commercial opportunities for stakeholders that ultimately will identify key projects or measures to reduce transmission congestion and renewable curtailment. CESA, as the voice of energy storage in California, highlights that well-placed energy storage paired with renewable generation can reduce curtailment and potentially reduce congestion levels at a lower cost.

In the aim of improving both modeling and send adequate market signals, CESA identified that there is mismatch of the expected storage capacity input for the proposed production cost model (PCM). Using the current 38 MMT base case scenario (also cited in the material for this initiative), the total amount of storage capacity for California is expected to be close to 13,800 MW. However, as also stated in the materials presented, the economic study will use the anchor dataset (ADS) developed by the Western Electricity Coordinating Council (WECC) as the starting database. From the documentation of this dataset, the expected amount of storage is 5,921 MW for the California balancing zones (see Table below). Both datasets differ by 7,879 MW that could potentially change the results of this modeling effort drastically. Given the huge capacity difference, CESA requests that the CAISO clarify the decision of using the ADS as starting point.

Table 1. Expected storage fleet in California for the 2030 modeling period from SB100 38 MMT portfolio and ADS

38 MMT Base Case Scenario	ADS	Difference
13,800 MW	5,921 MW	7,879 MW

5. Comment on chapter 5 Interregional Transmission Coordination: *

CESA has no comment at this time.

6. Comment on chapter 6 Other Studies: *

Given our keen interest in high-electrification scenario special study and the Aliso Canyon special study evaluating local reliability impacts, we look forward to the study plan and associated scenarios in June 2022.

Additionally, as expressed in previous TPP cycles, we welcome the continued study of frequency response scenarios. With regards to Scenario 2-5, we request that the CAISO document and clarify the inputs regarding the actual operations of battery energy storage systems (BESS) to simulate their behavior during a system event. Given that no BESS resources or solar/wind are configured and operated to provide the headroom assumed for the purpose of this study, at least to CESA's knowledge, it is unclear on how this operation will be simulated in the study. We are open to providing our input, leveraging our members' expertise, to shape these assumptions. Though beyond the scope of a study, we also reiterate the need to launch a Frequency Response Initiative to activate and optimize for these capabilities, which should rely on market-optimized products that compensate for these capabilities and/or opportunity costs rather than an across-the-board headroom requirement.

7. Please provide any additional comments: *

CESA continues to support and encourage the CAISO's assessment of non-wires alternatives like energy storage to meet transmission needs in a cost-effective way. CESA has not found any issue with the CAISO's identification and assessment of energy storage in these alternatives assessments, but we continue to encourage the CAISO's efforts in this regard (such as recently done with the Lamont project) because it could present a pathway to mitigate the current and future interconnection queues. As network resources that would not need to pursue deliverability in the interconnection process, it could present ways to incrementally relieve the currently overheated queue.