

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue  
Electric Integrated Resource Planning and  
Related Procurement Processes.

Rulemaking 20-05-003  
(Filed May 7, 2020)

**REPLY COMMENTS OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION  
ON THE ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENT ON  
PROPOSED 2023 PREFERRED SYSTEM PLAN AND TRANSMISSION PLANNING  
PROCESS PORTFOLIOS**

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**I. Introduction**

Pursuant to the *Administrative Law Judge’s Ruling Seeking Comment on Proposed 2023 Preferred System Plan and Transmission Planning Process Portfolios* (Ruling), issued on October 5, 2023, the California Independent System Operator Corporation (CAISO) respectfully submits these reply comments to the California Public Utilities Commission (Commission).

In these comments, the CAISO agrees with party concerns regarding significant shifts in resource portfolios and impacts on downstream planning processes. The Commission should ensure consistency between successive resource portfolios to minimize risks to the efficacy of downstream transmission planning, procurement, and interconnection processes. The CAISO also provides clarifications in response to party comments regarding the CAISO’s transmission planning process (TPP) and past results. Lastly, the CAISO recommends the Commission encourage procurement in locations consistent with CAISO transmission planning and recommends the Commission reject a proposal by the Protect our Communities Foundation (PCF) regarding exports from the CAISO balancing area.

## **II. Discussion**

### **A. The Commission Should Ensure Consistency Between Successive Resource Portfolios to Minimize Risks to Downstream Planning and Procurement Processes.**

#### **1. Significant Changes in Portfolio Size and Composition Can Impact the Efficacy of Downstream Planning Processes.**

In opening comments, several parties highlight the differences in magnitude between the 2023-2024 Transmission Planning Process (TPP) portfolio and the 25 million metric ton (MMT) core portfolio, and question the impacts of changes to transmission planning.<sup>1</sup> The Joint Solar Parties, Terra-Gen, and EDF Renewables note the differences in volume of resources between the 2023-2024 TPP portfolio and the draft Preferred System Plan (PSP) portfolio, and ask the Commission to clarify that the 2023 PSP used as the base case for the 2024-2025 TPP should not impact approval of transmission needed to support the 2023-2024 TPP portfolio.<sup>2</sup> The Joint Solar Parties also note, “It is critical for the CPUC and stakeholders to understand and acknowledge the basis for the delta between the portfolios’ GWs and to continue to support the necessary infrastructure upgrades.”<sup>3</sup>

The CAISO agrees with the Joint Solar Parties that it is critical for parties to understand the basis for the delta between portfolios to be able to assess potential impacts to downstream planning and procurement processes. Significant shifts in the Commission’s resource portfolios can create material shifts in the CAISO’s transmission planning and affect the efficacy of the CAISO’s TPP. Significant shifts in certain resource technology types also have implications on transmission planning. To ensure stability in downstream planning and procurement process, the Commission should establish consistency and stability in resource portfolios in successive years. The Commission and Energy Division staff should provide transparent portfolio reconciliations when the Commission releases new portfolios.

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<sup>1</sup> Solar Energy Industries Association and Large-scale Solar Association (Joint Solar Parties) Opening Comments, pp. 10-13; Terra-Gen, LLC (Terra-Gen) Opening Comments, pp. 3-4; EDF Renewables, Inc. (EDF Renewables) Opening comments, pp. 3-4.

<sup>2</sup> Joint Solar Parties Opening Comments, pp. 10-11; Terra-Gen Opening Comments, p. 4; EDF Renewables Opening comments, p. 4.

<sup>3</sup> Joint Solar Parties Opening Comments, p. 13.

## **2. Portfolios Should be Realistic to Avoid Further Resource Shifts in the Near-Term.**

Although the CAISO supports the Commission moving forward with a 25 MMT core portfolio informed by load-serving entity plans, the CAISO agrees with party concerns regarding shifts in portfolio compositions, especially the risk that portfolios will not materialize as planned, leading to further shifts in portfolios with limited time to address such changes. Notably, the 25 MMT core portfolio shows a significant increase in in-state wind relative to solar and storage, compared to the base portfolio used in the 2023-2024 TPP.

NextEra Energy Resources, LLC (NextEra) notes that “the Preliminary Busbar Mapping appears to overstate the potential new wind generating capacity that can be developed in the Tehachapi, Solano, Northern California, and Southern Nevada regions” and “the assumed new capacity is not likely to materialize due to numerous factors that constrain development in those regions, including limited transmission capacity, limited real estate availability, and impacts to the wind resource due to existing generation resources.”<sup>4</sup> The CAISO shares these concerns about the feasibility of certain portfolio assumptions.

The CAISO also agrees with Sonoma Clean Power Authority’s (SCP) concerns that if portfolios cannot feasibly materialize, further near-term shifts in portfolios will materialize. Significant changes in the portfolio in the near-term are particularly concerning if they require transmission needs within timelines that are not feasible. The CAISO agrees with SCP that the PSP assumes technologies will be built in the exact location and time as determined by Commission modeling, and therefore there is inherent risk to downstream planning if portfolios do not materialize as planned and significant changes in portfolios are realized too late.<sup>5</sup> To manage these risks, the Commission should seek to minimize shifts in portfolio resource composition in successive years. The Commission should also review modeling assumptions to ensure portfolio compositions are achievable.

### **B. The CAISO Clarifies the Transmission Planning Process and Past Results in Response to SCP Comments.**

SCP’s opening comments raised some questions regarding the CAISO’s TPP and its previous results. The CAISO takes this opportunity to make several clarifications.

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<sup>4</sup> NextEra Opening Comments, p. 2.

<sup>5</sup> SCP Opening Comments, p. 8.

First, the CAISO clarifies that the TPP includes in-development resources. SCP states, “[T]he TPP is chiefly focused on longer-term transmission needs (for example, this year’s portfolio looks at conditions in 2030, 2034, and 2039). SCP’s experience has been that upgrades necessary to facilitate deliverability for resources needed to meet near-term procurement targets are not a key focus.”<sup>6</sup> The CAISO clarifies that although the CAISO TPP Policy study is a long-term study, it includes in-development resources provided by the Commission as part of the resource portfolio. As such, the CAISO identifies any transmission upgrades necessary for deliverability of portfolio resources (including in-development resources) within the CAISO TPP Policy study.

Second, the CAISO clarifies its approval of the Delevan-Cortina reconductoring and Collinsville substation projects in the 2021-2022 TPP. SCP states, “In the 2021-22 TPP, the CAISO approved a Delevan-Cortina reconductoring project and the Collinsville substation to address the area deliverability constraint for battery storage and renewable energy projects in the Bay Area.”<sup>7</sup> The CAISO clarifies that these projects were triggered by resources included in the Commission’s resource portfolio for the 2021-2022 TPP. The Delevan-Cortina reconductoring project was identified to alleviate overloads on the Delevan-Cortina 230 kV line identified in the 2021-2022 TPP Policy study.<sup>8</sup> The Collinsville substation project was identified to alleviate overloads on the Cayetano-North Dublin 230 kV line, the Lone Tree-USWP-JRW-Cayetano 230 kV line, and the Las Positas-Newark 230 kV line, and to provide enable additional supply from the 500 kV system into the northern Greater Bay Area.<sup>9</sup>

Lastly, the CAISO clarifies that the 2023 generation interconnection deliverability allocation process identified deliverability constraints in the Pacific Gas and Electric Company (PG&E) North Area that were not identified in the 2022-2023 TPP because the interconnection process considered additional resources that were not in the Commission resource portfolio used in 2022-2023 TPP.<sup>10</sup> The CAISO only studies the resources in the Commission’s resource

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<sup>6</sup> SCP Opening Comments, p. 16.

<sup>7</sup> *Id.*, p. 17.

<sup>8</sup> CAISO, *2021-2022 Transmission Plan*, March 17, 2022, pp. 190-191.

<sup>9</sup> CAISO, *2021-2022 Transmission Plan*, March 17, 2022, pp. 192-196.

<sup>10</sup> The 2022-23 TPP base portfolio contained 776 MW of non-operational resources in the PG&E North Area. However, the 2023 generation interconnection deliverability allocation process identified 5,679 MW of non-operational resources, 1,414 MW of which were relevant to the most binding constraint, the Delevan 500 kV area constraint.

portfolios in the TPP. There may be more projects studied in the CAISO interconnection process than in Commission portfolios. As a result, the CAISO did not identify the Delevan 500 kV area constraint in the 2022-2023 TPP. The CAISO identified this constraint in the 2023 interconnection study and consequently found no additional available deliverability in the constrained area beyond what was already allocated.

**C. The Commission Should Encourage Procurement in Locations Consistent with CAISO Transmission Planning.**

In opening comments SCP states, “SCP recommends the Commission ask the CAISO to assess the capability of upgrades proposed in the 2023-24 TPP to provide deliverability to in-development baseline resources. This validation should entail an analysis that is similar to the assumptions used in the upcoming generation interconnection deliverability process. If area deliverability constraints that will prevent resources needed for meeting mid-term reliability procurement targets are identified, the Commission should ask the CAISO to revisit the scope of upgrades considered for approval in the TPP. This same study should be instituted in the 2024-25 TPP and following studies as well.”<sup>11</sup>

First, as discussed above, area deliverability constraints identified in the CAISO interconnection studies but not identified in the CAISO TPP may be driven by differences between resources in the CAISO interconnection queue and Commission resource portfolios. The Commission’s resource portfolios are a key input to the CAISO TPP that determine the scope of transmission projects the CAISO considers for approval.

Second, SCP’s suggestion is counter to the direction specified in the Memorandum of Understanding (MOU) among the CAISO, Commission, and the California Energy Commission.<sup>12</sup> Instead of considering a new process to align transmission planning and interconnection studies, the Commission should encourage procurement in locations consistent with previously adopted resource portfolios, which feed into the CAISO transmission plan, as described in the MOU. The interconnection reforms that the CAISO is contemplating in track two of its Interconnection Process Enhancements initiative are designed to tighten these same linkages between resource and transmission planning, procurement, and interconnection.

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<sup>11</sup> SCP Opening Comments, pp. 17-18.

<sup>12</sup> *Memorandum of Understanding between CPUC, CEC, and CAISO Regarding Transmission Resource Planning and Implementation*, December 2022, p. 3.

**D. The Commission Should Reject the Recommendation by PCF Regarding Exports from the CAISO Balancing Area During “Summer Heat Wave Peak Hours.”**

PCF submits the same recommendation and comments the Commission considered earlier this year. PCF recommends the Commission direct the CAISO to suspend non-wheeling exports during “summer heat wave peak hours” in lieu of ordering procurement.<sup>13</sup> Because the facts have not changed since PCF made its original proposal, the CAISO continues to disagree with PCF’s recommendation and urges the Commission to reject this recommendation again. PCF’s characterization of the CAISO market in summer 2022 is inaccurate for several reasons.

As a threshold issue, a Commission proceeding is an inappropriate venue to address issues pertinent to the CAISO tariff. PCF should direct such issues to relevant CAISO processes.

As detailed in CAISO’s prior comments, PCF misinterprets data from the CAISO’s September 2022 Summer Market Performance Report.<sup>14</sup> PCF states, “Non-wheeling exports ranged from 2,000 MW to 4,000 MW at the peak hours during the September 5-8, 2022 heat wave,”<sup>15</sup> and concludes that the Commission should adopt PCF’s recommendation to “suspend all non-wheeling d during summer heat wave peak hours.”<sup>16</sup> But the data PCF references from the CAISO’s September 2022 Summer Market Performance Report actually shows the highest levels of exports occurred in hours prior to peak conditions, followed by a significant reduction in low priority export schedules in peak hours from day-ahead and hour-ahead scheduling process market runs.<sup>17</sup>

PCF also ignores Existing Transmission Contracts and Transmission Ownership Rights (ETC/TORs), as well as day-ahead and real-time high priority (PT) exports. Under the CAISO tariff, ETCs/TORs have a higher priority than CAISO load and PT exports, and day-ahead and

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<sup>13</sup> PCF, *Comments On Proposed Decision Ordering Supplemental Mid-Term Reliability Procurement (2026-2027) And Transmitting Electric Resource Portfolios To California Independent System Operator For 2023-2024 Transmission Planning Process*, February 2, 2023, p. 1.; PCF Opening Comments, pp. 7-8.

<sup>14</sup> CAISO, *Reply Comments on Proposed Decision Ordering Supplemental Mid-Term Reliability Procurement (2026-2027) And Transmitting Electric Resource Portfolios To California Independent System Operator For 2023-2024 Transmission Planning Process*, p. 2-3.

<sup>15</sup> PCF Opening Comments, p. 7.

<sup>16</sup> PCF Opening Comments, p. 7.

<sup>17</sup> CAISO, *September 2022 Summer Market Performance Report*, p. 128:

<http://www.aiso.com/Documents/SummerMarketPerformanceReportforSeptember2022.pdf>



real-time PT exports retain scheduling priorities equal to CAISO load. PT exports are supported by non-resource adequacy capacity designated to serve external load. The CAISO has no tariff or contractual authority to reject those exports and redirect them to serve CAISO load because entities in other balancing areas have contracted with this output.<sup>18</sup>

Lastly, directing the CAISO to cut exports indiscriminately in “summer heat wave peak hours” is misguided. In some instances, exports may provide counterflows, which facilitate imports, shaped Western Energy Imbalance Market transfers, or even emergency assistance into the CAISO balancing area to serve demand. Further, the CAISO cannot indiscriminately cut exports to other balancing areas as PCF suggests because uncoordinated cuts or out-right prohibitions on exports could adversely affect the CAISO’s access to imports that the CAISO relies on from other balancing areas. For the reasons set forth above, the Commission should reject PCF’s recommendation directing the CAISO to suspend non-wheeling exports during summer peak hours.

### **III. Conclusion**

The CAISO appreciates the opportunity to provide reply comments on the Ruling.

Respectfully submitted

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<sup>18</sup> CAISO, *Reply Comments on Proposed Decision Ordering Supplemental Mid-Term Reliability Procurement (2026-2027) And Transmitting Electric Resource Portfolios To California Independent System Operator For 2023-2024 Transmission Planning Process*, p. 3.