

**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)

**COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
CORPORATION ON PORTFOLIOS TO BE USED IN THE 2021-22 TRANSMISSION  
PLANNING PROCESS**

Roger E. Collanton  
General Counsel  
Anthony J. Ivancovich  
Deputy General Counsel  
Jordan Pinjuv  
Senior Counsel  
California Independent System  
250 Outcropping Way  
Folsom, CA 95630  
Tel: (916) 351-4429  
Fax: (916) 608-7222  
Email: [jpinjuv@caiso.com](mailto:jpinjuv@caiso.com)

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OPERATOR CORPORATION ON PORTFOLIOS TO BE USED IN THE 2021-22  
TRANSMISSION PLANNING PROCESS**

**I. Introduction**

The California Independent System Operator Corporation (CAISO) hereby provides comments in response to the *Administrative Law Judge’s Ruling Seeking Comments on Portfolios to be Used in the 2021-22 Transmission Planning Process* (Ruling), its attachments and questions in Section 2.1.

**II. Discussion**

The CAISO greatly appreciates the work of Energy Division staff in their efforts to coordinate and align integrated resource plan (IRP) processes with the CAISO’s annual transmission planning process (TPP). The Energy Division staff have worked diligently to capture the CAISO’s concerns and the nuances of TPP modeling, which are reflected in the attachments to the Ruling. The CAISO appreciates the coordination and looks forward to continued collaboration.

The CAISO largely provides clarifications and additional context to the questions posed in the Ruling. In addition, the CAISO will conduct a production cost-based assessment of the revised 46 million metric ton (MMT) portfolio using the 2019 integrated energy policy report (IEPR) demand forecast. The CAISO’s analysis will focus on 2026 system reliability to understand the impact of the Diablo Canyon Power Plant retirement.

In the subsections below, the CAISO reproduces the questions posed in the Ruling prior to providing the CAISO’s responses.

**A. Ruling Question 1: Please comment on Attachment A, the Framework for TPP Portfolio Selection, and recommend any changes that should be made; explain your rationale.**

The CAISO supports the *Framework for TPP Portfolio Selection* in Attachment A, with clarifications. The Ruling states the Commission “typically” recommends to the CAISO “a base case portfolio for reliability and another that is policy driven.”<sup>1</sup> The CAISO notes that although its study processes can accommodate portfolios provided for policy-driven transmission, which can include additional resources not in the reliability base cases, this flexibility exists to address anomalous or unusual circumstances in the portfolio development process and is not the expected or preferred approach. The CAISO requests the Commission develop and adopt a single base case for future resource development that addresses both reliability and policy needs. Policy-driven portfolios need to be reliable, and the base case should reflect policy-driven objectives. The *Framework for TPP Portfolio Selection* appropriately reflects this in Section II.B.2 noting the base case portfolio should “[r]eflect CPUC policy guidance, which the CPUC would be expected to implement if transmission is approved to satisfy those policy needs.”<sup>2</sup>

The Ruling notes “the Commission also usually requests one or more sensitivity analyses designed to help inform future planning.”<sup>3</sup> The CAISO can generally accommodate these requests to some extent when the resource trajectory is firmly established in the policy base case. Otherwise, sensitivities are meant to address planning uncertainties within the current planning cycle. The CAISO develops sensitivities to help inform future planning and, as such, must build on—rather than contradict—the policy base case.

Developing and studying the base case and sensitivities require considerable time and resources from both Energy Division and CAISO staff. Therefore, the Commission should in future ensure, at minimum, that base cases and sensitivities meet the 0.1 loss of load expectation (LOLE) standard and greenhouse gas (GHG) targets. Not having this upfront assessment requirement may erode confidence in the effectiveness of the

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<sup>1</sup> Ruling, pp. 1-2.

<sup>2</sup> Ruling, Attachment A, p. A-3.

<sup>3</sup> Ruling, p. 2.

transmission planning process, and risks not identifying and addressing transmission needs on a timely basis.

Lastly, the CAISO provides one substantive revision to Attachment A (on page A-5 under Section IV (A)). To the extent possible, contracted future baseline resources transmitted as part of the base case portfolio should include CAISO or Participating Transmission Owner (PTO) queue numbers. This will facilitate easy identification and modeling as well as avoid double counting or undercounting by CAISO/PTOs.

**B. Ruling Question 2: Do you recommend any changes to the proposed Base Case portfolio in Attachment B? If so, provide justification for your recommended changes.**

As noted in Attachment A, *Framework for TPP Portfolio Selection*, the CAISO uses the base case portfolio to conduct a variety of reliability assessments including assessments to meet NERC, WECC, and CAISO planning criteria.<sup>4</sup> Therefore, it is critical all resource portfolios transmitted to the CAISO are reliable. In prior comments on the individual IRP plans, the CAISO submitted a reliability analysis of the 38 MMT portfolio, which found a 3,493 MW shortfall in effective capacity in 2026.<sup>5</sup> This result is concerning because the 46 MMT Reference System Plan (RSP) has fewer overall resources in 2026, although it has slightly more battery resources. Energy Division staff found this portfolio reliable in its own production cost modeling, but the CAISO's subsequent analysis raises significant concerns regarding the portfolio's reliability, especially in 2026.

Given the reliability concerns regarding the 46 MMT RSP, the CAISO cannot provide clear and constructive feedback on the revised 46 MMT portfolio in the Ruling. The revised 46 MMT portfolio in the Ruling builds from the potentially unreliable 46 MMT RSP but incorporates three major categories of additional changes: (1) modeling updates and corrections<sup>6</sup>; (2) using the 2019 IEPR demand forecast (which is higher than

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<sup>4</sup> Ruling, Attachment A, p. A-3.

<sup>5</sup> *Comments of the California Independent System Operator Corporation*, R.20-05-003, October 23, 2020, p. 3. The CAISO production cost modeling showed that 3,493 MW of effective capacity was required to reach a 0.1 LOLE.

<sup>6</sup> Ruling, Attachment B, p. B-2.

the previous vintage)<sup>7</sup>; and (3) changes to the portfolio composition.<sup>8</sup> Furthermore, as Attachment B specifically notes, Energy Division staff has not performed an LOLE study on the 46 MMT revised portfolio with 2019 IEPR. But, without supporting analysis, the resources added to the portfolio are expected to “adequately represent a reliable resource planning future for the purpose of the TPP.”<sup>9</sup> This assumption cannot replace actual production cost modeling, which can assess reliability and resultant greenhouse gas (GHG) emissions from the revised portfolio. Although an LOLE study should be performed before transmitting portfolios to the CAISO to minimize risk of failing to timely identify reliability and policy needs, and future restudy needs, delaying the process is also problematic. To fill this gap, the CAISO will conduct a production cost-based assessment of the revised 46 MMT portfolio using the 2019 IEPR. The CAISO will focus on year 2026 to better understand the impact of the Diablo Canyon Power Plant retirement.

**C. Ruling Question 3: Do you recommend any changes to the proposed Policy-Driven Sensitivity portfolios in Attachment B? If so, provide justification for your recommended changes.**

It is not clear whether an LOLE study has been performed for the 38 MMT revised portfolio with 2019 IEPR. Although Attachment B provides this portfolio for the CAISO to study as a sensitivity, load serving entities are expected to provide conforming individual plans and therefore should have a reliability portfolio from which to benchmark. As noted in response to Ruling Question 2, in the future an LOLE study should be performed on the portfolios before transmitting them to the CAISO so transmission needs can be identified and addressed on a timely basis.

Lastly, the CAISO agrees with the characterization of Policy-Driven Sensitivity #2, the “Offshore Wind Sensitivity Portfolio.” This sensitivity portfolio is meant to provide a high level assessment of transmission costs and assist the Commission in developing a least regrets alternative. This sensitivity portfolio includes an “outlook”

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<sup>7</sup> *Id.*, p. B-2.

<sup>8</sup> *Id.*, p. B-3.

<sup>9</sup> *Id.*, p. B-5.

assessment focusing on a longer timeframe to accommodate up to 21.1 GW of offshore wind.

**D. Ruling Question 4: Do you agree with the Resource-to-Busbar Mapping Methodology guiding principles in Attachment C? If not, explain why. Are there other principles that should be added?**

The CAISO agrees with the guiding principles in Attachment C.

**E. Ruling Question 5: Commission staff has proposed various improvements to the March 30, 2020 version of the Methodology (in Attachment C), and alongside these, has raised “alternative options” for consideration. Should any of the alternative options replace the proposed approach, or do you have other options that should be used instead? If so, clearly specify which topic(s) you are referring to and explain your reasoning?**

The CAISO does not currently have any comments regarding this question.

**F. Ruling Question 6: Do you recommend any further changes to the non-battery mapping steps in Attachment C? What changes and why?**

The CAISO supports the recommendations provided in Attachment C; but requests the Commission change the word “will” to “may” in the following sentence: “If the CEC staff maps portfolio resources to substations in BAAs other than the CAISO, then the CAISO staff *will* consult appropriate planning entities during the resource modeling phase of TPP” (emphasis added).<sup>10</sup> The CAISO makes reasonable efforts to consult with other balancing authority areas but cannot commit to such coordination given the tight timing and resource constraints.

**G. Ruling Question 7: Do you recommend any further changes to the battery mapping steps in Attachment C? What changes and why?**

Overall, the CAISO supports the recommendations provided in Attachment C and notes the battery mapping analysis referred to in Step 5a<sup>11</sup> will be available at the CAISO’s November 17 TPP stakeholder meeting.

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<sup>10</sup> Ruling, Attachment C, p. C-11.

<sup>11</sup> *Id.*, p. C-16.

**H. Ruling Question 8: Do you recommend any changes to the Busbar Mapping Criteria & Implementation section of Attachment C? What changes and why?**

The CAISO does not currently have any comments regarding this question.

**III. Conclusion**

The CAISO greatly appreciates the collaboration with Energy Division staff and all of their hard work in developing the necessary and detailed documentation to support transmitting portfolios to the CAISO's transmission planning process.

Respectfully submitted

**By: /s/ Jordan Pinjuv**

Roger Collanton

General Counsel

Anthony Ivancovich

Deputy General Counsel

Jordan Pinjuv

Senior Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

T: (916) 351-4429

F: (916) 608-7222

[jpjuv@caiso.com](mailto:jpjuv@caiso.com)

Attorneys for the California Independent  
System Operator Corporation

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