

**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 THE ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENT ON
PROPOSED 2023 PREFERRED SYSTEM PLAN AND TRANSMISSION PLANNING
PROCESS PORTFOLIOS**

Roger E. Collanton
General Counsel
William H. Weaver
Assistant General Counsel
Marissa Nava
Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
Tel: 916-963-0521
Fax: 916-608-7222
Email: mnava@caiso.com

Dated: November 13, 2023

Table of Contents

I.	Introduction.....	1
II.	Discussion.....	1
A.	Preferred System Plan Portfolio.....	2
1.	Energy Division Should Provide a Reconciliation of Portfolio Changes Alongside New Portfolios.	2
2.	Stability in IRP Portfolios in Successive Years is Critical.	2
3.	The CAISO Supports a 25 MMT Core Portfolio Informed by LSE Plans.	3
B.	The Commission Should Adopt the High Gas Retirement Sensitivity and Define Locational Specificity Through the Busbar Mapping Process.	3
C.	The Commission Should Order 2,000 MW of Procurement by 2028 if Long Lead-Time Procurement is Delayed to 2031.....	4
D.	The Commission’s Conclusion on Diablo Canyon Replacement Procurement Highlights the Urgent Need for a Multi-Year Programmatic Procurement Program. ..	5
E.	Long Duration Storage Proposal.....	6
1.	The Commission Should Clarify that LDES Capacity Contemplated in this Proposal Must be Deliverable to Count Towards IRP Procurement Requirements.	6
2.	The Commission Should Avoid Creating Diverging Rules Between IRP and Resource Adequacy Programs.	6
3.	Adding Storage to an Existing Facility Will Not Result in More Deliverable Capacity.	7
F.	The Commission Should Adopt a Minimum 0.1 LOLE in IRP.	8
III.	Conclusion	8

**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 THE ADMINISTRATIVE LAW JUDGE’S RULING SEEKING COMMENT ON
PROPOSED 2023 PREFERRED SYSTEM PLAN AND TRANSMISSION PLANNING
PROCESS PORTFOLIOS**

I. Introduction

The California Independent System Operator Corporation (CAISO) hereby submits these comments in response 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.

II. Discussion

The CAISO appreciates the efforts of Energy Division staff to develop the proposed Preferred System Portfolio and busbar mapping necessary for the CAISO’s annual Transmission Planning Process (TPP). The CAISO supports the proposed 25 million metric ton (MMT) core portfolio informed by load-serving entity (LSE) plans. The CAISO also supports adoption of the High Gas Retirement Sensitivity portfolio.

The CAISO requests that the California Public Utilities Commission (Commission) and Energy Division staff provide transparent reconciliations between resource portfolios whenever the Commission and Energy Division staff update resource portfolios. Portfolio reconciliations will enable parties to understand changes in planned and expected capacity as well as assess potential impacts to downstream planning and procurement processes. Stability in resource portfolios over successive years is also critical to support certainty in impacted planning processes and decisions, including transmission planning, procurement, and interconnection.

The CAISO supports the Commission’s proposal to issue new procurement in 2028 if the Commission delays long-lead time procurement issued under Decision (D.) 23-02-040 to 2031. However, delays in Diablo Canyon Power Plant (Diablo Canyon) replacement procurement highlight the urgent need for the Commission to develop a programmatic multi-year forward procurement framework in this proceeding.

The CAISO also seeks clarifications on the long duration energy storage (LDES) proposal. Finally, the CAISO recommends the Commission adopt a minimum 0.1 Loss of Load Expectation (LOLE) as part of the Integrated Resource Plan (IRP) framework.

A. Preferred System Plan Portfolio

1. Energy Division Should Provide a Reconciliation of Portfolio Changes Alongside New Portfolios.

The resource portfolios in the Ruling show significantly less planned and expected capacity than the resource portfolio that the Commission adopted in D.23-02-040 for use in the CAISO’s 2023-2024 TPP. The Ruling does not specify the drivers behind the differences in portfolios. The CAISO appreciates that Energy Division staff explained portfolio and baseline changes in the October 20, 2023 workshop, following release of the Ruling. However, the CAISO recommends that the Commission and Energy Division staff provide these portfolio reconciliations whenever the Commission releases new portfolios. The Commission should clearly explain why baselines and portfolio sizes have changed. Portfolio reconciliations will also be important if the Commission makes any changes in response to comments between the Ruling and forthcoming proposed decision. These portfolio reconciliations will enable parties to assess potential impacts to downstream processes including transmission planning and procurement.

2. Stability in IRP Portfolios in Successive Years is Critical.

The Commission should establish stability in IRP portfolios over successive years. The CAISO expects some variation in portfolio composition as new inputs and assumptions become available each IRP cycle. However, large shifts in resource portfolios can result in both planning and commercial uncertainty in forward years, potentially risking reliability in the process and downstream decisions.

The CAISO has concerns that if portfolios shift significantly (especially in the nearer term), this can exacerbate the risk of resource delays, especially for long lead-time resources.

Additionally, if the CAISO identifies a need for new transmission due to changes in resources portfolios in the near term, there will not be sufficient time for transmission development including project solicitation, permitting, and construction to support the shifting resource portfolio.

Developers, utilities, and transmission planners need stability in IRP portfolios, as the Commission's portfolios impact critical planning functions across all entities. The Commission must establish as much stability as possible in IRP portfolios over successive years to support more certainty in downstream planning processes including transmission planning, procurement, and interconnection. This stability also will provide more consistent direction for new procurement and enhance certainty in the commercial space.

3. The CAISO Supports a 25 MMT Core Portfolio Informed by LSE Plans.

The CAISO supports the Ruling's proposal to select a 25 MMT Core portfolio informed by LSE plans as the Preferred System Plan. The 25 MMT core portfolio is most consistent with the 2023-2024 TPP base portfolio, and better reflects LSE planned procurement than the least-cost cases.

B. The Commission Should Adopt the High Gas Retirement Sensitivity and Define Locational Specificity Through the Busbar Mapping Process.

The CAISO supports adoption of the High Gas Retirement Sensitivity. Energy Division staff should continue working with parties to determine retirement locations through the busbar mapping process.¹ The CAISO previously supported the Commission's developing a gas plant retirement analysis for the CAISO to study in the TPP.²

The current thermal fleet provides the vast majority of local and system-wide reliability services, and resource retirements significantly affect the need for additional reliability services, especially in constrained local capacity areas.³ The proposed gas retirement sensitivity study will

¹ Ruling, p. 27.

² In opening comments on the May 14, 2020 Order Instituting Rulemaking to Continue Electric Integrated Resource Planning and Related Procurement Processes (OIR) issued in this proceeding, the CAISO recommended that the Commission develop resource portfolios for study in the TPP that include locational specificity for thermal resource retirements. CAISO Opening Comments on OIR, June 15, 2020, p. 5.

³ *Id.*

allow the CAISO to study the potential impacts of a significant amount of thermal retirements in local areas and help maintain reliability.

The High Gas Retirement Sensitivity closely aligns with the volume of gas retirements studied in the CAISO's 20-Year Transmission Outlook published in 2022 as well as the volume of gas retirements in the portfolio the CAISO will study in its forthcoming 20-Year Outlook update. The High Gas Retirement Sensitivity will allow the CAISO to further study the impacts of significant gas retirements in local areas, building off analysis in the 20-Year Outlook.

C. The Commission Should Order 2,000 MW of Procurement by 2028 if Long Lead-Time Procurement is Delayed to 2031.

The Ruling proposes to order 2,000 MW of procurement by 2028 if the Commission grants the California Energy Storage Alliance (CESA) and Western Power Trading Forum (WPTF) Petition for Modification (PFM) of D.23-02-040, which requests the Commission delay the 2,000 MW procurement requirement by 2028 for Long Lead-Time (LLT) resources to 2031.⁴

Commission staff analysis shows that granting the PFM to delay LLT resources would reduce the system capacity surplus above a 0.1 LOLE in 2028 from 2,750 MW to 750 MW under the base analysis.⁵ The CAISO agrees with Commission staff concerns that relying on results for 2028 that show a 750 MW surplus “[m]ay be optimistic, and/or not fully account for the other risks associated with procurement, including project delays, accelerating incidences and impacts of extreme weather, derating of thermal plants as a result of weather, localized forced outages, or other factors.”⁶ Ordering new procurement now can also address the risk of accelerated load growth.⁷

Commission staff's sensitivity analysis highlights the potential magnitude of uncertainties including extreme weather and resource delays, and the potential impacts of these uncertainties to supply margins. If both sensitivities materialize and LLT resources are delayed, Commission staff finds that the 2028 surplus of 2,750 MW would be reduced to a 1,550 MW shortfall.⁸ Adding the

⁴ Ruling, pp. 48-49.

⁵ *Id.*, p. 47.

⁶ Ruling, pp. 48-49.

⁷ The California Energy Commission's (CEC) draft 2023 demand forecast results indicate the CEC will model the California Air Resources Board Zero-Emission Appliance Standards in load modifiers typically used in the planning forecast.

⁸ Ruling, pp. 45-46. A one-year delay to 40% of ordered procurement reduces 2028 procurement by 800 MW. Weather year re-weighting increases 2028 resource need by 1,500 MW. The resulting 2028

uncertainty of aging resource de-rates and retirements would further increase the shortfall risk. The CAISO agrees with Commission staff that it is not prudent to plan for exactly 0.1 LOLE given the magnitude of these uncertainties, and planning for greater margin in 2028 is reasonable. The Commission should order additional procurement of 2,000 MW of net qualifying capacity by 2028 if it grants the CESA and WPTF PFM.

D. The Commission’s Conclusion on Diablo Canyon Replacement Procurement Highlights the Urgent Need for a Multi-Year Programmatic Procurement Program.

The Ruling considers a PFM filed by Southern California Edison Company (SCE) and Pacific Gas and Electric Company (PG&E), which seeks a two-year extension for the procurement of resources designed to replace a portion of the energy from Diablo Canyon.⁹ Commission staff analysis finds that a 1,078 MW shortfall below 0.1 LOLE exists in 2025, and this shortfall would increase with a delay in Diablo Canyon replacement procurement.¹⁰

The Ruling does not propose any mitigation for this shortfall and states, “The 2025 risk to reliability is too soon to be addressed by any further procurement action by the Commission this year.”¹¹ The Ruling also notes the shortfall “[s]hould be mitigated by the Strategic Reliability Reserve of approximately 2,430 MW of PCAP contribution” and references the potential extension of Diablo Canyon as another mitigating factor to address the projected capacity shortfall in 2025.¹²

The Commission’s conclusion that it may be too late to address the 2025 shortfall by ordering new procurement this year is understandable; however, the Commission ordered procurement in 2021 and investor-owned utilities issued requests for offers in 2022 and 2023 to meet requirements by June 2025. This sequence highlights the need for the Commission to prioritize developing a multi-year procurement framework that establishes procurement requirements well ahead of the need. In this case, ordering procurement four years ahead of the need was not sufficient to account for the time necessary to complete procurement,

surplus is: (original surplus) – (LLT delay) – (resource delays) – (increased need) = 2,750 – 2,000 – 800 – 1,500 = (1,550) shortfall.

⁹ Ruling, p. 42.

¹⁰ Ruling, p. 45.

¹¹ Ruling, p. 46.

¹² *Id.*

interconnection, permitting, and construction, and to account for other risks such as the supply chain delays referenced by SCE and PG&E in the PFM.¹³ This resulted in a further capacity shortfall when California cannot afford one.

The CAISO continues to recommend the Commission prioritize development of an IRP procurement program that establishes the need and procurement requirements for new resources at least five years forward. The CAISO looks forward to working with parties to advance the Reliable and Clean Power Procurement Program in this proceeding.

Lastly, the CAISO cautions against relying on Strategic Reliability Reserve resources to meet base planning requirements. The Commission should not rely on the Strategic Reliability Reserve as a substitute for new resource procurement necessary to meet a 0.1 LOLE.

E. Long Duration Storage Proposal

The Ruling requests comments on a proposal from natural gas operators to add minimum-8-hour LDES resources to their facilities. In this proposal, storage resources would “[c]harge from the grid and then supplement gas plant output during reliability events when the gas plants experience de-rating due to high ambient temperatures.”¹⁴ The Commission should elaborate on this proposal, which is currently too general for meaningful analysis.

1. The Commission Should Clarify that LDES Capacity Contemplated in this Proposal Must be Deliverable to Count Towards IRP Procurement Requirements.

The Commission should clarify that the LDES capacity contemplated in this proposal must be deliverable to count towards IRP procurement requirements. Deliverability ensures that the transmission system can reasonably deliver resource capacity to serve load during stressed system conditions.

2. The Commission Should Avoid Creating Diverging Rules Between IRP and Resource Adequacy Programs.

The Commission should avoid creating diverging rules between IRP and resource adequacy programs. The LDES proposal appears to apply to the IRP program only, allowing

¹³ Southern California Edison Company’s (U 338-E) and Pacific Gas and Electric Company’s (U 39 E) Joint Expedited Petition for Modification of Decision 21-06-035, August 9, 2023, pp. 7-14.

¹⁴ Ruling, p. 49.

resources to count for IRP that would not count for resource adequacy. As explained below, diverging counting rules could compromise reliability.

Realistically, if the IRP program plans just to meet a 0.1 LOLE, then all resources in IRP portfolios will be necessary to meet reliability in peak months like September. Potentially relaxing rules to meet IRP requirements risks creating a shortfall of reliable capacity to meet resource adequacy needs. The Commission should instead look to enhance alignment between IRP and resource adequacy programs, allowing buyers and sellers to transact effectively to meet the requirements of both programs and produce reliable portfolios.

The Commission should vet this proposal further in the context of resource adequacy and IRP alignment issues included in the Scoping Memo for this proceeding and in the Order Instituting Rulemaking in the resource adequacy proceeding.¹⁵

3. Adding Storage to an Existing Facility Will Not Result in More Deliverable Capacity.

The CAISO clarifies that adding storage to an existing facility does not result in more deliverable capacity (NQC). All additions to an existing resource that change the technical characteristics must go through a Material Modification Assessment at the CAISO, and if the addition is approved by the CAISO and the participating transmission owner, then the addition is considered Energy Only (EO) and the resource may not increase its NQC above values already established pre-addition. However, existing facilities with deliverability can transfer deliverability to the EO storage resource in a co-located configuration. For co-located configurations, once the CAISO has approved a material modification to add a storage component, the resource owner can transfer deliverability from the existing resource to the new resource behind the same point of interconnection. For example, if an existing gas plant has 100 MW of NQC but decreases the gas unit NQC to 50 MW, the owner could transfer 50 MW of deliverability to the LDES resource. In the case of a hybrid resource, the resource can count for up to 100 MW, subject to the 100 MW deliverability limit.

¹⁵ CPUC, Assigned Commissioner’s Scoping Memo and Ruling, R.20-05-003, August 21, 2023, p. 8; CPUC, Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Reforms and Refinements, and Establish Forward Resource Adequacy Procurement Obligations, R.23-10-011, October 12, 2023, p. 5.

F. The Commission Should Adopt a Minimum 0.1 LOLE in IRP.

The Ruling proposes to formalize a reliability framework in IRP.¹⁶ The CAISO supports the Commission’s formally adopting a reliability framework and agrees that the IRP reliability framework should be “comprised of: 1) a probabilistic reliability standard that can be translated into a reliability resource need and 2) resource counting rules with which to quantify the extent to which the need is expected to be met or exceeded.”¹⁷ The Commission should further establish that IRP will plan to meet a minimum 0.1 LOLE reliability target because it is an industry-accepted measure of supply sufficiency and can help prevent emergency states that lead to potential load shed. As the Ruling notes, the Commission has already used a 0.1 LOLE standard in the IRP context.¹⁸ The Commission should adopt this reliability standard as a key element of the IRP framework.

III. Conclusion

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

Respectfully submitted

By: /s/ Marissa Nava

Roger E. Collanton

General Counsel

William H. Weaver

Assistant General Counsel

Marissa Nava

Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

Tel: 916-963-0521

Fax: 916-608-7222

Email: mnav@caiso.com

Dated: November 13, 2023

¹⁶ Ruling, p. 51.

¹⁷ *Id.*, p. 56.

¹⁸ *Id.*, p. 52.