

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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

**OPENING COMMENTS OF
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON
PROPOSED DECISION ADOPTING 2023 PREFERRED SYSTEM PLAN AND RELATED
MATTERS, AND ADDRESSING TWO PETITIONS FOR MODIFICATION**

V. JOHN WHITE
Executive Director
Center for Energy Efficiency and
Renewable Technologies
1100 11th Street, Suite 311
Sacramento, CA 95814
Telephone: (916) 442-7785
E-mail: vjw@ceert.org

MEGAN M. MYERS
Attorney at Law
110 Oxford Street
San Francisco, CA 94134
Telephone: (415) 994-1616
E-mail: meganmmyers@yahoo.com

For: CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES

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BEFORE THE PUBLIC UTILITIES COMMISSION
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PROPOSED DECISION ADOPTING 2023 PREFERRED SYSTEM PLAN AND RELATED
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Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submits these Opening Comments on the Proposed Decision Adopting 2023 Preferred System Plan and Related Matters, and Addressing Two Petitions for Modification (Proposed Decision), mailed in the Integrated Resource Planning (IRP) proceeding on January 10, 2024. These Opening Comments are timely filed and served pursuant to Rule 14.3 of the Commission's Rules of Practice and Procedure and the instructions accompanying the Proposed Decision.

**I.
INTRODUCTION**

CEERT is a nonprofit public-benefit organization founded in 1990 and based in Sacramento, California. CEERT is a partnership of major private-sector clean energy companies, environmental organizations, public health groups and environmental justice organizations. CEERT designs and fights for policies that promote global warming solutions and increased reliance on clean, renewable energy sources for California and the West. CEERT is working toward building a new energy economy, including cutting contributions to global warming, and reducing dependence on fossil fuels. CEERT has long advocated before the Commission for increased use of preferred resources and for California to move towards a clean energy future.

II. SUMMARY

CEERT's primary goals are to quickly reduce dependence on natural gas power plants, particularly those located in dense urban areas and to reduce and eliminate California's greenhouse gas (GHG) emissions. These goals are directly linked with the IRP. As such, CEERT supports the Proposed Decision's adoption of the core Preferred System Plan (PSP) portfolio to meet a statewide 25 MMT GHG target for the electric sector by 2035.¹ In addition, CEERT supports the Proposed Decision's recommendation that the California Independent System Operator (CAISO) "analyze a policy-driven sensitivity case designed to test the transmission buildout needed for a grid stress case where 15 gigawatts of natural gas generation resources are retired by 2039."² CEERT also supports maintaining 1.6 GW of offshore wind mapped to the North Coast (Humboldt) area with additional monitoring.³

In addition, CEERT agrees with the Proposed Decision's denial of Southern California Edison Company (SCE) and Pacific Gas and Electric Company's (PG&E's) Petition for Modification (PFM) of Decision (D.) 21-06-035 due to concerns about equity among load-serving entities (LSEs).⁴ However, CEERT supports the partial granting of the PFM of D.23-02-040 and D.21-06-035 requested by the California Energy Storage Alliance (CESA) and the Western Power Trading Forum (WPTF) which allows for the extension of compliance dates for long-lead time (LLT) resources beyond 2028.⁵

CEERT supports the adoption of a 0.1 loss of load expectation (LOLE) reliability standard, a planning reserve margin (PRM) based on gross peak and the use of effective load

¹ Proposed Decision, at p. 1.

² *Id.*, at p. 2.

³ *Id.*

⁴ *Id.*, at p. 3.

⁵ *Id.*

carrying capability (ELCC) analysis, but as an interim approach only.⁶ In addition, CEERT continues to have concerns about the value of using RESOLVE and SERVVM for capacity expansion and production cost modeling. CEERT also challenges Finding of Fact 19 that there is a reliability risk in the summer of 2025 because it is not supported by the record.⁷

Lastly, the Proposed Decision denies two (2) of CEERT’s recommendations – (1) development of more granular and deeper assumptions for distributed energy resources (DERs) and (2) addressing cost uncertainties for all resource types by modeling low, medium, and high sensitivities.⁸ However, CEERT is pleased to see that the Proposed Decision states that these recommendations will be considered in the next IRP cycle.⁹

III.
CEERT SUPPORTS THE ADOPTION OF THE 25 MMT CORE PORTFOLIO AS PSP TO BE USED IN THE RELIABILITY AND POLICY-DRIVEN BASE CASE FOR THE 2024-2025 TRANSMISSION PLANNING PROCESS

The Proposed Decision orders that the “Core portfolio based on the 25 million metric ton greenhouse gas target by 2035, ..., is adopted as the portfolio for the preferred system plan for 2023.”¹⁰ The Proposed Decision further directs the Commission to transmit the PSP to the CAISO for use in its 2024-2025 Transmission planning Process (TPP).¹¹ As noted in the Proposed Decision, CEERT previously supported the selection of the 25 MMT Core portfolio as the PSP portfolio.¹² The 25 MMT Core portfolio meets the aggressive steps that must be taken to meet Senate Bill (SB) 100 which requires that all retail electricity sold must come from

⁶ Proposed Decision, at p. 4.

⁷ *Id.*, at p. 112 (Finding of Fact 19).

⁸ *Id.*, at pp. 59-60.

⁹ *Id.*, at p. 59.

¹⁰ *Id.*, at p. 120 (Ordering Paragraph 10).

¹¹ *Id.*, at p. 120 (Ordering Paragraph 11).

¹² *Id.*, at p. 56.

renewable resources and zero-carbon resources by 2045. As such, CEERT is pleased that the Commission is adopting this PSP in the Proposed Decision.

**IV.
CEERT SUPPORTS THE HIGH GAS RETIREMENT SCENARIO AS A POLICY
DRIVEN SENSITIVITY FOR THE 2024-2025 TPP**

The Proposed Decision directs the Commission to transmit the CAISO “the High Retirement sensitivity as a policy-driven sensitivity portfolio to be analyzed in the 2024-2025 Transmission Planning Process.”¹³ CEERT agrees with this determination and agrees with the Proposed Decision that “[p]lanning for the potential future retirement of natural gas plants is important for California to meet the SB 100 requirements and GHG emissions goals by 2045.”¹⁴

CEERT also supports the decision to delegate “the mapping of resources to busbars associated with the policy-driven sensitivity portfolio to be transmitted to the CAISO after the adoption of this decision” to Commission staff.¹⁵ However, CEERT recommends that the Commission conduct a public workshop on the proposed busbar mapping for the sensitivity case to ensure transparency and better understanding by stakeholders.

**V.
CEERT SUPPORTS MAINTAINING 1.6 GW OF OFFSHORE WIND MAPPED TO THE
NORTH COAST (HUMBOLDT) AREA**

CEERT supports the Proposed Decision’s inclusion of 1.6 GW of offshore wind in the North Coast (Humboldt) area in the 2023-2024 TPP base case portfolio,¹⁶ but there continues to be a need to closely monitor costs and schedule for deployment in future cycles of the IRP. Transmission expansion for this resource needs to adopt a least-regret approach which likely will favor the use of offshore High Voltage Direct Current (HVDC) technologies that can be

¹³ Proposed Decision, at p. 120 (Ordering Paragraph 12).

¹⁴ *Id.*, at p. 76.

¹⁵ *Id.*, at p. 120 (Ordering Paragraph 13).

¹⁶ *Id.*, at pp. 70-71.

expanded or modified. Also, as previously recommended by CEERT, the Commission needs to evaluate the HVDC transmission project that was modeled in the CAISO special study on Aliso Canyon in the 2022-2023 regarding the benefits of the HVDC cable in reducing dependence on natural gas plants in the Los Angeles Basin as local capacity resources. The HVDC cable from the Diablo Canyon switchyard into the Los Angeles area near Los Angeles International Airport will also reduce south-to-north congestion on Paths 26 and 15 and costly curtailment.¹⁷

**VI.
THE PROPOSED DECISION CORRECTLY DENIES THE PETITION FOR
MODIFICATIONS RELATED TO DIABLO CANYON REPLACEMENT RESOURCES**

The Proposed Decision denies SCE and PG&E's PFM of D.21-06-035 "seeking an extension of two years for the procurement of the category of resources designed to replace a portion of the energy from the Diablo Canyon Power Plant (Diablo Canyon)."¹⁸ CEERT shares the concerns outlined in the Proposed Decision that any delay the Commission "might grant could have a reliability impact in the near term, even if the Diablo Canyon Power Plant itself stays online during this period."¹⁹ More importantly, CEERT is concerned about the deferral of the procurement of the non-carbon sources of energy that would be needed if Diablo Canyon retires earlier than assumed so that there is not a spike in GHG emissions. Even if Diablo continues to operate to 2030 the additional GHG reduction will help accelerate the achievement of the 25 MMT target. CEERT also agrees that granting the PFM "now could have serious impacts ... for fairness and equity between LSEs."²⁰

¹⁷ CEERT Opening Comments on Administrative Law Judge's Ruling Seeking Comment on Proposed 2023 Preferred System Plan and Transmission Planning Process Portfolios, submitted in this proceeding on November 13, 2023, at p. 8.

¹⁸ Proposed Decision, at pp. 10 and 120 (Ordering Paragraph 14).

¹⁹ *Id.*, at p. 88.

²⁰ *Id.*, at p. 89.

VII.
**THE PROPOSED DECISION CORRECTLY GRANTS COMPLIANCE EXTENSION
FOR LLT RESOURCES BEYOND 2028**

CEERT supports the Proposed Decision’s Ordering Paragraph 19 which states:

Any load-serving entity that does not meet its required long lead-time (LLT) procurement requirements in Decisions (D.) 21-06-035 and D.23-02-040 by June 1, 2028 shall procure an equal amount (in net qualifying capacity) of bridge or long-term resources that otherwise meet the characteristics required for generic procurement in D.21-06-035, to cover the shortfall until its LLT resources come online, from June 1, 2028 through June 1, 2031, at a minimum.²¹

CEERT agrees with the Proposed Decision that “[a]llowing generation and storage resources in CAISO interconnection Cluster 14 and Cluster 15 to compete for contracts to deliver LLT resources would make the process more competitive, but would also likely require compliance deadline extensions beyond June 1, 2028.”²² CEERT shares the position of many parties that allowing Cluster 14 and Cluster 15 projects to compete would create a larger bidder pool and likely lead to lower costs.²³

VIII.
**CEERT SUPPORTS THE ADOPTION OF A 0.1 LOLE STANDARD, A PRM BASED ON
GROSS PEAK, AND USE OF AN ELCC-BASED COUNTING METHODOLOGY AS AN
INTERIM APPROACH**

CEERT supports the adoption of a 0.1 LOLE standard, a PRM based on gross peak, and use of an ELCC-based counting methodology but only as an interim policy until the Commission can harmonize this approach with the slice-of-day approach proposed for use in the Resource Adequacy Program.²⁴ The Commission should immediately begin a public process for examining and harmonizing the differing approaches to assuring reliability in the resource

²¹ Proposed Decision, at pp. 121-122 (Ordering Paragraph 19).

²² *Id.*, at p. 116 (Conclusion of Law 17).

²³ *Id.*, at p. 92.

²⁴ *Id.*, at p. 122 (Ordering Paragraph 21).

adequacy and IRP programs. CEERT recommends that this be a top priority activity for the Commission in 2024 and 2025.

IX.
THERE CONTINUE TO BE DISCREPANCIES BETWEEN RESOLVE AND SERVM

CEERT has previously outlined its concerns with the continued use of RESOLVE and SERVM in the IRP process and continues to note that “[i]t has been apparent for several planning cycles that RESOLVE produces reliability and greenhouse emission results that are divergent with the Commission’s production cost model, SERVM.”²⁵ The Proposed Decision reflects the continuing large discrepancies in the GHG emission calculations between RESOLVE and SERVM.²⁶ CEERT once again recommends that the Commission evaluate alternative capacity expansion models particularly in light of the fact that the Proposed Decision authorizes \$18 million from the investor-owned utilities (IOUs) to support the Commission’s IRP work over the next six years.²⁷

X.
FINDING OF FACT 19 SHOULD BE MODIFIED REGARDING THE POTENTIAL FOR A RELIABILITY SHORTFALL IN 2025

Finding of Fact 19 declares that “there is a potential reliability shortfall to the reliability standard for the electric system in 2025, even if the procurement already ordered in D.21-06-035 comes online on time.”²⁸ This Finding of Fact is overstated and should be eliminated.

The October 5, 2023 Administrative Law Judge’s Ruling Seeking Comment on Proposed 2023 Preferred System Plan and Transmission Planning Process Portfolios (October 5 ALJ Ruling) included a staff reliability analysis that included additional production cost modeling of

²⁵ CEERT Opening Comments on Administrative Law Judge’s Ruling Seeking Comment on Proposed 2023 Preferred System Plan and Transmission Planning Process Portfolios, submitted in this proceeding on November 13, 2023, at p. 2.

²⁶ Proposed Decision, at p. 67 (Table 5).

²⁷ *Id.*, at p. 122 (Ordering Paragraph 22).

²⁸ *Id.*, at p. 112 (Finding of Fact 19).

the proposed PSP from 2024 through 2028.²⁹ The modeling assumed that the Diablo Canyon nuclear units would not be available for reliability with Unit 1 retiring after the summer of 2024 and Unit 2 retiring after the summer of 2025. The capacity of Diablo Unit 1 is 1138 megawatts and the capacity of Diablo Unit 2 is 1118 megawatts.

The results of the reliability analysis using a 0.1 Loss of Load Expectation standard are displayed in the following table that first excludes and then includes the capacity from the Diablo Canyon nuclear power plant. Mid-Term Reliability (MTR) stands for the amount of capacity to be procured in accordance with the Mid-Term Reliability Procurement Order (D.21-06-035).

Year	2024 (MW)	2025 (M2)	2026 (MW)	2027 (MW)	2028 (MW)
MTR Procurement Cumulative	8,000	9,500	11,500	13,500	15,500
MTR Reliability Surplus (Gap)	1,581	(1,078)	1,000	780	2,750
Additional Diablo Capacity	0	1,138	2,256	2,256	2,256
Reliability Surplus Capacity with Diablo	1,581	60	3,256	3,036	5,006

The staff reliability analysis also included a sensitivity case in which it was assumed that 40% of the MTR ordered capacity (mostly batteries) would be delayed for one year. The target procurement for 2023 was 2,000 megawatts. A 40% shortfall would mean that as much as 800 megawatts of batteries would be delayed and only 1,200 megawatts would be procured in 2023.

CAISO data shows what actually happened in 2023. As of January 31, 2023 the CAISO reported that there were 4,515 megawatts of battery storage projects participating in the CAISO

²⁹ October 5 ALJ Ruling, at pp. 30-35.

wholesale market.³⁰ As of December 31, 2023 there were 7,188 megawatts of battery storage.³¹ The increase in battery capacity totaled 2,673 megawatts, thus exceeding the MTR procurement order target of 2,000 megawatts by 673 megawatts.³²

In 2022, when Assembly Bill (AB) 205 and Senate Bill (SB) 846 were enacted, there was a concern that there could be delays in battery procurement because of disruption to global supply chains brought about by the pandemic. However, it is now clear that the projects developers have been able to procure the necessary equipment and complete projects ahead of schedule.

CEERT requests that Finding of Fact 19 be modified to recognize these facts and not exaggerate the risk of failing to meet the 0.1 LOLE standard in 2025.

XI. CONCLUSION

CEERT appreciates the opportunity to comment on this Proposed Decision. CEERT urges the Commission to adopt CEERT's recommendations addressed above and included in CEERT's Proposed Modifications to the Proposed Decision's Findings of Fact, Conclusions of Law, and Ordering Paragraphs, attached hereto as Appendix A.

Respectfully submitted,

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/s/ MEGAN M. MYERS
Megan M. Myers
Attorney for Center for Energy Efficiency
and Renewable Technologies
110 Oxford Street
San Francisco, CA 94134
Telephone: (415) 994-1616
E-mail: meganmmyers@yahoo.com

³⁰ CAISO Key Statistics for January 2023 which can be found here:
<http://www.caiso.com/Documents/Key-Statistics-Jan-2023.pdf>

³¹ CAISO Key Statistics for December 2023 which can be found here:
<http://www.caiso.com/Documents/Key-Statistics-Dec-2023.pdf>

³² MTR targeted procurement for 2023 was 2,000 MW vs. actual procurement of 2,673 MW. (See October 5 ALJ Ruling, at p. 45 – Table 8 -Row A, 2023.)

APPENDIX A

CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDERING PARAGRAPHS FOR THE PROPOSED DECISION ADOPTING 2023 PREFERRED SYSTEM PLAN AND RELATED MATTERS, AND ADDRESSING TWO PETITIONS FOR MODIFICATIONS

Center for Energy Efficiency and Renewable Technologies (CEERT) proposes the following modifications to the Findings of Fact, Conclusions of Law, and Ordering Paragraphs in the Proposed Decision Adopting 2023 Preferred System Plan and Related Matters, and Addressing Two Petitions for Modification, mailed in R.20-05-003 on January 10, 2024 (Proposed Decision).

Please note the following:

- A page citation to the Proposed Decision is provided in brackets for each Finding of Fact, Conclusion of Law, or Ordering Paragraphs for which a modification is proposed.
- Added language is indicated by **bold type**; removed language is indicated by **bold strike-through**.
- A new or added Finding of Fact, Conclusion of Law, or Ordering Paragraph is labeled as “NEW” in **bold underscored** capital letters.

PROPOSED FINDINGS OF FACT:

~~19. [112] Commission staff analysis shows that there is a potential reliability shortfall to the reliability standard for the electric system in 2025, even if the procurement already ordered in D.21-06-035 comes online on time.~~

PROPOSED CONCLUSIONS OF LAW:

13. [115] The Commission should maintain 1.6 GW of offshore wind mapped to the North Coast/Humboldt area in the base case for the 2024-2025 TPP **with ongoing monitoring of project costs and schedule**, to be consistent with the prior portfolio and the plans of individual LSEs in the Core scenario.

23. [117] The Commission should adopt a high-level reliability framework for IRP planning, consisting of the 0.1 LOLE standard to calculate reliability need, a PRM based on gross peak, and an ELCC-based counting methodology **but only on an interim basis until the Commission can harmonize this approach with the slice-of-day approach proposed for use in the Resource Adequacy program. The Commission should maintain the use of marginal reliability need and marginal ELCC metrics for use in LSE plans in the next cycle of IRP.**

PROPOSED ORDERING PARAGRAPHS:

13. [120] The Commission delegates to Commission staff, in consultation with the staff of the California Energy Commission and California Independent System Operator (CAISO), the mapping of resources to busbars associated with the policy-driven sensitivity portfolio to be transmitted to the CAISO after the adoption of this decision **and Commission staff shall conduct a public workshop on busbar mapping for the sensitivity case.**

21. [122] The integrated resource planning process shall utilize a reliability framework where a 0.1 loss of load expectation shall be used to determine resource needs, a planning reserve margin shall be based on perfect capacity off of a gross peak load, and resource counting shall be done using effective load carrying capability (ELCC) estimates **on an interim basis until the Commission can harmonize this approach with slice-of-day approach proposed for use in the Resource Adequacy program. that shall be updated and published periodically by Commission staff.** Load serving entity plans shall utilize marginal reliability need and marginal ELCCs. This high-level framework shall remain in place until the Commission modifies it in coordination and consultation with the resource adequacy program aimed at shorter-term reliability for the electricity system.

NEW. Commission staff is directed to evaluate alternate capacity expansion models.