

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 ORDERING SUPPLEMENTAL MID-TERM RELIABILITY  
PROCUREMENT (2026-2027) AND TRANSMITTING ELECTRIC RESOURCE  
PORTFOLIOS TO CALIFORNIA INDEPENDENT SYSTEM OPERATOR FOR 2023-2024  
TRANSMISSION PLANNING PROCESS**

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For: CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES

February 2, 2023

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Order Instituting Rulemaking to Continue  
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Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submits these Opening Comments on the 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 (Proposed Decision), mailed in this proceeding on January 13, 2023. 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. Attachment A to this Proposed Decision is the Methodology for Resource-to-Busbar Mapping & Assumptions for the Annual Transmission Planning Process (Attachment A).

**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 is pleased to see that the Proposed Decision recommend supplemental mid-term reliability procurement of at least 4,000 MW, although we have concerns about whether load-serving entities (LSEs) will be able to meet nearer-term procurement mandates required by D.21-06-035.<sup>1</sup> CEERT's concerns about mid-term reliability are heightened by the possibility that the Diablo Canyon power plant may not be available after 2025 due to uncertainty about the extension of its nuclear license by the Nuclear Regulatory Commission.

The Proposed Decision correctly notes that there are a number of other factors that contribute to the need for additional procurement including the likelihood of extreme weather events, increasing demand beyond level forecasted by the California Energy Commission (CEC), decreasing availability of imported electricity and the likely retirement of older fossil generation.<sup>2</sup> However, additional reliability measures such as increased commitment to development of distributed energy resources and implementation of demand response and targeted energy efficiency measures will also be needed to assure system reliability during the summers of 2025 and 2026.

CEERT is also pleased with the recommendations made regarding the base case and sensitivity portfolios to be used in the California Independent System Operator (CAISO) in its 2023-2024 Transmission Planning Process (TPP).<sup>3</sup> CEERT is particularly pleased that the

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<sup>1</sup> Proposed Decision, at p. 2.

<sup>2</sup> *Id.*, at pp. 6-7.

<sup>3</sup> *Id.*, at p. 3.

Commission is recommending that a 12-year planning horizon be used for the base case which has a 30 million metric (MMT) ton 2030 greenhouse gas (GHG) target and uses a high load scenario.<sup>4</sup> However, an even longer term planning horizon of 20 years is needed in the future to ensure that sufficient transmission is built to serve even higher amounts of electric load from electrification and from the opportunity to produce green hydrogen for difficult-to-abate sources of GHG emissions.

Building transmission fast enough to integrate the vast amounts of renewable energy in the 30 MMT portfolio will be a limiting factor in meeting the state's decarbonization goal. The Inflation Reduction Act (IRA) creates the opportunity for a very competitive market for new clean energy resources. However, without sufficient transmission including a reasonable reserve margin the full potential of that market could be missed.

CEERT understands that it is reasonable that the CAISO TPP analyze the transmission needed to integrate a significant amount of offshore wind as specified in the sensitivity scenario. CEERT strongly supports the early development of multi-purpose transmission lines such as a subsea high voltage direct current cable that would connect offshore wind resources and/or Central Valley based solar and storage resources with load in the Los Angeles Basin. Multi-purpose transmission lines should be able to improve system reliability when natural gas resources, particularly those impacting disadvantaged communities, are retired. In the future CEERT recommends that sensitivity scenarios be developed for transmission planning that includes the higher levels of natural gas plant retirements.

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<sup>4</sup> Proposed, Decision, at p. 3.

**III.  
LOAD-SERVING ENTITIES SHOULD BE ALLOWED TO SWAP CLEAN ENERGY  
PROJECTS INCLUDED IN THE D.19-11-016 AND/OR D.21-06-035 BASELINE  
GENERATOR LIST TO MEET NEAR-TERM COMPLIANCE OBLIGATIONS AS  
LONG AS THEY COMMIT TO ADD AN EQUIVALENT NET QUALIFYING  
CAPACITY AT A LATER DATE**

CEERT understands that there is a need to make adjustments to the lists of baseline projects as a result of delays in the completion of certain projects. The reliability of the electric system should still benefit from these projects coming on-line. Therefore, it is reasonable to increase the flexibility for load-serving entities (LSEs) to shift the timing of procurement necessary to meet their obligations under the two previous procurement orders. Procurement of new resources is inherently uncertain in particular due to disruptions in key supply chains that support renewable energy and battery storage technologies.

Although it is not addressed in this Proposed Decision, LSEs should be given more opportunities to also procure distributed energy resources and enact load management programs that reduce the longer term need for procurement.

In addition, LSEs should be required to obtain an additional 2,000 MW net qualifying capacity (NQC) of carbon-free resources by June 2026 and another 2,000 MW NQC by June 2027. The Commission has been criticized for delaying procurement orders until there is a clear near-term expectation that system reliability problems are emerging. This so-called “just-in-time” approach to procurement can be costly due to the short timeframes for soliciting, financing, constructing and commissioning new projects. It is important that the Commission use its integrated planning process to order procurement well ahead of future reliability needs in order to assure that there is sufficient transmission to deliver the new resources to load. Available transmission is becoming increasingly scarce and piecemeal transmission upgrades triggered by

the interconnection process to assure deliverability for specific projects can be suboptimal from a total cost perspective.

CEERT agrees with the Environmental Defense Fund (EDF) that this additional procurement order should not derail the Commission's effort to development a more programmatic approach to procurement that is driven by longer-term needs revealed through the integrated planning process.<sup>5</sup> Nevertheless, it is clear that at least 4,000 megawatts of additional clean energy resources is needed by the summer of 2027.

**IV.  
LSES SHOULD PROCURE THE 2,000 MW OF LONG-LEAD TIME RESOURCES  
REQUIRED IN D.21-06-035 BY JUNE 2028 WITHOUT PENALTIES**

CEERT strongly supports the diversification of California's sources of clean energy generation and has supported the procurement of geothermal generation and long-duration storage. CEERT understands that these resources may require the installation of incremental transmission to make them fully deliverable and financeable. CEERT, therefore, agrees with the proposed order that LSEs be allowed to meet their long-lead time obligations at any time through 2028.<sup>6</sup> It is CEERT's understanding that this change to LSE obligations will still result in at least 6,000 megawatts of new clean energy resources being between 2026 and 2028.

**V.  
BACKSTOP PROCUREMENT SHOULD BE TRIGGERED IF THERE ARE  
IDENTIFIED NEEDS FOLLOWING THE SUBMITTAL IN FEBRUARY 2023 OF  
PROCUREMENT FILINGS BY LSES**

CEERT supports providing LSEs with the flexibility needed to meet the Commission's procurement orders in a timely manner including the procurement of long-lead time resources. The backstop provisions of D.20-12-044 requires bi-annual procurement data filings from LSEs. These good faith showings of procurement progress should be required, as recommended in the

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<sup>5</sup> Proposed Decision, at p. 21.

<sup>6</sup> *Id.*, at pp. 69-70 (Ordering Paragraph 2).

Proposed Decision, at least through 2028 to assure that the Commission’s procurement orders are being effectively implemented.

Backstop procurement is preferable to penalties for an LSE failure to meet procurement order requirements. If backstop procurement is done with sufficient anticipation and with appropriate cost reimbursement to the procurement entity, then progress in meeting the state’s reliability and GHG reduction needs should continue on track. The first opportunity to assess the need for backstop procurement will be following the submittal in February 2023 of procurement filings by LSEs.

**VI.  
THE 30 MMT HIGH LOAD RESOURCE PORTFOLIO SHOULD BE ADOPTED FOR  
THE BASE CASE SCENARIO ALONG WITH THE RECOGNITION THAT IT WILL  
STILL BE INSUFFICIENT FOR LONGER-TERM TRANSMISSION PLANNING**

CEERT agrees that the 30 MMT greenhouse gas (GHG) target for 2030 is an appropriate interim target on the path to full decarbonization of the electric sector by 2045. CEERT recognizes that the recommended resource portfolio identifies a need for approximately 86 gigawatts of new clean energy nameplate capacity. Even considering that a significant portion of battery storage capacity will be paired with solar and other renewable technologies there will still be a very large increase in net qualifying capacity to meet growing electrification loads and to mitigate the risk of extreme weather events.

Nonetheless, more resources and transmission will be needed than is included in the base case portfolio. The 2040 Starting Point Scenario used by the CAISO in its 20-Year Transmission Outlook Report had nearly 121 GW of new clean energy resources.<sup>7</sup> Further decarbonization of hard-to-abate sectors of the economy through the production of green hydrogen and its derivatives would require even more clean energy resources.

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<sup>7</sup> CAISO 20-Year Transmission Outlook Report, at p. 19.

CEERT appreciates that the use of a 12-year planning horizon for evaluating the need for transmission is an improvement from the 10-year approach that has been used historically by the Commission and the CAISO. However, it is still inadequate to plan for the state's transmission needs given the magnitude of new clean energy resources that need to be added to the grid. In the most recent Federal Energy Regulatory Commission (FERC) Notice of Proposed Rulemaking (NOPR) on regional transmission planning, a 20-year planning horizon is recommended as a best practice for transmission planning entities. CEERT recommends in the subsequent IRP cycle that the Commission adopt a 20-year planning horizon.

**VII.  
SUBMITTAL OF A SINGLE SENSITIVITY CASE IN THIS PLANNING CYCLE TO  
THE CAISO FOR THE STUDY OF TRANSMISSION NEEDED TO SUPPORT  
OFFSHORE WIND DEVELOPMENT IS REASONABLE**

CEERT understands that for the 2023-24 TPP cycle that the Proposed Decision is recommending that only one sensitivity case be studied by the CAISO. It would have been preferable to study two sensitivity scenarios including one with a higher level of geothermal, solar and storage resources. However, CEERT respects the CAISO's concern about another sensitivity case requiring substantial CAISO staff time commitments and we agree that a 13 GW offshore wind sensitivity is appropriate.

CEERT is sympathetic to the recommendation of California Environmental Justice Alliance (CEJA) and the Sierra Club that a gas retirement scenario be studied and strongly recommend that the Commission develop such a sensitivity portfolio in the future.<sup>8</sup>

**VIII.  
CONCLUSION**

CEERT appreciates the opportunity to comment on this Proposed Decision. CEERT recommends that the Proposed Decision be modified as shown in Appendix A. CEERT urges

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<sup>8</sup> Proposed Decision, at p. 58.



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,

February 2, 2023

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## APPENDIX A

### **CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDERING PARAGRAPHS FOR THE 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**

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 Ordering Supplemental Mid-Term Reliability Procurement (2026-2027) and Transmitting Electric Resource Portfolios to California Independent System Operator for 2023-2024 Transmission Planning Process, mailed in R.20-05-003 on January 13, 2023 (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:**

5. [63-64] Allowing LSEs to swap out resources that were listed on the D.19-11-016 and/or the D.21-06-035 baseline resource list and count them toward either decision’s procurement obligations, while adding a commensurate procurement obligation to the individual LSE in 2025, will help contribute to electric system reliability. **LSEs are allowed to include demand side management and targeted energy efficiency measures as well as procurement of distributed energy resources that help contribute to electric system reliability.**

7. [64] Since D.21-06-035 was issued, the CEC has increased the demand forecast and California has been facing the accelerating impacts of climate change. Other exogenous factors, such as increasing penetration of electric vehicle, decreasing availability of imports, increasing building electrification, increasing penetration of air conditioning, etc. have also added additional pressure to the reliability of the electric system. **The risk that the capacity represented by the Diablo Canyon nuclear power plant may not be in 2026 could also impact the reliability of the electric system.**

8. [64] 4,000 MW of NQC, ~~divided evenly between~~ procured for 2026 and 2027, will increase the reliability of the electric grid.

14. [65] The Commission should evaluate electric resource portfolios utilized for TPP purposes using a twelve-year planning horizon, now including 2035, to align with the CAISO and CEC planning efforts **in the 2023-24 transmission planning cycle.**

15. [65] The electric resource portfolio that meets a 30 MMT GHG emissions target by 2030 with the demand forecast based on the Additional Transportation Electrification scenario will help identify transmission earlier, since it takes longer to develop transmission compared to generation or storage resources. **Future resource plans will likely need to use a longer planning horizon to assure the development of needed transmission.**

17. [65] The electric resource portfolio that meets a 30 MMT GHG emissions target based on updated assumptions includes significantly more renewables and storage resources than the previous portfolio analyzed by the CAISO in its previous TPP. **However, the amounts of renewable and storage resources are still less than is identified in longer-term scenarios such as the 2040 Starting Point Scenarios used in the CAISO's 20-Year Transmission Outlook Report.**

19. [65] Best practices in transmission planning include cyclical annual study of portfolios that achieve greater GHG reductions and include the need for transmission to support deliverability of the portfolios in a linear fashion, building on prior annual analyses. **Best practices in transmission planning suggest the use of a 20-year planning horizon.**

**PROPOSED CONCLUSIONS OF LAW:**

10. [67] Backstop procurement **should be evaluated following the February 2023 procurement data submittals by LSEs** and, if ordered, should be covered and the costs allocated for a period of ten years.

11. [67] Energy and storage contracts to comply with the D.21-06-035 category of resources to replace Diablo Canyon capacity should be able to be procured separately, but must be contracted by the LSE that is claiming them for compliance purposes. Energy-only contracts may also be used, but only if they can demonstrate by engineering assessment that the energy delivered will be sufficient to charge the batteries **and for daily** discharge according to the D.21-06-035 and staff FAQ document requirements.

19. [68] The Commission should seek CAISO TPP analysis of one sensitivity case in this TPP cycle: a case that tests the transmission needs of a significant amount of offshore wind **and adopts a least regrets approach to identifying multi-purpose transmission lines. The Commission should seek to include a natural gas power plant retirement scenario for future transmission planning cycles.**