

**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

**CALIFORNIA WIND ENERGY ASSOCIATION  
REPLY COMMENTS ON ADMINISTRATIVE LAW JUDGE'S RULING  
SEEKING COMMENTS ON ELECTRICITY RESOURCE PORTFOLIOS  
FOR 2025-2026 TRANSMISSION PLANNING PROCESS**

Nancy Rader  
Executive Director  
California Wind Energy Association  
1700 Shattuck Ave., #17  
Berkeley, CA 94709  
Telephone: 510-845-5077 x1  
E-mail: [nrader@calwea.org](mailto:nrader@calwea.org)

***On behalf of the California Wind  
Energy Association***

October 7, 2024

**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

**CALIFORNIA WIND ENERGY ASSOCIATION**  
**REPLY COMMENTS ON ADMINISTRATIVE LAW JUDGE’S RULING**  
**SEEKING COMMENTS ON ELECTRICITY RESOURCE PORTFOLIOS**  
**FOR 2025-2026 TRANSMISSION PLANNING PROCESS**

**I. INTRODUCTION AND SUMMARY**

Pursuant to the *Ruling Seeking Comments on Electricity Resource Portfolios for 2025-2026 Transmission Planning Process* (“Ruling”) issued by Administrative Law Judge Julie Fitch on September 11, 2024, the California Wind Energy Association (“CalWEA”) provides these replies to certain parties’ opening comments on the questions posed in the Ruling.<sup>1</sup>

In summary:

- CalWEA agrees with PG&E and other parties calling on the Commission to align its resource plan with the CAISO’s transmission development and interconnection processes by providing direction to CAISO to reserve Transmission Planning Deliverability (“TPD”) capacity for the location-specific, long-lead-time (“LLT”) resources (e.g., offshore wind, onshore wind, geothermal and location-specific long-duration storage)

---

<sup>1</sup> CalWEA replies to the comments of American Clean Power – California (“ACP-California”), California Independent System Operator (“CAISO”), California Environmental Justice Alliance and Sierra Club (“CEJA-Sierra Club”), California Western Grid Development LLC (“Cal-Western”), Golden State Clean Energy (“GSCE”), Green Power Institute (“GPI”), Invenergy California Offshore LLC (“Invenergy”), Pacific Gas & Electric Company (“PG&E”), the Public Advocates Office at the California Public Utilities Commission (“Cal Advocates”), RWE Offshore Wind Holdings, LLC (“RWE”), Sonoma Clean Power Authority (“SCP”), and Vineyard Offshore, LLC (“Vineyard Offshore”). All references are to parties’ September 30, 2024, opening comments unless otherwise noted.

included in the CPUC's planning portfolio. Absent such alignment, the Commission's portfolio, and thus the state's greenhouse gas ("GHG") reduction goals, cannot be realized.

- CalWEA concurs with GSCE that the Commission's long-term resource portfolios have "serially under-planned" for new clean energy resources in Northern California, and that RESOLVE's limitations must be overcome by modifying the base case portfolio to enable CAISO to address, using "least regrets" planning, the major transmission constraints that will prevent the utilization of desirable renewable energy resources and gas plant retirements, in addition to grid reliability and economic concerns, in the 2025-26 TPP process. The Commission should modify the base case resource portfolio as follows:
  - 7.6 GW of offshore wind ("OSW") should be included in the base case portfolio, and, as Invenegy advocates, 5.3 GW of that capacity should be located at the Central Coast.<sup>2</sup> The transmission system upgrades needed at the Central Coast are relatively limited and, if not ultimately used for OSW, are highly likely to be used and useful for other resources and system needs and would thus be least regrets upgrades.
  - The balance of 2.3 GW of OSW can be accommodated on the same upgrade currently being planned for 1.6 GW of Humboldt OSW that, with careful planning, can also provide system benefits to assure least regrets investments.
  - As CalWEA explained in opening comments, Northern California wind resources should be converted from energy-only deliverability status ("EODS") to full capacity deliverability status ("FCDS").
- The Commission should also address RESOLVE's limitations by requesting that CAISO resolve North-South path constraints to address the congestion and reliability issues raised by GSCE and to address many parties' concerns over the proposed portfolio's increased reliance on gas. At a minimum, the Commission should heed Cal-Western's suggestion and request that CAISO study and verify the Ruling's assumption that gas generation will be significantly reduced if all existing gas-fired capacity is retained and

---

<sup>2</sup> CalWEA also supports Invenegy's proposal for planning an optimal Central Coast substation hub. Development of the hub can be accomplished later, in sync with the development of Central Coast OSW projects rather than as part of the 2025-26 TPP.

request that, if CAISO finds otherwise, it plan for transmission upgrades necessary to enable local area gas generation to be significantly reduced by 2035, as required by law.

- CalWEA shares SCP’s concerns regarding the increasing dependency of the Commission’s portfolios on out-of-state, non-CAISO resources, which underscores the importances of careful and accurate planning to promote CAISO wind resources and the prioritization of in-state transmission infrastructure for those resources.
- The 1,700 MW of Tehachapi wind resources identified in busbar mapping should revert to no more than 800 MW, given serious military and avian conflicts in that area.
- CalWEA agrees with GridLiance West that the CPUC portfolio should emphasize the importance of the Trout Canyon-Lugo 500kV upgrade given its role in integrating large amounts of cost-effective and diverse renewable resources in the East of Pisgah CAISO area, which was identified as needed in previous CAISO plans.
- CalWEA agrees with Cal Advocates, SCP, PG&E, and other parties that the proposed portfolios be studied for reliability and urges that this be done on a 24-hourly basis.

## II. REPLY COMMENTS

These reply comments are organized by three of the questions posed in the Ruling (1, 2, and 7).

### 1. **Please provide any comments or concerns about the updated modeling inputs and assumptions described in Section 2 of this ruling.**

CalWEA has two reply comments on this topic.

First, CalWEA concurs with GSCE that the Commission’s long-term resource portfolios have “serially under-planned” for new clean energy resources in Northern California, and that the Commission must address the fact that RESOLVE does not capture major transmission flow limitations inside the CAISO footprint, including on Path 15 and Path 26, and thus fails to account for congestion costs associated with Southern California resources.<sup>3</sup> To remedy this problem, CalWEA agrees with GSCE that the Commission should overcome RESOLVE’s limitations, as well as potential inaccuracies in the busbar mapping process, by modifying the proposed resource portfolio such that CAISO may address major transmission constraints

---

<sup>3</sup> GSCE at pp. 2-3.

preventing the utilization of desirable energy resources, in addition to grid reliability and economic concerns, in the ensuing TPP process. We address these modifications in response to Question 2.

Second, CalWEA agrees with Cal Advocates, PG&E, and SCP that the proposed portfolios should be further scrutinized for reliability and urges that this be done on a 24-hourly basis. Cal Advocates notes that it is not apparent that the Commission will conduct loss-of-load-expectation (“LOLE”) testing for the proposed portfolios and that this is necessary to verify that the portfolios achieve the Commission’s adopted 0.1 LOLE reliability standard, particularly given the significantly higher 2023 IEPR gross peak load forecast.<sup>4</sup> In view of that higher forecast, PG&E notes that the CAISO system is likely to be closer to a “dual peaking” system and recommends that the CPUC review and update the effective load carrying capacity (“ELCC”) values and 37-day hourly samples used in RESOLVE to ensure RESOLVE is properly incorporating the latest load forecast.<sup>5</sup> SCP similarly raises concerns that the increased load forecast and longer planning horizon could pose reliability challenges that are not captured in the ELCC values used in RESOLVE, particularly given increased winter loads that may understate the need for more wind and geothermal resources that are more geographically constrained and dependent on proactive transmission planning.<sup>6</sup>

These concerns underscore CalWEA’s previously stated concern that the ELCC analysis included in the RESOLVE analysis is based on a single-hour planning reserve margin rather than considering both capacity and energy needs across all hours of a representative peak load day in a given month of the year.<sup>7</sup> Therefore, the Commission should evaluate resources under the 24-hourly “slice-of-day” reliability framework being implemented in the Resource Adequacy program to more fully evaluate the reliability value and integration costs of all resources.

---

<sup>4</sup> Cal Advocates at pp. 3-4.

<sup>5</sup> PG&E at p.2.

<sup>6</sup> SCP at p. 6. Related, CalWEA noted in opening comments that staff may have significantly underestimated the winter capacity values of Northern California wind resources.

<sup>7</sup> CalWEA at pp. 5-6.

**2. Do you recommend any changes to the proposed base case portfolio in Section 2 [actually Section 3] of this ruling? If so, provide rationale and justification for your recommended changes.**

As discussed in response to Question 1, the Commission should address the limitations in RESOLVE that have resulted in under-planning the Northern California system by modifying the proposed base case portfolio. These modifications are also warranted to enable achievement of the LLT resources that the Commission recently authorized for central procurement, given transmission lead time and the ability to conduct least-regrets transmission planning.

Planning carefully and accurately to promote in-state (CAISO-interconnected) wind resources is also very important to ensure that California does not become overly dependent on out-of-state, non-CAISO resources. SCP described several reasons for concern with the Commission's portfolios that are growing increasingly dependent on out-of-state resources. CalWEA agrees with SCP that the Commission should prioritize in-state/CAISO transmission infrastructure over out-of-state infrastructure.<sup>8</sup>

Finally, these modifications are supported by the fact that the aggregated LSE-selected portfolio from the 2022 Individual Integrated Resource Plans have become outdated, as GPI has explained,<sup>9</sup> and do not reflect the updated demand forecast or central procurement resource authorizations in D.24-08-064, which will displace solar and storage resources.

For all these reasons, the Commission should modify the base case portfolio as follows.

**(a) Include 7.6 GW of OSW in the base case portfolio.** 7.6 GW of OSW should be included in the base case portfolio as CalWEA and other offshore wind advocates strongly advised in opening comments,<sup>10</sup> and, as Invenergy advocates, 5.3 GW of that capacity should be located at the Central Coast.<sup>11</sup> The needed transmission system upgrades, if not ultimately used for OSW, are highly likely to be used and useful for other resources and system needs, including solar and storage in the Central Valley. Thus, they would be “least regrets” upgrades. As

---

<sup>8</sup> SCP at pp. 6-7.

<sup>9</sup> GPI at pp. 2-7.

<sup>10</sup> CalWEA at p. 3, ACP-California at p. 7, RWE at p. 3 (advocating planning for 10 GW), and Vineyard Offshore at p. 2.

<sup>11</sup> Invenergy at pp. 2-3. CalWEA also supports Invenergy's proposal for planning an optimal Central Coast substation hub. Development of the hub can be accomplished later, in sync with the development of Central Coast OSW projects rather than as part of the 2025-26 TPP.

CAISO cautioned, its 2025-2026 TPP likely will not approve transmission to support resource volumes in the sensitivity portfolio,<sup>12</sup> and thus making real progress requires that they be included in the base case portfolio.

As Invenergy noted,<sup>13</sup> PG&E has the right to repurpose Diablo Canyon’s interconnection for other resources, which could include storage. The Commission should work with PG&E to clarify the fate of this transmission capacity so that CAISO can plan necessary upgrades to enable 5.3 GW of OSW capacity should PG&E decide to repurpose Diablo.

In addition to Central Coast transmission upgrades being least-regrets, given Central Valley resource potential of various types and proximity to load centers, planning for 5.3 GW of OSW at the Central Coast is also advisable given the more limited upgrades that would be required, compared with the more extensive transmission upgrades needed for the North Coast.

The balance of 2.3 GW of OSW can be accommodated on the same upgrade being planned for 1.6 GW of Humboldt offshore wind. This can be done with careful planning that can also provide system benefits to assure least-regrets investments. Namely, additional upgrades can be made to the existing Pacific AC Intertie (“PACI”) and additional upgrades to address the transmission bottleneck at the Collinsville Switching Station.<sup>14</sup> These additional upgrades would make the Northern California upgrades planned in CAISO’s 2023-24 TPP least regrets as they would allow onshore Northern California wind as well as solar and storage resources to be integrated into the CAISO system in the event that offshore wind development does not materialize. As ACP California noted, upgrades to this area will also address longstanding needs in the Northwest area of the CAISO system.<sup>15</sup> The PACI and Collinsville upgrades would also improve the reliability and economics of grid operations for California and the WECC.

**(b) Plan for the most promising onshore California wind resources.**

- As CalWEA explained in opening comments,<sup>16</sup> RESOLVE’s conversion of wind resources in Northern California from FCDS to EODS also serves to under-plan

---

<sup>12</sup> CAISO at p. 2.

<sup>13</sup> Invenergy at p. 2, footnote 2.

<sup>14</sup> A short 500 kV line between Collinsville and Tesla can address the bottleneck at the Collinsville Substation.

<sup>15</sup> ACP-California at p. 6.

<sup>16</sup> See CalWEA response to Question 4.

transmission for Northern California wind resources and should be adjusted. Northern California is perhaps the most promising remaining area for onshore wind resource development.

- CalWEA calls attention to the 1,700 MW of Tehachapi wind resources identified in the 2025-26 busbar mapping; this figure should revert to the lower level in the previously adopted PSP portfolio (~800 MW). CalWEA member companies are very familiar with this area and advise that military conflicts and the presence of the California condor in otherwise promising areas make it unlikely that any more than 800 MW could be developed in this area.
- The base case portfolio should support the Trout Canyon-Lugo 500kV upgrade given its role in integrating large amounts of cost-effective, diverse renewable resources – including 711 MW of FCDS wind resources<sup>17</sup> – in the area known as East of Pisgah, which encompasses Eastern California and parts of Nevada immediately bordering California within the CAISO system.<sup>18</sup> This upgrade was already identified as needed in previous iterations of the CAISO TPP and the CAISO’s 20-year Outlook and was abandoned mainly for administrative reasons.

**(c) Resolve North-South path constraints.** The Commission should request that CAISO plan to resolve North-South path constraints (both Path 15 and Path 26). This would address the congestion and reliability issues raised by GSCE and would allow many parties’ concerns over the proposed portfolio’s increased reliance on gas to be addressed by resolving the transmission constraints into the Los Angeles Basin that will prevent the retirement of natural gas plants. CEJA-Sierra Club explain why the Ruling’s “no gas retirement” assumption is both wrong and inconsistent with the state’s commitment to significant reductions in gas use and Senate Bill (“SB”) 887, which requires the Commission to plan to “substantially reduce” the need for gas plants in local areas.

At a minimum, as Cal-Western advocates, the Commission should request that CAISO study and verify the Ruling’s assumption that gas generation will be significantly reduced while

---

<sup>17</sup> “2025-2026 TPP RESOLVE Modeling Results” (Sept. 12, 2024) (slide deck linked from the Ruling), at slide 65.

<sup>18</sup> Most such East of Pisgah resources are already in the CAISO queue which is a testimony to their commercial viability.



retaining all existing gas fired capacity, given CAISO’s ability to conduct much more granular and detailed analysis of local reliability needs. Further, as Cal-Western advocates, if CAISO finds otherwise, CAISO should plan for the transmission additions “necessary to allow the use of local area gas generation to be significantly reduced by 2035, as required by SB 887.”<sup>19</sup>

**7. Include any comments in response to this ruling that are not covered in the other questions above.**

For the state’s GHG goals to be timely met, the Commission must align integrated resource planning needs, transmission development, and interconnection processes. To accomplish this, CalWEA strongly concurs with PG&E that the Commission needs to provide direction to CAISO for when it should reserve Transmission Planning Deliverability (“TPD”) capacity for LLT resources and agrees with PG&E that capacity should be reserved for all location-specific LLT resources (e.g., offshore wind, onshore wind, geothermal and location-specific long-duration storage) included in the CPUC’s planning portfolio.<sup>20</sup> CalWEA explained the importance and urgent need for CPUC guidance on this issue at length in earlier comments in this proceeding.<sup>21</sup> Importantly, as HydroStor noted, if capacity is not reserved for these resources in the 2025-26 TPP cycle, planning for these resources will be delayed until Cluster 17, beginning in late 2027, with upgrades delayed until around 2037. Transmission upgrades will be needed to meet the Ruling’s 2035 onshore wind goal of 7.9 MW, if not its 2030 goal of 5.2 GW.

---

<sup>19</sup> Cal-Western at p. 2.

<sup>20</sup> PG&E at pp. 8-9.

<sup>21</sup> CalWEA Comments on Proposed Decision Determining Need for Centralized Procurement of Long Lead-Time Resource (August 8, 2024) at pp. 4-5. Available [here](#).

Respectfully submitted,

/s/ Nancy Rader

Nancy Rader Executive Director  
California Wind Energy Association  
1700 Shattuck Ave., #17  
Berkeley CA 94709  
Telephone: (510) 845-5077 x1  
Email: nrader@calwea.org

***On behalf of the California Wind Energy  
Association***

October 7, 2024