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Comment Received From: Janet Cox

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Request to revise the draft report

Additional submitted attachment is included below.





March 4, 2024

Chair David Hochschild and Commissioners California Energy Commission California Energy Commission Docket Unit MS-4 Docket No. 17-MISC-01 715 P Street Sacramento California 95814 Via email.

Comments on Assembly Bill 525 Draft Strategic Plan for Offshore Wind Development, released January 19, 2024

Chair Hochschild and Commissioners:

Since the signing of AB 525 in September 2021, we have eagerly anticipated the draft strategic plan the bill required, due by the end of June last year. Unfortunately, the draft plan released in January 2024 is neither effectively strategic nor an actionable plan.

The draft reiterates the requirements now in statute:

AB 525 requires the CEC in coordination with the California Coastal Commission, the Ocean Protection Council, the State Lands Commission, the Office of Planning and Research, the Department of Fish and Wildlife, the Governor's Office of Business and Economic Development, the California Independent System Operator, the California Public Utilities Commission, relevant federal, state, local agencies, tribal governments, and others, as needed, to develop a strategic plan for offshore wind energy developments installed off the California coast in federal waters.

Clearly, the Legislature was asking for a coordinated planning process that would move the development of floating offshore wind decisively forward. The mandate, now in law, was for a *strategic* plan that would delineate the roles and interrelationships of the many agencies and organizations listed.

A strategic plan is a guide for achieving a goal. California's goals for offshore wind were made clear at the start of the AB 525 process: 5 gigawatts of floating offshore wind capacity by 2030, and 25 gigawatts by 2045. This implies at the least two target dates with differentiated planning processes.

AB 525 laid out the multiple organizations necessarily involved in a strategic plan. Consequently, one would expect the plan to include which organizations will work with each other on which parts of the plan. Some of these arrangements are already fixed: transmission planning, for example, requires cooperation of CAISO, the CPUC and the CEC. Others need guidance as to how to work together as they may not have done so or have not done so with the urgency inherent in the Goals. Yet, apart from the

chapter on offshore wind permitting, any prescription of how organizations should work together, with timelines, is absent. An example of what is needed: the development of the Humboldt Bay Heavy Lift Wind Terminal is going ahead using the traditional permitting processes, primarily local. There is, so far as we can see, no influence of the AB 525 process and nothing in the AB 525 reports that would change this existing process. A simple step, though perhaps not the ideal, would be to bring offshore wind into the process whereby CEC can take over permitting responsibilities with local input and community benefits an assured part of the outcome – as prescribed for onshore wind and solar in AB 205 of 2022.

In general, we find that the report's recommendations are not in a form that is usable—that is, the plan neither assigns specific tasks to specific organizations or agents, nor does it set timeframes for these tasks. Lacking this "task-agent-time" format for specific recommendations renders those recommendations essentially vacuous, an assemblage of good ideas with no agency assigned. One example:²

Recommendations to Address Port Infrastructure Needs

The following recommendations will help to ensure adequate port infrastructure:

- Continue to support, in coordination with federal, tribal, and local governments, developers, and underserved and local communities a port development and readiness framework. This should include consideration of potential funding sources and strategies, as well as local content and prevailing wages, to identify port site developments needed for offshore wind project development and operations.
- A port development and readiness framework should continue to be coordinated with larger West Coast port network evaluation efforts and state and national supply chain development.
- Continue to collaborate with ports and harbor districts, tribal governments, underserved communities, local communities, port users and tenants, and developers to understand the unique challenges and opportunities of each port and harbor district and their potential role in supporting offshore wind development and operations.
- Continue to engage with industry leaders, developers, and supply chain entities to explore options to support local supply chain development.

Who are the agents? Who is supposed to "continue to" support, collaborate, engage...? No clue is provided. It could be several different organizations or coalitions of organizations. And what are the actions? General admonitions to consider potential funding sources, or "understand the unique challenges and opportunities of each port" bear no resemblance to an actionable plan.

Concrete evidence of lack of planning and interagency coordination

In February of this year the California Public Utilities Commission adopted assumptions about offshore wind that are far from the 5 GW and 25 GW goals of AB 525 and the CEC. The PUC not only assumes that there will be *no offshore wind in the Humboldt area until 2032*, but they also assume *transmission will not be available until 2039*. Another assumption, that there will be sufficient transmission for offshore

¹ SB 286 (McGuire), which was signed and chaptered, does include some specific measures but it was developed outside the AB 525 process.

² The overview document doesn't even include recommendations, just "conclusions."

wind in the Morro Bay area once the Diablo Canyon nuclear plant finally shuts down, is similarly baffling, as it is disputed by one of the offshore leaseholders, Equinor, on the grounds that the CAISO queue for transmission will utilize any "excess," leaving insufficient transmission for offshore wind. It is possible that planning is just not caught up to the goals yet, but to us it indicates a clear need for legislative direction of offshore wind strategic planning. (Please see the Appendix.)

Another example: The draft plan does not anticipate electrification of ports. The Humboldt Harbor District has adopted an electrification plan, but this should be a requirement of all ports. From a climate advocate point of view (and participant in the Humboldt Heavy Lift Terminal process) the recommendations fail because they do not *require*, at a minimum, the electrification of port facilities (green ports).

What to do?

The three main sections of the draft report (overview, detail, and appendices) are certainly valuable in that they bring together a great deal of information. But offshore wind in California needs a plan. We suggest that the CEC and partner agencies involved in the effort to implement offshore wind revise the current draft into a clear, coherent, interlocking set of assigned responsibilities and delineated tasks, with a timeframe corresponding to AB 525. Since the CEC does not itself have the authority to do all that an actual strategic plan would require, legislation may be required; that legislation should also be proposed and justified in the plan. Part of this effort has already been done independently of AB 525, by AB 1373 (Garcia, 2023), which assigns responsibility for procurement to the Water Board.

Please take the information generated in the AB 525 process and turn it into a plan for legislative approval. Otherwise the dust is already in the air that will cover the report on its shelf.

Thank you for considering these views.

Daniel Chandler, Ph.D.

Janiel Chandler

350 Humboldt Steering Committee

Janet Cox, CEO

Climate Action California

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Appendix: CPUC Off Course

A. CPUC ruling. [This is a quotation of the relevant parts of the Order. The "we" is the CPUC staff doing the analysis.]

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

https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M523/K201/523201875.PDF

Finally, the general comments summarized in Section 3.1 above, and not repeated here, related to the inclusion of OSW in the portfolio are most relevant to our consideration of the base case portfolio. More specifically, CalWEA, ACP- CA, OWC, Vineyard, and RWE all criticized the low amount of OSW in the base case and particularly in the Humboldt area, with these parties recommending at least as much OSW as included in the 2023-2024 TPP base case or significantly more be mapped to Humboldt or the North Coast.

4.1.2. Discussion

First, we discuss the issues related to the appropriate amount of OSW to be included in the base case portfolio. We note that the 2023-2024 TPP base case portfolio included 1.6 GW of OSW in the North Coast (Humboldt) area and 3.1 GW off the Central Coast of California, in the Morro Bay area.

Based on analysis already conducted as part of recent TPPs including the 2021-2022 TPP and the current 2023-2024 TPP, we have learned that the Central Coast/Morro Bay area has a robust transmission network that can manage up to at least 5 GW of OSW resources, once Diablo Canyon retires. Thus, additional OSW up to that amount in the Central Coast is unlikely to trigger the need for additional significant transmission investments. The North Coast/Humboldt area, by contrast, has limited transmission capacity, whereas the quality of the wind generation resources in the region is higher. In their individual IRPs, LSEs indicated plans to develop nearly twice as much OSW on the North Coast as on the Central Coast. We also note that there are limitations of the RESOLVE model in terms of how transmission costs and flows are reflected, chiefly because it is a capacity expansion model and not a power flow model. In addition, more accurate OSW transmission cost information from the 2023-2024 TPP analysis will not be available until at least March of 2024.

The PSP portfolio recommended for adoption and use as the TPP base case includes a total of 4.5 GW of OSW, all of which the RESOLVE model selected on the Central Coast likely because of different levels of accessibility and costs associated with Central Coast transmission options compared to those on the North Coast.

When we transmitted the 2023-2024 TPP base case, including 1.6 GW of OSW on the North Coast, we noted that it was not a matter of if, but rather when, transmission upgrades would be needed on the North Coast. While there is uncertainty about resource and transmission costs, as well as permitting timelines, we still believe that to be a reasonable approach. Therefore, we will direct Commission staff to continue to map 1.6 GW of the total OSW amount selected by 2039 to the North Coast/Humboldt area, with the remainder (2.9 GW) on the Central Coast/Morro Bay, in order to promote consistency in planning for the development of transmission in an area where upgrades are indicated and where LSEs and developers have shown an interest in developing OSW due to the quality of wind generation resources. The full 1.6 GW of OSW will be mapped to Humboldt in 2039, with a partial 0.9 GW in the 2034 mapping, indicating that the transmission upgrade need is not immediate but rather long-term in nature. This should maintain progress toward studying and potentially developing transmission to support North Coast OSW, without impeding the development of OSW on the Central Coast, since that

area already has sufficient transmission capacity to accommodate near-term wind generation development.

We encourage the CAISO to advance development of North Coast transmission with consideration of the timing of other long-term efforts, such as port and workforce development, to harmonize as much as possible the state's overall strategy for developing and evolving OSW. We also note that, consistent with the requirements of AB 1373 (Stats. 2023, Ch. 367), later this year the Commission will assess the current need for procurement of LLT resources.

Table 4.
Planned and Selected Capacity (GW) for 25 MMT Core Case

Resource Category	2024	2025	2026	2028	2030	2032	2033	2034	2035	2039	2040	2045
Geo- thermal	0.0	0.0	0.8	1.1	1.5	1.8	2.0	2.0	2.0	2.0	2.0	2.0
Biomass	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
In-State Wind	0.3	0.4	0.8	1.1	5.0	6.1	6.1	6.1	7.0	7.0	7.0	8.3
Out-of- State Wind	0.0	0.6	1.7	3.4	5.3	5.3	5.3	6.1	7.1	9.1	9.1	12.7
Offshore Wind	0.0	0.0	0.0	0.0	0.0	2.7	3.3	3.9	4.5	4.5	4.5	4.5
Solar	3.0	6.0	6.9	9.9	14.8	15.7	17.9	19.0	19.0	30.7	35.0	57.5

B. Equinor Comments





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

Rulemaking 20-05-003 (Filed May 7, 2020)

01/30/24 03:08 PM R2005003

FILED

OPENING COMMENTS OF EQUINOR WIND US, LLC ON PROPOSED DECISION ADOPTING 2023 PREFERRED SYSTEM PLAN AND RELATED MATTERS, AND ADDRESSING TWO PETITIONS FOR MODIFICATION

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January 30, 2024

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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)

OPENING COMMENTS OF EQUINOR WIND US, LLC ON PROPOSED DECISION ADOPTING 2023 PREFERRED SYSTEM PLAN AND RELATED MATTERS, AND ADDRESSING TWO PETITIONS FOR MODIFICATION

In accordance with Rule 14.3 of the California Public Utilities Commission

("Commission") Rules of Practice and Procedure, Equinor Wind US, LLC ("Equinor") submits
the following comments on the Proposed Decision Adopting 2023 Preferred System Plan and
Related Matters, and Addressing Two Petitions for Modification ("Proposed Decision" or "PD").

I. Introduction

Equinor appreciates that the Proposed Decision recommends adoption of the more aggressive 25 MMT Preferred System Plan ("PSP") base case, and recognizes that accurately forecasting long lead-time resources, including offshore wind ("OSW") can be challenging. However, the PD errs by forecasting only 4.5 gigawatts ("GW") of OSW resources in 2035 (and through 2045), and by mapping only 2.9 GW of that to the Central Coast/Morro Bay area.

The PD's recommendations are based on problematic assumptions, including a simplistic conclusion that the Central Coast has "sufficient transmission capacity to accommodate near-term wind generation development." The PD fails to recognize that under-forecasting OSW resources in this IRP cycle will undermine the state's policies supporting OSW development, both in the Central Coast and the North Coast/Humboldt area.

The PD's recommendations on resource need/timing and transmission for OSW are limited because the IRP process has yet to prove it can address the planning needs of offshore

wind development or the critical question of scale. The RESOLVE model was not designed for, and thus the PD does not reflect, the fact that some categories of LLT resources, including OSW, are cost-effective at scale, and that neither the resources nor the transmission infrastructure to deliver them can be built out in small increments.

The PD should be revised to reflect a total 10 GW of OSW statewide, and at least 6 GW mapped to the Central Coast to trigger proactive transmission planning now to enable deliverability in 2035-2039. The PD should also specifically order establishment of a separate IRP track or proceeding to address the procurement and transmission planning for LLT resources.

II. The PD's Preferred System Plan does not accurately forecast the need for offshore wind resources in California

A. The PD relies on assumptions and modeling results that are not supported by the record in this proceeding.

The Proposed Decision forecasts 2.7 GW of OSW beginning in 2032, and tops out at 4.5 GW in 2035 through 2045. Starting in 2039, the Central Coast OSW capacity is reduced from 4.5 GW to 2.9 GW, and the remaining 1.6 GW is mapped to the North Coast/Humboldt. The stated reason for mapping 1.6 MW to Humboldt is to trigger transmission upgrades. However, considering that it takes at least ten years to complete transmission projects, mapping smaller capacities of OSW in 2035 through 2045 undermines the timely, proactive transmission planning that is essential for the state to meet its climate targets with diverse resources on time.

The recommendation for 4.5 GW total OSW underestimates the scale of available and cost-effective OSW development. The PD appropriately recognizes the limits and infirmities of

¹ Proposed Decision at 66.

² Proposed Decision at 72.

the RESOLVE model for forecasting OSW.³ However the PD does not correct for these limitations by looking to relevant facts, such as the existence of federal leases, and the unique planning needs of LLT resources. The PD acknowledges the existence of statutory directives supporting planning for OSW and LLT resources, but does not provide the public policy-based findings that are necessary for these directives to be actionable by the California Independent System Operator ("CAISO").⁴ As a result, the PD significantly under-forecasts OSW in the recommended 2035 PSP portfolio.

The proposal to decrease Central Coast OSW allocation to 2.9 GW is similarly flawed. The PD's general assumptions that additional transmission will be needed in the North Coast and that some transmission capacity may be available upon retirement of Diablo Canyon Power Plant are a reasonable starting point for the mapping process. However, these assumptions do not support the PD's proposal to limit Central Coast OSW to 2.9 GW as of 2039. First, the PD's allocation is based on the wrong starting point (4.5 GW total), which is not a reasonable forecast of OSW overall. Second, it is based on the overly simplistic assumption that the Central Coast "has sufficient transmission capacity to accommodate near-term wind generation development." In fact the assumption that the Diablo Canyon Power Plant will retire in 2024-2025 is outdated, as the plant has recently obtained an extension to operate until 2030, and with federal relicensing could operate well beyond that date with additional state authorization. Third, assuming that the transmission capacity currently used by Diablo will simply be reserved for delivery of OSW is not consistent with how the transmission planning process ("TPP") and the CAISO queue are administered.

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³ Proposed Decision at 52.

⁴ Proposed Decision at 72.

⁵ Proposed Decision at 72.

⁶ See D.23-12-036.

In sum, the PD's OSW forecast ignores critical facts as well as the state policy direction supporting a balanced and diverse portfolio that includes high value offshore wind at scale.

Instead it recommends allocations by 2035 that are less than half of expected capacity at both the North and Central Coasts, and that will result in no transmission planning for deliveries to Central Coast.

The PD's recommendations increase the risk that incremental upgrades will be performed at a reduced scale and on a delayed schedule that lags behind both need and resource development potential, with negative consequences for ratepayers. Proactive transmission planning for 10 GW of OSW would alleviate congestion and improve deliverability for all resources, including OSW, thereby reducing costs for all ratepayers in the long run. Public policy direction for 10 GW now is a "no regrets" approach, as new transmission will not be constructed unless need is determined, and resources are available.

B. These errors should be addressed by forecasting 10 GW total OSW and at least 6 GW of Central Coast OSW resources.

For the reasons discussed above, 10 GW is a reasonable forecast of OSW for 2035. Incorporating this forecast would correct for the acknowledged limitations of RESOLVE, and align with state policy mandates supporting OSW, including the fact that Assembly Bill ("AB") 1373 has not yet been implemented. Equinor further recommends that 6 GW be adopted as a reasonable forecast for the Central Coast. This would reflect resource availability, the need for development at scale, and signal a more realistic transmission planning assumption for CAISO.

Equinor recognizes that incorporating LLT resources and new policy-driven procurement priorities into the existing model-based IRP is challenging. However, the Commission clearly has the authority to look beyond model outputs in establishing the PSP portfolio and TPP base case. As an example, when RESOLVE mapped 4.5 GW to the Central Coast, Commission staff

exercised its discretion by reducing this to 2.9 GW and mapping the remaining 1.6 GW to Humboldt for the stated policy-driven objective of triggering transmission development in the North Coast. The PD's recognition that RESOLVE outputs should be examined and contextualized is correct, but unfortunately the PD's OSW forecast is flawed. It is well known that transmission congestion exists in the Central Coast. In the period between issuance of this IRP decision and 2039 many other resources in the CAISO queue could interconnect to address short term reliability issues on the grid, thereby eroding much of the 5 GW of capacity currently presumed to be available in 2039. Examination of the CAISO queue supports this reasonable assumption. Therefore, ensuring a diverse resource portfolio requires mapping OSW resources at full capacity to ensure deliverability of 10 GW of OSW combined in the Central Coast and in the North Coast. The Commission can and should make this change to the PD.

Equinor does not agree with the PD's assertion that addressing the benefits of OSW is not "actionable" in this IRP cycle. The California Legislature declared in Section 1 of Assembly Bill 525 ("AB 525") that "[i]f developed and deployed at scale, the development of offshore wind energy can provide economic and environmental benefits to the state and the nation." The benefits of OSW have been robustly documented and discussed in this proceeding and in publicly available information. For example, see Chapter 3 of the recently issued California Energy Commission ("CEC") Draft Report on the AB 525 Offshore Wind Strategic Plan, which models and discusses OSW benefits in detail. The Commission likewise has a reasonable policy basis for looking beyond RESOLVE model outputs to forecast OSW, in light of statutory directives such as Public Utilities Code section 454.52, which instructs the Commission to

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⁷ Proposed Decision at 71-72.

⁸ Proposed Decision at 59.

⁹ 2021 Cal. Stats. Ch. 231 §1.

¹⁰ https://efiling.energy.ca.gov/GetDocument.aspx?tn=254034&DocumentContentId=89352.

"ensure that load serving entities...maintain a diverse portfolio of energy resources, which may include eligible energy resources procured by the Department of Water Resources." 11

The CAISO has discretion within its TPP to address evolving developments affecting transmission planning, and Equinor appreciates the PD's encouraging CAISO to "harmonize as much as possible the state's overall strategy for developing and evolving OSW." However, the Commission's upfront role is to provide an actionable PSP as a key input to TPP, and the CAISO has repeatedly specified its need for stability in IRP portfolios. For example, in its Opening Comments on the October 5, 2023 Administrative Law Judge's Ruling CAISO explained:

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 ears, 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 will provide more consistent direction for new procurement and enhance certainty in the

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¹¹ Pub. Util. Code § 454.52(a)(1)(J). The Commission's obligations for implementing this and related mandates adopted in AB 1373 include consultation with the CEC and CAISO between now and September *of this year* to determine need for eligible energy resources, as defined by statute. Id at 454.52(a)(4)(A).

¹² Proposed Decision at 72.

commercial space. Stability also serves the Commission's goal of cost minimization.¹³

For this compelling reason, and the other reasons discussed above, Equinor urges the Commission to adopt a more reasonable OSW planning forecast of 10 GW total for 2035, with at least 6 GW mapped to the Central Coast.

III. The Commission should amend the PD to clearly establish a separate public policy track for implementation of AB 1373 and incorporation of long lead-time policy-driven resources into the IRP and TPP processes.

The PD forthrightly acknowledges the inability of RESOLVE modeling to accurately forecast OSW, but as discussed above the PD does nothing to correct for this in the PSP portfolio. The PD further "notes" that it has an obligation under AB 1373 to assess the need for LLT resource procurement in 2024, but does not explain how that assessment will be integrated into this IRP cycle and the TPP process. ¹⁴

It is not enough to note the existence of AB 1373. OSW is a unique resource that has been identified as high value to the state's clean energy portfolio, both from a climate perspective and to address reliability, due to its higher capacity factor and coincident availability to match system demand, especially during extreme weather events. OSW requires significant upfront investment, and will involve a major infrastructure addition to the state of California, delivering economic, equity and environmental benefits beyond its energy portfolio value.

The state policies supporting resource diversity and planning for and procurement of OSW need to be integrated into the IRP and TPP processes now, not at some unidentified point in the future. The final decision should either set up a separate track in this proceeding or order the opening of a separate rulemaking proceeding to address the immediate need for implementation of AB 1373.

¹³ CAISO Opening Comments on October 5, 2023 Administrative Law Judge's Ruling at 2-3.

¹⁴ Proposed Decision at 72.

IV. Conclusion

Equinor appreciates the Commission's consideration of the recommendations discussed above, and looks forward to working together with Commission staff and other stakeholders to ensure that the PSP and TPP realistically and effectively incorporate offshore wind resources.

Dated: January 30, 2024

Respectfully	submitted,
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By:	/s/

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APPENDIX A RECOMMENDED FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDERING PARAGRAPHS

Add new Conclusion of Law to replace proposed Conclusion of Law 13:

Recognizing the importance of supporting offshore wind development at scale, the TPP base case should include 10 GW of offshore wind, with 6 GW mapped to the Central Coast area and 4 GW mapped to the North Coast/Humboldt area.

Add new Ordering Paragraphs:

Recognizing that the RESOLVE model cannot accurately reflect the costs and benefits of long lead-time resources, the Commission will initiate proceedings to address this in the next IRP cycle.

Recognizing the immediate need to initiate implementation of AB 1373, the Commission will establish a process for this purpose in the near future.