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 COMMENTS ON PROPOSED DECISION AND ALTERNATE PROPOSED DECISION REQUIRING PROCUREMENT TO ADDRESS MID-TERM RELIABILITY (2023-2026)

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On behalf of the California Wind Energy Association

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I. INTRODUCTION AND SUMMARY

Pursuant to the instructions of Chief Administrative Law Judge ("ALJ") Anne E. Simon in the letter accompanying the Proposed Decision ("PD") of ALJ Julie Fitch and the Alternate Proposed Decision ("APD") of Assigned Commissioner Clifford Rechtschaffen Requiring Procurement to Address Mid-Term Reliability (2023-2026), issued on May 21, 2021, the California Wind Energy Association ("CalWEA") submits these opening comments on the PD and APD.

In summary, the PD and APD must be revised to provide greater consistency with the Commission's adopted "optimal" Reference System Plan ("RSP") and to encourage – rather than discourage -- development of the 2,737 MW of wind energy directly connected to the CAISO grid that was found to be cost-effective as part of the RSP in 2026. Specifically, the 1-gigawatt ("GW") "firm-and/or-dispatchable zero-emitting resource" requirement for 2026 should be increased in size and expanded in eligibility to include any renewable generation resource that can deliver during the critical evening net-peak period, which would effectively add wind energy as an eligible resource for that requirement. The 2.5-GW "firm zero-emissions resource," which is effectively limited to paired solar and storage, should be correspondingly reduced in size. These changes are consistent with the adopted RSP, which includes wind energy, and would promote greater clean, diverse renewable generation on the system, reduce the overall need for storage and other integration resources, and provide more competitive resource options in the 2026 resource category, which could be partially advanced to 2024 and/or 2025. These options

would include offshore wind energy, including two offshore wind demonstration projects in state waters that could be online by 2026 that will be important to building up the state's industrial capabilities to support the large-scale plan for offshore wind development that was recently announced by Governor Newsom and the Biden Administration.[1] The Commission should also clarify that repowered wind projects will count as "incremental."

In addition, the Commission should commit to addressing the barriers that stand in the way of implementing P.U. Code Section 397 (causation-based allocation of integration resources) and make clear to LSEs that future procurement requirements will be adjusted on a "causer pays" basis reflecting each LSE's overall resource portfolio. This will send a signal that each LSE should assemble resource portfolios that match its load.

Lastly, while it is helpful that the PD/APD would adopt marginal net qualifying capacity (a.k.a. "ELCC") values for wind and solar resources, a May 21, 2021, PD in the Resource Adequacy proceeding would continue to use average ELCC values for all RA resources, including new resources. The Commission should ensure that the two adopted decisions are consistent in adopting marginal ELCCs for new resources.

II. COMMENTS

A. The PD and APD Depart from the Commission's Adopted Resource Plan, Dooming Any Chance of Realizing the Optimal Portfolio and Seriously Harming Prospects for Wind Energy Development in California and Offshore

The Reference System Plan adopted last year shows 2,737 MW of CAISO-interconnected wind by 2026 that is cost-effective as part of an overall optimal portfolio.[2] That amount of wind energy was found to be cost-effective not on the basis of its direct resource cost but on the basis of its value to the system overall on an indirect-cost basis because it produces energy during the critical net-peak period after the sun sets, reduces system solar curtailment, and reduces the amount of storage that would otherwise be needed on the grid to capture the curtailed solar energy.[3] The RSP "was found to be a sufficiently reliable and operable portfolio for the CAISO

[1] *See* https://www.latimes.com/politics/story/2021-05-25/biden-administration-unveils-an-offshore-wind-plan-for-californias-coast.

[2] D.20-03-028 (April 6, 2020) at p. 2 and Table 5.

[3] See. e.g., CPUC IRP Ruling Seeking Comment on Proposed Reference System Portfolio and Related Policy Actions, Attachment B: 2019-20 IRP: Proposed Reference System Portfolio Validation with SERVM Reliability and Production Cost Modeling (Nov. 6, 2019). The RESOLVE model selected the

electric system through 2030" which included the retirements of Diablo Canyon and once-through cooling units. Nevertheless, the PD and APD would depart from the Commission's adopted optimal portfolio by creating a 1-GW procurement requirement in 2026 that arbitrarily favors "long-lead time" zero-emission resources with an 85% capacity factor and/or that are dispatchable between hours 17 and 22, attributes that are narrowly drawn to limit the field to geothermal energy and long-duration storage even though no geothermal energy or long-duration storage ("LDS") above the separate 1-GW LDS requirement were included in the RSP. The likely effect of this geothermal/LDS mandate would be to crowd out any market interest in wind energy, which was found to be the least-cost means of diversifying a reliable resource portfolio.

This incongruity is not addressed in the PD/APD other than statements such as that the firm procurement requirements are "designed to replace the firm and/or dispatchable output of Diablo Canyon and the OTC facilities,"[4] which, again, is at odds with the IRP analysis, which includes a stochastic analysis that credits resources, like wind, that tend to deliver during the critical evening peak period, even if they are not "firm." If the Commission is concerned about the reliability of the RSP, the proper remedy would be to add reliability constraints as an input to the IRP models and to produce an optimized output, rather than arbitrarily manipulating the portfolio after-the-fact. As for the statement that "we would still like to see a large amount of geothermal development in this category, due to the resource diversity, as well as economic development, benefits that additional geothermal could bring to certain regions of California, in addition to the grid benefits,"[5] this sentiment has no basis in any analysis in the record or even any robust discussion among the parties. Moreover, it ignores the fact that wind energy also brings resource diversity and grid benefits, as well as bringing economic development benefits to many regions of California.[6]

The RSP included 2,737 MW of wind energy due to its system reliability value and cost-effectiveness in delivering energy during the critical evening net-peak period.[7] By arbitrarily

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least-cost portfolio to satisfy various constraints and the SERVM model tested the reliability of that portfolio on a probabilistic basis.

[4] PD/APD at p. 3.

[5] *Id.* at p. 35.

[6] We note, however, that economic benefits have no basis in statute governing the IRP process There is no reference to such benefits in P.U. Code Section 454.51 or 454.52.

[7] Reflecting this value, the CAISO's March 26, 2021, comments in this docket include two graphics showing two critical evening peak periods in September 2020 during which wind energy is shown to be producing significantly above its marginal ELCC value. As CalWEA pointed out in its March 26, 2021,

excluding wind energy from the 2026 category and favoring other resources that can deliver during the evening-peak at higher cost, the PD/APD would harm ratepayers and discourage LSEs from purchasing any wind energy, thus undermining any incentive that developers might have to put substantial investment dollars at risk in attempting to develop wind energy projects in California and dooming any chance of realizing anything close to the wind energy capacity reflected in the Commission's adopted optimal portfolio.

B. The Commission Should Expand and Recast the 2026 Firm-or-Dispatchable Zero-Emitting Resource Requirement to Make Eligible Renewable Energy Resources that Deliver During the Critical Evening Net-Peak Period

To correct the problems described above, the Commission should revise the PD/APD to include wind energy as a resource that is eligible for the 2026 requirement, expand that requirement by on the order of 1 GW, and advance that additional portion of the requirement to 2024 and/or 2025. The Commission could correspondingly reduce the 2024 requirement for "firm zero-emission resources" which, practically speaking, is effectively limited to paired solar and storage projects. An expansion/reduction of these categories on the order of 1 GW (NQC) translates roughly to the amount of wind energy (nameplate) included the RSP in 2026, but wind, geothermal, and long-duration storage could all compete to fulfill the entire resource-diversity requirement. This would also allow offshore wind energy to compete for this higher-value category, which will be important to two offshore wind demonstration projects in state waters that could be online by 2026; these projects could be important to building up the state's industrial capabilities to support large-scale offshore wind development.[8]

Wind energy paired with storage is very unlikely to succeed in the 2024 "firm zero-emission resources" category or the "any other" procurement category. The fact that wind energy consistently generates in a pattern that is complementary to solar generation means that pairing wind with storage is not sufficiently cost-effective because the storage does not add

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comments at footnote 6, California's wind fleet of approximately 6 GW performed during the August 14 and 15, 2020, Stage 3 Emergency at its expected ELCC value of about 20%.

[8] As noted in CalWEA's March 26, 2021, comments, pre-commercial developments for floating offshore wind turbines offer a key steppingstone in developing onshore floating-foundation assembly capabilities before advancing to large projects. Two such projects in state waters have been proposed near the Vandenberg Air Force Base and may be able to deliver energy in the 2025-26 timeframe due to a shorter permitting process compared to project in federal waters. See: https://www.offshorewind.biz/2020/11/19/california-state-lands-commission-reviewing-two-floating-wind-applications/.

substantial value: wind contributes very little to daytime over-generation and would require far less resource-shifting to consistently produce energy during the evening net peak. Avoiding curtailment and generating in the evening are values inherently captured in the wind resource itself, which is why wind energy was included in the RSP and should be included in a higher-value diverse-resource category, along with geothermal and long-duration storage. The RA value of wind energy is, by itself, unlikely to be sufficient, in comparison to the cost of paired solar and storage, to drive expensive and risky investments in wind energy development in California or off California's coast. Moreover, the requirements in the firm (2024) category are so narrowly drawn as to potentially require inefficient operation of storage resources, since they would need to be fully charged before 5 p.m. every day, while optimal operation of these storage resources (by following CAISO dispatch) would not necessarily allow for that, especially during summer months when the solar component of the paired resource may be needed during the day to serve load directly. These issues, as well as the Commission's expressed concerns about increasing unprecedented reliance on battery storage at a large scale,[9] support reducing the size of the 2024 procurement category and increasing the 2026 category, spreading it over 2024 and 2025 as well. Further, a portion of the requirement could be made not extendable to 2028, as is provided for in the PD/APD for the proposed 2026 requirement,[10] given the shorter lead-times for onshore wind projects, offshore wind projects in state waters (as compared to projects in federal waters), and potentially some geothermal and long-duration storage projects.

C. Wind Energy Repowers Should Count as "Incremental"

The Commission should clarify that repowered wind projects will count as "incremental." Repowered wind projects will expand the resource fleet in that projects built in the 1980s cannot continue to operate forever and will require capital investments largely equivalent to new greenfield projects. Just as the PD/APD would enable the repowering of operating, mothballed or retired fossil fuel plants to count toward the proposed capacity requirements,[11] it should also foster the repowering of the remaining 1980s-vintage wind energy projects, some 35-years-old, that have not, heretofore, been able to repower.

[9] See, e.g., PD/APD at pp. 39-40.

[10] PD/APD at Ordering paragraph 4.

[11] PD at p. 42; APD at p. 43.

D. The Commission Should Commit to Addressing the Barriers to Allocating Integration Resources on a Causation Basis, and to Apply a Causation Methodology to All Future Integration Resource Procurement Requirements

As CalWEA explained in its comments in response to the February 22, 2021, ruling in this proceeding, state law requires that integration resource requirements be allocated based on causation, i.e., reflecting each LSE's contribution to the need for integration resources. LSEs whose resource portfolios are not sufficiently diverse and not matched to their load variation should be responsible for a larger share of integration resources. The PD and APD indicate that the Commission faces administrative barriers that currently make it impossible to implement this law, namely, those "related to confidentiality of contract data and valuing the long-term capacity attributes of IOU contracts for which other LSEs pay the PCIA."[12] However, the Commission cannot credibly claim that its proposed method complies, or is consistent with AB 1584,[13] and such statements should be removed from the final decision.

Instead, the Commission should commit to resolving these barriers and to applying the law to all future procurement requirements. Further, the Commission should make clear that its causation-based methodology will be based on each LSE's overall portfolio, which will provide LSEs with an incentive to fashion their nearer-term procurements to match their load profiles which, in turn, will promote resource diversity.

E. The Commission Should Ensure Consistent Treatment of Wind and Solar ELCC Values in RA and IRP Procurement Requirements

CalWEA strongly supports the one important value-signal in the PD/APD: the proposed adoption of marginal net qualifying capacity (NQC or ELCC) values for any additional wind and solar resources procured under this order,[14] which CalWEA has advocated for years. It is essential that LSEs be awarded capacity value based on the system reliability value provided by additional wind and solar projects, and that the average capacity value of resources already procured by LSEs be preserved. Given how much solar is already on the system, the marginal

[12] PD at p. 53; APD at p. 54.

[13] The PD claims, at p. 53, that its load-share based allocation "complies with the requirements of AB 1584, because, at present, the system integration needs are not attributable to any particular LSE as distinguished from any other LSE." (Emphasis added.) The APD claims, at p. 54, that its load-share based allocation "is consistent" with the requirements of AB 1584 for the same reason.

[14] PD and APD at p. 70 and 71, respectively.

NQC value of an additional solar project is close to zero, whereas the marginal value of a wind project is around 20%.

However, in the Resource Adequacy proceeding, a Proposed Decision that was issued on the same day as the PD and APD would do the opposite: that PD would not adopt marginal ELCC values (even for new resources acquired for the 2023 RA-year, which overlaps with the requirements of the IRP PD/APD) until "ELCC modeling is updated" due to lack of consensus among the parties.[15] To avoid different treatment of the same resources in different regulatory contexts, this Commission should ensure that the final decision in the Resource Adequacy proceeding is made consistent with the PD/APD's finding that "[c]alculating the system reliability benefits of specific resources will be more accurate if marginal ELCCs are used."[16]

Respectfully submitted,

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[15] R.19-11-009, Proposed Decision Adopting Local Capacity Obligations for 2022-2024, Flexible Capacity Obligations for 2022, and Refinements to the Resource Adequacy Program at p. 47 (May 21, 2021).

[16] PD at Finding of Fact 24; APD at Finding of Fact 27.

VERIFICATION

I, Nancy Rader, am the Executive Director of the California Wind Energy Association. I am authorized to make this Verification on its behalf. I declare under penalty of perjury that the statements in the foregoing copy of "California Wind Energy Association Comments on Proposed Decision and Alternate Proposed Decision Requiring Procurement to Address Mid-Term Reliability (2023-2026)" are true of my own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 10, 2021, at Berkeley, California.

/s/ *Nancy Rader*
Nancy Rader
Executive Director
California Wind Energy Association