

**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)

**CALIFORNIA WIND ENERGY ASSOCIATION
REPLY COMMENTS ON RULING SEEKING COMMENTS ON
PORTFOLIOS TO BE USED IN THE 2021-22 TRANSMISSION PLANNING PROCESS**

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

November 20, 2020

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I. INTRODUCTION AND SUMMARY

Pursuant to the Administrative Law Judge’s *Ruling Seeking Comments on Portfolios to Be Used in the 2021-22 Transmission Planning Process* (“Ruling”) issued on October 20, 2020, the California Wind Energy Association (“CalWEA”) submits these comments in reply to the opening comments of the parties.

In summary, CalWEA highlights the congruity between the recommendations that we made in opening comments and the interests and concerns expressed by many other parties in their opening comments. CalWEA recommends that the Commission provide the CAISO with two different 38-MMT resource portfolios to serve as the basis for least-regrets transmission planning, which will pave the way for a variety of resource futures. This approach, along with our proposed bus-mapping recommendations, will promote competition among a wide array of resources, while at the same time creating the conditions necessary to enable the retirement of natural-gas power plants in the Los Angeles (“LA”) Basin and to provide access to lower-cost replacement resources outside of the basin. In these reply comments, we make the following, primary points:

- Many parties agree that using a 38-MMT electric-sector greenhouse gas (“GHG”) target by 2030 as the basis for transmission planning is necessary to ensure achievement of the state’s GHG reduction goals and to assure system reliability.
- While the two 38-MMT portfolios may fall somewhat short of meeting reliability requirements, the need for more reliability resources is all the

more reason to move forward with least-regrets transmission planning now because, by enabling multiple possible resource futures with least-regrets (primarily backbone) transmission upgrades, the options for siting the needed capacity will be greatly expanded, thereby increasing the likelihood that the renewable and storage resources necessary for reliability will be built, and built at lower cost. We address concerns regarding planning for offshore wind (as one possible resource future) and retiring gas plants (about which decisions can be made at a later date).

- We explain how a busbar mapping process grounded in California’s interconnection queues is not only the most objective and strongest possible indication of commercial viability, but will also support development in areas favored by environmental advocates.
- Finally, we agree that transmission limits should be updated to reflect the CAISO’s previous finding that more renewable energy can be sited in areas where there is strong commercial interest without triggering the need for inefficient, piecemeal transmission upgrades; and we explain how our recommended approach could facilitate the retirement of the Aliso Canyon gas-storage facility.

II. COMMENTS

A. Many Parties Believe Using a 38-MMT Target as the Basis for Transmission Planning is Critical to Achieving Policy Goals and Grid Reliability

Many parties urge the use of a 38-MMT electric-sector GHG target by 2030 as the basis for transmission planning, both to ensure achievement of the state’s GHG-reduction goals and to assure system reliability, rather than the 46-MMT target that the Commission’s Energy Division staff (“Staff”) propose.¹ For example, NRDC calculated that Load Serving Entities (“LSEs”) that are collectively projected to serve about 77 percent of energy by 2030 either recommend or intend to procure resources aligned with the 38-MMT emissions scenario.² For this reason and because the CAISO has indicated that even the Commission’s 38-MMT portfolio may only achieve a 41-MMT emissions target in 2030 and may significantly underestimate the resource buildout necessary to maintain reliability, CalCCA also advocates the use of the 38-MMT

¹ See, e.g., AWEA-California at p. 4, California Community Choice Association (“CalCCA”) at p. 3, California Environmental Justice Alliance (“CEJA”) and Sierra Club at pp. 3-4, CEERT at p. 5, Green Power Institute at p. 4, Gridliance West, LLC (“GridLiance”) at p. 6, and CalWEA at section II.A.1.

² NRDC at pp. 1-2.

portfolio as the base case.³ Southern California Edison Co. (“SCE”) agrees that a 46 MMT target does not put California on a trajectory that will achieve its decarbonization goals.”⁴

All of these reasons, and others discussed below, call for the CPUC to submit more aggressive scenarios to the CAISO as the basis for the upcoming 2021-22 TPP cycle.

B. Reliability Concerns Should Compel, Not Stall, Moving Forward Now with Least-Regrets Transmission Planning for a 38-MMT Target

As CalWEA explained in opening comments, a “least regrets” transmission plan centered around retiring natural-gas generation plants in the LA Basin is one that, combined with our busbar mapping recommendations, will likely identify backbone transmission upgrades that are common to each of multiple, distinct future resource scenarios.⁵ Such planning is far more robust than planning on the basis of a single resource portfolio because it enables several different resource futures and provides access to lower-cost resources. Our proposal addresses the concerns raised by SCE and provides for the “much-needed flexibility” in transmission planning that PG&E calls for.⁶ SCE argues that, because loss-of-load-expectation (“LOLE”) studies have not been performed on either Staff’s 46-MMT (with 2019 IEPR portfolio) or its 38-MMT portfolios, that the Commission should send the CAISO the 46-MMT portfolio along with SCE’s recommended 38-MMT portfolio as a sensitivity case. SCE asserts that Staff’s proposed sensitivity #2, which includes offshore wind, is premature and states that “any transmission that is needed for out-of-state wind and pumped storage resources ... are likely uneconomic and require further study before proceeding with any required procurement or transmission development.”⁷

First, we agree that all portfolios used in a least-regrets analysis should generally meet both reliability and policy needs (i.e., meet loss-of-load standards and GHG targets). However, the fact that these portfolios may fall somewhat short of LOLE requirements should not delay least-regrets planning. In fact, the need for more reliability resources is all the more reason to

³ CalCCA at p. 3, citing Comments of the CAISO at p. 5 (October 23, 2020).

⁴ SCE at pp. 7-8.

⁵ Some parties use “least regrets” transmission planning to mean one that is performed on a single portfolio. (See, e.g., CalCCA at p. 3.) CalWEA’s use of the term is consistent with the type of planning used to develop the conceptual transmission plan under the state’s RETI process. *Renewable Energy Transmission Initiative Phase 2A Draft Final Report* (July 2009).

⁶ PG&E at p. 3.

⁷ SCE at pp. 4-5 and 11-12.

move forward with least-regrets transmission planning, which, by enabling multiple possible resource futures, will greatly expand the options for siting the needed capacity, thereby increasing the likelihood that necessary renewable and storage resources will be built, and built with lower-cost resources. Because of expanded resource-development opportunities, SCE’s concerns about market power will inherently be addressed since it would not be necessary to “direct[] resources to be procured in specific areas”⁸ under a least-regrets transmission plan. In addition, while the least-regrets transmission upgrades will enable gas-plant retirements, it will not require those retirements; those decisions can be made by the CPUC and CAISO in view of the planned transmission upgrades.

Second, CalWEA’s recommended approach to least-regrets planning, with offshore wind included in only one of two portfolios, addresses SCE’s concern that including offshore wind is “premature,”⁹ because the least-regrets upgrades will serve other possible future resource portfolios as well, including resource build-outs in the greater Central Valley and in the LA Basin, where batteries will require additional transmission in order to provide charging capacity.¹⁰ As a result, transmission upgrades that are identified through the least-regrets process that CalWEA recommends will not lock in a future that necessarily includes pumped storage (and will expand the areas in which pumped or other long-duration storage could be located), nor preclude SCE’s preferred future that relies primarily on solar and 4-hour energy storage.¹¹

Third, CalWEA’s proposal includes the proviso that the Commission should make clear to the CAISO that at least 3 GW of out-of-state wind can be delivered to California loads on existing transmission lines,¹² which addresses SCE’s concern that any transmission upgrades to access those resources would be uneconomic.

⁸ *Id.* at p. 5.

⁹ SCE at p. 3. CalWEA did recommend, however, that the amount of offshore wind included in Sensitivity #2 be reduced for the purpose of least-regrets transmission planning in this cycle.

¹⁰ As noted in CalWEA’s opening comments at footnote 26, the CAISO has recently found significant battery-charging limitations in the LA Basin, where four-hour batteries were found to be capable of meeting just 740 MW of the local reliability need on a one-for-one basis. See CAISO presentation, *2020-2021 Transmission Planning Process Stakeholder Meeting* at PDF-page 146 (September 23-24, 2020). We agree with CEJA and Sierra Club (at p. 7) that LCR-specific analyses should be used to inform siting and procurement.

¹¹ SCE at p. 10.

¹² CalWEA opening comments at section II.A.2. We note that the opening comments of SouthWestern Power Group II, LLC (“SWPG”) and Pattern Energy Group LP (“Pattern”) state (at p. 2) that transmission

Finally, because “least regrets” transmission planning necessarily requires at least two different resource futures, we disagree with comments suggesting that a single 38-MMT portfolio is a sufficient basis for transmission planning and urge the Commission to use the two 38-MMT scenarios discussed in CalWEA’s opening comments.¹³ For example, CAISO calls for the Commission to provide “a single base case for future resource development.”¹⁴ Similarly, SCE’s proposal to plan based on the “most current resource build-out” following an iterative process would be designed around a single, rather than multiple possible, resource futures, thus creating the potential for the market power issues that SCE is concerned about. Other parties advocate the use of a single 38-MMT portfolio under the apparent assumption that it will lead to substantial transmission upgrades.¹⁵ However, it is quite possible that even a transmission plan that is based on a single such portfolio could produce minor or no transmission upgrades, or upgrades to suboptimal locations. That no-progress outcome is particularly likely without some or all of the additional assumptions advocated by CalWEA: namely, that gas-resource retirements occur in disadvantaged communities (as also advocated by CEJA and Sierra Club¹⁶), that new resources are mapped to the most commercially active areas, and that out-of-state resources can be delivered to California loads without transmission upgrades planned by the CAISO.¹⁷

We agree with CalCCA that, even if the Commission retains the 46-MMT portfolio for the current IRP cycle, using a 38-MMT target for transmission planning will produce transmission that “would not go unused as the state continues to aggressively develop renewable

upgrades “are needed to support the import of New Mexico wind into the CAISO grid” (emphasis added) and that OOS wind “may require” upgrades. SWPG and Pattern indicate that the upgrades required would mitigate congestion between the CAISO injection point and load. While congestion mitigation would reduce the cost of OOS wind, Pattern stated, in its October 23, 2020, comments that “At least 4,000 MW of New Mexico wind reliant on new-build transmission will be serving Californian LSEs before 2025.” (Emphasis added.) We note that the backbone upgrades that CalWEA believes would result from our recommendations, mitigating south-to-north California congestion, would also provide congestion-relief benefits for Southwest imports seeking to deliver load to Northern California.

¹³ CalWEA opening comments at p. 9.

¹⁴ CAISO comments at p. 2.

¹⁵ See, e.g., NRDC at p. 2; CalCCA at p. 3. Likewise, it is unlikely that the 46 MMT portfolio will lead to any approved transmission solutions that lower overall costs, as GridLiance notes at p. 10.

¹⁶ CEJA and Sierra Club at p. 8.

¹⁷ CalWEA opening comments at pp. 2 and 7.

resources on the path to 2045.”¹⁸ The need for a more aggressive planning target is also underscored by the Commission’s Public Advocates Office (“Cal Advocates”), which points out that, especially in light of the recent blackouts, some utility-owned generation resources should not be assumed beyond a mid-2020 timeframe due to inconsistencies with Commission decisions regarding resource retirements in General Rate Case proceedings.¹⁹

For all of these reasons, CalWEA advocates that the Commission submit both of its 38-MMT “sensitivity” portfolios (with modifications to sensitivity #2) to the CAISO as the basis for least-regrets transmission planning (not as “sensitivity” studies).

C. Relying on the Queue for Busbar Mapping Can Benefit Resources Preferred by Environmental Organizations

CalWEA advocated for a busbar mapping process that is grounded in California’s interconnection queues, which would be the most objective and strongest possible indication of commercial viability, reflecting due diligence regarding the ability to obtain project siting approvals, among other reasons.²⁰ Solar parties agree that using queued resources is the best available indication of the need for and location of deliverable resources, and that the queue includes a large quantity of solar-storage co-located resources.²¹ As noted above, a queue-based approach to busbar mapping is likely to favor resources in the greater Central Valley.

By contrast, Defenders of Wildlife argues that “commercial interest should not take precedence in the selection of busbar allocations [because it] can unknowingly pick locations with high resource conflicts that result in high mitigation costs and substantial delay in project development.” We note that Golden State Clean Energy (“GSCE”), the developer of the 2,700-MW Westlands Solar Park in the Central Valley stated that “significant new transmission lines will be needed if we are to make this amount of new generation deliverable to load in a cost-effective manner.” GSCE states on its website that the Westlands Competitive Renewable Energy Zone has received “strong support in the Governor’s San Joaquin Valley Solar Initiative, and NGOs such as Sierra Club, NRDC, Defenders of Wildlife, and Center for Biological

¹⁸ CalCCA at pp. 3-4.

¹⁹ Cal Advocates at pp. 5-6.

²⁰ CalWEA opening comments at p. 7.

²¹ Comments of Vote Solar, Large-scale Solar Association and Solar Energy Industries Association at pp. 3-4. CalWEA’s recommendations would also likely result in increased deliverability capacity that the solar parties are seeking.

Diversity.”²² While CEJA and Sierra Club also disfavor a queue-based approach, these groups favor siting batteries in the San Joaquin Valley.²³ Thus it is clear that a queue-based approach can support development in areas favored by environmental advocates.

D. Transmission Limits Should Be Updated Or, in the Alternative, Deliverability Assumptions Should Be Updated

CalWEA shares the concerns raised by GridLiance that the Commission’s proposed base portfolio does not appear to include any updated transmission limits based on the results of CAISO’s previous sensitivity study.²⁴ We agree with GridLiance that modeling these updated limits will reduce ratepayer costs by enabling more renewable energy to be sited in areas where there is strong commercial interest without triggering the need for inefficient, piecemeal transmission upgrades. We also agree with GridLiance that, in the alternative, Commission staff should incorporate into RESOLVE updated transmission deliverability results produced using the CAISO’s Generation Interconnection and Deliverability Assessment Procedures calculation methodology. This approach is also recommended by CalCCA as a means of yielding more cost-effective TPP portfolios.²⁵

E. CalWEA’s Proposal Supports the Potential Retirement of Aliso Canyon

Cal Advocates calls for studying the retirement of the Aliso Canyon storage facility in a sensitivity study.²⁶ Cal Advocates also calls attention to the “enormous need for new Full Capacity Deliverability Status (FCDS) resources in four transmission zones whose existing deliverability will be nearly or entirely exhausted by 2030.”²⁷ These zones are all in the greater Central Valley area which, as Cal Advocates states, host the most cost-effective renewable and low-carbon generation resources that would be available for an electric transmission solution for

²² <https://goldenstatecleanenergy.com/page/>. See also: Dashiell, S.; Buckley, M.; Mulvaney, D. Green Light Study: Economic and Conservation Benefits of Low-Impact Solar Siting in California, 2019 (available at: https://www.nature.org/content/dam/tnc/nature/en/documents/FINAL_Green_Light_Report_LR.pdf).

²³ CEJA and Sierra Club at p. 7,

²⁴ GridLiance at pp. 3-5.

²⁵ CalCCA at pp. 5-6.

²⁶ Cal Advocates at pp. 14-15.

²⁷ *Id.* at p. 15.

replacing Aliso Canyon. Cal Advocates' comments are consistent with the proposal made by CalWEA in our opening comments.

Studying the retirement of the Aliso Canyon is a laudable objective for the reasons stated by Cal Advocates. However, such a scenario would need to be translated into electrical terms that can be modeled and studied. CalWEA's proposal essentially accomplishes that, at least in part, by calling on the Commission to plan for the retirement of gas generation in the LA Basin, which would necessarily reduce reliance on Aliso. CalWEA's proposal further advocates that busbar mapping be centered around the CAISO and other interconnection queues, which will reflect the fact that resources are concentrated in the greater Central Valley due to lower development costs there versus resources located in urban, transmission-constrained areas.

In these ways, CalWEA's proposal not only addresses Cal Advocates' interest in studying Aliso's retirement, but could actually help to enable its retirement on the earlier side of the Commission's Aliso-retirement horizon that begins in 2027,²⁸ along with other resource futures that least-regrets planning will enable. Further, the ability to address Aliso Canyon further underscores the value of CalWEA's proposed least-regrets approach to transmission planning.

Respectfully submitted,

/s/ Nancy Rader

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

November 20, 2020

²⁸ *Id.* at p. 14.

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 Reply Comments on Ruling Seeking Comments on Portfolios to Be Used in the 2021-22 Transmission Planning Process” 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 November 20, 2020, at Berkeley, California.

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