



California Wind Energy Association

February 19, 2021

California Energy Commission
Re: Docket No. 21-IEPR-01
1516 Ninth Street
Sacramento CA 95814

Submitted Electronically via CEC website to 21-IEPR-01

Re: Comments on 2021 IEPR Draft Scoping Order

The California Wind Energy Association (“CalWEA”) is a 21-year-old trade association representing wind energy and related companies focused on the California market. CalWEA is pleased to provide our recommendations in response to the Commission’s February 5, 2021, Notice of Request for Public Comments on the Draft Scoping Order for the 2021 Integrated Energy Policy Report (“IEPR”).

CalWEA’s comments focus on one of the four major focus areas for this IEPR cycle: “Energy Reliability Over the Next Five Years.” CalWEA supports the planned focus on evaluating progress towards ensuring that sufficient replacement resources are available to enable the most expedient retirement of the remaining once-through cooling (“OTC”) power plants and opportunities to reduce reliance on fossil gas-fired electric generation. However, we caution that the Commission’s view should not be limited to opportunities to reduce reliance on gas-fired generation “over the next five years” because increasing system reliability while retiring gas plants will require major upgrades to the transmission system, with lead-times on the order of a decade. Therefore, CalWEA strongly encourages the Commission to place emphasis on the near-term priority actions regarding the transmission infrastructure that will be necessary to enable the planned retirement of OTC plants, improve system reliability, and provide access to diverse, utility-scale renewable resources that will be necessary to achieve SB 100 goals reliably and cost-effectively.

In so doing, the Commission should consider new research¹ published by the Department of Energy’s Lawrence Berkeley National Laboratory, the University of San Francisco, and the consulting firm Evolved Energy Research (“Carbon-Neutral Pathways Study”). While a national

¹ Williams, J. H., Jones, R. A., Haley, B., Kwok, G., Hargreaves, J., Farbes, J., & Torn, M. S. (2021). Carbon-neutral pathways for the United States. *AGU Advances*, 2, e2020AV000284. <https://doi.org/10.1029/2020AV000284>.

study, the Carbon-Neutral Pathways Study is instructive because it, like California, seeks to minimize the cost of achieving a carbon-neutral (rather than zero-carbon) economy and considers several different possible pathways toward that goal. An important finding of this study is that the actions required in the next 10 years are similar regardless of long-term differences between pathways, and that decarbonization “is fundamentally an infrastructure transformation.”² The authors state that, “If renewables and transmission cannot be built at the scale required, for example, due to difficulty in siting, nuclear and fossil [carbon, capture and storage] generation become important.”³ The study also finds that more offshore wind will be necessary if land area is limited for solar and wind development.⁴ We know this to be the case in California, where federal land restrictions have virtually halted development in most of Southern California’s vast desert areas,⁵ and where the proposed listing of the Joshua Tree as a California endangered species based on potential risk from climate change portends further listings that will likely curb development on land.⁶ Planning transmission that provides access to California’s offshore wind resources must therefore be a central focus of California’s efforts to achieve carbon neutrality.

An important area where the Carbon-Neutral Pathways Study differs from California, however, is that it assumes that all existing natural gas capacity can (and should) be maintained for reliability, operating infrequently, as an important means of maintaining system reliability while minimizing the cost of achieving carbon-neutrality goals. But California has already made the decision – in 2010 – to eliminate once-through cooling at coastal power plants, leading to the repowering of some of these plants (with evaporative cooling), the retirement of 8,100 MW, and the still-planned retirement of another nearly 7,000 MW of OTC capacity.⁷ Moreover, the California Legislature has directed the CPUC to prioritize the improvement of air quality affecting disadvantaged communities (“DACs”) in its Integrated Resource Planning process, which ought to lead to further gas-plant retirements in the LA Basin.⁸

² Statement of Margaret Torn, one of the study’s lead authors, quoted in Berkeley Lab’s News Center. See <https://newscenter.lbl.gov/2021/01/27/getting-to-net-zero-and-even-net-negative-is-surprisingly-feasible-and-affordable/>.

³ Note 1 *supra* at p. 19. (Emphasis added.)

⁴ *Id.* at p. 7.

⁵ See, e.g., *Desert Sun*, “Trump administration announces 11th-hour rewrite of desert conservation plan” (January 15, 2021). (Available at: <https://www.desertsun.com/story/news/environment/2021/01/15/trump-administration-announces-rewrite-desert-conservation-plan/4145109001/>.)

⁶ See AWEA-CalWEA-LSA-SEIA Letter to Fish & Game Commission (August 6, 2020). Available at <https://www.calwea.org/Public-Filing/Awea-Calwea-Lsa-Seia-Letter-Fish-Game-Commission-And-Attachment-Re-Joshua-Tree>.

⁷ 2019 IEPR at p. 199.

⁸ Public Utilities Code 454.52(a)(1)(I). Also see, e.g., “Comments of the California Environmental Justice Alliance and Sierra Club on Transmission Planning Process and Busbar Mapping” at p. 8 in CPUC Rulemaking 20-05-003.

And yet, as the 2019 IEPR summarized, the CPUC issued a decision in November of 2019 recommending that the State Water Resources Control Board extend the OTC compliance deadlines for over 5,000 MW of units that were slated to retire in 2020.⁹ While extensions have been granted for between one and three years, it is not clear how these retirements will ever occur without jeopardizing system reliability unless major transmission upgrades into the LA Basin are made. In recent comments before the Joint Agency SB 100 process, the CAISO raised significant concerns about a portfolio dominated by solar and batteries, including charging during multiple-day periods of cloud coverage and dramatically increasing ramping requirements.¹⁰ In subsequent study, the CAISO found significant limitations to relying on batteries for reliability in the LA Basin; it found that (without the ability to charge batteries with additional transmission capacity) four-hour batteries would be capable of meeting just 1,070 MW of the local reliability need on a one-for-one basis.¹¹ Thus, beyond this amount of battery capacity, batteries would have to be charged by in-basin gas resources, increasing local emissions in an area where there is a high percentage of DACs.¹² The IEPR should study whether batteries in the LA Basin are a real solution for increased reliability in the next five years, or whether they would be dependent on OTC units that are scheduled to retire, let alone allow those units to retire.

For these and other reasons, the IEPR should not limit consideration of “Energy Reliability Over the Next Five Years” to local resources that might be deployed in constrained areas within the next five years. Rather, the major focus of this element of the IEPR should be on proactive and holistic transmission planning to identify long-term reliability solutions that simultaneously address a number of critical issues: enabling the planned retirement of the remaining OTC units, providing charging capacity for batteries (including EV batteries) in constrained areas, and providing transmission deliverability to utility-scale resources, including wind, offshore wind, solar and storage resources outside of constrained areas, particularly offshore wind resources off the Central Coast and the Central Valley, where development activity is strong. As the CAISO has also stated, “It is critical for policy makers to act now to diversify the fleet based on energy and reliability needs”; CAISO recommended that intentional steps be taken to “unlock value.” Building backbone transmission capability in California, particularly adding

⁹ 2019 IEPR at p. 199.

¹⁰ Energy Commission Docket 19-SB-100, “Planning for reliability and resource adequacy under SB100 - California ISO Presentation.” (February 25, 2020.) (Available at: <https://www.energy.ca.gov/event/workshop/2020-02/senate-bill-100-modeling-inputs-and-assumptions-workshop>.)

¹¹ See CAISO presentation, *Preliminary Policy and Economic Assessments, 2020-21 Transmission Planning Process* (November 17, 2020) at PDF-p. 163.

¹² If it is not possible to run LA-Basin gas plants harder because these plants are in a non-attainment zone for air quality, then the added storage could not be charged during critical periods and would thus carry no reliability value during critical periods – which is the very purpose of adding batteries.

transfer capacity between Northern and Southern California, is an obvious and critical “no regrets” next step. It is also consistent with the findings of the Carbon-Neutral Pathways Study that transmission infrastructure is a foundational need to achieve carbon neutrality under any long-term resource pathway.

CalWEA appreciates the Commission’s consideration of these recommendations and looks forward to further participation in this process.

Sincerely,

A handwritten signature in cursive script that reads "Nancy Rader".

Nancy Rader
Executive Director
California Wind Energy Association
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