

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

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

Rulemaking 25-06-019

**CALIFORNIA WIND ENERGY ASSOCIATION COMMENTS
ON BUSBAR MAPPING OF ELECTRICITY RESOURCE PORTFOLIOS
FOR 2026-2027 TRANSMISSION PLANNING PROCESS**

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

November 21, 2025

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I. INTRODUCTION AND SUMMARY

Pursuant to the November 3, 2025, *Ruling Seeking Comments on Busbar Mapping of Electricity Resource Portfolios for 2026-2027 Transmission Planning Process* issued by Administrative Law Judge Julie Fitch, the California Wind Energy Association (“CalWEA”) provides these comments on the busbar mapping information provided by Commission staff in the webinar and on the website for the Integrated Resource Planning (“IRP”) regarding assumptions for the 2025-2026 Transmission Planning Process (“TPP”).

In summary:

- The Commission should reiterate its previous request to CAISO that it study transmission upgrades to access Northeast California wind resources,
- Staff should increase the in-state wind contained in the draft portfolio to reduce transmission-related and other resource risks, and
- Staff should heed CalWEA’s recommended busbar locations for in-state wind.

II. COMMENTS

A. The Commission Should Reiterate Its Previous Request to CAISO that it Study Transmission Upgrades to Access Northeast California Resources

In its February 26, 2025, decision adopting the resource portfolio for the CAISO’s 2025-26 TPP cycle, the Commission requested that CAISO study transmission solutions, including routes and potential costs, to deliver 1,150 MW of in-state (but out-of-CAISO) northeast California wind

resources, and to interface with BPA and NVE about potential regional solutions.¹ The Commission indicated that this planning information would inform its further consideration regarding whether to plan for such transmission solutions in the Commission’s present IRP-TPP cycle. CalWEA is alarmed that CAISO is proposing not to fulfill this request.² This information is needed, and the Commission should immediately remind CAISO of its request. Sufficient time remains for CAISO to conduct the study before the end of the year.

B. Staff Should Increase the In-State Wind Contained in the Draft Portfolio to Reduce Transmission-Related Risks

For the following reasons and in view of parties’ questions and comments during the webinar relating to out-of-state resources and transmission, CalWEA continues to recommend that Commission staff increase the in-state wind contained in the draft portfolio and map those resources to the regions – and the specific busbars noted below – where wind resource development is most likely.

¹ The CPUC stated the following in its Decision 25-02-026:

- p. 59 “...1,150 MW of in-California wind that is mapped to substations in far Northeast California and outside of the CAISO balancing area ...”
- p. 62: “[W]e will ask [CAISO] to undertake a special study of the various routes and combinations for the OOS wind amounts [including Northeast California wind] to learn more information about the details of potential routes. This will allow for analysis of alternative locations for injecting the resources onto the CAISO grid and the potential transmission solutions.”
- p.63 “[F]or this year’s TPP, we are asking the CAISO to do additional study on transmission solutions to upgrade the NVE/BPA system or directly interconnect the CAISO grid to deliver these in-state (but out-of-CAISO) wind resources.

Also see Conclusions of Law 13 and Ordering Paragraph 2.

² In the CAISO’s slides for its Sept. 24-25, 2025, Stakeholder Meeting, CAISO acknowledged the CPUC’s request, and yet, the diagram on p. 9 shows 1,150 MW as “Out of CAISO Imports” at Malin. Slide 27 states, “in 2035 base portfolio and 2040 base and sensitivity portfolio cases, these resources are modeled off-line. Instead, we build a 2040 out-of-state wind sensitivity case to have all these resources on to study any system impact and transmission solutions that are driven by these out-of-state wind resources.”

On the stakeholder call, CalWEA asked CAISO to describe the off-line modeling. CAISO responded that there is sufficient MIC to support Northeast California wind resources and, therefore, they are not modeled in the sensitivity study. These resources are assumed to be included in import flows into CAISO. CAISO’s proposal contradicts, and fails to fulfill, the CPUC’s request. MIC availability is very limited, and load-serving entities control its use. It is short-term and thus generally does not support project financing. In any case, MIC is no substitute for transmission upgrades that access Northeastern California.

1. In-state wind energy is a proven resource and technology largely under the state’s control.

As CalWEA explained in comments on the Ruling,³ planning for a more resource-diverse portfolio diversifies the various risks associated with each resource and technology type. In-state wind is a proven, cost-effective resource, and it is reasonably likely that wind energy tax credits will be restored in 2028. Regarding transmission specifically, California controls the planning and permitting for needed transmission, unlike out-of-state and offshore resources.

2. The transmission required to access out-of-state wind is uncertain.

As CAISO has stated,⁴ and as noted by a webinar participant,⁵ CAISO has been challenged to meet the out-of-state resource requirements included in the draft resource portfolio, and the results of CAISO-CPUC studies, including refined per-unit cost estimates, are not yet completed. While the base portfolio includes 7 GW of out-of-state wind by 2036 and 17 GW by 2041, there are no known transmission projects that can integrate required resources beyond the 5.9 GW that can be carried on the SWIP-N (Idaho), TWE (Wyoming), and SunZia (New Mexico) transmission projects.

Moreover, according to a participant’s comment during the webinar, the Idaho Public Utilities Commission hasn’t yet granted a CPCN for the SWIP-N line to accommodate staff’s presumed 1.1 GW from Idaho; Idaho’s Jerome County remanded the SWIP-N special use permits to the Planning and Zoning Commission (this action was taken on October 7, 2025); and BLM terminated a Resource Management Plan (RMP) Amendment process for the Robinson Summit substation expansion for SWIP-N.⁶ These actions were taken partly in response to opposition to the Lava Ridge Wind Project (which has been cancelled by the Trump Administration⁷) due to its

³ CalWEA Comments on Electricity Portfolios for 2026-2027 Transmission Planning Process and Need for Additional Reliability Procurement (October 22, 2025), at Questions 4 and 27.

⁴ CAISO *2025-2026 Transmission Planning Process Stakeholder Meeting* (Sept. 24-25, 2025) at slide 36.

⁵ See comments of Pushkar Wagle in staff’s “Edited Q & A Transcript for TPP Webinar – Preliminary Busbar Mapping Results for the Proposed 2026-2027 TPP portfolios: 9 AM – Noon on 11/12/2025” (“Edited Q & A Transcript”).

⁶ See comments of Dan Sakura in staff’s Edited Q & A Transcript. CalWEA confirmed the validity of these statements.

⁷ *Idaho Capital Sun*, “U.S. Secretary of Interior announces end to Lava Ridge wind project in Idaho” (August 6, 2025).

proximity to the Minidoka War Relocation Center site. Staff responded that these factors caused it to delay the first available year of Idaho wind until 2031, but that assumption may prove optimistic.

A Cal Advocates representative also pointed out that staff is assuming 3.1 GW of wind at the Pinal Central/Palo Verde intertie point, while Sunzia's entitlements total only 2.1 GW from Pinal Central to PV.⁸ (Staff responded that it is discussing other deliverability options with CAISO.)

CalWEA notes that the permitting and operating risks associated with building thousands of miles of transmission are inherently higher than building transmission lines closer to in-state loads.

Staff can mitigate these risks and uncertainties in part by restoring in-state wind resources to a more reasonable level. As explained in CalWEA's comments on the Ruling, this can and should be done by relaxing the overly broad and arbitrary land-use screens that exclude promising wind resources in areas where wind development is legally permissible.⁹ In addition, staff should re-evaluate in-state capacity factors using industry-standard tools.¹⁰

C. Staff Should Heed CalWEA's Recommended Busbar Locations for In-State Wind

For the reasons stated above and in our comments on the October 22, 2025, Ruling, CalWEA recommends that staff increase planned in-state wind capacity and locate the resources in the areas with the highest commercial development potential, as indicated in the following table. These figures have been refined since CalWEA's October 22, 2025, comments, with capacity totaling just over 4 GW in 2036.

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⁸ See comments of Christian Lambert in staff's Edited Q & A Transcript.

⁹ *Supra* note 3 at pp. 4-6. As CalWEA documented, these screens would have eliminated over 40% of existing wind projects that have already completed permitting processes.

¹⁰ *Id.* at pp. 5-6.

CalWEA Recommended Busbar Locations for In-State Wind (2036 FCDS)

Study Area (and busbars)	CPUC 26-27 Base Case Initial Mapping - Compact Dashboard by Substation - FCDS 2036	CPUC 26-27 Base Case Initial Mapping - Compact Dashboard by Substation - EO 2036	CalWEA Recommendations - 11/21 Busbar Mapping Comments - FCDS 2036	Rationale
PG&E NGBA (Including Northeast CA)	0	712	1150	
Hilltop			150	1,150 MW in NVE queue; CPUC included 1,150 MW in its previously adopted portfolio. High-potential area. Area also has potential for ~1 GW solar on private lightly used farm land in 395 corridor and 178 MW geo in the proposed portfolio. CPUC's 2024 busbar mapping shows 1,150 MW interconnected at these substations. Alternatively, all capacity could be located at Madeline.
Leavitt (NV)			300	
Madeline (new substation)			700	
Humboldt 500 kV		170.7		
Lambie 230 kV		130.0		
Cortina 230 kV		101.0		
Calpella 115 kV		100.0		
Caribou 115 kV		95.0		
Madison 115 kV		95.0		
Vaca Dixon 500 kV		20.0		
PG&E GBA	230	-	0	No development activity
Salinas	60.0			
Burlingame	50.0			
Crazy Horse Canyon	50.0			
Soledad	50.0			
Race Track	20.0			
PG&E Fresno			200	
Wilson 230 kV			200	Small potential area but development activity (C15 in 24-25 TPP)
PG&E Kern	0		0	
SCE Northern	0		750	High resource potential in Kern and LA Counties. Development area remains in Kern County's wind zone. 100-MW Keyhole Project is permitted with GIA and additional development activity is occurring. In addition, there is opportunity to increase nameplate capacity when existing wind projects are repowered.
Windhub	0		500	
Antelope	0		250	
SCE Metro	0		0	No development activity
SCE NOL	0		0	No development activity
SCE Eastern	263	60	323	
Bannister	0	60	60	
Devers	263		263	
SCE EOP	321		0	
Sloan Canyon	321		0	Wind development at Sloan Canyon has been abandoned due to the establishment of a national monument in the area
SDG&E	990		1613	
East County (ECO) 500 kV	350		973	The 350 MW at ECO reflects the fourth phase of Semptra's Energía Sierra Juárez project, which has financially binding offtake agreements with counterparties. Consistent with our comments on the Ruling, we have added capacity at ECO to reflect Ignis's GIA for 974 MW with SDG&E at that substation. CalWEA is indifferent to the placement of additional SDG&E Study Area wind capacity provided it is located in the 500kV corridor around the Imperial Valley Substation.
New Sub - Suncrest - Ocotillo (Proposed 500 kV)	280		280	
Boulevard East (138 kV)	180		180	
Ocotillo Express (500 kV)	130		130	
Imperial Valley (500 kV)	50		50	
TOTAL	1,804	772	4,036	

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Respectfully submitted,

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***On behalf of the California Wind Energy
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October 22, 2025