



[CalWEA Comments as Submitted into the ISO online comment template on 4/25/22.]

Submit comment on draft transmission plan

2022-2023 Transmission planning process

1. Please provide your organization's overall comments on the Draft 2022-2023 Transmission Plan April 11, 2023 stakeholder call discussion.

CalWEA appreciates and supports the very substantial progress that would be made in this draft plan towards several elements in the CAISO's 20-Year Transmission Outlook aimed at achieving California's SB 100 climate goals. We are disappointed, however, at the lack of progress in this cycle on intra-state upgrades that would facilitate clean energy developments in, and directly interconnected to, California, particularly upgrades that would support offshore wind in Northern California and relieve north-south transmission constraints.

Given a reasonable expectation that there will be significant public challenges to portions of the planned upgrades from the eastern border into the Los Angeles (L.A.) area, we urge CAISO to add the subsea Pacific Transmission Expansion Project (PTEP) to the 2022-23 plan. This project similarly relieves the transmission-constrained Los Angeles area while bringing additional important benefits and it avoids land-based siting challenges, thus it would additionally serve as a hedge against the potential delays and cost-overruns – and even cancellations -- that are possible with planned project elements that course through numerous sensitive and urban areas. Moreover, adding the PTEP in the current plan would enable it to capture substantial federal tax benefits and to begin the development process.

2. Provide your organization's comments on chapter 1 Overview of the Transmission Planning Process.

No comment at this time.

3. Provide your organization's comments on chapter 2 Reliability Assessment.

No comment at this time.

4. Provide your organization's comments on chapter 3 Policy-Driven Need Assessment.

In its December 2022 comments, CalWEA noted that CAISO was planning to use a very different approach to identifying mitigations in the PG&E area than in southern California and the GridLiance planning areas and advocated for uniform treatment wherein the 30 MMT high electrification sensitivity portfolio would be used to bolster transmission upgrades identified as needed in the base

case. As this incongruity was not addressed, it is unfortunate, but not surprising, that relatively few upgrades in the PG&E planning area are included in the draft plan. Thus, the effect of the plan is to promote resources in Nevada, Arizona, and New Mexico without providing comparable support for in-state resources, particularly in PG&E's planning area. (While the plan does support development in San Diego and Imperial Valley, as well as direct interconnections from Baja California, CalWEA disagrees with the statements in the plan summary posted on the CAISO's blog¹ that the plan supports development in the Central Valley and Tehachapi areas. Very limited upgrades are planned for PG&E's planning area.²)

As a result, the plan does not address the Path 26 constraint, which is needed for Northern California resources to obtain deliverability, does not include upgrades that may be needed to achieve the Central Coast offshore wind in the base resource portfolio, and does not make significant progress toward the offshore wind resources in the 30 MMT plan. Instead, the plan relies on two proposals from the eastern border to relieve transmission constraints into the L.A. basin, at least one of which could prove very difficult to permit. We discuss these issues in turn.

Path 26. The PTEP project would bring many policy benefits, including providing Path 26 congestion relief, reducing the transmission constraints to the L.A. basin, reducing reliance on gas resources in the L.A. basin, providing access to Morro Bay offshore wind resources for the major southern California load centers, and facilitating access to Central Valley resources. In addition, this subsea solution would provide important wildfire risk-reduction benefits and, by interconnecting at coastal sites, would avoid the need for new urban infrastructure. The latter aspect is particularly relevant because the subsea routing is likely to face fewer permitting challenges compared with the fraught paths of at least one of the proposed projects from the eastern border of the state into the L.A. Basin, discussed below. Including PTEP in this year's plan, while earnestly working to bring in LADWP as a participant, would position the project to capture substantial federal grants and loans that are available from the Infrastructure Investment and Jobs Act legislation that Congress passed in 2021. These benefits would significantly lower costs to ratepayers. Including the project in this year's plan would also allow the project to begin the development process, which would better enable the state to timely achieve its SB 100 goals.

Offshore wind. While the base resource portfolio includes only 1,588 MW of Morro Bay offshore wind, the sensitivity portfolio includes 3,100 MW of that resource. The methodology used for southern California and GridLiance, but inexplicably not for PG&E, allowed solutions needed for the base case to be expanded based on the sensitivity case.³ Assuming the retirement of the Diablo Canyon nuclear power plant, sufficient capacity could theoretically become available for the base case amount of offshore wind, but there is and will be substantial competition for this capacity and therefore it cannot be counted on, certainly not for 3,100 MW of offshore wind capacity, or more⁴.

¹ See <http://www.aiso.com/about/Pages/Blog/Posts/Draft-2022-2023-Transmission-Plan-posted.aspx>.

² We do appreciate that the plan reflects CalWEA's proposal for a longer-term solution than the previously proposed series reactor solutions for the 230kV line overloads North of the Greater Bay Area. Specifically, we support the removal of the series cap from Vaca Dixon to Collinsville, which will effectively reduce flows not only on Collinsville-Pittsburg, but also on Vaca Dixon to Collinsville to Tesla.

³ For example, CAISO adjusted the CPUC portfolio by adding all resources in the south that have allocated TPD. This was not done for PG&E area. These adjustment played a big role in triggering upgrades in southern California. Additionally, CAISO boosted upgrades using the sensitivity portfolio in the south, but not in the north. For example, there is 2,689 MW undeliverable resources behind Borden-Storey in the sensitivity portfolio in the Fresno LCR Area, but CAISO is only proposal reconductoring for 581 MW resources in the base portfolio.

⁴ The three Morro Bay offshore wind lease areas will be able to support 5 GW or more, given industry norms that enable power densities of at least 5 MW/km².

To support cost-effective deliverability for Morro Bay offshore wind resources and other Northern California resources, CalWEA encourages CAISO to add to the plan a 500-kV collector station at Morro Bay. Inclusion in this year's plan would also expedite this upgrade, which will support the Energy Commission's adopted 2030 offshore wind planning goals of 2-5 GW.⁵ Additionally, CalWEA encourages CAISO to make incremental steps to support the CPUC's plans for major offshore wind capacity at the North Coast. Upgrading the Fern Road Substation to Tesla Substation path, as noted in the CAISO's 20-year conceptual plan, would be a very reasonable backbone upgrade that would support North Coast offshore wind resources as well as other Northern California resources.

Fraught path of proposed Southern California upgrade. As noted above, the proposed plan relies on two proposals for major upgrades from the eastern California border to relieve transmission constraints into the L.A. basin. CalWEA appreciates that these upgrades generally respond to SB 887, which encouraged relieving LA basin transmission constraints, and we support these proposals. However, at least one of the proposals could prove very difficult to permit. The proposed 500-kV transmission line from the Imperial Valley Substation to a new substation just north of the San Onofre Nuclear Generating Station (IV-to-SONGS) would greatly enhance reliability along the coastal region of Southern California, would provide access to an abundant supply of new renewable energy resources, and reduce reliance on, if not enable the decommissioning of, aging coastal fossil fuels power plants.

But the IV-to-SONGS path is a difficult one. The experience of the Sunrise Powerlink is instructive. It took SDG&E over seven years to permit that upgrade, a 500-kV line that now runs from Imperial Valley to San Diego, partly along the U.S. border. The CPUC rejected a proposed route through the Anza-Borrego Desert State Park and required SDG&E to implement significant and costly mitigation measures to minimize the environmental impact of the project. The initial \$700 million cost estimate rose to some \$2 billion when finally completed in 2012.

The proposed IV-to-SONGS upgrade will be similarly controversial, because it will likely require a new transmission corridor through areas of the Anza Borrego and/or the Cleveland National Forest and tribal lands, requiring more time to permit and likely leading to costly mitigation measures. (Using the Sunrise Powerlink corridor would not diversify wildfire and other risks.) The proposed plan estimates the cost of IV-to-SONGS at \$2.3 billion, only modestly above the cost of Sunrise. And yet the plan estimates that the upgrade would traverse 145 miles – nearly 40 percent more than the distance of the 92-mile Sunrise Powerlink⁶, which was built over a decade ago. Thus, the estimated cost seems too low, particularly given the likelihood of delay and mitigations.

None of the above is to oppose inclusion of the proposed IV-to-SONGS upgrade. Regulators and the public are far more cognizant and supportive of the need for transmission to meet urgent climate change goals at least cost. But the potential controversy and cost of this particular path could lead to delay, and conceivably project cancellation, and therefore it would be prudent also to include in the plan the PTEP project, which avoids impacts on local communities and sensitive areas and would bring additional benefits as noted above.

5. Provide your organization's comments on chapter 4 Economic Planning Study.

No comment at this time.

⁵ See CEC Report CEC-800-2022-001-REV (August 2022).

⁶ See https://ia.cpuc.ca.gov/environment/info/aspensunrise/dnas/PMR_DNA_090110.pdf.

6. Provide your organization's comments on chapter 5 Interregional Transmission Coordination.

No comment at this time.

7. Provide your organization's comments on chapter 6 Other Studies and Results.

No comment at this time.

8. Provide your organization's comments on chapter 7 Special Reliability Studies and Results.

No comment at this time.

9. Provide your organization's comments on chapter 8 Transmission Project List.

No comment at this time.