

DOCKETED	
Docket Number:	17-MISC-01
Project Title:	California Offshore Renewable Energy
TN #:	248723
Document Title:	Bay Area Municipal Transmission group Comments on AB 525 Conceptual Permitting Roadmap
Description:	N/A
Filer:	System
Organization:	Bay Area Municipal Transmission group
Submitter Role:	Public Agency
Submission Date:	2/10/2023 9:16:04 AM
Docketed Date:	2/10/2023

*Comment Received From: Bay Area Municipal Transmission group
Submitted On: 2/10/2023
Docket Number: 17-MISC-01*

BAMx Comments on the AB 525 Conceptual Permitting Roadmap

Additional submitted attachment is included below.

BAMx Comments on the AB 525 Conceptual Permitting Roadmap and Preliminary Assessment of Economic Benefits from Offshore Wind

Assembly Bill 525 (AB 525, Chiu, Chapter 231, Statutes of 2021) requires the California Energy Commission (“CEC”) to develop and submit to the Natural Resources Agency and the relevant fiscal and policy committees of the Legislature, a permitting roadmap that describes timeframes and milestones for a coordinated, comprehensive, and efficient permitting process for offshore wind energy facilities and associated electricity and transmission infrastructure off the coast of California. The CEC issued AB 525 Draft Conceptual Permitting Roadmap for Offshore Wind Energy Facilities Originating in Federal Waters off the Coast of California (“Roadmap,” hereafter).

The Bay Area Municipal Transmission group (“BAMx”)¹ appreciates the opportunity to comment on the Roadmap and the subsequent CEC staff presentation in the December 19, 2022, AB 525 workshop².

AB 525 Conceptual Permitting Roadmap Lacks Direction and Details on Transmission Permitting

AB 525 requires the CEC, in consultation with the California Public Utilities Commission (“CPUC”) and California Independent System Operator (“CAISO”), to assess the transmission investments and upgrades necessary, including subsea transmission options, to support the offshore wind planning goals for 2030 and 2045.³ The assessment must include relevant cost information for subsea transmission and network upgrades, as well as the extent to which existing transmission infrastructure and available capacity could support offshore wind energy development. The conceptual permitting Roadmap seems to be intended to apply only to permitting processes for transmission that would be evaluated as part of offshore wind energy developments up to their first onshore points of interconnection.⁴

The Roadmap makes only the following reference to transmission permitting assessment.

“To the extent feasible, the assessment of transmission investments as part of the AB 525 strategic plan, including those investments that go beyond the first point of shoreside interconnection, will include information on the types of approvals and permits necessary to develop the land-based transmission infrastructure required to deliver energy from offshore wind turbine projects. The CEC is developing the assessment in consultation with the California Public Utilities Commission (CPUC) and California Independent System Operator (CAISO), and the assessment is expected to complement and align with ongoing work among these entities on the State’s transmission and resource planning processes to facilitate the development of the infrastructure required to meet SB 100.”

¹ BAMx consists of City of Palo Alto Utilities and City of Santa Clara, Silicon Valley Power.

² “AB 525 Workshop Preliminary Assessment of Economic Benefits from Offshore Wind: Related to Seaport Investments and Workforce Development,” December 19, 2022.

³ Commission Report-Offshore Wind Energy Development off the California Coast, 8/1/2022, p.20.

⁴ Roadmap, p.3.

However, the Roadmap lacks details on how the transmission permitting would change depending on the scale and location of the offshore wind. For example, there is hardly any transmission available in the Humboldt area to accommodate offshore wind of any significant capacity.⁵ This means that there will be significant challenges with transmission permitting in the Humboldt area relative to the Central coast to develop offshore wind. Furthermore, the Roadmap is silent on the transmission infrastructure scope, permitting process, and cost of subsea transmission, and the need for network upgrades. BAMx looks forward to the AB 525 Offshore Wind Transmission assessment public workshop in March 2023, where we expect to have the results and study findings associated with the need and costs for transmission upgrades and new investments, including subsea cables.⁶

BAMx is Concerned About Significantly Underutilized or Stranded Transmission Assets

The California Fishermen's Resiliency Association, in their comments submitted to the CEC on February 3, 2023, raised several concerns on adverse impacts associated with offshore wind development that would potentially pose permitting challenges.⁷ They pointed out multiple issues that need to be addressed from an environmental impact standpoint. They also documented the constantly changing description of the wind project, which illustrates that the technology is still changing and improving and the scale of the project has yet to be finalized. Given the uncertainty of the magnitude of environmental impacts and uncertainty of the size of the wind project, it is prudent not to start construction for offshore and onshore transmission infrastructure until 1) the design is finalized, 2) all impacts of the wind farm (offshore windfarm itself, needed port improvements, and offshore and onshore transmission developments) are evaluated, 3) permitting is completed for each component, and 4) firm commitments to purchase the output of each offshore wind project has been secured. BAMx is concerned that the absence of such approach will likely lead to underutilized or stranded transmission assets.

The Economic Benefit of Offshore Wind Should Also Fully Address Ratepayer Impacts

BAMx appreciates the CEC staff's presentation, dated December 19, 2022, on the economic benefits that are expected from offshore wind energy development. BAMx endorses the staff's inclusion of direct economic benefits related to the port operations and resulting growth and indirect economic benefits related to economic growth in upstream industries from spending at ports. At the same time, BAMx believes the Staff needs to evaluate any adverse economic impacts such as those pointed out by the California Fishermen's Resiliency Association. BAMx also urges the CEC to play an active role in evaluating the overall ratepayer impact of all components of offshore wind procurement, including both offshore and onshore transmission infrastructure needed to deliver the energy.

⁵ Commission Report-Offshore Wind Energy Development off the California Coast, 8/1/2022, p.27.

⁶ AB 525 Workshop: Assessing Transmission Upgrades and Investments for Offshore Wind, November 10, 2022, slide #13.

⁷ California Fishermen's Resiliency Association Comments on Preliminary Assessment of Economic Benefits of Offshore Wind, 17-MISC-01, 2/3/2023.

BAMx appreciates the CEC staff's collaboration with the CPUC and the ISO to evaluate offshore wind as part of California's renewable energy portfolio and as part of the portfolio of eligible renewable energy and zero-carbon resources to meet the energy goals of SB 100. However, BAMx is concerned that the CPUC has not adequately taken into account all types of onshore and offshore transmission costs triggered by offshore wind development.

For instance, the draft Base portfolio proposed by the CPUC for the CAISO 2023-2024 Transmission Planning Process ("TPP") increases the Humboldt Bay area offshore wind from 120MW in the last year's Base Case in 2032 to 161MW in 2033 and 1,607MW in 2035.⁸ It appears that RESOLVE has made these selections based on the assumption that any increase in the Humboldt Bay area offshore wind beyond 120MW (which can be accommodated on the existing transmission) up to 1,607MW would trigger a transmission upgrade of approximately \$2.3 billion. BAMx has two concerns about this resource selection. First, RESOLVE, the capacity expansion model used by the CPUC in the Integrated Resource Planning process ("IRP"), is a linear optimization and cannot correctly analyze all-or-nothing transmission upgrade decisions.⁹ RESOLVE's selection of a partial transmission upgrade ignores the real world where a specific transmission project is either built or not built. Transmission additions are very lumpy. RESOLVE's assumptions of linear/incremental transmission upgrades and associated generating resources that depend on them are highly problematic. It does not reflect the actual cost of transmission needed to access the offshore resources. By including only the partial cost of the transmission project to access Humboldt offshore wind, RESOLVE seems to unfairly favor offshore wind resources over competing in-State resources and/or those resources that could be accessed on existing transmission. Second, RESOLVE seems to have assumed the least possible transmission cost to access Humboldt offshore wind, which may or may not be a reasonable assumption. The CAISO 20-Year Transmission Outlook identified the following transmission upgrade cost to access a total of 4,000 MW Humboldt offshore wind connected through two of the following three options:¹⁰

- Option 1 (Fern Road): **\$2.3 B**
- Option 2 (Bay Hub): \$4.0 B
- Option 3 (Collinsville): \$3.0 B

Furthermore, the CAISO identified that additional facilities to interconnect the transmission options connecting to the different offshore wind areas within Humboldt would cost an additional \$0.5 B - \$1.0 B.¹¹ It does not appear that the Base portfolio selection of 1,607 MW of Humboldt offshore wind considered a portion of this additional transmission cost. Moreover, the offshore transmission infrastructure cost should also be included in the procurement cost. In

⁸ CPUC Rulemaking 20-05-003, Administrative Law Judge's Ruling seeking comments from parties on electric resource portfolios to be used in the California Independent System Operator's (CAISO's) 2023-24 Transmission Planning Process ("TPP"), pp.6-7. See Table 1: Comparison of New Resources Included in Base Case TPP Portfolios (in megawatts (MW)).

⁹ Commission, Integrated Resource Planning (IRP) Proposed Preferred System Plan Analysis Workshop, September 1, 2021, slide #83.

¹⁰ CAISO 20-Year Transmission Outlook, May 2022, p.57.

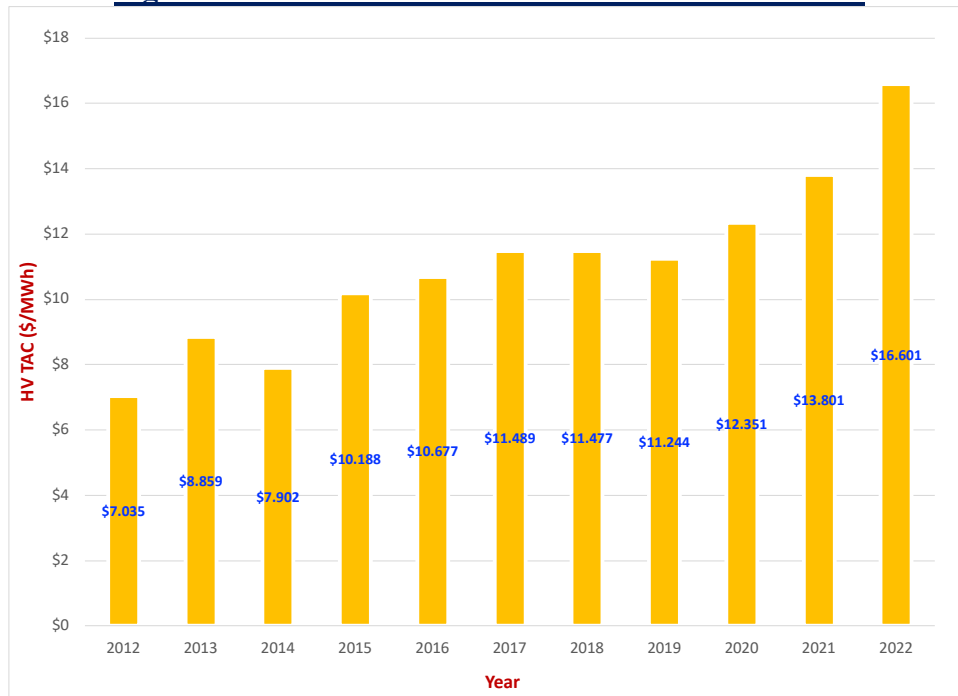
¹¹ The Base portfolio resource selection seems to have assumed the transmission cost associated with Option 1 above. It is unclear whether RESOLVE would have selected any Humboldt offshore wind if Option 1 was not feasible, and the remaining two options had to be considered.

summary, the transmission cost associated with offshore wind procurement must be better understood and fully considered in the procurement decisions. As we point out below, this concern can be partially addressed by adopting the subscriber-based model for transmission development.

Placing Different Procurement Options on Equal Footing

The CAISO High Voltage Transmission Access Charge (“HV TAC”) has increased from \$7.04/MWh in 2012 to \$16.60/MWh in 2022, as shown in Figure 1 below. This translates to nearly 136% increase in cost over the last decade. Given the skyrocketing transmission costs in the State, it is critical to provide the correct procurement signals to the purchasing entity in the State so that the responsible party bears the cost of transmission upgrades triggered by their resource procurement. One model currently under consideration in the CAISO system is the Subscriber Participating Transmission Owner (SPTO) Model.¹² Under SPTO, the entity procuring the remote resources ends up paying for the transmission upgrades triggered by them as opposed to those costs being socialized across the entire CAISO footprint under the current CAISO Tariff. In other words, the SPTO model is consistent with the cost-causation principle; the customers who cause the cost should pay them. The CAISO is currently considering the SPTO model for the TransWest Express transmission project that is envisioned to access nearly 1,500 MW of Wyoming wind. Such a mechanism will help purchasing entities place the different procurement options on equal footing. The subscriber model should be applied to the remaining out-of-state and offshore wind projects.

Figure 1: Historical CAISO-Wide HV TAC: 2012-2022



¹² See <http://www.caiso.com/Documents/TransWestPTOApplication.pdf>

Permitting and Procurement Process Need to Be Cognizant of the Possibility of Stranded Assets

Transmission and port infrastructure will be critical components in accessing offshore wind resources. Any transmission and/or port project approval based on the long-term need, increases the possibility of dated decisions, especially adding transmission assets that may become sub-optimal with changing circumstances. An excellent example of changing planning conditions is the CAISO re-evaluation of the need for certain previously approved projects in the 2015-2016 and 2016-2017 Transmission Plan that resulted in cancellation and scope change for several small-scale and major transmission projects.¹³ At that time, consistently declining load forecasts across the entire forecast period – especially for the 1-in-10 peak load forecasts - as well as higher than anticipated development of behind-the-meter solar photovoltaic generation has put additional downward pressure on load-driven transmission projects, leading to a re-evaluation of the need for certain previously approved transmission upgrades that were predominantly load driven. The CAISO’s re-evaluation resulted in nearly \$3 billion of transmission cost savings to the ratepayers. There are no guarantees that such re-evaluation will happen in the future, which would increase the likelihood of stranded investments in transmission infrastructure.

Conclusion

BAMx is fully supportive of taking any necessary steps to achieve the State's climate goals. It also understands that electric rates will continue to rise to achieve those climate and reliability goals. It is incumbent on us all to do so in a manner that achieves those goals prudently, maintains affordability and reliability for our electricity users, and with minimum risk of project components becoming stranded assets. Furthermore, the project components should be selected to make offshore wind a cost-effective addition to the tools available to achieve the State’s climate goals. BAMx appreciates the opportunity to comment on the AB 525 Draft Conceptual Permitting Roadmap and the December 19th workshop. We hope to work with the Joint Agencies staff to continue to improve and enhance these efforts.

If you have any questions concerning these comments, please contact Paulo Apolinario (papolinario@svpower.com or (408) 615-6630).

¹³ CAISO 2016-2017 Transmission Plan, p.1.