



Submit comment on Draft 2023-2024 Transmission Plan

2023-2024 Transmission planning process

1. Please provide your organization's comments on Reliability-driven Projects Recommended for Approval.

No comment at this time.

2. Please provide your organization's comments on Frequency Response.

No comment at this time.

3. Please provide your organization's comments on Maximum Import Capability Expansion Requests.

No comment at this time.

4. Please provide your organization's comments on Policy-driven Projects Recommended for Approval.

Proposed Humboldt Upgrades

CalWEA appreciates and supports CAISO's intent to model the Humboldt offshore wind projects in the base case such that capacity will be reserved throughout the system, including downstream constraints, and we trust that CAISO will ensure that the associated TPD capacity will be reserved for these QC15 projects in new policies to be adopted in Track 3 of the 2023 IPE process.

CalWEA is concerned, however, that the proposed upgrades intended for Humboldt offshore wind resources will be insufficient to maximize the benefits of the proposed transmission investments and will not provide sufficient certainty to investors that need to be assured that deliverability capacity will be available. CAISO staff stated on the April 9 stakeholder call that deliverability upgrades will be considered in the Generation Interconnection and Deliverability Allocation Procedures (GIDAP); this is not appropriate because the deliverable capacity benefits of offshore wind are a primary driver for the inclusion of these resources in the CPUC's base case portfolio and thus should be included in the policy upgrades.

As proposed, offshore wind injects to the bulk grid at Fern Road and Collinsville. Both upgrades push flows onto the Collinsville - Tesla 500kV line and the Windmaster-Delta Pump 230kV line. Therefore, while the upgrades would provide grid access for offshore wind, these downstream constraints would prevent offshore wind projects from delivering to CAISO loads, and thus from

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obtaining deliverability. Extending the upgrades to the Tesla substation is necessary to relieve the downstream constraints and enable the offshore wind projects relying on these upgrades to obtain deliverability at a low incremental cost. Without providing deliverability, there is a greater potential for stranded costs because the upgrades will not enable additional RA capacity from north of Greater Bay Area.

To further improve the effectiveness of the TPP upgrade, CAISO should refine the design of the Collinsville substation upgrade and Humboldt-Collinsville upgrades with comprehensive planning analysis. This analysis should illuminate comparative costs and benefits, as well as siting challenges. The analysis should compare:

- 1) Humboldt-Collinsville vs. Humboldt-Tesla (avoiding Collinsville) vs. Humboldt-Collinsville-Tesla
- 2) Different series compensation levels on the Fern Road to Tesla corridor to optimize utilization of both the 500kV path and the 230kV path transmission facilities.

Regarding the new Humboldt-Collinsville 500kV line, please clarify:

- 1) The cost estimate for initial AC buildout.
- 2) The incremental capacity provided by the HVDC conversion. It seems that the limitation for accessing Humboldt offshore wind is from the outage of the Humboldt-Collinsville 500kV line. In that case, converting the line from AC to DC would not increase system capacity and would provide very little incremental benefit. That limited benefit will be even less if the upgrade is not extended to the Tesla substation.
- 3) How the HVDC line will be operated, such that additional benefits would be gained regardless of the selected line configuration. (We assume that, regardless of operating mode (AC or DC), the extension to Tesla would remain AC.)

Morro Bay Offshore Wind

CalWEA recommends that CAISO include a 500kV switchyard at Morro Bay in the TPP, as PG&E has already advised Q14 interconnection customers to relocate from the Diablo Canyon substation to the Morro Bay substation. A 500kV substation requires up to seven years to plan and build, and thus planning should start now to enable the 3.3 GW of development by 2033 that the CPUC has included in the latest Proposed System Plan. Further, CAISO should plan for an efficient collector substation for the three offshore wind lease areas to avoid multiple smaller collectors.

5. Please provide your organization's comments on the Economic Assessment.

No comment at this time.

6. Please provide your organization's additional comments on the Draft 2023-2024 Transmission Plan April 9, 2024 stakeholder call discussion.

Advanced conductors and other grid-enhancing technologies should be encouraged and evaluated in the competitive solicitation process to maximize carrying capacity at low incremental cost.