



Transmission Planning Process Enhancements Straw Proposal

Jeff Billinton

Director, Transmission Infrastructure Planning

*Transmission Planning Process Enhancements Stakeholder Call
September 30, 2022*

Reminders

- Calls are structured to stimulate an honest dialogue and engage different perspectives with the expectation that stakeholders have read the proposal.
- Please keep comments professional and respectful.
- We encourage stakeholders to submit questions via the WebEx chat feature.
- If time permits, verbal questions/comments will be addressed and time limits may be used to ensure we hear from all stakeholders.
- Please refrain from repeating or reiterating what has already been said so that we can manage the time efficiently

Scope of Transmission Planning Process Enhancements Initiative

- BPM change - Adjust the timeline for releasing the draft transmission plan each planning cycle from the end of January to the end of March, targeting approval of the final comprehensive annual transmission plan in each year's May Board of Governors meetings.
- BPM change - Coordinate with other planning processes and enable the ISO to approve major long lead time transmission projects needed beyond the current 10 year planning horizon.
- Tariff change - Retaining policy-driven transmission upgrade capacity for the resources that meet the specific policy purpose for which it was developed

Stakeholder Process



Adjust the timeline for the release of the draft transmission plan and ISO Board of Governors Approval

Transmission Planning Process

Structured three consecutive phases

- **Phase 1** - Establishes the assumptions and models for use in the planning studies and takes roughly three months from January through March of the beginning year.
- **Phase 2** - The ISO performs studies to identify the solutions to meet the various needs that culminate in the annual comprehensive transmission plan. This phase takes approximately 12 months. The ISO posts the draft transmission plan by January 31 for stakeholder comments prior to bringing the revised draft of the transmission plan to the ISO Board of Governors for approval at the March ISO Board of Governors meeting.
- **Phase 3** - In any given planning cycle, phase 3 may or may not be needed depending on whether the final plan includes regional transmission facilities that are open to competitive solicitation in accordance with criteria specified in the ISO tariff.

The ISO is intending to extend the posting of the draft transmission plan to March 31, holding a stakeholder meeting in April, and bringing the revised draft of the transmission plan to the May ISO Board of Governors meeting

- The increasing load and resource requirements in the CEC high electrification demand scenarios and CPUC associated resource portfolios, the volume and complexity of alternative analysis and development of the transmission plan has increased significantly
- To facilitate the detailed analysis to be incorporated into the draft transmission plan after the reliability, policy and economic assessments have been presented to stakeholders in September and November

Stakeholder comments

- On the topic of adjusting the timeline for release of draft transmission plan, there was general support for this change to the schedule of the transmission planning process.
- PG&E and SCE expressed concerns regarding the impacts to the next planning cycle and generation interconnection processes, particularly finalizing the base cases.
 - The CAISO will continue to work with the participating transmission owners on the development of the base cases. The draft Transmission Plan will be available in a similar time frame of the Board Approved Transmission Plan in March. The transmission upgrades identified draft Transmission Plan can be incorporated in base case development. If there are changes to the approved transmission in the Board Approved Transmission Plan, they will need to be updated in the finalized base cases for the planning and generation interconnection studies.

Implementation Plan

- The ISO is intending to implement in the 2022-2023 transmission planning process the extending of posting the draft transmission plan to March 31 and taking the transmission plan to the ISO's Board of Governors' May meeting for approval
- The ISO will be initiating changes to ISO Transmission Planning Process Business Practice Manual

Enable approvals for major long lead time transmission projects needed beyond the current 10 year planning horizon

Current Planning Horizon

- The planning horizon of the ISO's transmission planning process is currently 10 years, however the tariff requirement is at least 10 years and does not limit the ISO to 10 years.

Current Approval of Transmission Projects

- Based upon the need (reliability, policy or economic) and the timing to implement the mitigation plan within the 10-year planning horizon, the specific transmission expansion projects are included in the transmission plan of the planning cycle recommending the ISO Board of Governors' approval
- If a need has been identified within the 10-year planning horizon and additional needs are identified in the longer-term beyond the 10-year transmission planning horizon, such as the ISO's 20-Year Transmission Outlook, the ISO currently takes those additional needs into consideration in assessing alternatives and recommending transmission expansion projects for approval by the ISO Board of Governors
- The ISO processes do not currently lead to approving projects if the need only emerges outside of the current 10 year horizon

There may be need for approval of transmission expansion projects beyond the current 10-year planning horizon

- Timelines associated with development of major transmission development
- Load forecasts and resource requirements being projected beyond the 10-year planning horizon
- Increasing load in the CEC high electrification demand scenarios beyond 10-year planning horizon
- Increasing resource requirements in CPUC associated resource portfolios beyond 10-year planning horizon

Stakeholder Comments

- There was general support for the ISO approving projects of long-lead time transmission enhancements with the need beyond the 10-year planning horizon.
- Some commenters expressed concern with approving transmission projects in the longer-term due to uncertainty of load or resource needs and location.
 - Similar to the approach the CAISO applies to transmission projects where the identified need is beyond the expected in-service date of the recommended transmission upgrade, the CAISO can assess the uncertainty, and it may not seek approval of the transmission upgrade in the current planning cycle and continue to assess it in future planning cycles.

Implementation Plan

- The ISO is intending to implement the potential approval of transmission expansion projects needed beyond the current 10-year planning horizon starting in the 2023-2024 transmission planning process
 - The ISO will be initiating any changes required to the ISO Transmission Planning Process Business Practice Manual
 - The ISO will require coordination with CEC and CPUC on appropriate input assumptions

Retaining policy-driven transmission upgrade capacity for the specific policy purpose for which it was developed

Transmission Planning Process

Policy-driven Need Assessment

- Transmission planning process includes a framework for developing policy-driven transmission associated with state (and federal, although that has not yet been relevant) policy needs and direction
- Policy direction in the transmission planning process is not directly linked with interconnection requests seeking to utilize capacity as it is being developed, nor with the procurement activities of the large number of load serving entities now having procurement obligations
- Lack of direct coordination between processes may result in the policy objectives themselves ultimately not being achieved

Concept to achieve greater alignment between the interconnection process, procurement activity, and the ISO's transmission planning process

- Building on the existing concept of developing transmission capacity for planning purposes associated with achieving specific resource development, as a further step, withholding that capacity specifically for the policy-driven processes for which it was planned rather than relying on it for any and all interconnection requests received through the generator interconnection request windows

Benefits of Concept

- Could potentially help where new capacity is created with approved policy-driven transmission expansion projects or capacity is currently available and not already allocated to resources in the queue
 - Would not help where the overheated queue has already resulted in all available and planned capacity being allocated to resources already in the queue
 - Would benefit long-lead time resources in policy portfolios, such as geothermal, out-of-state wind and offshore wind

Stakeholder Comments

- Comments regarding the proposal to retain policy-driven transmission upgrade capacity for specific policy purpose for which it was developed were generally positive; although, some commenters expressed concerns that this might unduly discriminate against other resources.

Stakeholder Comments (continued)

- Many stakeholders supported the approach, including (CPUC Energy Division, BHE, ACP-CA, California Western Grid, NextEra, LS Power, and Offshore Wind California). Some stakeholders noted that in addition to supporting public policy requirements, the proposal could help to increase the amount of firm capacity available to the state. BHE suggested that the policy would enable compliance with CPUC Decision 21-06-035 calling for more “firm” (greater than 80% capacity factor) resources such as geothermal.
 - The ISO agrees that the proposal helps the state achieve its public policy goals. In particular, the proposal would help increase the availability of resources that contribute to overall system capacity, improving the state’s resource adequacy.

Stakeholder Comments (continued)

- Some stakeholders stated that the proposal is consistent with the Federal Power Act's non-discrimination requirements. Offshore Wind California stated the proposal also is consistent with the recent FERC order regarding transmission and offshore wind in PJM.
 - The ISO agrees that this policy is consistent with the Federal Power Act and recent orders. The recent FERC order on PJM stated, “Other generators are not similarly situated to those designated by New Jersey because only the latter address New Jersey’s Public Policy Requirements under the State Agreement Approach. As result, it is not unduly discriminatory or preferential for New Jersey, via NJ BPU, to exclude generators from the set of “future users” considered in the cost sharing provision.” PJM Interconnection, L.L.C. 179 FERC ¶ 61,024 at PP 9 and 40 (2022)).

Stakeholder Comments (continued)

- Other stakeholders expressed concerns about violating the no undue discrimination requirements of the Federal Power Act (NRG, Golden State Clean Energy, LSA, Rev Renewables, SCE). They argued that if capacity is reserved for certain transmission customers, then other customers could be denied access.
 - The ISO does believe its proposal does not violate open access. As indicated above, FERC permitted New Jersey to set aside new capacity for offshore resource, with other resources being able to access the capacity after the expiration of a specified period of time. Further, resources other than those for which a public policy transmission facility is being built still are able to obtain any necessary transmission upgrades to accommodate them through the generator interconnection process. Thus, other resources not gaining access to the public policy project capacity will still be able to access the grid through other processes. A few parties suggested limiting the applicability of the capacity reserved.

Stakeholder Comments (continued)

- ACP-CA suggested using it only in circumstances with a clear and direct public policy request from an applicable state authority. LSA suggested defining a limited set of technologies. CESA suggested defining the reservation by attribute (e.g., capacity value, dispatchability) rather than type (e.g., offshore wind) in order for the tariff to remain technology neutral. SDG&E suggested limiting it to long lead time generation resources needed for public policy. ACP-CA suggested that the ISO time-limit the duration of the reservation which they suggest is consistent with FERC Order No. 807 on merchant transmission, a relevant precedent for this approach.
 - The ISO agrees that the ultimate proposal should be carefully tailored to minimize any potential impacts.
 - The ISO agrees the proposal should be targeted only to circumstances with a clear and direct public policy directive from an applicable state authority.

Stakeholder Comments (continued)

- The ISO agrees that where possible, the tariff should be based on attributes such as capacity value rather than particular technologies. It would be beneficial if public policies were designed in technology-neutral ways. For example, public policies could call for transmission that accesses carbon-free, long lead-time resources that are expected to have capacity values in excess of some threshold in some future year. Such a definition could increase the state's access to diverse renewable resources around the Western region and offshore, in a technology neutral way.
 - However, that is not necessarily how public policies are defined today. For purposes of implementing this policy we believe it is appropriate to specify resources as specifically as they are defined in state policy, which in some cases may involve particular technologies in particular locations.

Stakeholder Comments (continued)

- The ISO agrees that the set aside of capacity should be for a time-limited duration. We note that some of the intended resources are very long lead-time, with lengthy permitting and construction timelines. For such instances, we suggest a reservation period of seven years from when the transmission enhancement is available. For other resources, the duration of the reservation can be shorter.

Stakeholder Comments (continued)

- ACP-CA suggested that the ISO consider applying the policy to existing transmission capacity as well as new capacity.
 - The ISO agrees that the policy can apply to existing transmission as well as new.
- BAMx suggested releasing capacity if portfolio changes in future planning cycles. LSA suggested releasing any extra capacity due to transmission lumpiness or timing gaps before designated resources are on-line.
 - The ISO agrees that the tariff should provide that reserved capacity should be released if portfolio changes reduce or eliminate the need for the reservation.
 - The ISO agrees that extra capacity created by lumpiness or timing gaps should be released to the market.

Stakeholder Comments (continued)

- California Western Grid Suggested applying the policy to transmission into load pockets as well as out of generation pockets.
 - The ISO agrees that transmission into load pockets is important, not only for reliability and economic purposes, but ultimately for compliance with the state’s clean energy goals. However, we believe that type of transmission planning can be handled through the normal transmission planning process, without the need to reserve capacity for certain resources.
- NRG suggested that the ISO consider cost allocation in the case of abandoned projects.
 - The ISO suggests that cost allocation in the case of abandoned projects should be handled the same way other abandoned projects are handled.

Stakeholder Comments (continued)

- EDF-R suggested that the ISO provide more evidence of the problem and show how much “policy tagged transmission” has been used by interconnection requests.
 - The ISO provides the following specific examples of where resources needed for public policy may require transmission reservations, in order to meet the public policy objectives:
 - Offshore wind entering at [location]. If that capacity were created tomorrow, then existing projects in the interconnection queue could request to use the capacity, and the capacity could become fully subscribed and unavailable to offshore wind, which was the sole reason the project was approved in the first instance. The New Jersey situation is an example of this.
 - Out-of-state resources, such as wind, as well as resources outside the ISO balancing authority area, such as geothermal.

Stakeholder Comments (continued)

- Golden State Clean Energy suggested that the ISO consider instead a subscriber-based model as is being proposed for TransWest.
 - The ISO could consider including an open season and advance subscription for the capacity. There would still need to be a reservation specifying which resources are able to use the transmission, in case the winner of the capacity changes their resource plans, or sells the transmission capacity to another party.
 - The TransWest Express project supports this arrangement; however it is less clear as to how this would be applied for capacity within the ISO system.
 - The ISO considers this issue to be outside the scope of this initiative.

Proposal

- The ISO proposes to set aside the capacity of policy-driven transmission upgrades that is needed for specific resources included in the CPUC portfolios.
- The capacity of the portfolio resources will then be incorporated into the generator interconnection and TPD allocation studies to ensure the capacity of the transmission upgrade approved for policy resources reflected in the CPUC portfolio is not allocated to other resources than the types of resources in the policy portfolio.
 - For resources outside the CAISO BAA, the ISO can accomplish this by increasing the maximum import capability for the resources included in the portfolio in the generator interconnection and TPD allocation studies.
 - The ISO will need to include the ISO BAA resources identified in policy portfolios in the assessment of any area constraint regarding the approved transmission project was approved to mitigate.

Implementation Plan

- Will require ISO Board Approval and changes to the ISO's FERC Tariff
- Subject to ISO Board of Governors and FERC approval, intending on applying to applicable policy-driven transmission expansion projects recommended for approval in the 2022-2023 transmission planning process

Transmission Planning Process Enhancements Schedule

Item	Date
Post Issue Paper	Monday, July 18, 2022
Stakeholder Call	Friday, July 22, 2022
Stakeholder Comments Due	Friday, August 5, 2022
Post Straw Proposal	Friday, September 22, 2022
Stakeholder Meeting	Friday, September 30, 2022
Stakeholder Comments Due	Friday, October 13, 2022
Post Draft Final Proposal	Thursday, October 27, 2022
Stakeholder Call	Thursday, November 3, 2022
Stakeholder Comments Du	Thursday, November 17, 2022
Post Draft Tariff Language	Wednesday, November 16, 2022
Stakeholder Comments Due	Wednesday, November 30, 2022
Post Final Proposal	Friday, December 16, 2022
Stakeholder Meeting: DTL &FP	Tuesday, January 3, 2023
Stakeholder Comments Due: FP	Tuesday, January 17, 2023
Board of Governors Meeting	Thursday, January 31, 2023

Comments on Transmission Planning Process Enhancements Issue Paper

- Comments due by end of day October 13, 2022
- Submit comments through the ISO's commenting tool, using the template provided on the process webpage:

<https://stakeholdercenter.caiso.com/StakeholderInitiatives/Transmission-planning-process-enhancements>