



ISO Transmission Planning Process Enhancements

Issue Paper

July 15, 2022

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1. Introduction

A core ISO responsibility is to identify and plan the development of solutions to meet the future needs of the ISO-controlled grid. Fulfilling this responsibility includes conducting an annual transmission planning process (TPP) that culminates in a ISO Board of Governors (Board) approved, comprehensive transmission plan. The ISO conducts the annual transmission planning process as set out in section 24 of the ISO's FERC Tariff.

The ISO has identified the following recommended specific enhancements to the annual transmission planning process that would require updates to the ISO tariff or business practice manual (BPM) changes.

- a. Adjust the timeline for the release of the draft transmission plans from the end of January to the end of March, targeting approval in each year's May Board of Governors meetings.
- b. Coordination with other planning processes and enable approvals for major long lead time transmission projects needed beyond the current 10 year planning horizon.
- c. Retaining policy-driven transmission upgrade capacity for the specific policy purpose for which it was developed

The ISO has developed this issue paper to provide stakeholders with the required background, the need to update the ISO's process, and the potential impacts based on the proposed enhancements. This paper and the subsequent stakeholder engagement sessions will be utilized to review and refine some of the proposed enhancements as well as to seek additional feedback on other potential changes from the stakeholders.

2. Adjust timeline for release of draft transmission plan

The annual planning process is structured in three consecutive phases with each planning cycle identified by a beginning year and a concluding year. Each annual cycle begins in January but extends beyond a single calendar year and concludes in March of the following year.

Phase 1 includes establishing the assumptions and models for use in the planning studies, developing and finalizing a study plan, and specifying the public policy mandates that planners will adopt as objectives in the current cycle. This phase takes roughly three months from January through March of the beginning year.

In 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 and ends with Board approval of the transmission plan currently at the March ISO Board of Governors meeting. 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. Thus, phases 1 and 2 take 15 months to complete.

Phase 3 includes the competitive solicitation for prospective developers to build and own new regional transmission facilities identified in the Board-approved plan. 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.

With the increasing load and resource requirements in the California Energy Commission (CEC) high electrification demand scenarios and California Public Utilities Commission (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, 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.

3. Approvals for major long lead time transmission projects needed beyond the current 10 year 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. 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 to not currently lead to approving projects if the need only emerges outside of the current 10 year horizon. Given the timelines associated with major transmission development, and with the increasing load and resource requirements in the CEC high electrification demand scenarios and CPUC associated resource portfolios being projected beyond the 10-year planning horizon, there may be a need to approve specific transmission expansion projects to meet these needs when the expected duration to implement the transmission project is beyond the current 10-year planning and project approval horizon.

4. Retain policy-driven transmission upgrade capacity for specific policy purpose for which it was developed

The ISO's 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. However, that 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.

Within the ISO's [interconnection process enhancements \(IPE\) initiative](#), the ISO has proposed a number of measures relating to the overall interconnection objective, including several measures approved recently in Phase 1 and continuing the discussion of others in Phase 2 of this initiative. The topic of achieving greater alignment between the interconnection process, procurement activity, and the ISO's transmission planning process that integrates state resource planning direction was removed from the scope of the IPE initiative and will be taken up within the transmission planning process.

As noted above, the ISO's transmission planning process includes a framework for developing policy-driven transmission associated with state and federal policy needs and direction. One area that is warranting further attention is that while state policy direction for the need for additional transmission capacity can and has led to the development of transmission reinforcements, a lack of direct coordination between processes may result in the policy objectives themselves ultimately not being achieved. The concept identified for discussion within this initiative is as follows: 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. The above concept could potentially help where new capacity is created or capacity is currently available and not already allocated to resources in the queue, but would not help where the overheated queue has already resulted in all available and planned capacity being allocated to resources already in the queue.

5. Next Steps

Due to the issues and challenges outlined above, the ISO is planning to propose changes to the current transmission planning process Business Practice Manual (BPM) and the ISO Tariff as appropriate. This issue paper serves to start the process by identifying some of the key issues. The ISO will seek comments from the stakeholders to identify any current and additional issues as feedback to this issue paper. The ISO will consider potential solutions to address these issues in the first straw proposal.

6. Stakeholder Engagement

6.1. Schedule

Table 1 lists the proposed schedule for the enhancement of the ISO's transmission planning process.

Table 1 Schedule

Item	Date
Post Issue Paper	Friday, July 15, 2022
Stakeholder Call	Friday, July 22, 2022
Stakeholder Comments Due	Friday, August 5, 2022
Post Straw Proposal	Friday, August 29, 2022
Stakeholder Meeting	Tuesday, September 6, 2022
Stakeholder Comments Due	Tuesday, September 20, 2022
Post Draft Final Proposal	Thursday, October 5, 2022
Stakeholder Call	Thursday, October 12, 2022
Stakeholder Comments Du	Thursday, October 26, 2022
Post Draft Tariff Language	Tuesday, October 25, 2022
Stakeholder Comments Due	Tuesday, November 8, 2022
Post Final Proposal	Wednesday, November 16, 2022
Stakeholder Meeting: DTL &FP	Wednesday, November 23, 2022
Stakeholder Comments Due: FP	Friday, December 7, 2022
Board of Governors Meeting	Thursday, December 15, 2022

The ISO proposes to present its proposal to the CAISO Board of Governors in December. The ISO is committed to providing additional opportunities for stakeholder input as required to support the goals of this initiative. Stakeholders can submit written comments through the ISO's commenting tool.

6.2. Next Steps

The ISO will discuss the Issue Paper during the stakeholder call on July 22, 2022. The ISO requests that the stakeholders submit written comments by August 5, 2022.