The California ISO's Transmission Planning Process – A Brief Overview

The California Independent System Operator manages the flow of electricity across the high-voltage, long-distance power lines for the grid serving 80 percent of California and a small portion of Nevada. It also operates a wholesale power market that matches buyers and sellers of a diverse set of electricity resources in an open, non-discriminatory setting.

The ISO, which is regulated by the Federal Energy Regulatory Commission (FERC), is also responsible for transmission infrastructure planning. The ISO's transmission planning process is set out in <u>Section 24 of the FERC tariff</u>, which requires the ISO to develop a comprehensive transmission plan designed to maintain system reliability in a manner consistent with state and federal policy directives and "to reduce congestion costs, production supply costs, transmission losses, or other electric supply costs resulting from improved access to cost-effective resources."

The primary purpose of the annual transmission plan is to identify, using the best available information at the time the plan is prepared, needed transmission facilities based upon three main categories of transmission solutions: reliability, public policy, and economic needs.

COORDINATING WITH CALIFORNIA REGULATORS

In preparing its annual transmission plan, the ISO relies in particular on the California Public Utilities Commission (CPUC) for its lead role in developing resource forecasts for the 10-year planning horizon

and on the California Energy Commission (CEC) for its lead role in forecasting customer load requirements. The three entities signed a <u>Memorandum of Understanding</u> in December 2022 as part of an ongoing effort to tighten the linkages between resource and transmission planning, procurement direction, and the ISO interconnection process to the greatest extent possible.

MULTIPLE OPPORTUNITIES FOR STAKEHOLDER ENGAGEMENT



The ISO manages a transparent and open transmission planning process with multiple opportunities for stakeholder engagement. Information on the annual <u>transmission planning process</u> is available on the ISO webpage. The ISO Market Participant Portal at the bottom of the transmission planning process webpage describes the process to access data that is confidential or considered critical energy infrastructure information (CEII) through a <u>non-disclosure agreement (NDA)</u>.

Stakeholders are invited to participate throughout the transmission planning process. The ISO holds at least four stakeholder meetings each year. All interested stakeholders are welcome to provide comments within two weeks of each meeting, with no formal process for requesting party status necessary. The timeframes for the four stakeholder meetings are as follows:

• Study plan and assumptions meeting (February)

- Preliminary Reliability Assessment results meeting (September after preliminary results are posted on August 15)
 - The request window for alternatives to be submitted opens after the preliminary results are posted on August 15. Participating Transmission Operators must post alternatives in the request window by September 15 and present alternatives at the September stakeholder meeting.
 - Stakeholders may submit alternatives into the request window by October 15
- Preliminary Policy and Economic Assessments results meeting (November)
- Draft Transmission Plan meeting (April after draft plan posted on March 31).

The Revised Draft of the Transmission Plan is then posted on the ISO's website after taking into consideration comments from stakeholders, with Board of Governors approval scheduled for the Board's May meeting. Stakeholders also have the opportunity to provide comments at the Board meeting if their concerns have not been addressed to their satisfaction.

CONSIDERING ALTERNATIVES

As part of its transmission planning process, the ISO examines wires and non-wires alternatives that include conventional generation, preferred resources (e.g., energy efficiency, demand response, renewable generating resources), and market-based energy storage solutions as a means to meet local transmission system needs. The ISO may also identify transmission solutions needed to maintain the feasibility of long-term congestion revenue rights, provide a funding mechanism for location-constrained generation projects, or provide for merchant transmission projects. In recommending solutions for identified needs, the ISO takes into account an array of considerations, with advancing the state's objectives of a cleaner future grid playing a major part in those considerations.



The annual planning process is structured in three consecutive phases with each planning cycle identified by a beginning year and a concluding year. Phase 1 and Phase 2 of each annual cycle begins in January but extends beyond a single calendar year. For example, the 2022-2023 planning cycle began in January 2022 and concluded in May 2023 with Phase 3 being initiated after Board Approval of the transmission plan.

<u>Phase 1</u> 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.

Phase 2 has the ISO performing studies to identify 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. Identifying non-transmission alternatives that the ISO is relying upon in lieu of transmission solutions also takes place at this time. During this phase, the ISO performs

all necessary technical studies, conducts its series of at least four public stakeholder meetings and develops an annual comprehensive transmission plan for the ISO-controlled grid in this phase.

<u>Phase 3</u> 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 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.