



Transmission Planning Process Enhancements

Jeff Billinton

Director, Transmission Infrastructure Planning

Transmission Planning Process Stakeholder Meeting

July 22, 2022

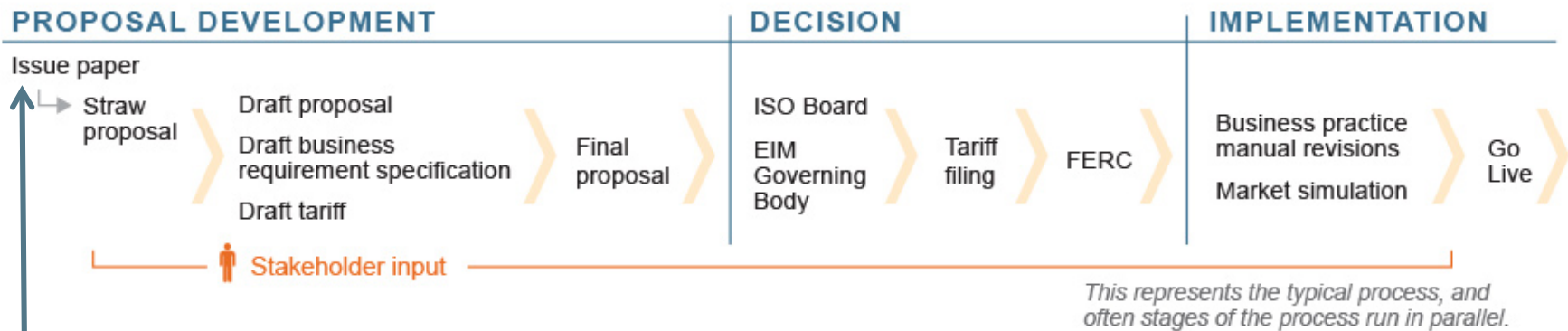
Reminders

- 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

- 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.
- Enable approvals for major long lead time transmission projects needed beyond the current 10 year planning horizon.
- Retaining policy-driven transmission upgrade capacity for the specific policy purpose for which it was developed

Stakeholder Process



We are here

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

Transmission Planning Process

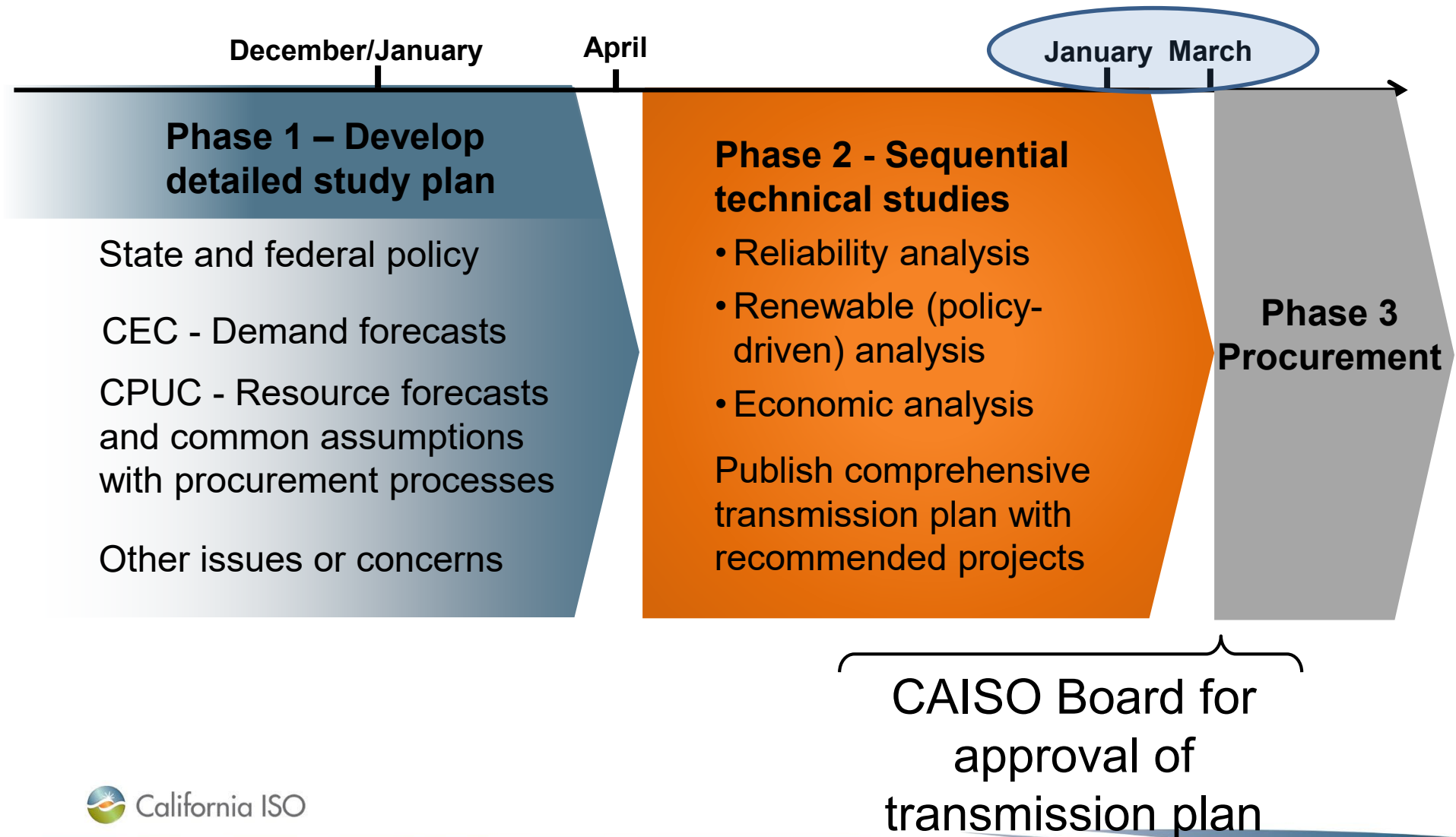
Structured three consecutive phases

- **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

Current Annual Transmission Planning Process



ISO Intended Change to Schedule of the Annual Transmission Planning Process

December/January

April

March

May

Phase 1 – Develop detailed study plan

State and federal policy

CEC - Demand forecasts

CPUC - Resource forecasts and common assumptions with procurement processes

Other issues or concerns

Phase 2 - Sequential technical studies

- Reliability analysis
- Renewable (policy-driven) analysis
- Economic analysis

Publish comprehensive transmission plan with recommended projects

Phase 3 Procurement

CAISO Board for approval of transmission plan

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
- No changes required to ISO FERC Tariff
- Changes to ISO Transmission Planning Process – Business Practice Manual
 - Intending to initiate in the next BPM change management cycle

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

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
 - 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

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, 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

Comments on Transmission Planning Process Enhancements Issue Paper

- Comments due by end of day August 5, 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>



- The ISO is pleased to be hosting the Stakeholder Symposium in person at the Safe Credit Union Convention Center in downtown Sacramento on Nov. 9 – 10, 2022.
- Register on the Stakeholder Symposium page at: <https://californiaiso.swoogo.com/2022StakeholderSymposium>
- Please direct questions to symposiumreg@caiso.com