



Decision on ISO 2020-2021 Transmission Plan

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Board of Governors Meeting

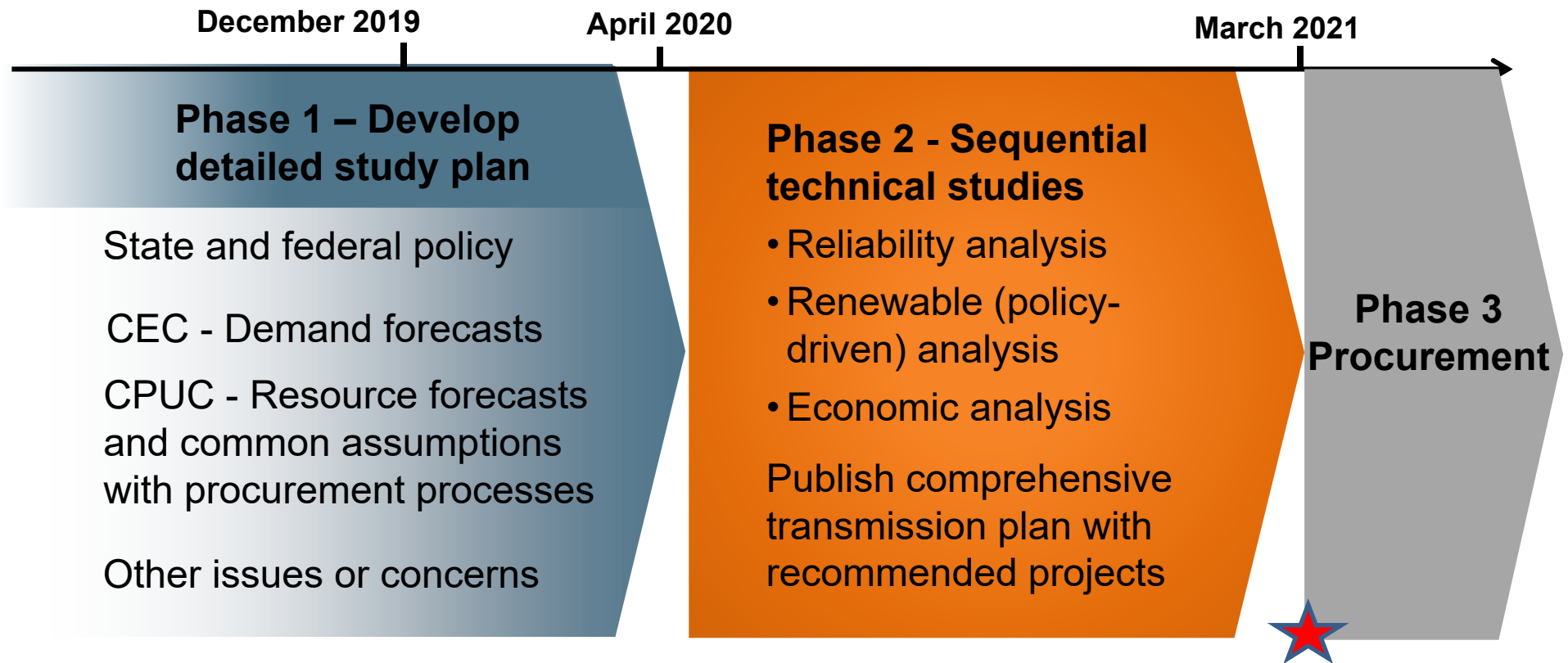
General Session

March 24, 2021

Approving the plan means approving determinations and recommendations contained in the plan

- 3 transmission projects identified as needed:
 - 3 reliability-driven projects totaling less than \$5 million
- Changes to previously-approved projects
 - 2 previously approved transmission projects can be wholly or largely replaced by appropriately procured and sited battery storage.
 - 3 projects require further evaluation in future planning cycles
- No policy-driven projects
- No economic-driven projects

2020-2021 Transmission Planning Process



ISO Board for approval of transmission plan

Emphasis in transmission planning cycle

- A modest capital program, as
 - Reliability issues are largely in hand,
 - Policy work considered portfolios submitted by CPUC of “42 MMT scenario” baseline and sensitivity studies
 - Very little new economic-driven opportunity, largely due to past studies and approvals
- Significant interest in development community for transmission lines and storage proposals needing detailed economic analysis.
- Continued “special” study efforts on local capacity areas and gas-fired generation requirements.
- Initiated wildfire assessment, starting with the PG&E area.

The ISO's reliability analysis led to the following:

- 3 new reliability projects less than \$5 million
 - All projects in the PG&E service territory
- 2 previously approved transmission projects can be wholly or largely replaced by appropriately procured and sited battery storage.
- Three previously approved projects in PG&E service territory are recommended to be on hold for further review in future cycles

Policy-driven analysis

- CPUC’s 2019-2020 Integrated Resource Planning cycle provided resource planning assumptions to the ISO:
 - Base portfolio based on its “42 MMT scenario” that results in approximately a 60 percent RPS, and
 - Two sensitivity portfolios.
- The ISO performed policy-driven study assessments of the 42 MMT scenario and did not identify any new Category 1 policy-driven transmission needs.
- The ISO is not recommending any new transmission solutions at this time for policy purposes.

Economic-driven analysis

- In the economic assessment the ISO:
 - Received a number of economic study requests, which included projects that would more reasonably be categorized as interregional transmission projects;
 - Received several proposed reliability projects that cited material economic benefits
 - Continued the expanded 10-year local capacity technical study initiated in the 2018- 2019 planning cycle.
- No new projects were found to be needed as economic-driven projects in the 2020-2021 planning cycle.

New Projects Recommended for Approval

Projects	PTO	Project costs (millions)	Comments
Palermo – Wyandotte 115 kV Line Section Reconductoring Project	PG&E	\$0.25	Reliability
Manteca #1 60 kV Line Section Reconductoring Project	PG&E	\$2.8	Reliability
Kasson – Kasson Junction 1 115 kV Line Section Reconductoring Project	PG&E	\$0.5	Reliability

Previously Approved Projects Recommended to be on Hold

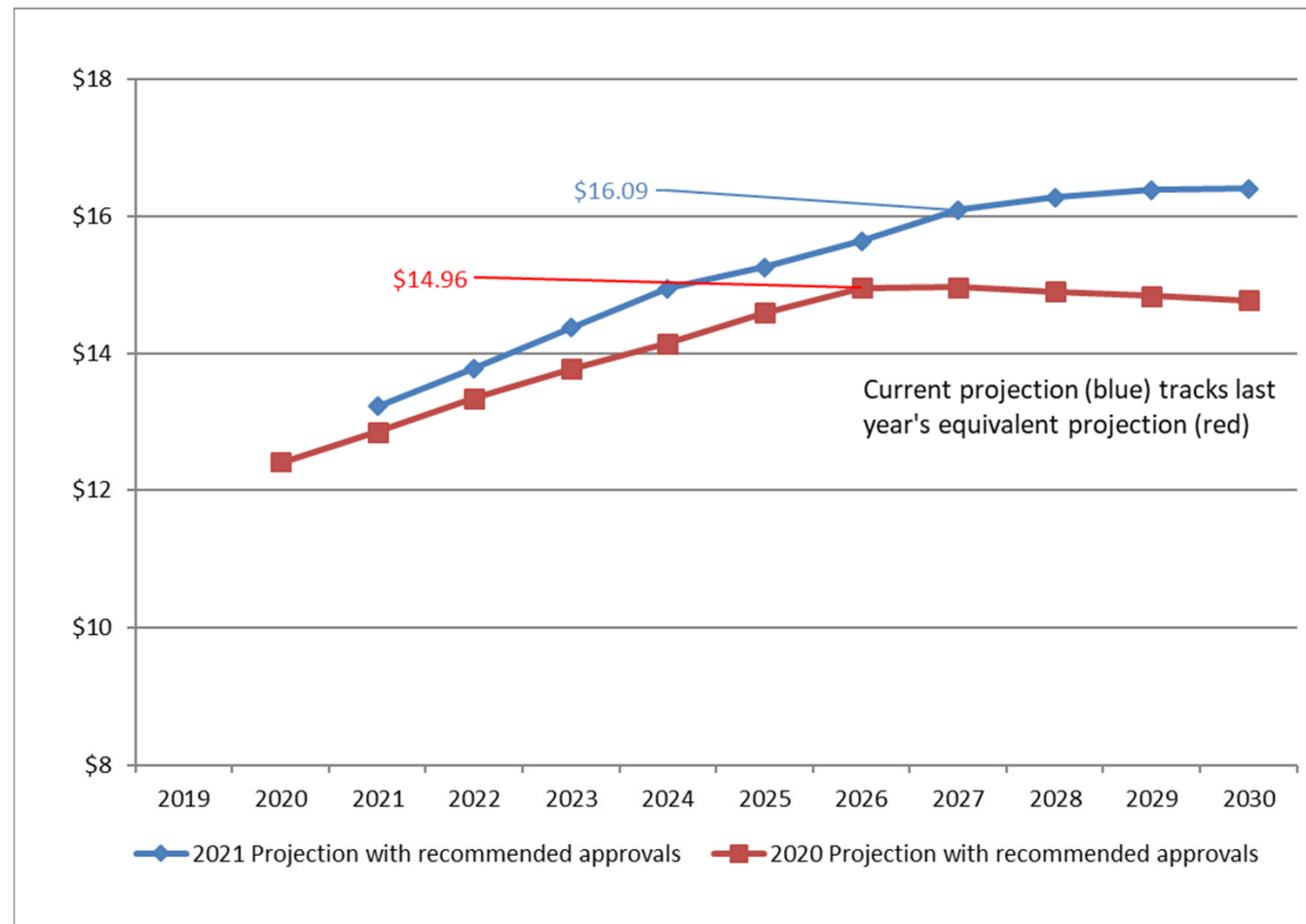
Projects	PTO	Status
North of Mesa Upgrades	PG&E	On hold (Recommending procurement of storage as mitigation plan)
Moraga-Sobrante 115 kV Line Reconductor	PG&E	On hold
Wheeler Ridge Junction Station Project	PG&E	On hold (Recommending procurement of storage as part of mitigation plan)

Other Informational Studies

- ISO undertook additional informational studies to help inform future transmission planning or resource procurement processes:
 - Frequency response and dynamic system modeling
 - Reliance on gas-fired generation in local capacity areas
 - Flexible capacity deliverability requirements
 - Wildfire assessment – PG&E area

Regional high voltage transmission access charge projection trending from January 1, 2021 values:

Regional High Voltage TAC \$/MWh



Stakeholder Comments

- General support for reliability, policy and economic assessment
- Further consideration of alternatives submitted
- Concerns with respect to CPUC Integrated Resource Plan portfolios
- Concerns with reliance on remedial action schemes in lieu of transmission upgrades

Management recommends the Board approve the 2020-2021 ISO Transmission Plan

- Continues to pursue low emission strategies in addressing reliability needs on the ISO controlled grid
- Sets a foundation for higher renewable energy goals
- Provides for prudent and economic development of the transmission system