



California ISO

Transmission Program Impact on High Voltage TAC *Estimating Model – 2018-2019 TPP Version*

Stakeholder Overview

May 17, 2019

Background

- Forecasting tool developed for the 2012-2013 Transmission Plan in response to concerns over increasing upward pressure on transmission costs.
 - Replacing aging infrastructure
 - Complying with NERC planning standards
 - Meeting California energy policy goals
- Goal is to estimate future high voltage transmission access costs in an objective and transparent manner.
 - Strike a balance of top down estimates with bottom up details
 - Provides transparency to costs related to reliability, policy, and economic driven projects
 - Establish a baseline and allows the flexibility to customize each future project individually
 - Is not a precise forecast of any individual PTO's revenue requirement or any individual project's revenue requirement

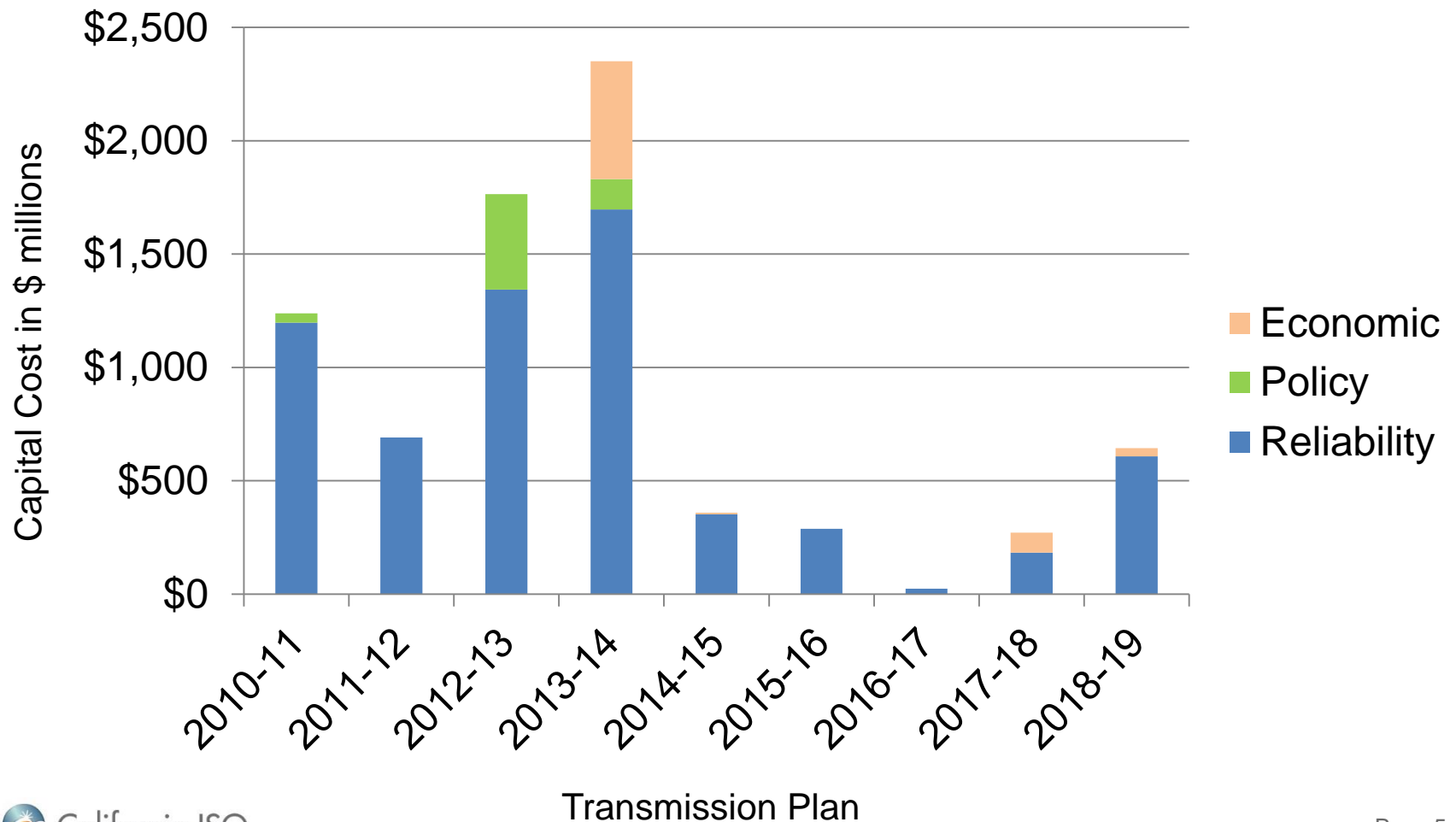
The Forecasting Tool has been updated by:

1. Reviewing comments received on last year's model
2. Establishing a Solid Foundation – January 1, 2019
 - The model reflects current gross plant data
 - Uses reasonable assumptions for costs associated with non-ISO capital and O&M
 - Includes other important factors such as depreciation, taxes, and capital costs
3. Adding the Costs of Forecast Capital Additions
 - Costs of Capital
 - Treatment of Construction Work in Progress
 - Financing and Tax Structure
 - Estimated Incremental O&M

Model and modeling assumptions essentially unchanged from previous years:

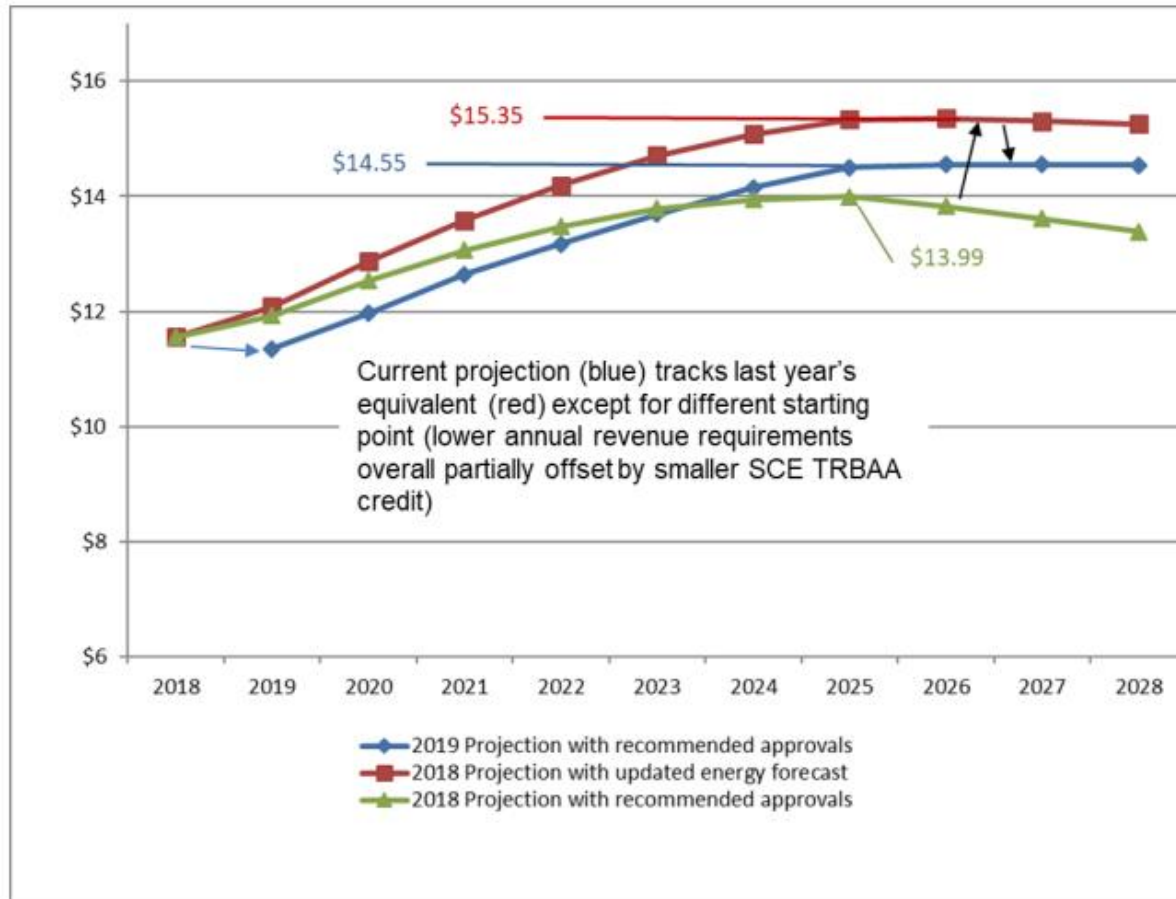
- O&M costs escalated at 2% per year.
- Non-ISO capital estimated at 2% of gross plant per year
- Only major GIP-driven network projects have been identified.
- No adjustment made (yet) for other GIP-driven network upgrades or future ADNUs.
- “Typical” return and depreciation rates applied.

A modest increase in capital was approved in the 2018-2019 plan relative to the four previous years:



Regional high voltage transmission access charge projection trended from January 1, 2019 values:

Regional High Voltage TAC \$/MWh



* Existing returns are maintained for existing PTO rate base, and 11% return on equity is assumed for new transmission capital.

Compared to the 2017-2018 model, the results themselves denoted:

- No material change in modeling practices except for the updated Federal tax rates.
- 2019 TAC value from 2019 projections is lower than 2018 projections. It is primarily attributable to :
 - Lower TRR for IOUs as compared to 2018
- TAC projection trend similar to last years projection. New Approved projects offset canceled projects to some extent

Next Steps

- Continue to refine assumptions and costs based on comments received for use in the 2019-2020 transmission plan
- Provide incremental annual updates as part of the annual transmission planning process
- Stakeholder comments on the model are due June 3, 2019 to regionaltransmission@caiso.com