



ORA

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THE OFFICE OF RATEPAYER ADVOCATES' COMMENTS ON THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR'S TRANSMISSION ECONOMIC ASSESSMENT METHODOLOGY DRAFT AND ECONOMIC PLANNING –TRANSMISSION ECONOMIC ASSESSMENT METHODOLOGY OVERVIEW AND REVIEW OF DOCUMENTATION UPDATE PRESENTATION

August 24, 2017

The Office of Ratepayer Advocates (ORA) is the independent consumer advocate within the California Public Utilities Commission (CPUC), with a mandate to obtain the lowest possible rates for utility services, consistent with reliable and safe service levels, and the state's environmental goals.

ORA submits these comments and recommendations on the California Independent System Operator's (CAISO) August 8, 2017 Transmission Economic Assessment Methodology (TEAM) Draft (Proposed TEAM Updates) and August 10, 2017 Economic Planning - TEAM Overview and Review of Documentation Update (TEAM Presentation).

ORA recommends that the CAISO:

- Seek approval to assess the economic benefits of regional transmission projects in respect to new jobs and tax revenue in sub regions.
- Clarify that its recommendation to evaluate resource adequacy (RA) benefits from incremental importing capacity requires a determination and information from the California Public Utilities Commission (CPUC).
- Expand the TEAM sensitivity analysis to consider: (1) Meeting the California Renewable Portfolio System targets through in-state and or out-of-state renewables; (2) Transmission loss savings; (3) Greenhouse Gas Compliance Costs; (4) High Distributed Energy Resource Future; and (5) Capacity Benefits.

BACKGROUND

The current TEAM assesses a transmission project's benefits and costs to ratepayers and determines whether a transmission project is needed or not. To evaluate project benefits, the TEAM currently only considers a project's benefits from the ratepayers' perspective.

The goal of the TEAM approach is to evaluate the economic benefits of transmission expansions, "specifically what impact a transmission expansion would have on increasing transmission users'

access to sources of generation and customers requiring energy, what incentives it would create for new generation investments, and what impact it would have on market competition.”¹

The current TEAM analysis does not consider the local benefits a new transmission project can create related to the construction of new generation. Depending on the capacity and location of new transmission projects, new transmission can create multiple new interconnection opportunities. These new interconnection opportunities can create new sales tax and job revenues in their given location. The TEAM analysis should measure these benefits for consideration in addition to ratepayer benefits given that “new transmission projects can enhance market competitiveness by both increasing the total supply that can be delivered to consumers and the number of suppliers that are available to serve load.”²

The transmission project benefits to CASIO transmission participants can be substantial and greater than the benefits to ratepayers as illustrated in the TEAM benefit analysis for the Path 26 Upgrade in the TEAM report.³ As defined by the CAISO, a “CAISO Participant perspective evaluates whether an upgrade is economic for the participants in the CAISO market (also excluding the generator profits from uncompetitive market prices).”⁴

Previous ORA TEAM Comments

In stakeholder comments submitted on the 2016 TEAM Review,⁵ ORA requested that the CAISO consider estimating the potential sub regional benefits from new transmission projects. Job and tax base increases should be among the benefits assessed for project cost allocations in its TEAM analysis. ORA explained that accurately attributing these benefits is critical to compliance with Federal Energy Regulatory Commission Order (FERC) No. 1000, which requires that project cost allocations be commensurate with benefits.⁶

¹ *Transmission Economic Assessment Methodology (TEAM)*, June 2004, CAISO, (TEAM Report), p. 12.

² *Transmission Economic Assessment Methodology (TEAM) (DRAFT)*, CAISO, August 8, 2017 (Proposed TEAM Updates), p. 28. Available at <http://www.caiso.com/Documents/DraftTransmissionEconomicAssessmentMethodology.pdf>.

³ Team Report, pp.145 and 160-162.

⁴ Team Report, p. 27.

⁵ *The Office of Ratepayer Advocates Comments on the California Independent Stems Operator’s Economic Planning – TEAM Overview and Review of Updates Documentation Presentation*, November 30, 2016. Available at http://www.caiso.com/Documents/ORAComments_2016_2017TransmissionPlanningProcess_Nov16_2016Meeting.pdf

⁶ *Order No. 1000, Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Federal Energy Regulatory Commission, July 21, 2011, Section 622, p. 447.

In the stakeholder call on August 10, 2017, the CAISO responded to this recommendation stating that “it does not directly consider those benefits, it could consider those policy benefits if so directed.”⁷

RECOMMENDATIONS

The CAISO should seek authorization to include economic benefits such as job creation and tax base increases for regional transmission projects in the TEAM analysis.

This authorization would come from the appropriate CAISO governing entity.⁸ With this approval, the CAISO could perform this analysis or utilize outside consultants to perform this analysis as it did for the Senate Bill 350 Economic Impact Analysis for regionalization.⁹ This analysis should estimate the economic impact of all new regional transmission projects on new job and tax revenue generation in sub-regions. An expanded evaluation of the economic benefits of regional transmission projects would provide useful information for consideration in the allocation of future regional transmission costs.

The CAISO’s recommendation to evaluate resource adequacy benefits from incremental importing capacity should clarify that it requires a determination and information from the CPUC.

The CAISO notes that a transmission upgrade can provide RA benefits if four conditions are simultaneously satisfied.¹⁰ One of the four conditions is a “capacity shortfall from RA perspective in CAISO [balancing area authority] BAA in the study years and beyond.”¹¹ For purposes of evaluating potential future RA benefits from proposed transmission upgrades, the CAISO’s proposed framework should clarify that the CPUC is the entity that determines whether a capacity shortfall exists for the investor-owned utilities (IOUs). The CPUC¹² through its Integrated Resource Planning (IRP) Proceeding is responsible for identifying the portfolio of resources needed to ensure a reliable supply of electricity that cost effectively integrates

⁷ *California ISO (CAISO) Transmission Economic Assessment Methodology Documentation Update*, Margaret Miller, Steve Greenleaf, and Mike McGuffin, Customized Energy Solutions Market IQ, August 10, 2017, p. 4.

⁸ *TEAM Presentation*, August 10, 2017. The CAISO did not specify the governing entity that would provide this approval, but it appears that it would be the CAISO Board of Governors.

⁹ *Senate Bill 350 Study Volume VIII: Economic Impact Analysis*, Berkeley Economic Advising and Research, July 8, 2016.

<http://www.aiso.com/Documents/SB350Study-Volume8EconomicImpacts.pdf>

¹⁰ Proposed TEAM Updates, p. 24. In addition to the existence of an RA capacity shortfall in the CAISO BAA, the three other conditions that are needed for a proposed transmission upgrade to provide RA value are: (1) the proposed transmission upgrade increases the import capability into the CAISO’s controlled grid in the study years; (2) the existing import capability has been fully utilized to meet RA requirement in the CAISO BAA in the study years; and (3) the capacity cost in the CAISO BAA is greater than in other BAAs to which the new transmission connects.

¹¹ Proposed TEAM Updates, p. 24.

¹² The CPUC uses forecast information from by the California Energy Commission’s Integrated Energy Policy Report to determine the need for new resources.

renewable resources and achieves California’s greenhouse gas (GHG) reduction goals¹³ and authorizing the procurement of new long term resources by IOUs.¹⁴ Thus, the CPUC is the entity that should provide the information needed to analyze whether there is a capacity shortfall in the study years and beyond.

The CPUC is also the entity that establishes¹⁵ and enforces¹⁶ RA requirements. Therefore, the CPUC is the best source of information regarding whether “the capacity cost in the CAISO BAA is greater than in other BAAs to which the new transmission connects.”¹⁷ ORA also recommends that the CAISO consult the CPUC for the determination of capacity values within and outside the CAISO BAA.

Expanded Sensitivities

The current sensitivities used in TEAM to calculate the production cost saving values for new transmission projects include: (1) High-Low Load; (2) High-Low Hydro Power; (3) High-Low Natural Gas Prices; (4) California Renewable Portfolio Standards portfolios, and other sensitivities per request.¹⁸ ORA recommends that the TEAM include additional sensitivity analysis to capture the changing energy market and grid operations.

- A. Meeting the California Renewable Portfolio System (RPS) targets through in-state and or out-of-state renewables. This analysis is necessary to determine the lowest cost options for ratepayers. ORA recommends a sensitivity analysis that captures the economic benefits from in-state and or out-of-state renewable procurement to meet state RPS targets.
- B. Transmission loss savings. “[T]he capacity benefit from the transmission loss savings can be assessed in two ways. One is to reduce the peak demand so that the need for generation capacity in the peak hours would reduce. The other way is to increase the net qualified capacity for the existing generation resources.”¹⁹ ORA recommends these two transmission loss savings capacity benefits be quantified separately.
- C. Greenhouse Gas Compliance Costs. During the August 17, 2017 Western Electricity Coordinating Council (WECC) Scenario Development Subcommittee meeting, WECC staff discussed evaluating greenhouse gas (GHG) compliance costs as a sensitivity in a

¹³ Public Utilities Code Section 454.51; CPUC Rulemaking (R.) 16-02-007 *Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate And Refine Long-Term Procurement Planning Requirements*, pp. 3-4. The rulemaking includes within the scope of issues whether any “new resources to meet local, flexible, or system resource adequacy (RA) requirements” are needed, and if so “to consider authorization of procurement to meet that need.”

¹⁴ See e.g., Public Utilities Code Sections 454.5 and 380(g)

¹⁵ Public Utilities Code Section 380(a) and (b).

¹⁶ Public Utilities Code Section 380(e).

¹⁷ Proposed TEAM Updates, p. 24.

¹⁸ Proposed TEAM Updates, p. 29.

¹⁹ Proposed TEAM Updates, p. 25.

future base case scenario. ORA recommends that the CAISO include GHG compliance costs as a sensitivity in a future base case scenario.²⁰

- D. High Distributed Energy Resource (DER) Future. The WECC, Transmission Expansion Planning Policy Committee (TEPPC) study program is modeling the impact of a “high DER future impact” on transmission.²¹ ORA recommends that the CAISO include a high DER future impact as a sensitivity in a future base case scenario.

In addition to these recommended production cost sensitivities, ORA also recommends the CAISO perform sensitivity analysis of capacity benefits. This analysis should capture the impact of the changed circumstances including, but not limited to increased renewable generation, need for greater flexible capacity, relative adequacy of system capacity in California as well as the ability of the transmission projects in terms of adding incremental import capacity (megawatts) into the CAISO BAA.

ORA recommends that the CAISO revise the TEAM methodology documentation consistent with the recommendations in these comments.

If you have any questions or comments, please contact Kanya Dorland at Kanya.Dorland@cpuc.ca.gov or (415) 703-1374.

²⁰ 2034 Draft Reference Case Update discussion at the Scenario Development Subcommittee (SDS), August 17, 2017, WECC.

²¹ TEPPC Study Program: Transmission and Reliability Assessments, Thomas Carr with Western Electricity Coordinating Council, July 18-19, 2017, Presentation slides 15-16.