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COMMENTS OF THE PUBLIC ADVOCATES OFFICE ON THE CALIFORNIA
INDEPENDENT SYSTEM OPERATOR'S
2018-2019 TRANSMISSION PLANNING PROCESS – PRELIMINARY POLICY AND
ECONOMIC ASSESSMENT PRESENTATIONS AND STAKEHOLDER MEETING ON
NOVEMBER 16, 2018

November 29, 2018

The Public Advocates Office at the California Public Utilities Commission, formerly the Office of Ratepayer Advocates,¹ is the state's independent consumer advocate 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. The Public Advocates Office submits the following comments on the California Independent System Operator's (CAISO) 2018-2019 Transmission Planning Process (TPP) preliminary policy and economic assessments presented during the stakeholder meeting on November 16, 2018.

Recommendations on the TPP policy and economic assessment by TPP topic

Revised Deliverability Methodology

- The CAISO should periodically revisit the qualifying capacity of wind and solar for deliverability because the resulting capacity assumptions directly influence procurement decisions as well as new transmission and interconnection investments that may be needed to meet the state's Renewable Portfolio Standard (RPS) targets. Also, wind and solar renewable resource technologies are constantly advancing their capacity capabilities.
- The CAISO should convene a separate stakeholder initiative to examine the implications of the proposed deliverability methodology changes, and how they would be implemented to ensure resource capacity accounting matches with transmission capacity. Specifically, how the export capability from renewable generation pockets will be determined with the proposed reduction of solar capacity to 10% in the evening, and the proposed solar capacity ranging between 35-55% during the day. The CAISO should develop an Issue Paper and Straw Proposal that explains how the deliverability methodology would be used to determine transmission needs and allow stakeholder discussion on the proposed deliverability methodology implementation.

¹ The Office of Ratepayer Advocates was renamed the Public Advocates Office of the Public Utilities Commission pursuant to Senate Bill No. 854, which was signed by the Governor on June 27, 2018 (Chapter 51, Statutes of 2018).

CAISO Production Costs Results

- The CAISO's Production Cost Modeling results presentation identified the load areas within the CAISO footprint with existing significant congestion and renewable curtailment and expected new renewable development.² The CAISO should provide its Production Cost (GridView) Modeling data to the California Public Utilities Commission's (CPUC) to inform the Integrated Resource Planning (IRP) process.³ This data could be used to refine the transmission capability estimates for use in the RESOLVE model.⁴ The results from the RESOLVE model could then be used to further inform the policy and economic assessments in the following TPP cycle. The results would also assist with determining the preferred locations for storage procurement that would address the areas with significant congestion and renewable curtailment. The congestion and renewable curtailment in these areas will likely increase with the expected new procurement in these areas to meet the state's RPS targets.
- To achieve a reasonable resource portfolio recommendation, a feedback loop between the proposed CPUC's IRP procurement determinations and the CAISO TPP transmission capacity determination is essential. This feedback loop should also involve public presentations to stakeholders that explain the preliminary determinations that led to the recommended renewable generation locations and should seek stakeholder input before finalizing these locations.
- The Public Advocates Office supports the CAISO's proposal to study options to address local transmission congestion that results in curtailment. To this end, the Public Advocates Office recommends the CAISO update the energy-only deliverability status transmission capability estimates.⁵ The Public Advocates Office also requests detailed information regarding the Production Cost Modeling⁶ results. Specifically, we request

² *Economic Planning-Preliminary Production Cost Simulation Results, 2018-2019 Transmission Planning Process Stakeholder Meeting*, November 16, 2018, slides 4-21. SCE Nof Kramer-Inyokern-Control, PG&E Westland-Fresno-Kern and Valley Electric Association have significant existing congestion and are among the areas with significant renewable curtailments. These areas also anticipated to have future new solar generations to meet the state's RPS targets.

³ *CPUC Rulemaking 16-02-007 to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements*.

⁴ The Resolve model was created by E3 and was adapted for use in the California Public Utilities Commission's (CPUC) Integrated Resource Planning (IRP) proceeding under the administration of CPUC's Energy Division. CPUC staff and consultants utilized the RESOLVE model, which is an electricity capacity expansion model to assist with determining procurement needs to meet the state's Renewable Portfolio Standard targets. The model starts by incorporating all existing (operating) and/or contracted electric sector supply resources (as of approximately October 2016), and then selecting the lowest cost additional resources from among a set of representative resources characterized by fuel, cost, and GHG emissions characteristics, among other attributes, to meet the remaining load.

⁵ *2018-2019 TPP Policy-driven Assessment, 2018-2019 Stakeholder Meeting*, November 16, 2018, CAISO, slides 45-46.

⁶ The CAISO's production cost modeling is capable of modeling hourly electric grid and market performance under different conditions and constraints. For example, the CAISO's production cost modeling results for the 2018-2019 TPP determined where congestion might occur with the

information on the costs associated with the reported cumulative congestion hours for each area, branch group, or constraints. This cost information should be included in the draft final 2018-2019 Transmission Plan.

Local Capacity Requirements and Potential Reduction Solutions

As stated in comments submitted on the 2018-2019 TPP Preliminary Results, the Public Advocates Office requests that the CAISO assist in determining the economic value of proposed mitigations to reduce Local Capacity Requirements (LCR) and in comparing the costs of possible reduction solutions.⁷ To facilitate this exchange of information, the Public Advocates Office requests that the CAISO provide a summary table with all the proposed LCR reduction and mitigation solutions, the amount of LCR relief the solutions provide, and both the total solution costs and the solution costs per megawatt. This table would allow stakeholders to compare solution costs and should be included in the draft final 2018-2019 Transmission Plan. This LCR reduction solution cost summary table should also be provided for consideration in the CPUC's IRP proceeding.

The CAISO, in coordination with the Department of Market Monitoring (DMM), should determine whether generation owners in each LCR area have market power. The CAISO should also determine where Load Serving Entities (LSEs) can meet local area needs without specific resources or set of resources owned by one entity. The CAISO and the DMM should analyze whether each proposed LCR reduction solution will resolve the market power issue. Once LCR needs are reduced to the point where a resource does not have market power, the generation in the area should be able to compete to meet the remaining LCR needs. Information on how LCR reduction solutions reduce market power should guide cost comparisons between the proposed solutions and alternatives, such as continued procurement among competitive local area resources.

The Public Advocates Office also requests information on the necessity of any of the LCR reduction solutions in the near term.

Slow Demand Response

The CAISO presented the available megawatts of "slow" demand response⁸ in the San Diego Imperial Valley Area and San Diego subarea,⁹ but not in the Eastern Los Angeles Basin subarea. The Public Advocates Office requests that the CAISO assess the available megawatts of slow

implementation of the CPUC's IRP 42 Million Metric Ton (MMT) Scenario. Production cost modeling can also be used to determine the benefits of proposed new transmission investments. Through production cost modeling, the CAISO can determine the cost to deliver energy under different conditions as well as determine transmission investments that could reduce the costs of energy delivery.

⁷ *Public Advocates Office comments on the 2018-2019 CAISO TPP Preliminary Results September 20-21, 2018 Presentation and Stakeholder meeting*, October 5, 2018, p. 2.

⁸ Demand Response seeks to adjust the demand of power by compensating consumers for reducing their power when requested. Slow demand response applies mostly to consumers with an energy reduction response time of greater than 20 minutes.

⁹ *Reducing LCR Need Study for Eastern LA Basin and San Diego-Imperial Valley Areas*, 2018-2019 TPP Stakeholder Meeting #3, November 16, 2018, slide 18.

demand response for pre-contingency purposes in all load areas and provide information by each LCR area. Such information would assist the CAISO and stakeholders in understanding how slow demand response could assist with reducing LCR needs and potentially avoid the need for additional LCR reduction solutions in each area.

Storage as a Transmission Asset

The CAISO stated that it does not anticipate that the Storage as a Transmission Asset (SATA) initiative will receive Federal Energy Regulatory Commission (FERC) approval in time for the completion of the 2018-2019 TPP, but it will still evaluate storage as the preferred solution on a case by case basis.¹⁰ The Public Advocates Office continues to support the consideration of SATA to meet identified reliability and economic transmission needs in the 2018-2019 TPP.

As stated above, the Production Cost Modeling (Grid View) data could be used to inform future mandated storage procurement locations that could reduce congestion and renewable curtailment as well as provide other grid benefits. Given that new storage procurement is underway, the Public Advocates Office recommends allowing existing storage projects to bid on SATA projects following a FERC decision on the CAISO's SATA cost recovery mechanism proposal.

Reliability Transmission Projects On-Hold

Support Further Review or Cancellation of the Midway-Andrew Project

The Midway-Andrew project is among the seven projects that the CAISO recommends putting on-hold or canceling in the Pacific Gas and Electric Company's (PG&E) service area of the CAISO-controlled grid.¹¹ As stated in the Public Advocates Office's November 30, 2017¹² comments on the Midway-Andrew Project, the Public Advocates Office generally supports further analysis of the need for the Midway-Andrew project. This analysis should consider the existing transmission lines in the project area and their ability to solve remaining reliability issues, if any, after the retirement of the Diablo Canyon Power Plant. As noted, there are a number of 500 kilovolt (kV) lines and 230 kV lines in the Diablo Canyon-Midway-Andrew project area that may be under-utilized or experience lower demand after the retirement of the Diablo Canyon Power Plant.¹³ Additionally, there are load shedding schemes in the project area that should be taken into consideration when evaluating the Midway-Andrew project.

The Public Advocates Office also recommended that any additional presentations on this project and its analysis include the current cost estimates and benefit-cost ratio (BCR) calculations for the project as well as the possible alternatives.¹⁴ The Public Advocates Office made this request

¹⁰ *Emerging Economic Study Considerations Transmission Planning Process*, 2018-2019 TPP Stakeholder Meeting, November 16, 2018, slide 11.

¹¹ *2018-2019 TPP Reliability Projects On-Hold - PG&E Area*, 2018-2019 Transmission Planning Process Stakeholder Meeting November 16, 2018, slides 5-7.

¹² *Public Advocates Office comments on the TPP Reliability Assessments presentation and stakeholder meeting on November 16, 2018*, November 30, 2017, p. 2

¹³ *2017-2018 ISO Draft Transmission Plan*, February 1, 2018, CAISO, p. 158.

¹⁴ *Public Advocates Office comments on the TPP Reliability Assessments presentation and stakeholder meeting on November 16, 2018*, November 30, 2017, p. 2.

because the Midway-Andrew project costs have increased since presented in 2012. To illustrate, PG&E's original cost estimate from the 2012-13 TPP for the Midway-Andrew project was \$120 to \$150 million.¹⁵ The project cost estimate in a PG&E 2016 FERC filing was \$414 million.¹⁶ In subsequent 2017 PG&E Assembly Bill (AB) 970¹⁷ reports, the cost ranged from \$215 million¹⁸ to \$700 million.¹⁹ This broad range of cost estimates makes it difficult to assess the value of removing the existing Special Protection System from the project area and proceeding with the Midway-Andrew project as proposed. No costs have been provided for any of the other alternatives under consideration. While this is a project to increase system reliability above the minimum required by North American Electric Reliability Corporation (NERC) or CAISO standards, a BCR for this project has never been presented publicly.

While the Midway-Andrew project is on-hold, the Public Advocates Office also recommends that PG&E not conduct any engineering design or environmental studies to support this project to avoid accruing any unnecessary costs for a project that may later be cancelled.

Support Cancellation of the Gates-Gregg 230 kV Line Project

The Gates-Gregg 230 kV line project is also among the seven projects that CAISO recommends putting on-hold or cancelling in PG&E's service area within the CAISO controlled grid.²⁰ As stated in the Public Advocates Office November 30, 2017²¹ comments on the CAISO 2017-2018 TPP and February 22, 2018 comments on the final CAISO 2017-2018 Plan,²² the Public Advocates Office recommends canceling the Gates-Gregg project as soon as possible to avoid incurring any unnecessary carrying costs. The cost of this project has increased significantly since approved in the 2012-2013 TPP from \$145 million²³ to \$200-\$250 million in 2018.²⁴

¹⁵ 2012-2013 Transmission Plan, March 20, 2013, CAISO, p. 94.

¹⁶ *Petition for Declaratory Order of Pacific Gas and Electric Company*, filed March 10, 2016 in FERC Docket EL16-47, Exhibit PGE 1, p. 18 (PG&E's witness Brian McDonald presented an estimated cost of \$413,770,544.).

¹⁷ Participating transmission owners (PTOs) provide updates on their projects to the CPUC quarterly in Assembly Bill (AB) 970 Project Status Reports submitted in Investigation (I.)00-011-011, as required by Decision (D.)06-90-003.

¹⁸ *Quarterly AB 970 Project Status Report of Pacific Gas and Electric Company (Public Version)*, filed April 3, 2017 in CPUC I.00-11-001, Appendix A, p. 17 (Estimated cost dropped to \$215 million with no change in scope.).

¹⁹ *Quarterly AB 970 Project Status Report of Pacific Gas and Electric Company (Public Version)*, filed January 2, 2017 in I. 00-11-001, Appendix A, p. 13 (Estimated cost is \$600-\$700 million).

²⁰ *2018-2019 TPP Reliability Projects On-Hold - PG&E Area*, 2018-2019 Transmission Planning Process Stakeholder Meeting November 16, 2018, slides 11-17.

²¹ *Public Advocates Office comments on the TPP Reliability Assessments presentation and stakeholder meeting on November 16, 2018*, November 30, 2017, p. 3.

²² *Public Advocates Office comments on the CAISO 2017-2019 Transmission Plan and February 8, 2018 CAISO Presentation and stakeholder meeting*, February 22, 2018, p. 4.

²³ 2012-2013 Transmission Plan, March 20, 2013, CAISO, p. 149.

²⁴ *2018-2019 TPP Reliability Projects On-Hold - PG&E Area*, 2018-2019 Transmission Planning Process Stakeholder Meeting November 16, 2018, slide 11.

Therefore, the project no longer meets the BCR threshold per the CAISO's determination.²⁵ The CAISO has also determined that the project is no longer needed for reliability or transient stability.²⁶

Economic Planning Study Requests

The Public Advocates Office recommends the CAISO provide the BCR for the proposed economic planning study projects.²⁷ The proposed projects have significant costs, and the benefits should be quantified. For example, the Lake Elsinore Advanced Pump Storage (LEAPS) project has a cost estimate of \$2 billion.

As stated in the Public Advocates Office comments on the 2018-2019 TPP preliminary reliability results, the Southwest Intertie Project-North²⁸ has been identified by its proponent as an economic, policy and reliability project. The Public Advocates Office recommends that the CAISO provide more information on the entities that would benefit from this project with respect to policy targets, reliability issues, and economic outcomes. If this project is considered further, cost allocation should be based on load served and who benefits, consistent with FERC Order No. 1000, which requires that transmission costs be allocated commensurate with the benefits received.

If you have any questions regarding these comments, please contact either Kanya Dorland at Kanya.Dorland@cpuc.ca.gov or Fidel Leon-Diaz at Fidel.Leon.Diaz@cpuc.ca.gov.

²⁵ *2018-2019 TPP Reliability Projects On-Hold - PG&E Area*, 2018-2019 Transmission Planning Process Stakeholder Meeting November 16, 2018, slide 17.

²⁶ *CAISO 2018-2019 Transmission Planning Process Stakeholder Meetings, September 20-21, 2018*, "Greater Fresno Area Preliminary Reliability Assessment," slide 20.

²⁷ *Economic Planning-Preliminary Production Cost Simulation Results*, 2018-2019 Transmission Planning Process Stakeholder Meeting November 16, 2018, November 16, 2018, CAISO, slide 42.

²⁸ *Public Advocates Office comments on the 2018-2019 CAISO TPP Preliminary Reliability Results September 20-21, 2018 Presentation and Stakeholder meeting*, October 5, 2018, p. 2.