

**COMMENTS OF THE STAFF OF THE CALIFORNIA
PUBLIC UTILITIES COMMISSION
REGARDING THE DRAFT 2017-2018 TRANSMISSION PLAN FOLLOWING THE
FEBRUARY 8, 2018 STAKEHOLDER MEETING**

February 22, 2018

Introduction

The Staff of the California Public Utilities Commission (“CPUC Staff”) appreciates this opportunity to provide comments on the Draft 2017-2018 Transmission Plan posted on February 1, and discussed at the California Independent System Operator Corporation’s (CAISO) February 8, 2018, stakeholder meeting. Our comments address the following topics:

1. CPUC Staff appreciates the CAISO’s continued effort to reevaluate previously approved projects and cancel or down-scope projects when appropriate. CPUC staff requests that the CAISO clarify whether review of previously approved projects will be an ongoing effort.
2. CPUC Staff requests clarification regarding the Gates-Gregg 230 kV line renewable integration assessment that is to take place in the 2018-19 Transmission Planning Process (TPP) cycle and how it depends on Integrated Resource Planning (IRP).
3. CPUC Staff agrees with CAISO that the strategic use of preferred resources and storage to as a substitute for transmission and to address local constraints will require closer attention in the 2018-19 TPP. CPUC Staff look forward to collaborating with the CAISO on coordinating planning efforts and refining the methodology for assessing preferred resources and other non-transmission alternatives.
4. CPUC Staff commends the CAISO on identifying the Moss Landing Panoche upgrade and San Jose-Trimble upgrade, both of which address South Bay-Moss Landing local capacity requirements at a low cost. CPUC Staff strives to understand how future opportunities to address local capacity requirements at low costs can consistently be identified earlier in the transmission planning process.
5. CPUC Staff appreciates the coordination taking place between PG&E, CAISO, CHSRA, and Caltrain in developing transmission needs for the rail electrification projects. CPUC Staff has comments about CAISO’s responses to our stakeholder comment No. 5i from

about the California High Speed Rail Project (CHSRA Project) and the TPP's description of the expected transmission interconnection work by PG&E and associated costs.

- 1. CPUC Staff appreciates the CAISO's continued effort to reevaluate previously approved projects and cancel or down-scope projects when appropriate. CPUC staff requests that the CAISO clarify whether review of previously approved projects will be an ongoing effort in the future.***

CPUC Staff appreciates the CAISO's continued effort to reevaluate previously-approved projects and cancel or down-scope projects when appropriate. With this large number of projects undergoing changes in project approval status, CPUC Staff is including, for additional interagency transparency and alignment, one table containing projects currently in the CPUC permitting process and a second table of the future pipeline of CEQA projects. The tables can be found on pages 6-8.

Slide 6 of the CAISO's February 8th Stakeholder Meeting PowerPoint presentation reads "A major effort in this third and final year of the programmatic review of the previously-approved projects." This point was emphasized by CAISO staff at the stakeholder meeting. CPUC Staff request that the CAISO clarify what is meant by "final year of the programmatic review". Will CAISO continue to review previously-approved projects, and if so, to what extent?

Although the "33% 2025 Mid AAEE" RPS portfolio was used for the third consecutive TPP cycle, a consistently declining load forecast led to the need to cancel or re-scope a significant amount of previously-approved upgrades. CPUC staff believes that in future TPP cycles as the CAISO resource mix continues to evolve, and non-transmission alternatives become increasingly available, there will be a continued need to review previously-approved projects. Furthermore, reliability base case and policy-referred portfolios are expected to change in future TPP cycles and this may lead to the identification of new economic-driven network upgrades that address previously identified needs and reduce ratepayer costs. CPUC Staff would like to collaborate with the CAISO to develop a systematic approach for reevaluating previously approved projects in light of future policy changes and to ensure alignment with Integrated Resource Planning.

- 2. CPUC Staff requests clarification regarding the Gates-Gregg 230 kV line renewable integration assessment that is to take place in the 2018-19 Transmission Planning Process (TPP) cycle and how it depends on Integrated Resource Planning (IRP).***

The CAISO has recommended that the Gregg 230 kV Line project remain on hold while a detailed renewable integration assessment is conducted in the 2018-2019 TPP to address the uncertainties of renewable integration benefits for the project, which according to the CAISO depend on Integrated Resource Planning (IRP) and the CEC 2017 IEPR Energy Demand Forecast. CPUC Staff would like to know whether this IRP-related uncertainty refers to the Commission adoption of the IRP Decision D.18-02-018 or whether the CAISO is referring to other specific IRP-related uncertainties that may require additional interagency coordination.

Additionally, the 2017-18 TPP as drafted makes it unclear whether the project is accruing costs while it remains on hold, “PG&E has confirmed that while the project is on hold it is continuing to accrue carrying costs since March 2017 when the 2017-2018 Transmission Plan was approved by the ISO Board of Governors. With this, if the project remains on hold and is canceled in future cycles no additional costs associated with leaving it on hold.” CPUC Staff requests clarification on whether keeping the project on hold is in fact resulting in additional costs for ratepayers.

- 3. CPUC Staff agrees with CAISO that the strategic use of preferred resources and storage to as a substitute for transmission and to address local constraints will require closer attention in the 2018-19 TPP. CPUC Staff look forward to collaborating with the CAISO on coordinating planning efforts and refining the methodology for assessing preferred resources and other non-transmission alternatives.***

Recently the CAISO has placed emphasis on assessing non-transmission alternatives and recommending them in lieu of transmission upgrades. CPUC Staff recognize that the CAISO cannot specifically approve non-transmission alternatives as projects or elements in the comprehensive transmission plan. However, due to the significance of non-transmission alternatives as critical components of transmission solutions to identified reliability needs, CPUC staff believe it is important that the methodology developed for assessing these resources in the 2018-19 TPP incorporates a framework for adjusting to the fast-paced technological improvements as well as policy changes. Energy storage procurement applications recently submitted to the CPUC for authorization indicate that costs for transmission level storage may be rapidly declining. The CPUC will be considering the newly acquired information in the

Integrated Resource Planning Process and suggests that the CAISO similarly consider and address declining transmission storage costs in the 2018-19 TPP Study Plan.

- 4. CPUC Staff commends the CAISO on identifying the Moss Landing Panoche upgrade and San Jose-Trimble upgrade, both of which address South Bay-Moss Landing local capacity requirements at a low cost. CPUC Staff strives to understand how future opportunities to address local capacity requirements at low costs can consistently be identified earlier in the transmission planning process.**

- 5. CPUC Staff appreciates the coordination taking place between PG&E, CAISO, CHSRA, and Caltrain in developing transmission needs for the rail electrification projects. CPUC Staff has the following comments about CAISO's responses to our stakeholder comment No. 5i from about the California High Speed Rail Project (CHSRA Project) and the TPP's description of the expected transmission interconnection work by PG&E and associated costs.**
 - a. CAISO's response to our stakeholder comment No. 5i in 2017 indicated that cost allocation for the California High Speed Rail Project (CHSRA Project) would be based on PG&E tariffs. This is not accurate. PG&E tariffs apply to distribution-voltage extensions. PG&E does not have a tariff that applies to the CHSRA Project's requirement for transmission-voltage extensions. Furthermore, the CHSRA Project requires dual (redundant/two independent) feeds, which is atypical. The extensions would also be single-phase and not three-phase. These unique characteristics of the interconnection work for this project should be documented in the TPP. These unique characteristics also apply to the Caltrain Electrification Project's requirements, which should be mentioned in the TPP as well. If the Caltrain Electrification Project costs were addressed in a prior TPP, it should be referenced. If Caltrain's costs will be addressed in a future TPP, this should be mentioned as well. Some of the required interconnection upgrades for Caltrain would also benefit the CHSRA Project. CHSRA and Caltrain have been coordinating for this reason.

 - b. CPUC stakeholder comment No. 5i referred to PG&E's 9/22/2017 Request Window Proposal presentation to CAISO about the CHSRA Project load

interconnection request requirements and costs. The costs in PG&E's presentation provided a \$737 million estimate total and a cost range: -30% to +50% or \$519.9 million to \$1.1 billion. This TPP should document the high and low cost-estimate boundaries and clarify that \$737 million is a mid-cost cost estimate established by PG&E's -30% to +50% range. All of this cost information is already public:

http://www.caiso.com/Documents/Day2_PG_E-Presentation_2017-2018TransmissionPlanningProcess_PreliminaryReliabilityResults.pdf

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Current Electric Projects in CPUC Permitting Process

<p style="text-align: center;">Electric Projects Filed</p> <p>These projects are being considered by CPUC and CEQA documents have been (or are being) prepared.</p>	<p style="text-align: center;">Approved/In Construction</p> <p>These projects have been approved by CPUC and are in construction, construction complete, or nearing construction.</p>
<ol style="list-style-type: none"> 1. DCR Transmission Ten West Link 2. NEET West (NextEra) Suncrest 230 kV 3. NEET West (NextEra) Estrella Substation 4. PacificCorps Lassen Substation upgrade 5. PG&E Egbert (Martin) 230 6. PG&E Ravenswood-Cooley Landing 7. PG&E South of Palermo 8. SCE Alberhill System 9. SCE Circle City Substation 10. SCE Riverside Transmission Reliability 11. SDG&E Artesian 69kV/12kV 12. SDG&E TL649 wood to steel 13. SDG&E TL674A Del Mar 14. SDG&E TL695/6971 Camp Pendleton 15. SDG&E TL6975-2nd 69 kV San Marcos-Escondido 	<ol style="list-style-type: none"> 1. Calpeco Tahoe Transmission Line 625-650 2. PG&E Fulton-Fitch Mtn. 60kV reconductor 3. PG&E Missouri Flat-Gold Hill 115kV 4. PG&E Sanger 115 kV substation 5. PG&E Windsor Substation MND 6. SCE/SCG Aliso Canyon Turbine 7. SCE Banducci 66kv substation & lines 8. SCE Eldorado Ivanpah EIR/EIS 9. SCE Falcon Ridge 66kV substation 10. SCE Fogerty-Ivy Glen 115kV substation & line 11. SCE Mesa Substation Loop-In 230/66/16kV to 500kV 12. SCE Moorpark Newbury 66 kV line 13. SCE Presidential Substation EIR 14. SCE Santa Barbara Reliability 66kV line 15. SCE Tehachapi 4-11 EIR/EIS 16. SCE Valley South 115kV 17. SCE West of Devers 220kv Upgrades 18. SDG&E Ocean Ranch 69/12kV substation 19. SDG&E Cleveland NF Wood to steel 69kV 20. SDG&E Salt Creek 69kV substation 21. SDG&E South Bay Substation 22. SDG&E Sycamore-Penasquitos 230 kV 23. SDG&E Vine 69/12 kV 24. SDG&E South Orange County

Future Pipeline of CEQA Projects

<p>Electric Projects Not Yet Filed at the CPUC</p> <p>These projects are expected to be filed at the CPUC in the next 24 months.</p>	<p>Electric Projects On Hold but Possibly on Horizon for Permit or Advice Letter at CPUC</p> <p>These projects are either on hold, being rescope, or cancelled.</p>
<ol style="list-style-type: none"> 1. SCE Eldorado Lugo Mohave Series capacitor (Q2 2018) 2. PG&E Humboldt Bay 60kV Reconductor (Q2 2018) 3. SDG&E Camp Pendelton TL 691/TL6912 4. SDG&E Camp Pendelton TL 690E/TL692 \ 5. SDG&E TL 690 Mesa Rim project 6. PG&E Wheeler Ridge new 230/115kv substation & lines (TPP 17/18 found to be needed per original approved scope, may change) 7. PG&E Vierra Substation & 115kV line (Q1 2018) 8. SCE Kern River 66kV TLRR 	<ol style="list-style-type: none"> 1. PG&E Oro Loma 70kV 2. PG&E McCall-Reedley new 115kV 3. PG&E Cottonwood-Red Bluff 230/60 4. PG&E New Bridgeville-Garberville #1 5. PG&E Kern PP 115kV 6. PG&E South of San Mateo Capacity 7. PG&E Atlantic Placer 115 8. PG&E Bellota Warnerville 230kV 9. PG&E Lockeford-Lodi 10. PG&E Northern Fresno 11. PG&E Vaca-Davis 60 kv 12. PG&E Midway-Andrews 13. SCE Control Haiwee Inyokern TLRR 14. SCE Control-Silver Peak TLRR 15. SCE Eldorado Pisgah Lugo TLRR 16. SCE Ivanpah Coolwater Kramer TLRR 17. PG&E Spring Substation (now Morgan Hill Reinforcement) 18. Watson Voltage conversion cancelled by TPP 17/18