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COMMENTS OF THE PUBLIC ADVOCATES OFFICE ON THE CALIFORNIA
INDEPENDENT SYSTEM OPERATOR'S
2019-2020 TRANSMISSION PLANNING PROCESS - PRELIMINARY RESULTS
SEPTEMBER 25-26, 2019 PRESENTATIONS AND STAKEHOLDER MEETINGS

October 10, 2019

Introduction

The Public Advocates Office 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) 2019-2020 Transmission Planning Process (TPP) preliminary results and proposed mitigations presented during the September 25 and 26, 2019 stakeholder meetings.

Recommendations for the CAISO Mitigation Measures

- 1. The CAISO should investigate and evaluate other mitigation alternatives for Transmission Request Window Proposals based on the reliability need to address North American Electric Reliability Corporation (NERC) category P2-2, P2-3, P2-4, and P6 upgrades.**

During the September 26, 2019, stakeholder meeting, Pacific Gas and Electric Company (PG&E) presented several projects that were identified as needed based on the P2-2, P2-3, P2-4 and P6¹contingency overloads. However, special protection schemes (SPS)² and/or congestion management are feasible solutions for these contingency overloads. The CAISO's preliminary

¹ P2-2: Bus Section fault, P2-3: Internal Breaker fault (non-Bus-tie Breaker), P2-4: Internal Breaker fault (Bus-tie Breaker); P6 involves multiple contingencies that allow for system adjustment after the first contingency occurs.

² An SPS is an automatic protection system designed to detect abnormal or predetermined system conditions and take corrective actions other than and/or in addition to the isolation of faulted components to maintain system reliability.
https://www.nerc.com/pa/Stand/Prjct201005_3RmdialActnSchmsPhase3ofPrctnSystmsDL/Proposed_SPS_Definition_11232015_final.pdf.

assessment also shows that the use of an SPS is an appropriate solution³ for contingency overloads. Listed below are several such projects that may not require capital upgrades to mitigate contingency overloads at this time. During the September 25, 2019, stakeholder meeting, the CAISO indicated that it would determine the need for the capital mitigation solutions to address P2 and P6 contingencies on a case-by-case basis. The Public Advocates Office recommends that the CAISO consider competing low-cost mitigation alternatives when evaluating the following PG&E's proposed projects:

1. Wilson-Oro Loma 115kV Line Reconductoring;⁴
 2. East Shore 230 kV Bus Terminals Reconfiguration: The project driver is P2-3 internal breaker fault;⁵
 3. Newark 230/115 kV Transformer Bank #7 Circuit Breaker Addition: The project driver is P2-4 bus sectionalizing breaker at Newark 230kV Substation;⁶
 4. New Oakland X to Oakland L Line: Project drivers are the P6 (N-1-1) on Moraga-C Claremont, Moraga-Oakland, D-L, C-L, C-X 115kV Circuits;⁷ and
 5. Moraga 230kV Bus Upgrade: The project driver is a P2-4 internal breaker fault.⁸
- 2. Transmission Request Window Proposals identified in the sensitivity scenarios and not identified in the CAISO's base case assessment should not be approved.**

During the September 26, 2019, stakeholder meeting, Gridliance Pahrump, San Diego Gas & Electric Company (SDG&E), and PG&E identified some project needs based on certain contingency overloads. However, the Public Advocates Office observes that the CAISO's preliminary assessment results either do not identify those overloads or identify the overloads only in the CAISO's sensitivity scenarios. Therefore, the CAISO should clarify whether these projects are needed or not needed at this time. These transmission projects are as follows:

³ 2019-2020TPP_Preliminary_Reliability_Assessment_Results-CVLY.PDF.

www.caiso.com/Documents/2019-2020-Preliminary_Reliability_Assessment_Results.zip.

⁴ CAISO Greater Fresno Area Preliminary Reliability Assessment, 2019-2020 Transmission Planning Process Stakeholder Meeting September 25, 2019, page 6. Also, see PG&E's 2019 Request Window Proposals, September 26, 2019, pp. 8-11.

⁵ PG&E's 2019 Request Window Proposals, CAISO Stakeholder Meeting, September 26, 2019, pp. 19-21.

⁶ PG&E's 2019 Request Window Proposals, CAISO Stakeholder Meeting, September 26, 2019, pp. 23-27.

⁷ PG&E's 2019 Request Window Proposals, CAISO Stakeholder Meeting, September 26, 2019, pp. 47-53.

⁸ PG&E's 2019 Request Window Proposals, CAISO Stakeholder Meeting, September 26, 2019, pp. 47-53.

- a. **GridLiance’s Pahrump – Carpenter Canyon and Trout Canyon – Sloan Canyon 230 kV Line Rebuild Project:** GridLiance proposed the Pahrump – Carpenter Canyon and Trout Canyon – Sloan Canyon 230 kV Line Rebuild Project in order to mitigate P1, P4, P6, and P7 overloads⁹ identified on the same circuits.¹⁰ The CAISO’s preliminary assessment on the overloads identified by GridLiance only appear in the *Off-Peak High Renewables and Minimum Gas Generation* scenarios.
- b. **SDG&E-proposed Bay Blvd-Silvergate Transmission Line:** SDG&E identified the need for the project as due to a 106% overload on Silvergate-Bay Boulevard 230kV transmission line if there is loss of TL23071 Sycamore-Penasquitos 230kV transmission line.¹¹ However, the CAISO’s preliminary assessment results do not identify any P1 overloads on the Silvergate-Bay Boulevard 230kV circuit. The Public Advocates Office’s review of the CAISO’s preliminary assessment indicates that the only overloads identified are for the P6 overloads, which are in the sensitivity cases. Therefore, this project should not be approved.
- c. **SDG&E-proposed TL230XX New 230kV Encina-San Luis Rey #2:**SDG&E identified that the need for the project is due to the loss of TL230003 (Encina-San Luis Rey) loads TL23011 (Encina-San Luis-Escondido) to 106%-120% of its rating limit.¹² The CAISO’s preliminary results do not show any identified overloads on the Encina-San Luis 230kV circuits for any type of contingency.

3. PG&E-proposed Northern Oakland Area Reinforcement Project should not be approved in the current TPP cycle.

PG&E has proposed major transmission upgrades in the Northern Oakland Area to address Oakland’s long-term load needs. The scope of the Northern Oakland Area Reinforcement (NOAR) project includes the following four elements:¹³

1. Moraga Oakland X Lines Rebuild;

⁹ P1 involves single contingency due to the loss of one of following transmission elements: generator, transmission circuit, transformer, or shunt device; P4 involves multiple contingencies that allow for system adjustment after the first contingency occurs; P6 involves multiple contingencies that allow for system adjustment after the first contingency occurs; P7 involves multiple contingencies that allow for system adjustment after the first contingency occurs.

¹⁰ GridLianceWest Project Proposals for the 2019 TPP Reliability Request Window, September 26, 2019, pp. 4-6.

¹¹ 2019 SDG&E Grid Assessment Results, CAISO Stakeholder Meeting, September 25-26, 2019, slide #9.

¹² 2019 SDG&E Grid Assessment Results, CAISO Stakeholder Meeting, September 25-26, 2019, slide #10.

¹³ PG&E’s 2019 Request Window Proposals, CAISO Stakeholder Meeting, September 26, 2019, pp. 33-61.

2. Moraga Claremont 115kV Lines Reconductoring;
3. New Oakland X to Oakland L Line; and
4. Moraga 230 kV Bus Upgrade.

The CAISO found long-term load issues in the Northern Oakland area and acknowledged that the East Bay area load appears higher than its historical recorded load. However, the CAISO indicated that it needs to confirm loads at stations served by the overloaded lines.¹⁴ The Public Advocates Office supports the CAISO's decision to fully investigate the load growth assumptions and the load distribution. The CAISO indicated that the Moraga-Sobrante 115 kV reconductoring project is on hold due to change in load in the East Bay division based on the load forecast and distributed energy resources on the distribution system.¹⁵

The Public Advocates Office also questions the need for the elements of the Northern Oakland Area Reinforcement (NOAR) project. PG&E indicated that one of the reasons for rebuilding the Moraga Oakland X 115kV lines is because these circuits cross Tier 2 and Tier 3 High Fire Threat District (HFTD) areas.¹⁶ However, the proposed project to rebuild the three lines with higher capacity would still cross through the same Tier 2¹⁷ and Tier 3¹⁸ (HFTD) areas. Therefore, it is unclear how the proposed project protects the Oakland area customers from any potential de-energization that would occur as a result of wildfire impact. Moreover, this project exacerbates the contingency overloads on the Moraga Claremont 115kV lines when the lines are de-energized and may, trigger the need to reconductor these circuits. Nevertheless, elements of the NOAR project continues to reside in Tier 2 and Tier 3 HFTD areas where it is exposed to potential wildfire-related adverse impact.

The Public Advocates Office notes that PG&E did not provide any comprehensive alternatives to the NOAR project. The Public Advocates Office recommends that all transmission alternatives and preferred resources, including storage, should be fully evaluated before the CAISO considers spending \$364 to \$728 million of ratepayer funds for PG&E's proposed NOAR projects.

¹⁴ CAISO Greater Bay Area Preliminary Reliability Assessment Results, September 25-26, 2019, p. 12.

¹⁵ CAISO Greater Bay Area Preliminary Reliability Assessment Results, September 25-26, 2019, p. 13.

¹⁶ PG&E's 2019 Request Window Proposals, CAISO Stakeholder Meeting, September 26, 2019, p. 37.

¹⁷ Tier 2 fire-threat areas depict areas where there is an elevated risk (including likelihood and potential impacts on people and property) from utility associated wildfires. <https://www.cpuc.ca.gov/firethreatmaps/>.

¹⁸ Tier 3 fire-threat areas depict areas where there is an extreme risk (including likelihood and potential impacts on people and property) from utility associated wildfires. <https://www.cpuc.ca.gov/firethreatmaps/>.

It is also important to recognize that the CAISO approved the Oakland Clean Energy Initiative¹⁹ project as recently as in the 2017-18 TPP to address load issues in the electrical needs area as the proposed Moraga Oakland X 115kV project. The Oakland Clean Energy Initiative project is expected to be online by August 2022 and is slated to address the Northern Oakland area's medium-term reliability goals. Given that the incremental upgrades proposed by PG&E under the NOAR project are not needed at least until 2029,²⁰ we urge the CAISO to monitor the load growth for the next two transmission planning cycles, and to assess the robustness and cost-effectiveness of the NOAR project relative to some potential alternatives to address the long-term reliability needs of the Oakland area prior to authorizing the NOAR.

4. Southern California Edison Company (SCE)- Alberhill Project.

The CPUC previously denied SCE's Alberhill project without prejudice in 2018.²¹ SCE indicated it plans to refile for a new Certificate of Public Convenience and Necessity (CPCN) for the Alberhill project. Conversely, SCE has also submitted a plan in the Distributed Resource Proceeding²² to defer the Alberhill project and evaluate a non-wire solution to address potential overload in the Alberhill service area. However, the CAISO included the Alberhill Project in its 2019/2020 TPP. The Public Advocates Office recommends that the CAISO recognize the potential cancellation and/or deferral of this project in its TPP modeling scenarios.

Conclusion

The Public Advocates Office recommends that the CAISO not approve projects discussed above.

If you have any questions regarding these comments, please contact Lina Khoury at Lina.Khoury@cpuc.ca.gov or 415-703-1739.

¹⁹ http://www.caiso.com/Documents/ISO_BoardApproved-2018-2019_Transmission_Plan.pdf.

²⁰ http://www.caiso.com/Documents/Day2PG_EPresentation-2019-2020TransmissionPlanningProcessMeeting-Sep25-26-2019.pdf

²¹ Decision- D.18-08-026 issued on August 31, 2018.

²² SCE filed its Reports of Southern California Edison Company (U 338-E) of Its 2019 Grid Needs Assessment and 2019 Distribution Deferral Opportunities Report on August 14, 2014 in R.14-08-013.