

Alameda Municipal Power Comments on the 2019-2020 Transmission Planning Process Preliminary Reliability Assessment Results and PTO Request Window Submissions

Alameda Municipal Power (AMP) appreciates the opportunity to comment on the development of the 2019-2020 Transmission Plan. The comments and questions below focus on the Northern Oakland Area Reinforcement (NOAR) proposal presentation made by PG&E at the CAISO Stakeholder meeting on September 25-26, 2019.

Background

The existing Downtown/West Oakland Area is made up of two sub-areas, each fed by separate 115 kV networks. The Northern sub-area is primarily fed from Moraga Substation with support from Sobrante Substation. Lines serving the Southern sub-area are primarily served by Moraga Substation and Eastshore Substation. The stations served in each of these sub-areas are identified in Table 1. AMP's Cartwright Substation is normally served from PG&E Station C and AMP's Jenny Substation from PG&E Station J, so AMP has load served from each of the sub-areas. AMP could transfer load so that all load can be temporarily served from either Stations C or J, however this is an unreliable operational state as a single contingency can black out all the service to the island.

Table 1: Stations Served in Northern and Southern Oakland Areas

Sub-Area ->	Northern	Southern
PG&E Stations	Station K, X, D, C, L	Stations J, Edes, Grant, San Leandro
PG&E Customer Stations	Cartwright (AMP), Port of Oakland and Schnitzer Steel	Jenny (AMP)

To meet the Planning Standards, the northern sub-area depends on aging local generation and Special Protection Systems (SPSs) that drop load. The southern area, while not dependent on local generation, depends on SPS to drop load. For the northern sub-area SPSs, AMP load is the only load at risk of being dropped. For the southern sub-area, at first, AMP was the only load to be dropped but the SPS was modified in 2017 to add three PG&E loads such that each of the four loads would be rotated into the SPS.

The CAISO Planning Standards were recently revised to no longer allow the long-term reliance

on load dropping to meet the Planning Standards in high-density urban areas such as Oakland. Also, both the Dynegy CTs and NCPA CTs will have reached their 40-year planning life within the TPP planning horizon.

AMP has experienced several operating issues with the existing SPS and load transfer arrangements that have reduced the reliability of service to AMP load. AMP anticipates that this expected loss of local generation will further adversely impact the quality of service that AMP receives and has repeatedly requested that a long-term transmission plan be developed to reliably serve the East Bay area.

In the 2012-13 Transmission Planning cycle, the CAISO approved PG&E's proposed East Shore - Oakland J 115 kV Reconductoring Project with a forecast completion date of May 2015. With this upgrade, the CAISO and PG&E assert that the southern area will comply with the Planning Standards without reliance on a load dropping SPS. This project has been repeatedly delayed and is currently forecasted to be completed in April 2021.¹ The extended delay for this project is indicative of PG&E's inability to complete projects in a reasonable time period, which furthers the need to come up with a long term plan of service for both the Northern and Southern Oakland sub-areas at the earliest.

PG&E's Northern Oakland Area Reinforcement Proposal

On September 26th Stakeholder Meeting, PG&E presented its NOAR proposal to address the long-term reliability deficiencies in the northern sub-area. The proposal includes the following four elements.

1. **Moraga-Oakland X Lines Rebuild:** Rebuild Moraga- Oakland X 115 kV four-line path with three lines with conductor rated for 1100 Amps or higher summer emergency rating
2. **Moraga-Claremont Lines Reconductoring:** Reconductor Moraga-Claremont #1& #2 115kV lines with conductor rated for 1100 Amps or higher summer emergency rating
3. **New Oakland X to Oakland L Line:** Build a new 115 kV line from Oakland X to Oakland L substation with conductor rated for 1100 Amps or higher summer emergency rating
4. **Moraga 230kV Bus Upgrade:** Upgrade Moraga 230 kV Bus (Add sectionalizing breakers and a bus tie breaker to Moraga 230 kV bus)

¹ CAISO 2018-2019 Transmission Plan, March 29, 2019, p.469.

AMP's Comments on NOAR Proposal

While AMP generally supports the development of long-term reliability solutions for the Northern Oakland sub-area, AMP has some concerns about the proposal made by PG&E in this year's Request Window as described below.

I. AMP's concern about existing SPS is not addressed

There has been no assurance that the NOAR proposal, Oakland Clean Energy Initiative (OCEI) approved in the 2017-18 TPP, or the East Shore – Oakland J 115 kV Reconductoring Project will result in the removal of the SPS equipment which interrupts AMP load under certain contingencies. Discussions with PG&E have suggested that such equipment may remain in place as a “safety net.” This concerns AMP in that the mere presence of an SPS requires regular testing and maintenance, which has historically created reliability issues for AMP. Secondly, the need to maintain such equipment as a safety net indicates a lack of confidence in the veracity of the proposal. Again, these SPSs disproportionately impact service to AMP and under the CAISO Planning Standards should be removed. Furthermore, AMP lacks the operational visibility into the PG&E system to understand when it may be at risk for operator action or even at risk of load interruption. This lack of situational awareness makes AMP unnecessarily exposed to the need for sudden action and endangers the efficacy of the proposal's dependence on AMP load transfers. AMP recommends that the AMP load be removed from the SPS, if it continues to exist as part of the adopted plan.

II. AMP supports CAISO's evaluation of load increase and load distribution without delaying long-term planning process

AMP applauds both PG&E and CAISO's efforts in identifying the long-term reliability needs without Alameda/Oakland generation. AMP agrees with PG&E that the load projections in the Oakland area have gone up significantly. In particular, PG&E has recognized a significantly reduced Distributed Generation (DG) contribution at the peak time, a decline in energy efficiency (EE) expectations, and additional load growth that has not been accounted for in the base power flow cases, such as the Oakland stadium and electrification plans.² During the September 25th stakeholder meeting, the CAISO indicated that they plan to further review the projected demand increase as well as the load distribution across multiple stations in the Northern Oakland area.³ AMP supports CAISO's proposed evaluation of the load growth and load distribution efforts in their evaluation of PG&E's NOAR proposal. Even if the CAISO thinks the load growth projections and/or distribution of loads needs leads to a decision not to

² PG&E's 2019 Request Window Proposals, CAISO Stakeholder Meeting, September 26, 2019, p. 51.

³ CAISO Greater Bay Area Preliminary Reliability Assessment Results, pp.12-13.

approve a project in this planning cycle, AMP urges the development of long term plans for both the Northern and Southern sub-areas at the earliest possible time.

III. AMP recommends considering alternatives to NOAR and simultaneous evaluation of reliability in Oakland Northern and Southern sub-areas

AMP supports an investigation into the replacement of the aging transmission infrastructure⁴ but AMP believes that other alternatives to NOAR should be investigated that would address the reliability issues caused by load growth in the Oakland/Alameda area without relying on the local generation. AMP believes that the analysis of extreme events including wildfires and earthquakes should be thoroughly investigated. For instance, the efficacy of spending \$180-\$360 Million⁵ to rebuild existing overhead 115kV lines through wildfire risk areas 2 and 3 needs at least some further investigation of alternatives. AMP suggests that projects, such as a new ***Oakland J – Oakland C 115 kV*** cable that was submitted as part of the *Oakland Area Long Term Plan* in the CAISO 2010-11 TPP should be evaluated as one of the potential mitigation measures to be part of long term plans to provide appropriate transmission service reliability and resiliency levels to the Oakland Northern and Southern sub-areas. And, for that element to be considered, it is incumbent on the CAISO to consider long term solutions to both areas simultaneously.

If you have any questions concerning these comments, please contact Vidhi Chawla (chawla@alamedamp.com).

⁴ For example, PG&E indicated during the September 26th stakeholder meeting that the existing Moraga Oakland X 115kV lines have been identified as needing lifecycle upgrade of transmission structures.

⁵ PG&E's 2019 Request Window Proposals, CAISO Stakeholder Meeting, September 26, 2019, p. 41