

**Trans Bay Cable LLC
ANNUAL REPORT ON COMPLIANCE FOR 2021**

for Submittal to:

**CALIFORNIA OFFICE OF ENERGY
INFRASTRUCTURE SAFETY**

California Natural Resources Agency
715 P Street, 20th Floor
Sacramento, California 95814



P.O. Box 666
Pittsburg, California 94565

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Instructions:¹ *The Annual Report on Compliance submitted by each EC shall include a written narrative including:*

- a. *An assessment of whether the EC met the risk reduction intent by implementing all of their approved WMP initiatives, i.e., the degree to which initiative activities have reduced ignition probabilities;*
 - *If the EC fails to achieve the intended risk reduction, EC shall provide a detailed explanation of why and a reference to where associated corrective actions are incorporated into their most recently submitted WMP.*
- b. *A full and complete listing of all change orders and any other operational changes, such as initiative location changes, made to WMP initiatives, with an explanation of why the changes were necessary, and an assessment of whether the changes achieved the same risk reduction intent;*
- c. *Descriptions of all planned WMP initiative spend vs actual WMP initiative spend and an explanation of any differentials between the planned and actual spends;*
- d. *A description of whether the implementation of WMP initiatives changed the threshold(s) for triggering a PSPS event and/or reduced the frequency, scale, scope and duration of PSPS events;*
- e. *A summary of all defects identified by the WSD within the annual compliance period, the corrective actions taken and the completion and/or estimated completion date*

Trans Bay Cable LLC (U934-E) (Trans Bay) is a transmission-only utility with no retail/end-use customers. Trans Bay is the owner and operator of a 53-mile, approximately 400 MW, high voltage, direct-current (HVDC) submarine transmission cable buried at various depths beneath the San Francisco Bay Waters² (Bay Waters), with AC/DC converter stations (or substations) at each end (the Trans Bay System). The Trans Bay System's eastern converter station is located in Pittsburg, CA which is adjacent to an area designated as a Tier 2 (Elevated) Fire-Threat Area based on the California Public Utilities Commission's (CPUC or Commission) Fire-Threat Map. All other transmission elements are located fully outside and not adjacent to any Fire-Threat Area. Specifically, the transmission system is comprised of the Pittsburg converter station, 230kV High Voltage AC Underground Cable, 200kV High Voltage DC Underground Cable – Pittsburg Location, +/-200kV High Voltage DC Submarine Cable, +/-200kV High Voltage DC Underground Cable – San Francisco Location, Potrero converter station, and 115kV High Voltage AC Underground Cable. The Trans Bay System is connected to Pacific Gas & Electric (PG&E) substations in both San Francisco and Pittsburg, CA via underground AC cables. All aboveground transmission infrastructure is fully contained within the walls of the systems converter stations.

¹ Text in blue italics are instructions from the Wildfire Safety Division – Compliance Operational Protocols as issued by the WSD on February 16, 2021.

² San Francisco Bay Waters is defined as the continuous waterway that includes the San Francisco Bay, San Pablo Bay, Carquinez Strait, Suisan Bay and Sacramento River delta.

Due to the limited scale and scope of Trans Bay's operations, the substantial hardening of Trans Bay's transmission infrastructure to wildfire risks due to being underground or submerged and having no transmission infrastructure in wildlands or in a wildland urban interface (WUI), Trans Bay does not maintain a program specifically geared towards wildfire mitigation. As such, Trans Bay does not typically have expenditures explicitly designated for wildfire mitigation initiatives, but rather expenditures in connection with overall fire prevention plan which have the added effect of mitigating wildfire risk. Considering this fact, Trans Bay identifies spend on operational initiatives which may not have been driven by fire risk mitigation, but nonetheless have the benefit of incorporating fire mitigation elements as described in its 2021 WMP.

- a. Trans Bay projected to complete initiatives in the areas of Situational Awareness, Grid Design and System Hardening and Grid Operations and Protocols in 2021. As discussed below Trans Bay completed its system hardening project in 2021. However, due to challenges in the request for proposal process, Trans Bay was unable to incur any spend in 2021 related to its Grid Operations projects, however two of the three projects are currently on track for completion in 2022 as originally stated in Trans Bay's 2021 WMP.
 - **Situational Awareness:** Trans Bay also implemented a transformer oil control system which provided new control and flow sensing on its main transformers. This system allows station personnel to have improved access to oil flow indication and controls which allows for more accurate preventative maintenance.
 - **Grid Design and System Hardening:** Trans Bay completed seismic upgrades to all its transformers in August 2021. The seismic upgrades included the positioning of all site transformers on base isolators which significantly improves the capability of the transformers to resist derangement during a seismic event; thus, reducing the likelihood of instigation of a transformer fire. This project was delayed from 2020 as Trans Bay elected to move completion of the seismic upgrades to 2021 so that the transmission system would remain available to continue transmitting power into San Francisco during the uncertainty caused by the COVID-19 pandemic in Q1 2020.
 - **Grid Operations and Protocols:** Trans Bay projected to incur spend in 2021 related to three site improvement projects that were under proposal development and forecasted for completion in 2022. These projects were (i) fire suppression system to compliment the fire detection system in the Spare Parts building, (ii) remove the gas cylinders and construct a protected housing for them outside the Spare Parts building, and (iii) a 2-hour fire rated separation be provided between the two auxiliary power rooms. Two projects, spare parts building fire suppression system installation and compressed gas cylinder enclosure, were delayed to challenges with scoping and availability of vendors and required materials in 2021. As a result, no spend occurred in 2021, however these projects remain scheduled for completion in 2022. The auxiliary power room fire-rated separation project is under additional evaluation and needs assessment.



- b. Trans Bay did not have any applicable change orders to its 2021 WMP.
- c. As noted above, due to the limited scale and scope of Trans Bay’s operations, the substantial hardening of Trans Bay’s transmission infrastructure to wildfire risks due to being underground or submerged and having no transmission infrastructure in wildlands or in a wildland urban interface (WUI), Trans Bay does not maintain a program specifically geared towards wildfire mitigation. As a result, Trans Bay did not identify specific wildfire mitigation initiatives in its 2021 WMP, but did reference operational initiatives which had the added effect of potentially mitigating wildfire risk. Considering this fact, Trans Bay identifies spend on operational initiatives which may not have been driven by fire risk mitigation, but nonetheless have the benefit of incorporating fire mitigation elements as described in its 2021 WMP. Table 1 below summarizes Trans Bay’s 2021 planned initiative spend vs. actual initiative spend. The actual 2021 spend is slightly lower than planned spend primarily because spend related to certain fire mitigation measures did not occur in 2021 as discussed above.

Table 1 – Summary of WMP Expenditures by Category (Spend in thousand \$)

WMP Category	2021 WMP Planned	2021 Actual	Difference
Risk and Mapping	0	0	0
Situational Awareness	0	200	200
Grid Design and System Hardening	5,100	5,600	500
Asset Management and Inspections	0	0	0
Vegetation Management	0	0	0
Grid Operations	900	0	(900)
Data Governance	0	0	0
Resource Allocation	0	0	0
Emergency Planning	0	0	0
Stakeholder Cooperation and Community Engagement	0	0	0
Total	6,000	5,800	(200)

- d. Trans Bay has not issued a PSPS to date. Given that Trans Bay is a transmission-only utility that has no distribution system, no distribution or retail customers, and is already substantially hardened against wildfires, Trans Bay reasonably anticipates it will seldom, if ever, need to issue a PSPS. Trans Bay’s service territory is fully encompassed by PG&E service territory. As a result, Trans Bay expects that PG&E doctrine regarding PSPS that



impacts the PG&E Pittsburg Substation would be the prevailing driver of any PSPS impacts on Trans Bay service territory. Any PSPS issued by PG&E that impacted the Pittsburg Substation to the extent that Trans Bay's interconnection would be de-energized would take Trans Bay's transmission system offline. Therefore, Trans Bay's WMP initiatives are focused on wildfire hardening and reduction of utility-caused ignitions at Trans Bay facilities rather than PSPS mitigation.

- e. The WSD reviewed and approved Trans Bay's 2021 WMP without conditions (Full Approval) and did not identify any deficiencies or defects relevant to Trans Bay's WMP. As a result, Trans Bay has not undertaken any corrective actions to resolve any defects.