

1.8 GREENHOUSE GAS EMISSIONS

The following discussion evaluates the potential changes in impacts associated with greenhouse gas (GHG) emissions and the conclusions from the Proponent's Environmental Assessment (PEA) with the incorporation of the Proposed Project's design modifications as described in the redlined version of Chapter 3 – Project Description. The table below summarizes the impact determinations from the PEA and the impact determinations with the incorporation of the design modifications.

Would the project:	PEA Impact Determination	Impact Determination with Design Modifications
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less-than-Significant Impact	Less-than-Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No Impact	No Impact

Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction, Operations and Maintenance

LSPGC Components

Less-than-Significant Impact. Design modifications to the LS Power Grid California, LLC (LSPGC) Proposed Project components would not change the type of equipment used for construction of the Proposed Project; however, the quantity and duration of use for certain equipment would change. The updated equipment requirements are described in the redlined version of Chapter 3 – Project Description. The design modifications would occur within the Bay Area Air Quality Management District (BAAQMD) and Sacramento Metropolitan Air Quality Management District (SMAQMD). As shown in Table 1.8-1: GHG Emissions with Design Modifications Incorporated, the incorporation of design modifications would not cause the Proposed Project to exceed the BAAQMD annual threshold of 10,000 metric tons of carbon dioxide equivalent (MTCO_{2e}) for stationary sources of GHG emissions. As a result, emissions would continue to be below the BAAQMD's threshold, and impacts within the BAAQMD would continue to be less than significant.

The SMAQMD recommends an annual construction-related GHG threshold of 1,100 MTCO_{2e}. As shown in Table 1.8-1: GHG Emissions with Design Modifications Incorporated, the Proposed Project would remain below the SMAQMD threshold, and impacts would continue to be less than significant. In addition, applicant-proposed measure GHG-1 would continue to be implemented. The proposed LSPGC 230 kilovolt (kV) onshore riser structures would be included in the operations and maintenance (O&M) activities for the proposed LSPGC 230 kV Overhead Segment. The design modifications associated with the remaining LSPGC Proposed Project components would not affect the O&M activities described in the PEA. As a result, and consistent with the PEA, impacts would continue to be less than significant. Attachment 1.3-A:

Updated Air Quality and GHG Calculations in Section 1.3 Air Quality documents the methods used to quantify the anticipated GHG emissions with the design modifications incorporated.

Table 1.8-1: GHG Emissions with Design Modifications Incorporated

Emission Source	Estimated Emissions (metric tons/year)				
	CO ₂	CH ₄	N ₂ O	SF ₆	CO _{2e}
Construction	5,248.5	0.2	0.04	--	5,266.0
BAAQMD	5,022.2	0.2	0.04	--	5,038.9
SMAQMD	226.3	<0.1	<.01	--	227.1

Notes:

- Modeling of emissions was conducted for the Proposed Project as a whole regardless of the proponent.
- CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; SF₆ = sulfur hexafluoride; CO_{2e} = CO₂ equivalent

PG&E Components

Less-than-Significant Impact. Design modifications to the Pacific Gas and Electric Company (PG&E) Proposed Project components would be located in the BAAQMD. As shown in Table 1.8-1: GHG Emissions with Design Modifications Incorporated, the BAAQMD annual threshold of 10,000 MTCO_{2e} for stationary sources of GHG emissions would not be exceeded with the incorporation of the design modifications. As discussed in the PEA, O&M of the PG&E Proposed Project components would constitute a relatively small fraction of O&M-related GHG emissions for the Proposed Project, as the proposed LSPGC Collinsville Substation would be the main source of O&M-related GHG emissions for the Proposed Project. In addition, Construction Measure GHG-1 would continue to be implemented.

O&M activities associated with the proposed PG&E 500 kV Transposition Structures would be included in routine inspections of PG&E’s existing Vaca Dixon-Tesla 500 kV Transmission Line. The design modifications associated with the remaining PG&E Proposed Project components would not affect the O&M activities described in the PEA. As a result, and consistent with the PEA, impacts would continue to be less than significant. Attachment 1.3-A: Updated Air Quality and GHG Calculations in Section 1.3 Air Quality documents the methods used to quantify the anticipated GHG emissions with the design modifications incorporated.

Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Construction, Operations and Maintenance

LSPGC and PG&E Components

No Impact. Design modifications for the Proposed Project would be consistent with the California Air Resources Board’s 2022 Scoping Plan, as the Proposed Project with the design modifications incorporated would continue to support the objective of increasing the reliability of the Proposed Project area’s power system. Consistent with analysis in the PEA, the increased reliability of an electricity source may then support additional electrification of customer operations, which in turn may result in reduced GHG emissions. Improving the regional power

system can also support existing or future renewable electric generation (e.g., wind, solar, hydro, and thermal), thereby potentially reducing the use of carbon-intensive energy sources.

O&M activities associated with the proposed PG&E 500 kV Transposition Structures would be included in routine inspections of PG&E's existing Vaca Dixon-Tesla 500 kV Transmission Line. The proposed LSPGC 230 kV onshore riser structures would be included in the O&M activities for the proposed LSPGC 230 kV Overhead Segment. The design modifications associated with the remaining LSPGC and PG&E Proposed Project components would not affect the O&M activities described in the PEA. As a result, and consistent with the PEA, no impact would occur.