# 5.7 Greenhouse Gases

This section describes the environmental and regulatory setting and discusses impacts associated with the construction and operation of the Sanger Substation Expansion Project (proposed project) proposed by Pacific Gas and Electric Company (PG&E, or the applicant) with respect to greenhouse gases (GHGs).

## 5.7.1 Environmental Setting

GHGs are atmospheric gases that prevent part of the infrared radiation emitted by the Earth from escaping into space, trapping it inside the Earth's atmosphere. Scientific research has established a link between the amount of GHGs in the atmosphere and observed changes of the Earth's climate; GHGs have direct and indirect effects on mean temperature, precipitation, sea levels, ocean currents, wind patterns, and storm activity. Regulatory efforts to manage the anthropogenic drivers of global climate change focus on six primary GHGs: carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride ($SF_6$). The anthropogenic GHGs that are emitted in the greatest quantities are $CO_2$ and $CH_4$. Emissions of $CO_2$ are largely by-products of fossil fuel combustion, whereas $CH_4$ results mostly from off-gassing associated with agricultural practices and landfills. In 2012, the United States was the second largest contributor to GHG emissions in the world (WRI 2015), and California was the second largest contributor to GHG emissions in the United States (EPA 2015). The largest source of GHG emissions in California is transportation, followed by industrial activities, with electricity generation in state and out of state ranking third and fourth, respectively (CARB 2015). Future climate change impacts in California could include changes in weather patterns, average sea level, ocean acidity, rates of chemical reactions, and precipitation rates.

The potential of a GHG to trap heat in the atmosphere is known as global warming potential (GWP). The GWP is defined as the amount of heat trapped by a given mass of gas over a given time period compared to the heat trapped by the same mass of $CO_2$. Table 5.7-1 shows the GWP for the six GHGs previously mentioned.

Table 5.7-1 Greenhouse Gases Global Warming Potentials

| Greenhouse Gas | Global Warming Potential[(1)], 100 years (relative to $CO_2$) |
|---|---|
| Carbon Dioxide ($CO_2$) | 1 |
| Methane ($CH_4$) | 25 |
| Nitrous Oxide ($N_2O$) | 298 |
| Perfluorocarbons (PFCs) | 7,390–12,200 |
| Hydrofluorocarbons (HFCs) | 92–14,800 |
| Sulfur Hexafluoride ($SF_6$) | 22,800 |

Source: IPCC 2012

The California Air Resources Board (CARB) reported that in 2013 $CO_2$ represented 84 percent of the GHG emissions produced in California (CARB 2015a). Because $CO_2$ is such a prevalent GHG, and the GWP for other GHGs is relative to $CO_2$, GHGs in the atmosphere are reported in terms of $CO_2$ equivalency ($CO_2e$). GHG emissions as $CO_2e$ are calculated by multiplying the mass of each GHG emitted by its GWP to determine the equivalent amount of $CO_2$. For example, one pound of $CH_4$ is equivalent to 25 pounds of $CO_2e$.

## 5.7.2 Regulatory Setting

### Federal

#### *Endangerment Finding and Cause or Contribute Finding for Greenhouse Gases*

In December 2009, the U.S. Environmental Protection Agency (EPA) issued two separate findings regarding GHGs under Section 202(a) of the Clean Air Act. The Endangerment Finding states that the current and projected concentrations of the six key GHGs ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, and $SF_6$) in the atmosphere threaten public health and welfare. The Cause or Contribute Finding states that the combined emissions of GHGs from new motor vehicles and new motor vehicle engines contribute to GHG pollution.

#### *Mandatory Reporting of Greenhouse Gases Rule*

In 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which requires reporting of GHG emissions from large sources and suppliers in the United States. This rule requires suppliers of fossil fuels and industrial GHGs, manufacturers of vehicles and engines outside of the light-duty sector, and facilities that emit more than 25,000 metric tons of $CO_2e$ ($MTCO_2e$) per year to submit annual reports to the EPA. The rule is intended to collect accurate and timely emissions data to guide future policy decisions on climate change. The proposed project is not anticipated to emit 25,000 MTCO2e per year or more; therefore, an annual report to the EPA would not be required.

### State

#### *Assembly Bill 32 and Executive Order S-3-05*

Executive Order S-3-05, issued in 2005, established statewide GHG emission reduction targets of 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. The Global Warming Solutions Act, Assembly Bill (AB) 32, enacted in 2006, required a reduction in the state's GHG emissions to 1990 levels by 2020 and required that CARB prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020.

Based on 1990 to 2004 inventories of GHG emissions in California, CARB designated a total of 427 million $MTCO_2e$ as the statewide GHG 1990 emissions level and 2020 emissions limit. The 2020 estimates of California's GHG emissions were recently updated to account for future fuel and energy demand, as well as other factors, such as the recent economic recession and anticipated reductions from implemented regulations and the Renewable Portfolio Standard. This update provided a baseline for the proposed Cap-and-Trade regulation, and 2020 emissions are currently forecast at 509 million $MTCO_2e$ (CARB 2015b).

The Climate Change Scoping Plan, approved by CARB in 2008 and updated in 2014 to fulfill AB 32, is California's roadmap for reaching its GHG reduction goals (CARB 2014). The plan outlines a number of key strategies to reduce GHG emissions.

Climate Change Scoping Plan GHG reduction measures that are applicable to the proposed project include the Low Carbon Fuel Standard, regional transportation-related GHG targets, light-duty vehicle GHG standards, medium/heavy-duty vehicle GHG standards, vehicle efficiency measures, goods movement, energy efficiency, high GWP gases, and recycling and waste. The California legislature has also passed legislation implementing most of the Climate Change Scoping Plan measures. Legislation applicable to the proposed project is described below.

### *Assembly Bill 1493 – Pavley*

In 2002, the California legislature adopted regulations to reduce GHG emissions in the transportation sector, the state's largest source of GHG emissions. In September 2004, pursuant to AB 1493, CARB approved regulations to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. In September 2009, CARB adopted amendments to the Pavley regulations to reduce GHG from 2009 to 2016. CARB, EPA, and the National Highway Traffic and Safety Administration have coordinated efforts to develop fuel economy and GHG standards for model years 2017 to 2025 vehicles. The GHG standards are incorporated into the "Low Emission Vehicle" Regulations.

### *Executive Order S-01-07 – Low Carbon Fuel Standard*

In January 2007, the governor set a new standard for transportation fuels sold in California, which sets a reduction of 2.5 percent in the carbon intensity of transportation fuels by 2015 and a reduction of at least 10 percent by 2020.

### *California Renewable Energy Programs*

In 2002, California initially established its Renewables Portfolio Standard, with the goal of increasing the percentage of renewable energy in the State's electricity mix to 20 percent by 2017. State energy agencies recommended accelerating that goal, and California Executive Order S-14-08 (November 2008) required California utilities to reach the 33 percent renewable electricity goal by 2020, consistent with the AB 32 Scoping Plan. In April 2011, Senate Bill 2 of the First Extraordinary Session (SB X1-2) was signed into law. SB X1-2 expressly applies the new 33 percent Renewables Portfolio Standard by December 31, 2020, to all retail sellers of electricity and establishes renewable energy standards for interim years prior to 2020.

### *Executive Order B-30-15*

Executive Order B-30-15 was signed in April 2015, establishing a new interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030. The interim reduction target was established to ensure that California meets its goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. Executive Order B-30-15 requires state agencies to consider climate change in their planning and investment decisions, giving priority to actions that reduce GHG emissions.

### *Other Mobile Source Reduction Requirements*

Several other state provisions address the GHG emissions reduction targets set by CARB for mobile sources. Measures applicable to the proposed project include the following:

- **Advanced Clean Cars Program:** A set of regulations that would apply to new vehicles with model years between 2017 and 2025, with a goal of GHG emission reduction of 34 percent in 2025.
- **Heavy-Duty Truck GHG Regulations:** Regulations that apply to new heavy-duty tractors and trailers to reduce GHG emissions.
- **On-Road Heavy Duty Diesel Vehicle Regulations:** Requires diesel trucks and buses to be upgraded to reduce GHG emissions under a phased implementation that would have almost all buses and trucks updated with 2010 engines by January 1, 2023.

### *California Code of Regulations Title 17, Sections 95350 to 95359*

California Code of Regulations Title 17, Sections 95350 to 95359, establish requirements for reducing $SF_6$ emissions from gas-insulated equipment. The provisions of this regulation apply to owners of active

switchgear equipment. It specifies maximum allowable annual $SF_6$ emission rates, $SF_6$ inventory measurement procedures, recordkeeping requirements, and annual $SF_6$ reporting requirements. Because $SF_6$ is the most potent GHG (about 24,000 times the GWP of $CO_2$), even small gas-insulated devices could be responsible for significant GHG emissions. The maximum allowable annual $SF_6$ emission rate specified is 1.0 percent of the total gas contained in gas-insulated equipment. This rate must be achieved by 2020 and each calendar year thereafter.

### *California Green Building Standards*

California Code of Regulations Title 24, Part 11 establishes the requirements to improve health, safety, and general welfare by enhancing the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the state of California. Section 5.408 of this code establishes mandatory requirements for construction waste reduction, disposal, and recycling for nonresidential building structures. In particular, Section 5.408.1 requires recycling and/or salvaging for reuse of a minimum of 50 percent of the nonhazardous construction and demolition waste. In addition, Section 5.408 requires preparation of a construction waste management plan, selection of a waste management company that can provide verifiable documentation, alternatives for waste stream reduction, and requirements for managing excavated soils and land clearing debris.

### *Assembly Bill 1826*

AB 1826 (Chapter 727, Statutes of 2014) was enacted in October 2014. AB 1826 requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. The law also requires local jurisdictions across California to implement organic waste recycling programs to divert organic waste generated by businesses, including multi-family residential buildings that consist of five or more units. AB 1826 was enacted to reduce the disposal of organic waste in landfills in an effort to reduce GHG emissions from landfills, which is a part of the CARB Climate Change Scoping Plan.

## Local

### *San Joaquin Valley Air Pollution Control District Climate Change Action Plan*

In August 2008, the San Joaquin Valley Air Pollution Control District (SJVAPCD) adopted its Climate Change Action Plan (CCAP). The CCAP directed the SJVAPCD to develop guidance to assist California Environmental Quality Act (CEQA) lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project GHG emissions on global climate change (SJVAPCD 2008).

In December 2009, the SJVAPCD Board approved two guidance documents: Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (SJVAPCD 2009a); and SJVAPCD Policy: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency (SJVAPCD 2009b). These policies provide that "Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the Project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions" (SJVAPCD 2009a). These policies are cited in the most recent Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) published by the SJVAPCD (2015).

Where an approved GHG emission reduction program is not in place, or the Project will not comply with it, the guidance documents rely on the use of Best Performance Standards (BPS) as a basis for assessing the significance of project GHG emissions on global climate change under CEQA. BPS consist of established specifications or project design elements that are used as a method of determining significance

of project-specific GHG emission impacts. BPS are defined as the most effective achieved-in-practice means of reducing or limiting GHG emissions from a GHG emissions source. Projects implementing BPS would have less than significant impacts for GHG emissions. Projects that do not comply with an approved GHG emission reduction plan or use BPS must demonstrate a 29 percent reduction in GHG emissions from business-as-usual in order to be determined to have a less than cumulatively significant impact on global climate change. Business-as-usual is determined by multiplying 2002–2004 emission factors by the activity expected to occur in 2020. The guidance does not limit a lead agency's authority to establish its own process and guidance for determining significance of project-related impacts on global climate change (SJVAPCD 2009a).

## 5.7.3 Environmental Impacts and Assessment

### Applicant Proposed Measures

The applicant has incorporated applicant proposed measures (APMs) into the proposed project to specifically minimize or avoid impacts on GHGs. A list of all project APMs is included in Table 4-5.

**APM GHG-1: Minimize GHG Emissions.**

- Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a "common sense" approach to vehicle use.
- Maintain construction equipment in proper working conditions in accordance with PG&E standards.
- Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel fueled construction equipment with engines 50 hp or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program.
- Minimize welding and cutting by using compression of mechanical applications where practical and within standards.
- Encourage use of natural gas powered vehicles for passenger cars and light-duty trucks where feasible and available.
- Encourage the recycling of construction waste where feasible.

**APM GHG-2: Minimize $SF_6$ Emissions.**

- Incorporate Sanger Substation into PG&E's system-wide $SF_6$ emission reduction program. CARB has adopted the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear sections 95350 to 95359, title 17, California Code of Regulations, which requires that company-wide $SF_6$ emission rate not exceed 1 percent by 2020. Since 1998, PG&E has implemented a programmatic plan to inventory, track, and recycle $SF_6$ inputs, and inventory and monitor system-wide $SF_6$ leakage rates to facilitate timely replacement of leaking breakers. PG&E has improved its leak detection procedures and increased awareness of $SF_6$ issues within the company. X-ray technology is now used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing $SF_6$ handling and accidental releases. As an active member of USEPA's $SF_6$ Emission Reduction Partnership for Electrical Power Systems, PG&E has focused on reducing $SF_6$ emissions from its transmission and distribution operations and has reduced the $SF_6$ leak rate by 89 percent and absolute $SF_6$ emissions by 83 percent.
- Require that the breakers at Sanger Substation have a manufacturer's guaranteed maximum leakage rate of 0.5 percent per year or less for $SF_6$.
- Maintain substation breakers in accordance with PG&E's maintenance standards.
- Comply with California Air Resources Board Early Action Measures as these policies become effective.

## Impacts on Greenhouse Gases

Table 5.7-2 includes the significance criteria from Appendix G of the CEQA Guidelines' greenhouse gases section to evaluate the environmental impacts of the proposed project.

Table 5.7-2 Greenhouse Gases Checklist

| Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ☒ | ☐ |
| b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☒ | ☐ |

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

*LESS THAN SIGNIFICANT IMPACT*

In the absence of a rulemaking by CARB to establish a statewide GHG emission significance threshold, the CPUC assesses the impacts of GHG emissions on a case-by-case basis. The SJVAPCD has adopted guidance for assessing and reducing the impacts of project-specific GHG emissions, as described in Section 5.7.2., which relies on the use of performance based standards or BPS to assess significance as required by CEQA. However, the current list of BPS developed by the SJVAPCD for stationary sources does not include specific performance standards for substations or other electrical facilities.

In areas of California where the local air pollution control district has not adopted a threshold of significance, as is the case with SJVAPCD, the CPUC typically applies a significance threshold from another district. Here, CPUC has chosen to use the South Coast Air Quality Management District's (SCAQMD's) interim significance threshold for stationary sources as a reference value for impact assessment under this criterion. The SCAQMD approach establishes a significance threshold of 10,000 metric tons $CO_2e$ per year for the construction emissions amortized over a 30-year project lifetime, plus annual operation emissions (SCAQMD 2008).

## Construction

During construction of the proposed project, GHGs (primarily $CO_2$) would be emitted from the engine exhaust of diesel- and gasoline-fueled construction equipment and on-road vehicles (e.g., delivery trucks, light-duty vehicles, off-road construction equipment, heavy-duty diesel vehicles, and worker vehicles). GHG emissions resulting from installation of two dishes on the existing tower at the Fence Meadow Repeater Station would be negligible given the minimal truck and equipment trips (2 truck trips per day for a week and 2 crane trips total) and would not contribute significantly to construction GHG emissions. In total, proposed project construction activities, without application of the APMs described in Section 5.7.3, would generate approximately 825 $MTCO_2e$ of emissions as shown in Table 5.7-3. Amortized over 30 years, this would be equivalent to 28 $MTCO_2e$ per year. Detailed emissions calculations and assumptions are presented in Appendix C.

Table 5.7-3 Estimated Construction Unmitigated Greenhouse Gas Emissions

| Greenhouse Gas Emissions | Total Project ($MTCO_2e$) |
|---|---|
| Carbon Dioxide ($CO_2$) | 821 |
| Methane ($CH_4$) | 4 |
| Total | 825 |
| Amortized construction emissions (30-year period) | 28 |

$MTCO_2e$ metric tons of carbon dioxide equivalents

## Operation and Maintenance

The expansion of the substation would include the replacement of old $SF_6$ circuit breakers with new $SF_6$ circuit breakers with an improved leakage rating, and an overall increase of 15 $SF_6$ circuit breakers, with a net increase in the potential for leakages of $SF_6$. Estimated GHG emissions from project operations associated with the incremental increase in $SF_6$-containing equipment, without implementation of APMs, are presented in Table 5.7-4. The emissions are expressed in terms of $CO_2e$. The total project estimated emissions from operation and maintenance due to $SF_6$ leakage would be 404 $MTCO_2e$ per year.

Table 5.7-4 Operation and Maintenance Unmitigated GHG Emissions

| Equipment | Emissions ($MTCO_2e$ per Year) |
|---|---|
| Sulfur hexafluoride ($SF_6$) leakage from 15 additional breakers | 404 |

$MTCO_2e$ metric tons of carbon dioxide equivalents

Notes:

Estimated emissions do not account for the partial offset that would result from the replacement of 8 old $SF_6$ circuit breakers with new $SF_6$ circuit breakers, which have an improved leakage rating and therefore would reduce annual $SF_6$ emissions compared to baseline. Calculation assumes 15 net additional breakers and an annual $SF_6$ mass leakage rate of 1.0 percent per breaker, which is required under CARB regulations starting in 2020. Although the substation would be in operation in 2018, it is reasonable to assume based on APM GHG-2 that PG&E would purchase equipment that would allow them to, at a minimum, comply with the 2020 $SF_6$ requirements.

In addition to $SF_6$ gas emissions, the use of equipment and vehicles during routine operations and maintenance would emit $CO_2$ and $CH_4$ from engine exhaust of diesel- and gasoline-fueled vehicles. However, because equipment and vehicle use for routine operations and maintenance would not substantially differ from baseline conditions, there would be no increase in these emissions, and no impact.

## Total Project GHG Emissions

The proposed project's total annual GHG emissions have been estimated by adding estimated construction emissions, amortized over 30 years, to estimated operational emissions per year. The SCAQMD's adopted significance threshold for GHG emissions is 10,000 $MTCO_2e$ per year. Table 5.7-5 shows the total annual GHG emissions for the proposed project in comparison with the SCAQMD's significance threshold.

Table 5.7-5 Overall Unmitigated Greenhouse Gas Emissions of the Proposed Project

| Emission Source | Annual GHG Emissions ($MTCO_2e$ per Year) |
|---|---|
| Sulfur hexafluoride ($SF_6$) leakage during operations | 404 |
| Amortized construction emissions (30-year period) | 28 |
| Annualized GHG Emissions | 432 |
| Exceeds SCAQMD GHG Threshold of 10,000 $MTCO_2e$ per year? | No |

GHG greenhouse gas
$MTCO_2e$ metric tons of carbon dioxide equivalents
SCAQMD South Coast Air Quality Management District

The estimated level of GHG emissions, which were obtained without implementation of APMs, are below the significance threshold set by SCAQMD and, therefore, the proposed project would not generate GHG emissions that would, directly or indirectly, have a significant effect on the environment. Impacts associated with the GHG emissions would be less than significant.

PG&E would implement APM GHG-1, which would further reduce GHG emissions during construction, amortized over a 30-year period, by about 13 percent. PG&E would also implement APM GHG-2, which would reduce $SF_6$ leakage rate to 0.5 percent per year. The total annual GHG emissions after application of APM GHG-1 and APM GHG-2 for the proposed project are presented in Table 5.7-6.

Table 5.7-6 Overall Greenhouse Gas Emissions of the Proposed Project with APM GHG-1 and APM GHG-2

| Emission Source | Annual GHG Emissions ($MTCO_2e$ per Year) |
|---|---|
| Sulfur hexafluoride ($SF_6$) leakage during operations | 202 |
| Amortized construction emissions (30-year period) | 24 |
| Annualized GHG Emissions | 226 |
| Exceeds SCAQMD GHG Threshold of 10,000 $MTCO_2e$ per year? | No |

GHG greenhouse gas
$MTCO_2e$ metric tons of carbon dioxide equivalents
SCAQMD South Coast Air Quality Management District

Therefore, total annualized GHG emissions from the project after implementation of APMs would be approximately 226 $MTCO_2e$ per year. Impacts would remain less than significant.

***b. Would the Project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?***

*LESS THAN SIGNIFICANT IMPACT*

The proposed project's GHG emissions would not exceed regional or quantitative thresholds developed to comply with AB 32 and California Climate Change Scoping Plan statewide reduction targets; therefore, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Project construction and operation would result in emissions covered by several relevant plans, policies, and regulations. Table 5.7-7 contains an analysis of conformity with those plans, policies, and regulations.

Table 5.7-7 Project Conformity with Plans, Policies, and Regulations

| Plan, Policy, or Regulation | Consistency Analysis |
|---|---|
| Federal vehicle emissions standards | The proposed project would utilize vehicles subject to federal vehicle regulations and would therefore utilize vehicles that comply with federal vehicle emissions standards. The proposed project would not conflict with this regulation. |
| Mandatory reporting of greenhouse gas emissions | The proposed project would not emit 25,000 metric tons or more of GHGs per year, as discussed under significance criterion (a). Therefore, an annual report to the US Environmental Protection Agency would not be required and the proposed project would not conflict with this regulation. |
| AB 32 and Scoping Plan | The proposed project would be subject to and comply with policies and measures in the AB 32 Scoping Plan that have been and will be implemented as regulations. The Scoping Plan sets forth GHG reduction measures such as the Low Carbon Fuel Standard, light and heavy-duty GHG standards, energy efficiency, and recycling and waste reduction. The proposed project would be in compliance with all of the fuel and vehicle standards and would dispose of and recycle all project waste in the appropriate manner, as required by law. The proposed project's GHG emissions would not exceed regional quantitative thresholds developed to comply with AB 32 and the California Climate Change Scoping Plan statewide reduction target. The proposed project would therefore not conflict with AB 32. |
| Executive Order S-3-05 | Recognizing the state's susceptibility to climate change impacts, this Executive Order established statewide GHG emission reduction targets of 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. The proposed project would not significantly increase GHG emissions in the project area during construction and during operations and maintenance, as previously discussed. GHG emissions from the proposed project would not exceed regional quantitative thresholds developed to comply with AB 32 and the California Climate Change Scoping Plan statewide reduction target. The proposed project would therefore not conflict with Executive Order S-3-05 |
| AB 1493—Pavley | The proposed project would use vehicles subject to state vehicle regulations and would therefore utilize vehicles that comply with state vehicle emissions standards. The project would not conflict with AB 1493. |
| Executive Order S-01-07—Low Carbon Fuel Standard | Fuels purchased for the proposed project would be in compliance with the Low Carbon Fuel Standard. The project would not conflict with the low carbon fuel standard. |
| California Renewable Energy Programs | In 2002, California initially established its Renewables Portfolio Standard, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent by 2017. State energy agencies recommended accelerating that goal, and California Executive Order S-14-08 (November 2008) required California utilities to reach the 33 percent renewable electricity goal by 2020, consistent with the AB 32 Scoping Plan. SB X1-2 expressly applies the new 33 percent Renewables Portfolio Standard by December 31, 2020, to all retail sellers of electricity and establishes renewable energy standards for interim years prior to 2020. The proposed project does not involve a decrease or increase in renewable energy generation or aim to specifically increase import of renewable energy. There would be no conflict with the California Renewable Energy Programs. |

Table 5.7-7 Project Conformity with Plans, Policies, and Regulations

| Plan, Policy, or Regulation | Consistency Analysis |
|---|---|
| Executive Order B-30-15 | Executive Order B-30-15 establishes a new interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030. The interim GHG reduction target was established to ensure that California meets its goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. Executive Order B-30-15 requires state agencies to consider climate change in their planning and investment decisions, giving priority to actions that reduce GHG emissions. The proposed project would not significantly increase GHG emissions in the project area during construction and during operations and maintenance, as previously discussed. The proposed project would therefore not conflict with Executive Order B-30-15. |
| Advanced Clean Cars Program | Vehicles with a model year from 2017 to 2025 purchased for use for the proposed project would comply with regulations in the Advanced Clean Cars Program. The proposed project would not conflict with the Advanced Clean Cars Program. |
| Heavy-Duty Truck GHG Regulations | Certain vehicles used for the proposed project would be subject to heavy-duty truck and trailer regulations. Heavy duty trucks and trailers that comply with state regulations would be used. The proposed project would therefore not conflict with heavy-duty truck GHG regulations. |
| On-Road Heavy Duty Diesel Vehicle Regulations | Certain vehicles used for the proposed project would be subject to heavy-duty truck and trailer regulations. Heavy duty trucks and trailers that comply with state regulations would be used. The proposed project would therefore not conflict with on-road heavy-duty diesel vehicle regulations. |
| State Regulations for Reducing $SF_6$ Emissions from Gas Insulated Switchgear (17 CCR Sections 95350 to 95359) | By 2020, the maximum emission requirement would be 1 percent per year for all gas-insulated equipment; the applicant would only purchase and install gas-insulated equipment with a manufacturer's certified $SF_6$ leak rate of 0.5 percent per year or less, and implement $SF_6$ best management practices during operations and maintenance of the proposed project. The applicant would be required to report $SF_6$ inventories and emissions from the use of gas-insulated electrical equipment at the proposed Sanger Substation pursuant to California Air Resources Board's Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear (17 CCR Sections 95350 to 95359). The proposed project would not conflict with state $SF_6$ regulations. |
| California Green Building Code (CCR, Title 24, Part 11) | The project proponent would be required to comply with nonhazardous construction and demolition waste requirements, as outlined in the California Green Building Code, for the construction and demolition of nonresidential building structures. Therefore, the proposed project would not conflict with this regulation. |
| AB 1826 | The project proponent would be required to recycle their organic waste, depending on the amount of waste generated per week. Construction of the proposed project would result in the generation of various waste materials, which would all be salvaged, recycled, or disposed of in the appropriate manner and in compliance with applicable regulations. Therefore, the proposed project would not conflict with this regulation. |

Table 5.7-7 Project Conformity with Plans, Policies, and Regulations

| Plan, Policy, or Regulation | Consistency Analysis |
|---|---|
| SJVAPCD Climate Change Action Plan, Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA, District Policy: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency | In December 2009, the SJVAPCD Board approved two guidance documents: Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA and District Policy: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency. These documents provide that "Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the Project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions."<br><br>The proposed project would be subject to and comply with policies and measures in the AB 32 Scoping Plan that have been and will be implemented as regulations. The proposed project would be in compliance with the low carbon fuel standards, all of the light duty and medium/heavy-duty vehicle standards, and the waste disposal and recycling procedures. The proposed project's GHG emissions would not exceed regional or quantitative thresholds developed to comply with AB 32 and the California Climate Change Scoping Plan statewide reduction target. Therefore, the proposed project would be determined to have a less than significant individual and cumulative impact for GHG emissions and would not conflict with the SJVAPCD Board Plan. |

| | |
|---|---|
| AB | Assembly Bill |
| CCR | California Code of Regulations |
| CEQA | California Environmental Quality Act |
| GHG | greenhouse gas |
| proposed project | Sanger Substation Expansion Project |
| $SF_6$ | sulfur hexafluoride |
| SJVAPCD | San Joaquin Valley Air Pollution Control District |

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