

## 5.8 Greenhouse Gas Emissions

This section evaluates the potential for the Proposed Project, as well as the alternatives, to result in impacts associated with greenhouse gas emissions during construction, operation, and maintenance activities.

### 5.8.1 Environmental Setting

Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). GHGs allow sunlight to enter the atmosphere, but trap a portion of the outward-bound infrared radiation, which warms the air. The process is similar to the effect the glass of a greenhouse has in raising the internal temperature within the greenhouse, hence the name GHGs. Both natural processes and human activities emit GHGs. The natural accumulation of GHGs in the atmosphere regulates the Earth's temperature; however, emissions from human activities – such as fossil fuel-based electricity production and the use of motor vehicles – have elevated the concentration of GHGs in the atmosphere beyond naturally-occurring levels. This increase in GHGs levels has contributed to global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to human activities, most in the scientific community agree that there is a direct link between increased emissions of GHGs and long-term climate change.

The principal GHGs are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). CO<sub>2</sub> is the most common of GHGs. To account for the warming potential of GHGs, GHG emissions are often quantified and reported as CO<sub>2</sub> equivalents (CO<sub>2</sub>e). For example, SF<sub>6</sub> is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF<sub>6</sub>, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG with 22,800 times the global warming potential (GWP) as CO<sub>2</sub>. Large emission sources are reported in million metric tons of CO<sub>2</sub>e.<sup>1</sup>

Some of the potential effects of global warming in California may include decrease in snow pack, sea level rise, more extreme heat days per year, more days with high levels of atmospheric ozone, more large forest fires, and more drought years (CARB, 2009). Globally, climate change has the potential to affect numerous environmental resources through impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2007):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

<sup>1</sup> The term metric ton is commonly used in the U.S. to refer to the metric system unit, tonne, which is defined as a mass equal to 1,000 kilograms. A metric ton is approximately 1.1 short tons and approximately 2,204.6 pounds.

There are also many secondary effects that are projected to result from climate change, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term is generally anticipated to be substantial.

Anthropogenic GHG emissions in the United States are derived mostly from the combustion of fossil fuels for transportation and power production. Energy-related CO<sub>2</sub> emissions resulting from fossil fuel exploration and use account for approximately three-quarters of the human-generated GHG emissions in the United States, primarily in the form of CO<sub>2</sub> emissions from burning fossil fuels. Approximately one-third of the GHG emissions come from electricity production, such as power plants; a little over one-quarter derive from transportation; and a majority of the remaining sources include industrial processes, commercial and residential activities, agriculture, and forestry and other land uses (USEPA, 2014a).

Statewide emissions of GHG from relevant source categories for 2006 through 2012 (the most recent year for which data are available) are summarized in **Table 5.8-1, California Greenhouse Gas Emissions (Million Metric Tons Co<sub>2</sub>e)**. In 2012, California produced 458.67 million metric tons of CO<sub>2</sub>e emissions; Table 5.8-1 shows the percentages of GHG contributions by category for that year. The electric power sector was the source of approximately 21 percent of those GHG emissions (CARB, 2014a).

**TABLE 5.8-1  
 CALIFORNIA GREENHOUSE GAS EMISSIONS (MILLION METRIC TONS CO<sub>2</sub>e)**

Emission Inventory Category	2006	2007	2008	2009	2010	2011	2012	
Transportation	189.18	189.27	178.02	171.47	170.46	168.13	167.38	36%
Electric Power	104.54	113.94	120.15	101.32	90.3	88.04	95.09	21%
Commercial and Residential	41.89	42.11	42.44	42.65	43.82	44.32	42.28	9%
Industrial	90.28	87.1	87.54	84.95	88.51	88.34	89.16	19%
Recycling and Waste	7.8	7.93	8.09	8.23	8.34	8.42	8.49	14%
High Global Warming Potential	11.08	11.78	12.87	13.99	15.89	17.35	18.41	
Agriculture	37.75	37.03	37.99	35.84	35.73	36.34	37.86	
<b>Total Gross Emissions</b>	<b>482.52</b>	<b>489.16</b>	<b>487.1</b>	<b>458.45</b>	<b>453.05</b>	<b>450.94</b>	<b>458.67</b>	<b>100%</b>

SOURCE: CARB, 2014a.

## Regulatory Setting

### *Federal*

On April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency (USEPA)*, 549 US 497, the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act (CAA). The Court held that the USEPA must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to

endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the USEPA is required to follow the language of Section 202(a) of the CAA.

On April 17, 2009, the USEPA Administrator signed proposed “endangerment” and “cause or contribute” findings for GHGs under Section 202(a) of the CAA. The USEPA held a 60-day public comment period, considered public comments, and issued final findings. The USEPA found that six GHGs taken in combination endanger both the public health and the public welfare of current and future generations. The USEPA also found that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse effect as air pollution that endangers public health and welfare under CAA Section 202(a) (USEPA, 2014b). Specific GHG regulations that the USEPA has adopted to date are as follows:

**40 Code of Federal Regulations (CFR) Part 98. Mandatory Reporting of Greenhouse Gases Rule.** This rule requires mandatory reporting of GHG emissions for facilities that emit more than 25,000 metric tons of CO<sub>2</sub>e emissions per year (USEPA, 2014c). The Proposed Project would not trigger GHG reporting as required by this regulation.

**40 CFR Part 52. Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.** USEPA has mandated that Prevention of Significant Deterioration (PSD) and Title V requirements applies to facilities whose stationary source CO<sub>2</sub>e emissions exceed 100,000 tons per year (USEPA, 2014b). The Proposed Project would not trigger PSD or Title V permitting under this regulation.

**40 CFR Part 98. Use of Electric Transmission and Distribution Equipment.** In addition, pursuant to federal regulations (i.e., 40 CFR Part 98, Subpart DD) operators of certain electrical facilities, such as SF<sub>6</sub>-containing circuit breakers, are required to report SF<sub>6</sub> emissions to the USEPA (USEPA, 2014d). SF<sub>6</sub>-containing circuit breakers that would be associated with the Proposed Project would be subject to reporting under this regulation.

## **State**

There are currently no state regulations in California that establish ambient air quality standards for GHGs. However, California has passed laws directing the California Air Resources Board (CARB) to develop actions to reduce GHG emissions, and several state legislative actions related to climate change and GHG emissions have come into effect in the past decade.

### **Executive Order S-3-05**

In recognition of California’s vulnerability to the effects of climate change, Executive Order S-3-05 was established by Governor Arnold Schwarzenegger in June 2006. It establishes statewide emission reduction targets through the year 2050 as follows:

1. By 2010, reduce GHG emissions to 2000 levels;
2. By 2020, reduce GHG emissions to 1990 levels; and
3. By 2050, reduce GHG emissions to 80 percent below 1990 levels.

This Executive Order does not include any specific requirements that pertain to the Proposed Project; however, future actions taken by the state to implement these goals may affect the Proposed Project, depending on the specific implementation measures that are developed.

### **Assembly Bill 32**

California Assembly Bill (AB) 32, also known as the Global Warming Solutions Act of 2006, required CARB to establish a statewide GHG emissions cap for 2020 based on 1990 emission levels. AB 32 also required CARB to adopt regulations that identify and require selected sectors or categories of emitters of GHGs to report and verify their statewide GHG emissions, and authorized CARB to enforce compliance with the program. CARB established the GHG emissions cap in December 2007, at 427 million metric tons of CO<sub>2</sub>e. This is approximately 30 percent below forecasted “business-as-usual” emissions of 596 million metric tons of CO<sub>2</sub>e in 2020, and about 10 percent below average annual GHG emissions during the period of 2002 through 2004 (CARB, 2009).

Toward achieving the maximum technologically feasible and cost-effective GHG emission reductions, AB 32 permits the use of market-based compliance mechanisms and requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts.

### **Climate Change Scoping Plan**

In December 2008, CARB approved the *AB 32 Scoping Plan* outlining the state’s strategy to achieve the 2020 GHG emissions limit. The Scoping Plan estimated a reduction of 174 million metric tons CO<sub>2</sub>e (about 191 million U.S. tons) could be achieved from the transportation, energy, agriculture, forestry, and high climate-change-potential sectors, and proposed a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify California’s energy sources, save energy, create new jobs, and enhance public health. The Scoping Plan includes a list of 39 Recommended Actions contained in Appendices C and E of the Scoping Plan (CARB, 2009). Of these measures, only one is directly relevant to the Project. Measure H-6, High GWP Gases was designed to reduce emissions of SF<sub>6</sub> within the electric utility sector and at particle accelerators by requiring the use of best achievable control technology for the detection and repair of leaks, and the recycling of SF<sub>6</sub>.

The Scoping Plan must be updated every 5 years to evaluate the implementation of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal. CARB released the Scoping Plan Update in May 2014 (CARB, 2014b). There are no recommended actions identified in the Scoping Plan Update that are directly applicable to the Proposed Project.

### **Senate Bill 97**

In 2007, the California State Legislature passed SB 97, which required amendment of the California Environmental Quality Act (CEQA) Guidelines to incorporate analysis of, and mitigation for, GHG emissions from projects subject to CEQA. The amendments took effect March 18, 2010. The amendments added Section 15064.4 to the CEQA Guidelines, specifically addressing the potential significance of GHG emissions. Section 15064.4 calls for a “good faith

effort” to “describe, calculate or estimate” GHG emissions and indicates that the analysis of the significance of any GHG impacts should include consideration of the extent to which the project would:

- Increase or reduce GHG emissions;
- Exceed a locally applicable threshold of significance; or
- Comply with “regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.”

The CEQA Guidelines also state that a project may be found to have a less-than-significant impact related to GHG emissions if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (14 Cal. Code Regs. §15064(h)(3)). Importantly, however, the CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

#### **Regulation for Reducing SF<sub>6</sub> Emissions from Gas Insulated Switchgear**

The purpose of this regulation (17 Cal. Code Regs. §95350 et seq.) is to achieve GHG emission reductions by reducing SF<sub>6</sub> emissions from gas-insulated switchgear. Owners of such switchgear must not exceed maximum allowable annual emissions rates, which are reduced each year until 2020, after which annual emissions must not exceed 1.0 percent of the total SF<sub>6</sub> capacity of all of the owner’s active gas-insulated switchgear equipment. As defined by the regulation, the annual emissions rate equals the gas-insulated switchgear owner’s total annual SF<sub>6</sub> emissions from all active gas-insulated switchgear equipment divided by the average annual SF<sub>6</sub> nameplate capacity of all active gas-insulated switchgear equipment. Owners must regularly inventory gas-insulated switchgear equipment, measure quantities of SF<sub>6</sub>, and maintain records of these for at least 3 years. Additionally, by June 1st each year, owners also must submit an annual report to CARB’s Executive Officer for emissions that occurred during the previous calendar year (CARB, 2014c).

#### **Local**

There are no local adopted policies or goals for reducing GHG emissions that would be directly applicable to the Proposed Project.

### **5.8.2 Significance Criteria**

Based on CEQA *Guidelines* Sections 15064.4 and 15064.7(c), as well as Appendix G, a project would result in significant GHG emissions effects on the environment if it would:

- a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

### 5.8.3 Applicant Proposed Measures

Southern California Edison (SCE) has identified no applicant proposed measures (APMs) to address issues related to GHG emissions.

### 5.8.4 Impacts and Mitigation Measures

#### Approach to Analysis

The Proposed Project would result in GHG emissions from both short-term construction and long-term operations and maintenance activities. CEQA allows for significance criteria established by the applicable air pollution control district to be used to assess the impact of a project related to GHG emissions, at the discretion of the CEQA Lead Agency. In November 2011, the Ventura County Air Pollution Control District (VCAPCD) released a report that identified several GHG thresholds of significance options to assess land use development projects in Ventura County (VCAPCD, 2011). The report concluded that it would be logical to set GHG emission thresholds of significance for land use development projects in Ventura County at levels consistent with those set by the South Coast Air Quality Management District (SCAQMD) given that Ventura County is adjacent to the SCAQMD jurisdiction and is a part of the Southern California Association of Governments region, as is SCAQMD. To date, the VCAPCD has not adopted CEQA significance thresholds for GHG emissions.

The SCAQMD has adopted an interim significance threshold of 10,000 metric tons CO<sub>2</sub>e per year for operation of stationary source projects (SCAQMD, 2008). This threshold was derived from emissions data from the four largest air districts in California and is based on the Executive Order S-3-05 GHG emissions reductions goal of 80 percent below 1990 levels by 2050, which is roughly equivalent to 90 percent below current levels by 2050. This emissions reduction goal goes beyond the AB 32 emissions reduction goal established for 2020. The emissions data suggests that approximately 1 percent of all stationary sources emit greater than 10,000 metric tons CO<sub>2</sub>e per year and are responsible for 90 percent of GHG emissions. This significance threshold represents a capture rate of 90 percent of all new and modified stationary source-related projects. A 90 percent emissions capture rate means 90 percent of the total emissions from all new or modified stationary source projects would be subject to analysis in an environmental impact report prepared pursuant to CEQA, including analysis of feasible alternatives and imposition of feasible mitigation measures (SCAQMD, 2008). The California Public Utilities Commission (CPUC) has determined that the GHG significance threshold of 10,000 metric tons per year for stationary source projects is based on substantial evidence and, therefore, has determined that it is appropriate for use in this analysis.

As noted above, this GHG significance threshold is intended for long-term operational GHG emissions associated with stationary sources; the VCAPCD and SCAQMD have not adopted or recommended GHG significance thresholds for construction emissions. Therefore, the CPUC has elected to use an approach to the determination of significance of GHG construction emissions based on guidance developed by the SCAQMD. For construction related GHGs, SCAQMD recommends that total emissions from construction be amortized over 30 years and added to

operational emissions and then compared to the operation-based significance threshold (SCAQMD, 2008). Similar to the SCAQMD's recommended approach for construction emissions, this analysis amortizes Proposed Project construction emissions over a 30-year project lifetime, adds them to the operational emissions, and then compares the combined emissions to the significance threshold of 10,000 metric tons CO<sub>2</sub>e per year.

There are no applicable Ventura County, City of Moorpark, or City of Thousand Oaks plans, policies, or regulations that would be directly applicable to the Proposed Project. However, the Proposed Project's potential to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions is assessed by examining any potential conflicts with the GHG reduction goals set forth in Executive Order S-3-05 and AB 32, including the potential for the Proposed Project to conflict with the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan and/or any associated adopted regulations.

**a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.**

**Impact 5.8-1: The Proposed Project would generate GHG emissions. *Less than significant (Class III)***

This analysis estimates both short-term construction emissions and long-term operational emissions that would be associated with the Proposed Project, as discussed below.

**Construction Emissions**

Construction of the Proposed Project would generate GHG emissions over a construction period of approximately 10 months. Exhaust emissions would result from construction equipment and machinery as well as from vehicular traffic generated by construction activities. As part of the CPUC's Permit to Construct application process, SCE provided construction-related GHG emissions estimates for the construction activities that would be associated with the Proposed Project (see Appendix D, *Air Quality and Greenhouse Gas Emissions Calculations*).

CPUC's consultant, Environmental Science Associates (ESA) independently reviewed the emission estimates. SCE estimated Proposed Project emissions using the California Emissions Estimator Model (CalEEMod) version 2011.1.1 developed by the SCAQMD. This version of CalEEMod calculates the construction equipment exhaust emissions based on CARB's OFFROAD2007 equipment emission and load factors. Subsequent to the release of this version of CalEEMod, CARB released an updated OFFROAD2011 model that includes more accurate equipment load factors that are based on recent academic studies and data from engine manufacturers. For its most recent version of the OFFROAD model released in 2011, CARB revised its construction equipment load factors, reducing them by 33 percent compared to those associated with the OFFROAD2007 model (CARB, 2010). Therefore, ESA revised SCE's estimated off-road equipment emissions estimates to reflect CARB's updated equipment use factors (ESA, 2015).

The short-term construction emissions estimates provided by SCE do not include helicopter emissions estimates or indirect emissions estimates associated with the proposed use of 37 acre-

feet of water for dust suppression. Therefore, ESA supplemented SCE’s emissions estimates to include construction-related helicopter emissions estimated using emission factors obtained from the Emissions and Dispersion Modeling System (EDMS) version 5.1.4.1 and The Climate Registry (TCR) (TCR, 2014), as well as indirect short-term electricity usage-related GHG emissions associated with proposed water use for dust control activities using emission and use factors established by the California Energy Commission (CEC) and TCR (CEC, 2005; TCR, 2014). See Appendix D for all emission factors and assumptions used to estimate GHG emissions that would be associated with construction of the Proposed Project.

**Table 5.8-2, *Proposed Project Construction GHG Emissions***, presents the total estimated GHG construction emissions that would be associated with the Proposed Project generated by off-road construction equipment and on-road vehicles, as well as indirect emissions related to electricity use that would be associated with water required for dust suppression. Approximately 1,138 metric tons of CO<sub>2</sub>e would be generated during the Proposed Project’s 10-month construction phase.

**TABLE 5.8-2  
 PROPOSED PROJECT CONSTRUCTION GHG EMISSIONS**

<b>Emissions Source</b>	<b>CO<sub>2</sub>e metric tons</b>
Off-road Construction Equipment and On-road Vehicles	1,090
Helicopter	11
Indirect – Electricity Associated with Water Use	37
<b>Total</b>	<b>1,138</b>

SOURCE: ESA, 2015, based on SCE, 2013, and SCE, 2014; see Appendix D for all emissions estimates.

### **Operation and Maintenance Emissions**

Mobile source emissions-related activities associated with Proposed Project operation would be limited to 180 maintenance and inspection trips per year and one annual inspection using a helicopter. ESA estimated vehicle-related operation and maintenance emissions using emission factors obtained from CARB’s Mobile Sources Emission Inventory (EMFAC) 2014 model for light duty trucks; helicopter emissions were estimated using emission factors obtained from EDMS version 5.1.4.1 and TCR (TCR, 2014). Total vehicle and helicopter emissions that would be generated each year would be approximately 3 metric tons CO<sub>2</sub>e. In addition, GHG emissions associated with operation of the Proposed Project would result from the installation of four SF<sub>6</sub>-containing circuit breakers at Newbury Substation. As part of the CPUC’s Permit to Construct application process, SCE provided a long-term SF<sub>6</sub> emissions estimate; however, the estimate was calculated using an unsupported circuit breaker leak rate of 0.5 percent of the total SF<sub>6</sub> capacity of the proposed circuit breakers. Therefore, ESA revised the long-term SF<sub>6</sub> operational emissions estimate using a USEPA SF<sub>6</sub> published leak rate for electrical circuit breakers manufactured in and after 1999 of up to 1.0 percent (USEPA, 2006). Using the USEPA referenced leak rate of 1.0 percent, annual SF<sub>6</sub> emissions that would be associated with the Proposed Project have been estimated to be equivalent to approximately 12 metric tons CO<sub>2</sub>e per year (ESA, 2014).



**Amortized Annual Emissions**

As indicated in Table 5.8-2, *Proposed Project Construction GHG Emissions*, total GHG construction emissions would be approximately 1,138 metric tons CO<sub>2</sub>e. These emissions amortized over a 30-year period equal approximately 38 metric tons per year. As presented in **Table 5.8-3, *Proposed Project Amortized Annual Emissions***, adding 38 metric tons of CO<sub>2</sub>e to the operational emissions of 15 metric tons CO<sub>2</sub>e per year equals a total Proposed Project GHG emissions rate of approximately 53 metric tons CO<sub>2</sub>e per year, which would be substantially less than the significance threshold of 10,000 metric tons CO<sub>2</sub>e per year. Therefore, the GHG emissions that would be generated by the Proposed Project would not be cumulatively considerable and would not significantly contribute to global climate change. The associated impact would be less than significant.

**TABLE 5.8-3  
PROPOSED PROJECT AMORTIZED ANNUAL EMISSIONS**

<b>Emissions Source</b>	<b>CO<sub>2</sub>e metric tons/year</b>
Construction emissions: total amortized	38
Maintenance and operations: trucks and helicopter inspections	3
Maintenance and operations: leaking SF <sub>6</sub>	12
<b>Total</b>	<b>53</b>
Significance threshold	10,000
Significant impact?	No

SOURCE: ESA, 2014, based on SCE, 2013, and SCE, 2014; see Appendix D for all emissions estimates.

**Mitigation:** None required.

**b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. (No Impact)**

Construction, operation, and maintenance of the Proposed Project would result in increased GHG emissions from baseline conditions; however, they would not conflict with GHG reduction goals set forth in Executive Order S-3-05 or AB 32, including the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan.

Regarding management of Proposed Project-related SF<sub>6</sub>, SCE has developed and would implement SF<sub>6</sub> gas management guidelines as described in SCE’s document entitled *An Asset Management Approach for EPA/CARB SF<sub>6</sub> Regulations* (SCE, 2012). This document includes an overview of the tools and methods that SCE utilizes to comply with both USEPA’s Voluntary SF<sub>6</sub> Emission Reduction Partnership program and CARB’s SF<sub>6</sub> regulations. This guideline document identifies storage methods, disposal method alternatives, and record-keeping requirements. Inventories of SF<sub>6</sub> that would be associated with the Proposed Project would be documented and annually reported to USEPA and CARB. Therefore, the Proposed Project would be consistent

with the intent of Scoping Plan Measure H-6: High Global Warming Potential Gas Reductions from Stationary Sources, and CARB's associated legislation. Because the Proposed Project would be consistent (and would not conflict) with these plans, policies, and regulations, it would cause no impact related to this significance criterion (No Impact).

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## 5.8.5 Alternatives

### No Project Alternative 1

Under No Project Alternative 1, the construction, operation, and maintenance-related impacts that would result under the Proposed Project, as discussed in Section 5.8.4, *Impacts and Mitigation Measures*, would not occur. There would be no impact under No Project Alternative 1 (No Impact).

### No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Infrastructure removal under No Project Alternative 2 would generate GHG emissions from construction equipment over a period estimated to be approximately 5 months. Short-term exhaust emissions would result from construction equipment and machinery as well as from vehicular traffic generated by construction activities. There would be no emissions associated with long-term operation or maintenance under No Project Alternative 2. Estimated emissions that would be associated with No Project Alternative 2 were estimated by ESA based on emissions of similar construction phases associated with the Proposed Project, adjusted to No Project Alternative 2 assumptions. See Appendix D, *Air Quality and Greenhouse Gas Emissions Calculations*, for all assumptions used to estimate No Project Alternative 2 emissions.

**Table 5.8-4, *No Project Alternative 2 Emissions***, presents the total estimated GHG emissions that would be associated with infrastructure removal under No Project Alternative 2 generated by off-road construction equipment and on-road vehicles, as well as indirect emissions related to electricity use that would be associated with water required for dust suppression. As described in the table, a total of approximately 263 metric tons of CO<sub>2</sub>e would be generated from removal of existing infrastructure under No Project Alternative 2. These emissions amortized over a 30-year period equal approximately 9 metric tons CO<sub>2</sub>e per year, which is equal to approximately 17 percent of the total amortized emissions that would be generated under the Proposed Project. Consequently, similar to the Proposed Project, impacts from GHG emissions from implementation of No Project Alternative 2 would be less than significant (Class III), and No Project Alternative 2 would be consistent (and would not conflict) with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions (No Impact).

**TABLE 5.8-4  
NO PROJECT ALTERNATIVE 2 EMISSIONS**

<b>Emissions Source</b>	<b>CO<sub>2</sub>e metric tons</b>
Construction: off-road equipment and on-road vehicles	297
Indirect: electricity associated with water use	18
<b>Total</b>	<b>315</b>
<b>Amortized Total</b>	<b>11</b>

SOURCE: ESA, 2014, based on SCE, 2013, and SCE, 2014; see Appendix D for all emissions estimates.

## References – Greenhouse Gas Emissions

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