

## 4.5 Energy

This section describes the existing energy conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the of the proposed Newell Creek Pipeline (NCP) Improvement Project (Proposed Project).

A summary of the comments received during the scoping period for this EIR is provided in Table 2-1 in Chapter 2, Introduction, and a complete list of comments is provided in Appendix A. There were no comments related to energy.

### 4.5.1 Existing Conditions

#### 4.5.1.1 Electricity and Natural Gas

Pacific Gas and Electric Company (PG&E) provides electrical and natural gas service to the region. Incorporated in California in 1905, PG&E is one of the largest combination natural gas and electric utilities in the United States. It currently provides service to approximately 16 million people throughout a 70,000-square-mile service area in northern and central California from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean in the west to the Sierra Nevada in the east. The service area includes 106,681 circuit miles of electric distribution lines, 18,466 circuit miles of interconnected transmission lines. 42,141 miles of natural gas distribution pipelines and 6,438 miles of transportation pipelines. PG&E and other utilities in the state are regulated by the California Public Utilities Commission (CPUC) (PG&E 2020).

Monterey Bay Community Power (MBCP), which recently underwent a name change to Central Coast Community Energy (3CE), was formed in March 2017 as a joint powers authority to provide locally controlled, clean and renewable electricity to residents and businesses in Monterey, San Benito, and Santa Cruz Counties, as well as parts of Santa Barbara and San Luis Obispo Counties through the Community Choice Energy (CCE) model established by the State of California. The CCE model enables communities to choose clean-source power at a cost equivalent to PG&E while retaining PG&E's role in maintaining power lines and providing customer service. The CCE model helps ensure local economic vitality because surplus revenues that would normally flow to PG&E will stay in the community. 3CE started serving electricity to customers beginning spring 2018, with current PG&E customers automatically switched over (3CE 2021). Notably, the City purchases electricity from MBCP for its municipal facility operations.

According to the U.S. Energy Information Administration (EIA), California used approximately 255,224 gigawatt hours of electricity in 2018 (U.S. EIA 2020a). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential sector is lower than any other state except Hawaii (U.S. EIA 2020b).

In Santa Cruz County, PG&E reported an annual electrical consumption of approximately 1,212 million kilowatt hours (kWh) in 2018, with 667 million kWh for non-residential use and 546 million kWh for residential use (California Energy Commission [CED] 2020a).

According to the EIA, California used approximately 2,136,907 million cubic feet of natural gas in 2018 (U.S. EIA 2020c). The majority of California’s natural gas customers are residential and small commercial customers (core customers). These customers account for approximately 35% of the natural gas delivered by California utilities (CPUC 2020). Large consumers, such as electric generators and industrial customers (noncore customers), account for approximately 65% of the natural gas delivered by California utilities (CPUC 2020). CPUC regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. Biogas (e.g. from wastewater treatment facilities or dairy farms) is just beginning to be delivered into the gas utility pipeline systems, and the State has been encouraging its development (CPUC 2020).

In 2018, PG&E had delivered approximately 52 million therms to Santa Cruz County, with 21 million therms for non-residential use and 31 million therms for residential use (CEC 2020b).

### 4.5.1.2 Transportation-Related Energy Consumption

According to the EIA, California used approximately 681 million barrels of petroleum in 2018, with the majority (584 million barrels) used for the transportation sector (U.S. EIA 2020d). This total annual consumption equates to a daily use of approximately 1.9 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 78.4 million gallons of petroleum per day, adding up to an annual consumption of 28.6 billion gallons of petroleum. In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. California has implemented policies to improve vehicle efficiency and to support use of alternative transportation, which are described in Section 4.5.2, Regulatory Framework, below.

## 4.5.2 Regulatory Framework

### 4.5.2.1 Federal

#### Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). Fuel economy is determined based on each manufacturer’s average fuel economy for the fleet of vehicles available for sale in the United States.

#### Intermodal Surface Transportation Efficiency Act

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 promoted the development of intermodal transportation systems to maximize mobility and address national and local interests in air quality and energy. ISTEA contained factors for metropolitan planning organizations to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, metropolitan

planning organizations adopted policies defining the social, economic, energy, and environmental values guiding transportation decisions.

### Energy Independence and Security Act

On December 19, 2007, the Energy Independence and Security Act (EISA) of 2007 was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum (U.S. Environmental Protection Agency [EPA] 2017). The EPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in greenhouse gas (GHG) emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green” jobs.

#### 4.5.2.2 State

##### Warren-Alquist Act

The California legislature passed the Warren-Alquist Act in 1974. The Warren-Alquist Act created the California Energy Commission (CEC). The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation’s first energy conservation standards for buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

### State of California Energy Action Plan

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided, and identified policies, strategies, and actions that are cost-effective and environmentally sound for California’s consumers and taxpayers. In 2005, a second Energy Action Plan was adopted by the CEC and CPUC to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state’s energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an update that examines the state’s ongoing actions in the context of global climate change.

Senate Bills 1078 (2002), 107 (2006), X1-2 (2011), 350 (2015) and 100 (2018)

Senate Bill (SB) 1078 established the California RPS Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20% standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.

SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20% of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) required all California utilities to generate 33% of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20% of electricity had to come from renewables; by December 31, 2016, 25% of electricity had to come from renewables; and by December 31, 2020, 33% will be required to come from renewables.

SB 350 (2015) expanded the RPS by requiring retail seller and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030, with interim goals of 40% by 2024 and 45% by 2027.

SB 100 (2018) accelerated and expanded the standards set forth in SB 350 by establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030 be secured from qualifying renewable energy sources. SB 100 also states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources

supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity does not increase carbon emissions elsewhere in the western grid. Additionally, 100% zero-carbon electricity cannot be achieved through resource shuffling.

Consequently, utility energy generation from non-renewable resources is expected to be reduced based on implementation of the RPS requirements described above. The Proposed Project's reliance on non-renewable energy sources would be reduced accordingly.

### Assembly Bill 1007 (2005)

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

### Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the state legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 required California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources.

### State Vehicle Standards

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO<sub>2</sub>) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009–2012 standards resulted in a reduction in approximately 22% of GHG emissions compared to emissions from the 2002 fleet, and the 2013–2016 standards resulted in a reduction of approximately 30% compared to the 2002 fleet.

In 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global-warming gases with requirements for greater numbers of zero-emissions vehicles into a single package of standards called Advanced Clean Cars. By 2025, when the rules would be fully implemented, new automobiles would emit 40% fewer global-warming gases and 75% fewer smog-forming emissions (CARB 2020). However, the EPA and National Highway Traffic Safety Administration

(NHTSA) published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which revokes California’s authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. Since California and 22 other states, as well as the District of Columbia and four cities, filed suit against the EPA and a petition for reconsideration of the rule, the effect of the SAFE Rule on the Advanced Clean Cars program is still to be determined pending the ruling of ongoing litigation.

Although the focus of the state’s vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

### Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates established in AB 32. As codified in California Government Code Section 65080, SB 375 requires Metropolitan Planning Organizations to include a sustainable communities strategy in their regional transportation plans. The main focus of the sustainable communities strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a bigger effort to address other development issues, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

#### 4.5.2.3 Local

##### Metropolitan Transportation Plan/ Sustainable Communities Strategy

The Association of Monterey Bay Area Governments (AMBAG) is the MPO for the region, which includes Monterey, San Benito, and Santa Cruz counties. AMBAG adopted the Monterey Bay 2040 Moving Forward – 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (2040 MTP/SCS), the implementation of which is anticipated to achieve a 4%-per-capita reduction and nearly 7%-per-capita reduction in GHG emissions from passenger vehicles by 2020 and 2035, respectively (AMBAG 2018). The 2040 MTP/SCS outlines the region’s proposed transportation network, emphasizing multimodal system enhancements, system preservation, and improved access to high quality transit, as well as land use development that complements this transportation network (AMBAG 2018). These transportation strategies would reduce VMT and associated petroleum fuels.

In addition, local climate action plans and strategies, which include energy-consumption-reduction measures, are described in Section 4.7, Greenhouse Gas Emissions.

### 4.5.3 Impacts and Mitigation Measures

This section contains the evaluation of potential environmental impacts associated with the Proposed Project related to energy. The section identifies the thresholds of significance used in evaluating the impacts, describes the methods used in conducting the analysis, and evaluates the Proposed Project’s impacts and contribution to significant cumulative impacts, if any are identified. Mitigation measures are presented for identified significant or potentially significant impacts, and the level of significance with mitigation also is identified

### 4.5.3.1 Thresholds of Significance

The thresholds of significance used to evaluate the impacts of the Proposed Project related to energy are based on Appendix G of the CEQA Guidelines and the City of Santa Cruz CEQA Guidelines. A significant impact would occur if the Proposed Project would:

- A. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, or
- B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

### 4.5.3.2 Analytical Methods

#### Construction

##### **Electricity**

The amount of electricity used during construction of the Proposed Project would be minimal because typical demand would stem from electrically powered hand tools. As such, construction electricity demand is qualitatively addressed.

##### **Natural Gas**

Natural gas is not anticipated to be required during construction; therefore, construction natural gas demand is qualitatively addressed.

##### **Petroleum**

Potential impacts were assessed for off-road equipment and on-road vehicle trips during construction, as provided by the California Emissions Estimator Model (CalEEMod) outputs (see Appendix F). Fuel consumption from construction equipment and vehicle trips was estimated by converting the total CO<sub>2</sub> emissions anticipated to be generated by the construction of the Proposed Project to gallons using conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton (MT) CO<sub>2</sub> per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO<sub>2</sub> per gallon (The Climate Registry 2021). Heavy-duty construction equipment associated with construction activities, vendor trucks, and haul trucks are assumed to use diesel fuel. Worker vehicles are assumed to be gasoline fueled. All details for construction criteria air pollutant emissions modeling discussed in Section 4.2, Air Quality, as well as Appendix F, are also applicable for the estimation of construction-related energy consumption. See Section 4.2.3.2, Analytical Methods, and Appendix F for a discussion of construction emissions calculation methodology and assumptions used in the energy analysis.

#### Operation

The Proposed Project consists of replacement of 8.75-miles of the existing NCP, as well as minor appurtenances, such as air release valves and isolation valves. Since the Proposed Project is replacing and improving existing pipeline infrastructure, once construction is complete, operations would be similar to existing conditions and would not result in additional energy consumption.

## Application of Relevant Standard Construction Practices

The City has adopted standard construction practices (see Section 3.6.6, Standard Construction Practices) that would be implemented by the City or its contractors during construction to avoid or minimize impacts. However, there are no City Standard Construction Practices applicable to energy consumption that are part of the Proposed Project.

Impacts have been evaluated with respect to the thresholds of significance, as described above. In the event adverse environmental impacts would occur even with consideration of applicable policies and regulations, impacts would be potentially significant, and mitigation measures are provided to reduce impacts to less-than-significant levels.

### 4.5.3.3 Project Impact Analysis

This section provides a detailed evaluation of energy impacts associated with the Proposed Project.

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**Impact ENE-1: Result in Wasteful, Inefficient or Unnecessary Consumption of Energy Resources (Significance Threshold A).** The Proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. (*Less than Significant*)

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#### Construction

**Electricity.** Temporary electric power for as-necessary lighting and electronic equipment would be provided by MBCP. The amount of electricity used during construction would be minimal because typical demand would be generated by electrically powered hand tools. The electricity used for construction activities would be temporary and minimal; therefore, Proposed Project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity.

**Natural Gas.** Natural gas is not anticipated to be required during construction of the Proposed Project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below. Any minor amounts of natural gas that may be consumed as a result of Proposed Project construction would be temporary and negligible and would not have an adverse effect; therefore, Proposed Project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas.

**Petroleum.** Heavy-duty equipment associated with construction would rely on diesel fuel, as would vendor trucks involved in delivery of materials to the project site and haul trucks exporting materials off site. Construction workers would travel to and from the project sites throughout the duration of construction. It is assumed in this analysis that construction workers would travel in gasoline-powered light-duty vehicles. Appendix F lists the assumed equipment usage and vehicle trips for construction of the Proposed Project.

As described above in Section 4.5.3.2, Analytical Methods, fuel consumption from construction equipment was estimated by converting the total CO<sub>2</sub> emissions from each construction phase to gallons using the conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per MT CO<sub>2</sub> per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO<sub>2</sub> per gallon (The Climate Registry 2021).

The estimated diesel fuel usage from construction equipment, haul trucks, and vendor trucks, as well as estimated gasoline fuel usage from worker vehicles is shown in Table 4.5-1.

**Table 4.5-1. Proposed Project Construction Petroleum Demand**

Proposed Project	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
	<i>gallons</i>			
Fuel Consumption during Construction	83,971.05	82,344.58	25,975.26	10,604.82
<b>Total Petroleum Demand</b>	<b>202,895.71</b>			

**Notes:** See Appendix F for details.

As shown in Table 4.5-1, the Proposed Project is estimated to consume approximately 202,896 gallons of petroleum during the construction phase. Notably, the Proposed Project will be subject to CARB’s In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation: (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and 4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology (BACT) requirements. Overall, because the Proposed Project would not be unusual as compared to overall local and regional demand for energy resources and would be required to comply with existing regulations requiring energy efficient construction vehicles, the Proposed Project construction would not result in wasteful, inefficient, or unnecessary consumption of petroleum.

### Operations

As indicated in Section 4.5.3.2, Analytical Methods, once Proposed Project construction is complete, operations would be similar to existing conditions. As such, no additional consumption of energy resources is anticipated during long-term operations.

### Mitigation Measures

As described above, the Proposed Project would not result in a significant impact related to wasteful or inefficient energy consumption, and therefore, no mitigation measures are required.

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**Impact ENE-2: Conflict with an Applicable Renewable Energy or Energy Efficiency Plan (Significance Threshold B).** The Proposed Project would not result in conflicts with or otherwise obstruct a state or local plan for renewable energy or energy efficiency. *(Less than Significant)*

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As discussed above in Impact ENE-1, the Proposed Project would not result in wasteful, inefficient, and unnecessary consumption of energy during construction or operation. Energy use during construction would be minimal and temporary. Operations would be similar to existing conditions and would not result in increased

energy demand. Additionally, as discussed in Section 4.7, Greenhouse Gas Emissions, the Proposed Project would not conflict with the various state and local plans that mandate reduced energy use. Overall, the Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency; therefore, impacts during construction and operation of the Proposed Project would be less than significant.

### Mitigation Measures

As described above, the Proposed Project would not result in a significant impact related to conflicts with energy plans, and therefore, no mitigation measures are required.

#### 4.5.3.4 Cumulative Impacts Analysis

This section provides an evaluation of cumulative utilities and energy impacts associated with the Proposed Project and past, present, and reasonably foreseeable future projects, as identified in Table 4.0-1 in Section 4.0, Introduction to Analyses, and as relevant to this topic.

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**Impact ENE-3: Cumulative Energy Impacts (Significance Thresholds A and B).** The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to energy. *(Less than Significant)*

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The geographic area considered for the analysis of cumulative energy impacts is Santa Cruz County. Potential cumulative impacts on energy would result if the Proposed Project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. Significant energy impacts could result from development that would not incorporate sufficient building energy efficiency features, achieve building energy efficiency standards, or if projects result in the unnecessary use of energy during construction or operation.

As discussed in Impact ENE-1 and Impact ENE-2, the Proposed Project would not result in wasteful, inefficient, or unnecessary use of energy during construction or operations, nor would it conflict with an applicable plan. The cumulative projects listed in Table 4.0-1 consist of capital improvement projects to the City's water supply infrastructure; other infrastructure projects within Santa Cruz County; and residential, commercial, and mixed-use projects in the vicinity of the Proposed Project. Each project would have a construction period during which electricity, natural gas, and petroleum would be used; however, it is expected that such usage would be temporary and would not constitute a wasteful, inefficient, or unnecessary consumption of energy.

While some of these projects could result in increases in energy consumption during their operation, the increased demand is also anticipated to be minimal relative to statewide energy usage and would not contribute to any potentially significant cumulative energy impacts. Furthermore, the Proposed Project would not result in increased energy use for operations and maintenance of the Proposed Project as these activities would remain the same as currently exist without any increase in employees or new structural appurtenance. It is also noted that any commercial and residential cumulative projects that may take place in the County that include long-term energy demand would be subject to CALGreen, which provides energy efficiency standards. In addition, cumulative projects would be required to meet or exceed the Title 24 building standards, as applicable, further reducing the inefficient use of energy. Future development would also be required to meet

even more stringent requirements, including the objectives set forth in the December 2017 CARB Scoping Plan and Part 6 of Title 24 of the California Code of Regulations, which seek to make all newly constructed residential homes produce a sustainable amount of renewable energy through the use of on-site photovoltaic solar systems. Furthermore, various federal and state regulations, including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program, would serve to reduce the transportation fuel demand of cumulative projects.

For the reasons above, the Proposed Project, together with the cumulative projects, would not result in wasteful, inefficient, or unnecessary use of energy or conflicts with applicable plans. Therefore, the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to energy.

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