2.6 Energy

This section evaluates existing energy production/consumption within the county, as well as potential energy use and related impacts from the project. This section describes the existing conditions for energy in the unincorporated county and evaluates the potential effects that implementation of the project may have on energy. Specifically, this section evaluates the potential for the CAP Update to result in impacts related to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation and impacts related to conflicts with state or local plan for renewable energy or energy efficiency. Because this analysis is subsequent to the adopted 2011 GPU PEIR, the evaluation of impacts focuses on the potential for implementation of the CAP Update to result in new or substantially more severe impacts than presented in the 2011 GPU PEIR, given the changes to the General Plan proposed by the CAP Update and changes in environmental and regulatory conditions that have occurred since the certification of the 2011 GPU PEIR.

This section incorporates by reference the energy related setting and impacts discussion included in Section 2.16, "Utilities and Service Systems," of the 2011 GPU PEIR as it applies to the CAP Update and supplements with relevant setting conditions that have changed since certification of the 2011 GPU PEIR. In 2018, Appendix G of the State CEQA Guidelines was updated to include a separate section with new questions associated with evaluating a project's potential impacts related to energy. Because the 2011 GPU PEIR was certified prior to the 2018 update, the PEIR does not include a separate section for energy. Rather, impacts related to the construction of new energy production and/or transmission facilities or the expansion of existing facilities are discussed in Section 2.16, "Utilities and Service Systems," of the 2011 GPU PEIR. Topics that were added to the State CEQA Guidelines in 2018 and, therefore, not addressed in the 2011 GPU PEIR include the project's potential to result in impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Table 2.6-1 summarizes the energy impact conclusions reached in the 2011 GPU PEIR and identifies if a new or more severe significant impact would occur with implementation of the proposed project. As indicated, implementation of the proposed project would not result in new or more severe significant impacts on energy.

Table 2.6-1 Summary of Energy-Related Impacts

Issue Number	Issue Topic	Determination from 2011 GPU PEIR	CAP Update SEIR Determination	
			New or More Severe Significant Impact Prior to Mitigation	New or More Severe Significant Impact After Mitigation
1	Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources	General Plan Only: Not Evaluated[1]	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Not Evaluated[1]	CAP Update Cumulative Contribution: No	CAP Update Cumulative Contribution: No
2	State and Local Plans for Renewable Energy or Energy Efficiency	General Plan Only: Not Evaluated[1]	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Not Evaluated[1]	CAP Update Cumulative Contribution: No	CAP Update Cumulative Contribution: No

Notes: CAP = Climate Action Plan; GPU = General Plan Update; PEIR = Program Environmental Impact Report; SEIR = Supplemental Environmental Impact Report.

[1] Issues reflect updated sample questions in Appendix G of the State CEQA Guidelines.

Source: Compiled by Ascent Environmental in 2023.

2.6.1 Existing Conditions

This section describes the existing state and regional energy use, including direct and indirect consumption of energy, including electricity and natural gas, and fuel associated with transportation-related energy. Section 2.16.1.4, “Energy,” in the 2011 GPU PEIR (pages 2.16-27 through 2.16-31) presents a description of energy resources in San Diego County, which include electricity, natural gas, nuclear energy, and alternative energy sources. The environmental setting described in the 2011 GPU PEIR related to energy facilities remains applicable and is incorporated by reference. As appropriate, updated energy resource data is provided below.

2.6.1.1 Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California is natural gas. In 2022, approximately 55 percent of utility-scale electricity generation was fueled by natural gas. Residential land uses represented approximately 22 percent of California’s natural gas consumption in 2021. Nonhydroelectric renewable energy sources provided 34 percent of the state's utility-scale net generation in 2021. With small-scale solar photovoltaic (PV) included, they supplied 40 percent of California's total in-state electricity generation. For the same year, coal accounted for less than 0.2 percent of the state's utility-scale net generation (EIA 2022a).

In September 2019, the cities of San Diego, Chula Vista, Encinitas, La Mesa, and Imperial Beach adopted an ordinance and resolution to form San Diego Community Power (SDCP), a California joint powers agency. In 2021, the San Diego County and National City voted to join SDCP. SDCP is a Community Choice Aggregation that allows customers to enroll on a voluntary basis. SDCP purchases electricity from renewable resources that is then delivered to consumers through a grid infrastructure owned and maintained by San Diego Gas & Electric Company (SDGE). SDGE is the primary energy supplier in San Diego County and provides energy service to over 3.6 million customers (i.e., 1.4 million accounts) in San Diego County and portions of southern Orange County. The utility has a diverse power production portfolio, composed of a variety of renewable and non-renewable sources. Energy production typically varies by season and by year. Regional electricity loads also tend to be higher in the summer because higher summer temperatures drive increased demand for air-conditioning. In contrast, natural gas loads are higher in the winter because colder temperatures drive increased demand for natural gas heating. See Tables 2.6-2 and 2.6-3, presented at the end of this section, for further details regarding SDGE, state, and SDCP power mixes. As shown in Table 2.6-2, SDGE derived 45 percent of its electricity from eligible renewable sources in 2021 (CEC 2021a). As shown in Table 2.6-3, SDCP derived 55 percent of its electricity from eligible renewable sources in 2021 (CEC 2021b).

2.6.1.2 Transportation Fuels

In 2021, petroleum products accounted for about 90 percent of the total U.S. transportation sector energy use (EIA 2022b). The California Department of Transportation projected that 1,804 million gallons of gasoline and diesel were consumed in San Diego County in 2015, an increase of approximately 183 million gallons of fuel from 2010 levels. It is estimated that approximately 2.82 billion gallons of gasoline and 294 million gallons of diesel will be consumed in San Diego County in 2030 (Caltrans 2008).

2.6.2 Regulatory Framework

Section 2.16.2, “Regulatory Framework,” of the 2011 GPU PEIR includes a brief discussion of the regulatory framework related to energy resources in the unincorporated county, namely a description of Part 6 of the Title 24 California Building Code (California Energy Code). Additional regulations related to energy use and conservation are summarized below.

2.6.2.1 Federal

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this Act, the National Highway Traffic and Safety Administration, part of the US Department of Transportation, is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. The EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. It requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in the EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The EPAct of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce US dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly fivefold increase over current levels, and reduces US demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with the CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the country. The US Environmental Protection Agency calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. Based on information generated under the CAFE program, the US Department of Transportation is authorized to assess penalties for noncompliance. As of 2022, the CAFE standards require an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks in model year 2026. As of July 2023, the National Highway Transportation Safety Administration (NHTSA) proposes new CAFE standards for passenger cars and light trucks built in model years 2027-2032, and new fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030-2035. If finalized, the proposal would require an industry fleet-wide average of approximately 58 miles per gallon for passenger cars and light trucks in 2032, by increasing fuel economy by 2% year over year for passenger cars and by 4% year over year for light trucks. For heavy-duty pickup trucks and vans, the proposal would increase fuel efficiency by 10% year over year (NHTSA 2023). By addressing renewable fuels and the CAFE standards, the Energy Independence and

Security Act of 2007 builds upon progress made by the EPAct of 2005 in setting out a comprehensive national energy strategy for the 21st century.

2.6.2.2 State

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The act established state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission regulates privately owned utilities in the energy, rail, telecommunications, and water sectors.

State of California Energy Action Plan

CEC is responsible for preparing the state energy plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current plan is the California Energy Action Plan (2008 update). The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles (ZEVs) and addressing their infrastructure needs and encouragement of urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and the California Air Resources Board (CARB) prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence.* The report includes recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003). A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand by 2030.

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required CEC to "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (Public Resources Code Section 25301[a]). This work culminated in the Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every 2 years and an update every other year. The 2021 IEPR is the most recent IEPR. The 2021 IEPR provides a summary of priority energy issues currently facing the state and outlines strategies and recommendations to further the state's goal of ensuring reliable, affordable, and environmentally responsible energy sources. The report contains an assessment of major energy trends and issues within California's electricity, natural gas, and transportation fuel sectors. The report provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. Topics covered in the 2021 IEPR include building decarbonization, coordination between state energy agencies, decarbonizing the state's natural gas system, increasing transportation efficiencies, improving energy reliability, and an assessment of the California Energy Demand Forecast (CEC 2022a).

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of ZEVs, into a single package of regulatory standards for vehicle model years 2017–2025. The new regulations strengthened the GHG standards for 2017 models and beyond. In addition, the program's ZEV regulation requires battery, fuel cell, and plug-in hybrid electric vehicles (EVs) to account for up to 15 percent of California's new vehicle sales by 2025. In August 2022, CARB adopted the Advanced Clean Cars II program, which sets sales requirements for ZEVs to ultimately reach the goal of 100 percent ZEV sales in the state by 2035.

Renewables Portfolio Standard

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB 100 of 2018 sets a three-stage compliance period requiring all California utilities, including independently owned utilities, energy service providers, and community choice aggregators, to generate 52 percent of their electricity from renewables by December 31, 2027; 60 percent by December 31, 2030; and 100 percent carbon-free electricity by December 31, 2045. On September 16, 2022, the state passed SB 1020, the Clean Energy, Jobs, and Affordability Act of 2022. The Act revises state policy to provide eligible renewable energy resources and zero-carbon resources to supply 100 percent of all retail sales of electricity to California and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030. It also establishes energy efficiency targets that achieve statewide, cumulative doubling of the energy efficiency savings in electricity and natural gas end uses by the end of 2030.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other state, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of alternative nonpetroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

California Building Energy Efficiency Standards (Title 24, Part 6 and Part 11)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and to provide energy efficiency standards for residential and nonresidential buildings.

CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar PV on new homes, providing significant GHG savings. The most recent is the 2022 California Energy Code, which advances the onsite energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar PV system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. The CEC estimates that the 2022 California Energy Code will save consumers $1.5 billion and reduce GHG emissions by 10 million metric tons of carbon dioxide-equivalent ($MMTCO_2e$) emissions over the next 30 years (CEC 2022b).

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code; it became mandatory January 1, 2011 (as part of the 2010 California Building Standards Code). The current version is the 2022 CALGreen Code, which took effect on January 1, 2023. As compared to the 2019 CALGreen Code, the 2022 CALGreen Code strengthened sections pertaining to EV and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CALGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are

adopted by local agencies that enforce building codes and used as guidelines by state agencies for meeting the requirements of Executive Order (EO) B-18-12.

Assembly Bill 32, Senate Bill 32, and Climate Change Scoping Plan and Update

In December 2008, CARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 $MMTCO_2e$ emissions, or approximately 21.7 percent from the state's projected 2020 emission level of 545 $MMTCO_2e$ under a business-as-usual scenario (this is a reduction of 47 $MMTCO_2e$, or almost 10 percent, from 2008 emissions). In May 2014, CARB released and has since adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate progress that has been made between 2000 and 2012 (CARB 2014). According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 (CARB 2014). The update also reports the trends in GHG emissions from various emission sectors (e.g., transportation, building energy, agriculture).

In August 2016, SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020, were signed into law. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction to at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the state's continued efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emission levels by 2050. Achievement of these goals will have the co-benefit of reducing California's dependency on fossil fuels and making land use development and transportation systems more energy efficient.

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste).

On September 16, 2022, the state legislature passed AB 1279, which codified stringent emissions targets for the state of achieving carbon neutrality and an 85 percent reduction in 1990 emissions level by 2045. CARB adopted the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on November 16, 2022, as directed by AB 1279 (CARB 2022). The 2022 Scoping Plan traces the pathway for the state to achieve its carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045 using a combined top down, bottoms up approach using various scenarios. CARB adopted the 2022 Scoping Plan on December 16, 2022.

Senate Bill 375 of 2008

SB 375, signed into law in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. It requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy or Alternative Planning Strategy, showing prescribed land use allocation in each MPO's Regional Transportation Plan. CARB, in consultation with the MPOs, is to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks for 2020 and 2035. Implementation of SB 375 will have the co-benefit of reducing California's dependency on fossil fuels and making land use development and transportation systems more energy efficient.

2.6.2.3 Local

San Diego Association of Governments Regional Plans and Programs

The San Diego Association of Governments' (SANDAG's) San Diego Forward: The Regional Plan (2021 Regional Plan) is a Regional Transportation Plan/Sustainable Communities Strategy that combines and updates two previous plans, the Regional Comprehensive Plan and the Regional Transportation Plan/Sustainable Communities Strategy, into one document that looks toward 2050. The 2021 Regional Plan covers a broad range of topics including air quality, borders and tribal nations, climate change, economic prosperity, emerging technologies, transit and automobile energy efficiency, fuels, habitat preservation, community health, public facilities, shoreline preservation, transportation, and water quality. The Regional Plan emphasizes the importance of multimodal transportation and places special emphasis on active transportation, such as walking and biking, and reducing car use to minimize GHG emissions, diminish air pollution, and maximize public health. The 2021 Regional Plan also includes a Sustainable Communities Strategy, which identifies five main strategies to complement the goal of sustainability. These strategies focus on job growth and housing in urbanized areas with existing public transportation options; housing needs for all economic segments of the population; the preservation of open space; investment in an accessible transit network; and reduced GHG emissions through the implementation of actions such as increasing public transportation infrastructure and access, encouraging active transportation through upgrades to pedestrian and bike facilities, and incentivizing EV use and providing additional EV infrastructure. The 2021 Regional Plan is designed to be updated every 4 years in accordance with federal law in collaboration with the 18 cities and San Diego County along with regional, state, and federal partners. The 2021 Regional Plan focuses on regional targets through 2050. The 2021 Regional Plan reduces per capita GHG emissions from cars and light-duty trucks to 20 percent below 2005 levels by 2035, exceeding the region's state-mandated target of 19 percent. The 2021 Regional Plan also meets federal air quality conformity requirements. The goals outlined in the 2021 Regional Plan are as follows:

- the efficient movement of people and goods;
- access to affordable, reliable, and safe mobility; and
- healthier air and reduced GHG emissions.

2011 San Diego County General Plan

The General Plan policies related to GHGs that are applicable to the CAP Update include the following:

> Policy COS-14.1: Land Use Development Form. Require that development be located and designed to reduce vehicular trips (and associated air pollution) by utilizing compact regional and community-level development patterns while maintaining community character.
>
> Policy COS-14.2: Villages and Rural Villages. Incorporate a mixture of uses within Villages and Rural Villages that encourage people to walk, bicycle, or use public transit to reduce air pollution and greenhouse gas (GHG) emissions.
>
> Policy COS-14.3: Sustainable Development. Require design of residential subdivisions and nonresidential development through "green" and sustainable land development practices to conserve energy, water, open space, and natural resources.
>
> Policy COS-14.4: Sustainable Technology and Projects. Require technologies and projects that contribute to the conservation of resources in a sustainable manner, that are compatible with community character, and that increase the self-sufficiency of individual communities, residents, and businesses.
>
> Policy COS-14.5: Building Siting and Orientation in Subdivisions. Require that buildings be located and oriented in new subdivisions and multi-structure non-residential projects to maximize passive solar heating during cool seasons, minimize heat gains during hot periods, enhance natural ventilation, and promote the effective use of daylight.
>
> Policy COS-14.6: Solar Access for Infill Development. Require that property setbacks and building massing of new construction located within existing developed areas maintain an envelope that maximizes solar access to the extent feasible.
>
> Policy COS-14.7: Alternative Energy Sources for Development Projects. Encourage development projects that use energy recovery, photovoltaic, and wind energy.
>
> Policy COS-14.9: Significant Producers of Air Pollutants. Require projects that generate potentially significant levels of air pollutants and/or GHGs such as quarries, landfill operations, or large land development projects to incorporate renewable energy, and the best available control technologies and practices into the project design.
>
> Policy COS-14.10: Low-Emission Construction Vehicles and Equipment. Require County contractors and encourage other developers to use low-emission

construction vehicles and equipment to improve air quality and reduce GHG emissions.

Policy COS-14.13: Incentives for Sustainable and Low GHG Development. Provide incentives such as expedited project review and entitlement processing for developers that maximize use of sustainable and low GHG land development practices in exceedance of State and local standards.

Policy COS-15.1: Design and Construction of New Buildings. Require that new buildings be designed and constructed in accordance with "green building" programs that incorporate techniques and materials that maximize energy efficiency, incorporate the use of sustainable resources and recycled materials, and reduce emissions of GHGs and toxic air contaminants.

Policy COS-15.2: Upgrade of Existing Buildings. Promote and, as appropriate, develop standards for the retrofit of existing buildings to incorporate design elements, heating and cooling, water, energy, and other elements that improve their environmental sustainability and reduce GHG.

Policy COS-15.3: Green Building Programs. Require all new County facilities and the renovation and expansion of existing County buildings to meet identified "green building" programs that demonstrate energy efficiency, energy conservation, and renewable technologies.

Policy COS-15.4: Title 24 Energy Standards. Require development to minimize energy impacts from new buildings in accordance with or exceeding Title 24 energy standards.

Policy COS-15.5: Energy Efficiency Audits**.** Encourage energy conservation and efficiency in existing development through energy efficiency audits and adoption of energy saving measures resulting from the audits.

Policy COS-15.6: Design and Construction Methods. Require development design and construction methods to minimize impacts to air quality.

Policy COS-16.1: Alternative Transportation Modes. Work with SANDAG and local transportation agencies to expand opportunities for transit use. Support the development of alternative transportation modes, as provided by Mobility Element policies.

Policy COS-16.2: Single-Occupancy Vehicles. Support transportation management programs that reduce the use of single-occupancy vehicles.

Policy COS-16.3: Low-Emissions Vehicles and Equipment. Require County operations and encourage private development to provide incentives (such as priority parking) for the use of low- and zero-emission vehicles and equipment to improve air quality and reduce GHG emissions. [Refer also to Policy M-9.3 (Preferred Parking) in the Mobility Element.]

Policy COS-16.4: Alternative Fuel Sources. Explore the potential of developing alternative fuel stations at maintenance yards and other County facilities for the municipal fleet and general public.

Policy COS-16.5: Transit-Center Development. Encourage compact development patterns along major transit routes.

Policy COS-17.3: Landfill Waste Management. Require landfills to use waste management and disposal techniques and practices to meet all applicable environmental standards.

Policy COS-17.4: Composting. Encourage composting throughout the County and minimize the amount of organic materials disposed at landfills.

Policy COS-17.5: Methane Recapture. Promote efficient methods for methane recapture in landfills and the use of composting facilities and anaerobic digesters and other sustainable strategies to reduce the release of GHG emissions from waste disposal or management sites and to generate additional energy such as electricity.

Policy COS-17.6: Recycling Containers. Require that all new land development projects include space for recycling containers.

Policy COS-17.7: Material Recovery Program. Improve the County's rate of recycling by expanding solid waste recycling programs for residential and non-residential uses.

Policy COS-17.8: Education. Continue programs to educate industry and the public regarding the need and methods for waste reduction, recycling, and reuse.

Policy COS-18.1: Alternate Energy Systems Design. Work with San Diego Gas and Electric and non-utility developers to facilitate the development of alternative energy systems that are located and designed to maintain the character of their setting.

Policy COS-18.2: Energy Generation from Waste. Encourage use of methane sequestration and other sustainable strategies to produce energy and/or reduce GHG emissions from waste disposal or management sites.

Policy COS-18.3: Alternate Energy Systems Impacts. Require alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment.

Policy COS-20.1: Climate Change Action Plan. Prepare, maintain, and implement a climate change action plan with a baseline inventory of GHG emissions from all sources; GHG emissions reduction targets and deadlines, and enforceable GHG emissions reduction measures.

Policy COS-20.2: GHG Monitoring and Implementation. Establish and maintain a program to monitor GHG emissions attributable to development, transportation, infrastructure, and municipal operations and periodically review the effectiveness of and revise existing programs as necessary to achieve GHG emission reduction objectives.

Policy COS-20.3: Regional Collaboration. Coordinate air quality planning efforts with federal and state agencies, San Diego Association of Governments (SANDAG), and other jurisdictions.

Policy COS-20.4: Public Education. Continue to provide materials and programs that educate and provide technical assistance to the public, development professionals, schools, and other parties regarding the importance and approaches for sustainable development and reduction of GHG emissions.

Policy LU-2.8: Mitigation of Development Impacts. Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.

Policy CC-1.1: Update the County Green Building Program to increase effectiveness of encouraging incentives for development that is energy efficient and conserves resources through incentives and education.

Policy CC-1.2: Prepare a County Climate Change Action Plan with an update baseline inventory of greenhouse gas emissions from all sources, more detailed greenhouse gas emissions reduction targets and deadlines; and a comprehensive and enforceable GHG emissions reduction measures that will achieve a 17 percent reduction in emissions from County operations from 2006 by 2020 and a 9 percent reduction in community emissions between 2006 and 2020. Once prepared, implementation of the plan will be monitored and progress reported on a regular basis.

Policy CC-1.3: Work with SANDAG to achieve regional goals in reducing GHG emissions associated with land use and transportation.

Policy CC-1.4: Review traffic operations to implement measures that improve flow and reduce idling such as improving traffic signal synchronization and decreasing stop rate and time.

Policy CC-1.5: Coordinate with the San Diego County Water Authority and other water agencies to better link land use planning with water supply planning with specific regard to potential impacts from climate change and continued implementation and enhancement of water conservation programs to reduce demand. Also support water conservation pricing (e.g., tiered rate structures) to encourage efficient water use.

Policy CC-1.6: Implement and expand County-wide recycling and composting programs for residents and businesses. Require commercial and industrial recycling.

Policy CC-1.8: Revise County Guidelines for Determining Significance based on the Climate Change Action Plan. The revisions will include guidance for proposed discretionary projects to achieve greater energy, water, waste, and transportation efficiency.

Policy CC-1.9: Coordinate with APCD, SDG&E, and the California Center for Sustainable Energy to research and possibly develop a mitigation credit program. Under this program, mitigation funds will be used to retrofit existing buildings for energy efficiency to reduce GHG emissions.

Policy CC-1.10: Continue to implement the County Groundwater Ordinance, Watershed Protection Ordinance (WPO), Resource Protection Ordinance (RPO), MSCP and prepare MSCP Plans for North and East County in order to further preserve wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas and other open space that provide carbon sequestration benefits and to restrict the use of water for cleaning outdoor surfaces and vehicles. The WPO also implements low-impact development practices that maintain the existing hydrologic character of the site to manage storm water and protect the environment. (Retaining storm water runoff on-site can drastically reduce the need for energy-intensive imported water at the site.)

Green Building Incentive Program

The San Diego County Green Building Incentive Program is designed to promote the use of resource efficient construction materials, water conservation, and energy efficiency in new and remodeled residential and commercial buildings. The program offers incentives of reduced plan check turnaround time and a 7.5 percent reduction in plan check and building permit fees for projects meeting program requirements (San Diego County 2019).

Landscape Ordinance

The San Diego County's Landscaping Ordinance was adopted in accordance with the state's Model Water Efficient Landscape Ordinance, which establishes water efficiency standards for new and existing landscapes to reduce water related energy use. The County's ordinance applies to new construction for which the County issues a building permit or a discretionary review where the aggregate landscaped area is 500 square feet or more to obtain outdoor water use authorization. For those projects between 500 and 2,500 square feet, the County has a more streamlined process called the Prescriptive Compliance Option. All landscape areas are subject to a Maximum Applied Water Allowance, which sets an upper limit of allowable water use per landscape area.

County Operations Strategic Sustainability Plan

The County's 2020–2030 County Operations Strategic Sustainability Plan (2020 Strategic Plan) supersedes the previously implemented 2015 Strategic Energy Plan. The 2020 Strategic Plan sets goals to promote sustainability in four key sectors of County operations: energy, water, waste, and transportation. The goals outlined in the Strategic Plan relating to energy are as follows:

- reduce energy use and GHG emissions,
- promote clean energy production,
- provide sound facility energy management,
- achieve cost savings,
- reduce fleet VMT,
- eliminate underutilized vehicles to decrease size of the fleet,
- electrify the fleet where possible, and
- expand EV charging infrastructure on County sites for both public and fleet.

The Strategic Plan is intended to consolidate the sustainability planning efforts of other County planning documents under a single County operations purpose (i.e., mission statement).

2011 San Diego County GPU PEIR

As discussed above, Appendix G of the State CEQA Guidelines was updated in 2018 to include a separate section for energy with criteria meant to evaluate a project's potential impacts related the wasteful, inefficient, or unnecessary consumption of energy and the conflict/obstruction of an applicable energy plan. Because the 2011 GPU PEIR was certified prior to the 2018 update, the PEIR does not include a separate section for energy with the aforementioned criteria. Rather, impacts related to the construction of new energy production and/or transmission facilities or the expansion of existing facilities are discussed in Section 2.16, "Utilities and Service Systems," and mitigation measures were proposed as part of that impact analysis. While impacts were found to be significant and mitigation measures were proposed, this mitigation was developed in response to the conclusion that the project would "result in significant environmental effects" (the now outdated Appendix G criteria used in the 2011 GPU PEIR analysis), rather than the criteria developed for evaluating energy impacts in the 2018 update to Appendix G of the State CEQA Guidelines. Therefore, the mitigation proposed in Section 2.16 of the 2011 GPU PEIR would not apply to this project regarding energy.

2.6.3 Analysis of Effects and Significance Determination

2.6.3.1 Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the CAP would result in a significant impact related to energy if it would:

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

San Diego County has not established thresholds for determining the significance of energy impacts, and therefore does not provide guidance regarding potential physical effects of the implementation of energy infrastructure, such as production and/or transmission facilities or the expansion of existing facilities. Potential environmental effects of the construction of the energy production projects (i.e., small-scale renewable energy generation systems) included in the CAP Update are considered and addressed throughout this ~~draft~~ SEIR, specifically in Section 2.3, "Air Quality"; Section 2.8, "Greenhouse Gas Emissions"; Section 2.9, "Hazards and Hazardous Materials"; and Section 2.10, "Hydrology and Water Quality."

2.6.3.2 Approach to Analysis

Impacts related to energy were analyzed qualitatively based on a review of the CAP Update measures and actions and their potential to result in physical changes to the environment if the CAP Update is approved and implemented. Each issue area was analyzed in the context of existing laws and regulations, as well as policies adopted in the General Plan, and the extent to which these existing regulations and policies adequately address and minimize the potential for impacts associated with implementation of the CAP Update. As noted above, the 2011 GPU PEIR did not analyze energy impacts, but for the analysis of impacts related to the construction of new energy production and/or transmission facilities or expansion of existing facilities. This threshold is not addressed in this section, as potential impacts related to the construction of new renewable energy infrastructure, as proposed by the CAP Update, are analyzed in other sections of this SEIR. The energy-related Appendix G checklist questions were added in 2018, subsequent to the certification of the 2011 GPU PEIR, and are addressed herein.

Scope of SEIR Impact Analysis

The CAP Update identifies strategies, measures, and supporting actions (referred to herein as measures and actions) to demonstrate progress toward the established GHG reduction targets. Because these measures and actions represent the components of the CAP Update that could result in physical environmental effects within the unincorporated county, this analysis focuses on the impact of their implementation. Given the broad scope of the CAP Update (i.e., covering the entire unincorporated county) and its role as

a programmatic planning document designed to guide future decision-making related to the reduction of GHGs within the unincorporated county, the study area for energy is the unincorporated area of the county within the County's jurisdiction (i.e., all unincorporated lands excluding tribal lands, state and federally owned lands, and military installations).

The analysis in this ~~draft~~ SEIR is programmatic. Implementation of all CAP Update measures and actions were considered during preparation of this ~~draft~~ SEIR, to the degree specific information about their implementation is known. Because future projects that would be implemented under the CAP Update have yet to be specifically defined, this SEIR considers the types of impacts that could occur with implementation of future projects. Future discretionary projects would be required to be evaluated to determine if they are within the scope of this SEIR or if they result in project-specific impacts additional to what is concluded in this analysis. If additional impacts would result, additional CEQA documentation would be required to evaluate impacts, determine mitigation, and conclude whether impacts are reduced to below a significant impact.

Proposed CAP Update Strategies

As described in Chapter 1, "Project Description," the measures and actions in Table 1-2 have been grouped into subcategories for the purpose of analysis, based on similarities in implementation and their potential for physical environmental effects. CAP Update measures and actions that would have the potential to result in new or more severe impacts related to energy are provided below.

Solid Waste Measures and Actions. This category includes measures intended to increase organic waste diversion, increase recycling, and increase gas capture. These measures and actions would involve adopting a policy to achieve zero waste (90 percent diversion) from County operations by 2030 (Action SW-1.1) and incentivizing the development of new composting/anaerobic digestion facilities and on-farm digesters (Action SW-4.1.a).

Water and Wastewater Programs Measures and Actions. This category includes measures intended to increase water efficiency and conservation through the installation and upgrade of greywater and stormwater capture systems, irrigation systems, and efficient water appliances (i.e., shower heads, faucets). Associated actions that would achieve the goals of these measures include updating the County's Water Efficiency Plan to require water-efficiency measures in new and existing County buildings/operations to reduce potable water use intensity by ~~19~~ 28 percent (Action W-1.1) and amending the County's Code of Regulatory Ordinances to require Tier 2 CALGreen water efficiency requirements (which could include installation of stormwater and greywater capture systems for irrigation) for existing development projects with qualifying improvements (Action W-2.2).

Agriculture and Conservation Measures and Actions. This category includes the acquisition and preservation of natural lands, improvements to land management practices to protect habitat and increase carbon storage, and the reduction of GHG emissions from agricultural operations. Within these measures are associated actions

that would result in acquiring 11,000 acres of conservation lands by 2030 to preserve land in perpetuity (Action A-1.1), implementing the County's Landscaping Ordinance to require planting 87,539 trees in single family residential development by 2030 (Action A-2.1), developing a Carbon Farming Program to increase carbon sequestration on 480 acres by 2030 (Action A-1.2), and developing a program to incentivize a transition to cleaner fuels (e.g., renewable diesel and electric equipment) and the efficient use of energy and water (e.g., LED grow lights and water re-use) to reduce emissions from agricultural operations in the unincorporated area (Action A-5.1). This category also includes an action that would evaluate opportunities for the construction of farmworker housing (Action A-4.1.b).

Energy Measures and Actions. This category includes measures and actions that would increase building energy efficiency, result in the development of renewable energy generation infrastructure, and increase electrification in the unincorporated county Specifically, Action E-1.1 would implement the County Facilities Zero Carbon Portfolio Plan to achieve 90 percent reduction in operational carbon emissions by 2030. Action E-3.3 would require the County to develop a program to provide the unincorporated area with 100 percent renewable energy from San Diego Community Power by 2030. This action may indirectly result in the construction of large-scale renewable energy infrastructure.

Built Environment and Transportation Measures and Actions. This category includes a shift towards alternative modes of transportation, the encouragement of alternative fuel use, and reduced single-occupancy vehicle trips. Within these measures are associated actions that would result in use of alternative fuel and/or zero-emission construction equipment in County projects (Action T-1.1.a), development of a program to provide residents and businesses incentives for alternative fuel and/or zero-emission construction and landscaping equipment (Action T-2.1), development of a program to fund and/or construct 2,040 publicly available EV charging stations at County facilities and in the unincorporated county by 2028 (Action T-3.1), and an amendment to the San Diego County Code of Regulatory Ordinances to require installation of Tier 2 CALGreen EV charging infrastructure for new multi-family residential and non-residential construction (Action T-3.1).

2.6.3.3 Issue 1: Result in a Potentially Significant Environmental Impact Due to Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources

Guidelines for Determination of Significance

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a significant adverse energy impact if it would:

- result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Impact Analysis

2011 GPU PEIR Determination

The 2011 GPU PEIR did not analyze energy impacts related to the consumption of energy resources; therefore, no prior determinations are reported here.

CAP Update Impact Analysis

The following section describes the potential for implementation of the proposed CAP Update measures and actions to result in wasteful, inefficient, or unnecessary consumption of energy resources.

Solid Waste Measures and Actions

Implementation of measures and actions within the solid waste group would increase organic waste diversion and recycling (Action SW-2.1.a) and increase gas capture (Action SW-3.1). Implementation of the measures within this group and their associated actions include solid waste diversion/recycling programs and incentives, development of new composting/anaerobic digestion facilities and on-farm digesters, and biogas capture at existing landfills (Borrego and Otay). Implementation of the measures and actions within the solid waste group would result in the consumption of energy resources during construction. CAP Update measures and actions that would result in new waste handling and recycling facilities (Actions SW-4.1.a and SW-4.1.b) would increase electricity demand, consumption of fuels, and use of non-renewable resources during construction. These types of projects would not involve large amounts of labor or extensive use of construction equipment. Some worker trips may be required during installation of these facilities and features, resulting in the short-term consumption of diesel fuel and gasoline. However, workers would likely be located within the region and would not require extended commutes to reach construction sites. Some construction equipment (e.g., backhoes, front loaders, pavers, bulldozers, and skid steers) may also be used during installation of these facilities and features, but it is likely that this equipment would be used intermittently and for relatively short periods of time. Additionally, Action T-1.1.a would promote the use of alternative fuel in construction equipment and would therefore reduce fossil fuel consumption. Demand for energy resources during construction would vary throughout the construction period and would generally cease upon completion of construction.

Implementation of the CAP Update would improve operational energy efficiency and reduce the use of fossil fuels through measures that reduce VMT and encourage alternative fuel use. Actions SW-2.1.b, SW-4.1.a, and SW-4.1.b could lead to increased haul truck trips to and from new waste management and recycling facilities; however, it is anticipated that these trips would displace the haul truck trips that would be diverted from the landfill. The operation of new facilities would require additional electricity use. These facilities would be required to comply with the California Energy Code and CALGreen requirements. These facilities do not typically require a substantial number of employees to operate and would therefore not result in a substantial increase in worker

commute trips. Maintenance trips along pipelines are typically infrequent and last for short periods of time and would therefore not result in large amounts of fuel being consumed during operations. Regarding electricity demand, all projects would be required to comply with state building code requirements for energy efficiency. Additionally, the CAP Update would further the requirements of General Plan policies related to the solid waste sector. For example, General Plan Policy COS-14.9 requires projects that generate potentially significant levels of air pollutants and/or GHGs, such as landfill operations, to incorporate renewable energy. Policy COS-18.2 encourages the use of methane sequestration and other sustainable strategies to produce energy and/or reduce GHG emissions from waste disposal or management sites.

Collectively, these measures and actions are intended to increase reuse of materials to reduce the consumption of nonrenewable resources. Therefore, these projects would be considered necessary and beneficial uses of energy resources. Implementation of the GHG reduction measures within the solid waste group would not involve short- or long-term physical changes that could result in wasteful, inefficient, or unnecessary energy consumption. Impacts would be less than significant.

Water and Wastewater Measures and Actions

Implementation of measures and actions within the water and wastewater group would increase water efficiency and conservation (Actions W-1.1, W-2.1, W-2.2, W-2.3, W-2.3.a, W-2.3.b, W-2.4, and W-3.1). Measures and actions within this group include programs that would result in new building requirements, building retrofits, expansion of recycled water/greywater infrastructure, installation of smart irrigation systems, and water efficiency programs. Actions W-2.1 and W-2.2 would amend the County's Code of Regulatory Ordinances for new and existing development to require Tier 2 CALGreen water efficiency requirements, including the installation of stormwater and greywater capture systems. Construction of these systems would generate electricity demand, consumption of fuels, and use of non-renewable resources. Additionally, Action W-1.1 may result in the installation of smart irrigation, which could also require the consumption of fuels and use of non-renewable resources during installation. These types of projects would not involve large amounts of labor or extensive use of construction equipment. Some worker trips may be required during installation of these facilities and features, resulting in the short-term consumption of diesel fuel and gasoline. However, workers would likely be located within the region and would not require extended commutes to reach construction sites. Construction equipment (e.g., backhoes, front loaders, pavers bulldozers, and skid steers) may also be used during installation of these systems and features, but it is likely that this equipment would be used intermittently and for relatively short periods of time. Additionally, Action T-1.1.a would promote the use of alternative fuel in construction equipment and, therefore, would reduce fossil fuel consumption. Demand for energy resources during construction would vary and would generally cease upon completion of construction.

Occasional operational maintenance activities may be required with implementation of the measures and actions within the water and wastewater group. Actions W-1.1, W-2.1, and W-2.2 would require the use of fuel for maintenance trips and worker commute trips,

as well as the use of electricity to power pumps and treatment systems. However, these systems do not typically require a substantial number of employees to operate and worker trips would be infrequent; thus, associated operational fuel consumption would also be minimal.

Additionally, the CAP Update would further policies established in the General Plan related to water and wastewater. For example, General Plan Policy CC-1.5 requires coordination with the San Diego County Water Authority and other water agencies to better link land use planning with water supply planning with specific regard to potential impacts from climate change and continued implementation and enhancement of water conservation programs to reduce demand. This would help to lessen the energy demand of transporting and treating water by increasing water efficiency; thus, decreasing its demand. Implementation of the measures and actions within the water and wastewater group would not involve short- or long-term physical changes that could result in wasteful, inefficient, or unnecessary energy consumption. Impacts would be less than significant.

Agriculture and Conservation Measures and Actions

Implementation of agriculture and conservation measures and actions would result in the acquisition and preservation of natural lands (Actions A-1.1 A-1.2, and A-3.1), evaluation of opportunities to increase farmworker housing (Action A-4.1.b), as well as improvements to land management practices to protect habitat and increase carbon storage (Actions A-1.2, and A-1.2.a). Additionally, measures and actions in the group aim to reduce GHG emissions from agricultural operations (Measure A-5 and Actions A-5.1 and A-5.1.a). Implementation of the measures and actions described above would result in the consumption of energy resources during construction. These types of projects would not involve large amounts of labor or extensive use of construction equipment; however, limited expenditure of energy could occur during the construction of farmer housing (if opportunities are identified to increase farmworker housing pursuant to Action A-4.1.b) and Actions A-2.1 and A-2.2 would require the use of energy during tree planting and watering. Some worker trips may be required during construction of housing and tree installation, resulting in the short-term consumption of diesel fuel and gasoline. However, workers would likely be located within the region and would not require extended commutes to reach construction sites. Construction equipment such as dozers, graders, hauling trucks, backhoes, and truck-mounted cranes may also be used during construction of farmworker housing and the installation of the trees, but it is likely that this equipment would be used intermittently and for relatively short periods of time. Some fuel would also be consumed during the delivery of trees and building materials. While some construction equipment may be used, Action T-1.1.a would promote the use of alternative fuel in construction equipment and, therefore, would reduce fossil fuel consumption. Demand for energy resources during construction would vary and would generally cease upon completion of construction.

Actions A-2.1 and A-2.2 would increase tree planting within the county and would therefore indirectly involve minor electricity consumption associated with conveyance and treatment of water used for irrigation. However, these measures are intended to reduce the urban heat island effect and provide additional shade for buildings to reduce the

consumption of electricity needed for building cooling. Action A-5.1 would develop a program to incentivize a transition to cleaner fuels (e.g., renewable diesel, electric equipment) and the efficient use of energy and water (e.g., LED grow lights and water re-use), while Action A-5.1.a would create a partnership with SDGE to advocate for agricultural pump rates that would incentivize electrification. These measures would reduce reliance on fossil fuels by transitioning agricultural equipment to alternative fuels as well as conserve energy through the use of water-recycling methods and energy efficient grow lights. Farmworker housing that could result from the evaluation of opportunities conducted pursuant to Action A-4.1b would result in the consumption of energy for lighting, space heating, water heating, and other electrical uses. New development would be subject to the residential design requirements of Title 24 Part 6, which requires the use of energy-efficient building technologies in new development. All farmworker housing opportunity sites would be identified where there is a potential to decrease existing employee VMT in a manner that would limit unnecessary energy consumption.

Collectively, these measures are intended to reduce the consumption of gasoline and diesel fuels, and reduce the heat island effect; thus, these measures would reduce the consumption of electricity used for cooling buildings and increase the efficiency of energy consumed within the county. Therefore, these projects would be considered necessary and beneficial uses of energy resources. Implementation of the other GHG reduction measures and adaptation strategies within the agriculture and conservation group would not involve short- or long-term physical changes that could result in wasteful, inefficient, or unnecessary energy consumption. Impacts would be less than significant.

Energy Measures and Actions

Implementation of measures and actions within the energy group would increase building energy efficiency, develop renewable energy generation infrastructure, and increase electrification in the unincorporated county. These measures and actions could result in installing large-scale PV solar arrays and wind turbines; implementing energy efficiency retrofits on existing residential and non-residential structures, including rooftop or ground-mounted solar PV arrays or small wind turbines; and incentivizing the use of renewable energy. Implementation of the measures and actions within the energy group would result in the consumption of energy resources during construction. Construction of small-scale renewable system projects would not involve large amounts of labor or extensive use of construction equipment. Some worker trips may be required during installation of these facilities and features, resulting in the short-term consumption of diesel fuel and gasoline. However, workers would likely be located within the region and would not require extended commutes to reach construction sites. It is not likely that heavy duty construction equipment would be used during the installation of the small-scale renewable energy generation systems, but fuel would be consumed during the delivery of parts. Demand for energy resources during construction would vary throughout and would generally cease upon completion of construction.

Construction of large-scale renewable energy systems would likely require more intense construction and would therefore consume more energy for a longer period of time due

to the use of heavy construction equipment throughout a longer construction phase (relative to that of small-scale renewable construction).

Occasional operational maintenance activities for the renewable energy systems above may be required with implementation of the CAP Update. However, these trips would be infrequent. Because operational vehicle trips would be minimal, associated operational fuel consumption would also be minimal. Implementation of the CAP Update would improve operational energy efficiency through measures that facilitate the increased generation and utilization of renewable energy. For example, Action E-2.2 would reduce operational energy consumption by amending the County's Code of Regulatory Ordinances to require Tier 2 CALGreen energy efficiency requirements for existing development projects for newly permitted systems/equipment. Actions E-3.1 through E-3.3 would collectively increase renewable energy use, generation, and storage in the unincorporated county through the development of policies and programs that incentivize and provide education for the use of renewable energy. For example, Action E-3.2.b would develop a partnership to promote and support on-site renewable energy generation and storage (site-specific and/or community scale microgrids) to increase renewable energy generation and use in the unincorporated area.

Additionally, the CAP Update would be consistent with the General Plan, which includes policies that would also reduce impacts related to energy. For example, General Plan Policy COS-14.7 encourages development projects that use energy recovery, PV, and wind energy, while Policy COS-18.3 requires alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment. These policies would aid in reducing impacts related to energy by encouraging and incentivizing renewable energy use and generation, thus decreasing reliance on fossil fuels for energy generation. Implementation of the GHG reduction measures within the energy group would not involve short- or long-term physical changes that could result in wasteful, inefficient, or unnecessary energy consumption. Impacts would be less than significant.

Built Environmental and Transportation Measures and Actions

Implementation of the measures and actions within the built environment and transportation group would encourage a shift towards alternative modes of transportation, encourage alternative fuel use, and reduce single-occupancy vehicle trips. These measures and their associated actions would be implemented through activities such as constructing EV charging stations, implementing transit-supportive roadway treatments (e.g., transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes), implementing TDM programs, improving roadways to encourage/expand multimodal transportation, incentivizing active transportation, and constructing new bicycle and pedestrian projects and improving existing bicycle and pedestrian facilities.

Implementation of the measures and actions described above would result in the consumption of energy resources during construction. GHG reduction measures that would increase access to hydrogen fueling infrastructure through streamlined permitting

processes and install EV charging stations (Action T-3.1) and implement transit-supportive roadway treatments and bicycle and pedestrian infrastructure (Actions T-5.1 and T-6.2) would increase electricity demand, consumption of fuels, and use of non-renewable resources during construction. These types of projects would not involve large amounts of labor or extensive use of construction equipment. Some worker trips may be required during installation of these facilities and features, resulting in the short-term consumption of diesel fuel and gasoline. However, workers would likely be located within the region and would not require extended commutes to reach construction sites. Construction equipment (e.g., backhoes, front loaders, pavers bulldozers, and skid steers) may also be used during installation of these facilities and features, but it is likely that this equipment would be used intermittently and for relatively short periods of time. Additionally, Action T-1.1.a would promote the use of alternative fuel in construction equipment and would therefore reduce fossil fuel consumption. Demand for energy resources during construction would vary throughout the construction period and would generally cease upon completion of construction.

Occasional operational maintenance activities for the facilities and features described above may be required with implementation of the energy group of measures. However, these trips would be infrequent. Because operational vehicle trips would be minimal, associated operational fuel consumption would also be minimal.

Implementation of the CAP Update would improve operational energy efficiency and reduce the use of fossil fuels through measures that reduce VMT and encourage alternative fuel use, as well as measures that facilitate the increased generation and utilization of renewable energy. For example, Action T-3.1 would involve the installation of publicly accessible EV chargers, while other transportation-related measures (Actions T-65.1 and T-7.16.2) would implement roadway improvements that would encourage alternative transportation, such as biking and walking, and improve traffic efficiency in the county. Measures pertaining to EV charging would increase the use of electricity. However, these measures would reduce the consumption of fossil fuels by encouraging EV use. The General Plan includes policies that would also reduce impacts related to the built environment and transportation. For example, General Plan Policy CC-1.4 includes review of traffic operations to implement measures that improve flow and reduce idling, such as improving traffic signal synchronization and decreasing stop rate. The reduction of idling time would result in more efficient fuel consumption. Implementation of the measures and actions within the built environment and transportation group would not involve short- or long-term physical changes that could result in wasteful, inefficient, or unnecessary energy consumption. Impacts would be less than significant.

Summary

The goal of the CAP Update is to reduce GHG emissions generated within the county by increasing the use of alternatively fueled vehicles, reducing VMT, generating and utilizing renewable energy, reducing waste generation, and increasing carbon sequestration. Although implementation of the CAP Update would result in temporary construction activities that would consume energy resources, Action T-1.1.a would promote the use of alternative fuel in construction equipment and reduce the consumption of gasoline and diesel fuel.

Moreover, while the GHG reduction measures were formulated to reduce GHGs, many would also improve energy efficiency (e.g., Action E-2.2) and decrease reliance on fossil fuels (e.g., Action T-3.1). Thus, implementation of the CAP Update would not result in wasteful, inefficient, or unnecessary consumption of energy during project construction. Further, actions that encourage improvements to alternative transportation infrastructure, require energy efficiency and water conservation, and enhance waste processing would result in long-term reduction in energy consumption and a reduction in the use of nonrenewable energy sources.

As discussed previously, impacts relating to energy were not analyzed in the 2011 GPU PEIR. Because of this, it is not possible to directly compare these analyses. However, it can be concluded, based on the analysis above, that because the GHG reduction measures proposed within the CAP Update would result in the use of more efficient technology that would generally reduce energy demand, the impacts would be less than those that would occur due to implementation of the General Plan without the proposed CAP Update. This impact would be less than significant. Implementation of the CAP Update **would not result in a new impact**.

2.6.3.4 Issue 2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

Guidelines for Determination of Significance

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact if it would:

- conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Impact Analysis

2011 GPU PEIR Determination

The 2011 GPU PEIR did not analyze energy impacts related to conflicts with state or local plans for renewable energy or energy efficiency; therefore, no prior determinations are reported here.

CAP Update Impact Analysis

The measures and actions included in the CAP Update were developed in consideration of the long-term GHG reduction goals of the 2022 Scoping Plan, especially those pertaining to energy utilization and generation. Appendix D of the 2022 Scoping Plan identifies three key sectors that may be targeted during CAP development to ensure that local governments are doing their “fair share” in assisting the state in meeting its long-term GHG reduction goal of achieving carbon neutrality and reducing statewide emissions by 85 percent from a 1990 baseline level by 2045. These sectors are building decarbonization (i.e., the full electrification of development and prohibition of on-site natural gas usage), VMT reduction, and the electrification of the mobile source sector.

The CAP Update has been prepared in consideration of reducing natural gas usage, reducing VMT within the county, and the transition to EVs from internal combustion engine vehicles.

Solid Waste Measures and Actions

Actions SW-1.1 and SW-2.1 would result in the diversion of waste from landfills. This could result in increased haul truck trips to and from waste facilities; however, it is anticipated that the haul truck trips to the organics processing facility would displace the haul truck trips that would be diverted from the landfill and would not result in increased emissions from hauling trips. Therefore, a net increase in the number of haul truck trips within the county is not anticipated. Similarly, increased construction and demolition waste recycling and collection of commercial food scraps and household hazardous waste is expected to displace trips already occurring to transport this waste to landfills. Because a net increase in the number of haul trucks would not occur, measures and actions within the solid waste group would not impair the implementation of the 2022 Scoping Plan. In fact, these measures and actions would align with the 2022 Scoping Plan's goal of reducing fossil fuel consumption by utilizing landfill emissions for energy generation. This impact would be less than significant.

Water and Wastewater Measures and Actions

Implementation of measures and actions within the water and wastewater group would include new building requirements, building retrofits, expansion of recycled water/greywater infrastructure, the installation of water-efficient appliances and smart irrigation systems, and water efficiency programs. Actions W-2.1 and W-2.2 would amend the County's Code of Regulatory Ordinances for new and existing development to require Tier 2 CALGreen water efficiency requirements, including the installation of stormwater and greywater capture systems. The measures within the water and wastewater group would improve water efficiency and therefore decrease water demand. This would result in less energy being used for the transportation and treatment of water. This decrease in energy demand would result in less electricity being used and, therefore, less fossil fuel being consumed for the generation of this electricity. Operation of water recycling facilities would require maintenance trips and worker commute trips; however, these systems do not typically require a substantial number of employees to operate and would, therefore, not result in a substantial increase in worker commute trips. Decreases in energy demand and fossil fuel consumption would be in line with the goals of the 2022 Scoping Plan. This impact would be less than significant.

Agriculture and Conservation Measures and Actions

Measures and actions within the agriculture and conservation group would involve the creation of agricultural programs, carbon farming, natural/working lands restoration, reducing on-farm anaerobic digesters, incentivizing manure composting, improving foraging/grazing lands, reducing agricultural water costs, carbon farming programs, open space/habitat restoration plans, tree planting, promoting low-carbon/zero emissions landscaping, and evaluating the potential for increasing farmworker housing.

Implementation of the GHG reduction measures and their associated actions in the agriculture and conservation group would collectively reduce energy consumption and demand within the county by incentivizing the transition to cleaner fuels, promoting the efficient use of energy and water, reducing the need for cooling through the planting of trees in residential areas, and reducing VMT associated with food delivery and farmer commutes. In addition, Measure A-5, which supports energy and water efficiency, would reduce GHG emissions from agricultural equipment (including pumps) and at power plants. Measure A-2 could result in projects that involve tree planting, which would aid in the removal of GHG emissions from the atmosphere through carbon sequestration. Additionally, these measures could reduce electricity demand associated with the use of air conditioning by providing shade. These measures would collectively improve energy efficiency, reduce electricity demand, reduce VMT, and aid in removal of carbon from the atmosphere. This would align with the goals of the 2022 Scoping Plan by aiding the state in achieving its emissions reduction goals. This impact would be less than significant.

Energy Measures and Actions

Measures and actions included in the energy group would collectively reduce the demand and usage of fossil fuels in both residential and nonresidential applications by retrofitting existing buildings to improve energy efficiency; requiring that new residential, commercial, and industrial development be all-electric; and increasing renewable energy use and generation. These measures would assist the state in meeting its carbon neutrality goals by decarbonizing existing and future development, a goal of the 2022 Scoping Plan. These measures and actions would also be consistent with the General Plan, which also includes policies that would reduce impacts related to energy. For example, General Plan Policy COS-14.7 encourages development projects that use energy recovery, PV, and wind energy. Policy COS-18.3 requires alternative energy system operators to properly design and maintain alternative systems to minimize adverse impacts to the environment. This policy would apply to energy systems developed through implementation of the CAP Update. The measures and actions in the CAP Update would aid in improving energy efficiency in the county and reducing emissions associated with the generation of electricity. This would further align with the goals of the 2022 Scoping Plan. This impact would be less than significant.

Built Environment and Transportation Measures and Actions

The measures and actions within the built environment and transportation group would encourage the use of alternatively fueled vehicles through the installation of EV chargers, thus facilitating the statewide goal of transitioning the on-road vehicle fleet to be fully electric (Action T-3.1). Other transportation-related measures (e.g., Action T-5.1) would encourage alternative transportation, such as biking and walking. These improvements would reduce the combustion of fossil fuel by reducing gasoline and diesel fuel consumption, as well as reducing VMT, which aligns with the goals of Appendix D of the 2022 Scoping Plan to lower statewide VMT. While the construction required to implement these measures may require some energy consumption, ultimately the measures would improve energy efficiency and reduce fossil fuel consumption. Action T-1.1.a would promote the use of alternative fuel in construction equipment and reduce the consumption

of gasoline and diesel fuel. Therefore, construction associated with implementation of the CAP Update would not obstruct achievement of the energy efficiency and GHG reduction goals outlined in the 2022 Scoping Plan.

The 2021 Regional Plan, which focuses on transportation efficiency, energy efficiency, air quality improvement, vehicle electrification, improving multimodal transportation options and viability, and achieving GHG reduction targets, would also be relevant to the implementation of the CAP Update. As discussed above, although implementation of the CAP Update would consume energy resources during construction and operation, GHG reduction measures (e.g., Action T-3.1) would involve the installation of EV chargers, thus facilitating the statewide goal of transitioning the on-road vehicle fleet to be fully electric. Other transportation-related measures (e.g., T-6.1) would encourage alternative transportation such as biking and walking and would therefore reduce VMT in the county. Measures and actions that support the conversion from gasoline or diesel to electricity or alternative fuels and reduce VMT in the county would directly support 2021 Regional Plan goals and strategies. This impact would be less than significant.

Summary

All GHG-related measures within the CAP Update would support the 2021 Regional Plan's goal of achieving GHG reduction targets because the CAP Update is intended to reduce GHG emissions generated within the unincorporated county. As discussed previously, impacts relating to energy were not directly analyzed in the 2011 GPU PEIR. However, it can be concluded, based on the analysis above, that because the GHG reduction measures proposed within the CAP Update would require newer and more efficient technology to reduce GHG emissions, the impacts related to energy resources would be less than those that would occur due to implementation of the General Plan without the CAP Update. Therefore, the CAP Update would not result in a new impact related to conflict with or obstruction of a state or local plan for renewable energy or energy efficiency. This impact would be less than significant. Implementation of the CAP Update **would not result in a new impact**.

2.6.3.5 Cumulative Impacts

The cumulative impact analysis study area for energy in this analysis is the SANDAG region, which encompasses the unincorporated areas and 18 incorporated cities that make up the entire County of San Diego. The scope and approach to the cumulative impact analysis are described in the "Cumulative Impact Assessment Overview" section in the introduction to this chapter.

Issue 1: Result in a Potentially Significant Environmental Impact Due to Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources

While other cumulative development within the SANDAG region could result in the consumption of energy resources, all development would be required to comply with the current building code, including requirements for achieving appropriate energy efficiency standards (e.g., Title 24 standards or better). Development that results from

implementation of the CAP Update in the unincorporated county would also be required to comply with General Plan policies related to energy. Further, the project would not result in any significant cumulative energy impacts because the project would decrease the region's reliance on fossil fuels and would reduce energy consumption in the unincorporated area. Additionally, implementation of the CAP Update would include the installation of renewable energy generation systems, such as wind and solar, which would increase electricity generation to offset increases in electricity demand during the ongoing transition from fossil fuel utility infrastructure to all-electric utility infrastructure. Finally, many of the measures proposed in the CAP Update would apply new standards and requirements to all development projects to reduce GHG emissions related to community and County operations and overall energy demand.

By decreasing reliance on fossil fuels, decreasing overall energy demand, improving energy efficiency, decreasing VMT and vehicle trips in the county, and increasing the use of renewable energy systems, the measures and actions within the CAP Update would reduce the potential for wasteful, inefficient, or unnecessary consumption of resources. Therefore, the CAP Update would not result in a considerable contribution to cumulative impacts associated with wasteful, inefficient, or unnecessary consumption of resources. This impact would be less than significant. Implementation of the CAP Update **would not result in a new cumulative impact**.

Issue 2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

Development anticipated in the region and projected in the 2021 Regional Plan would not generate a cumulative conflict with state or local plans for renewable energy or energy efficiency because of regulatory mechanisms in place to address each project's incremental contribution. For example, projects are required to demonstrate consistency with Title 22 building requirements and regulations established by CARB. The 2021 Regional Plan EIR determined that cumulative impacts relating to energy would be less than significant because the 2021 Regional Plan would not result in an increase in overall per capita energy consumption or otherwise use energy in an inefficient, wasteful, or unnecessary manner in 2025, 2035, or 2050.

As stated under Issue 1, above, the CAP Update includes measures and actions identified to improve energy efficiency and reduce energy use. The CAP Update would align with the goals of the 2022 Scoping Plan, as well as the 2021 Regional Plan. If adopted, future projects that are consistent with the CAP Update would also be consistent with state and local plans for energy efficiency. Therefore, implementation of the project would not result in a considerable contribution such that a new significant energy impact would occur. The project would result in less-than-significant energy impacts. Implementation of the CAP Update **would not result in a new cumulative impact**.

2.6.4 Summary of New or More Severe Significant Impacts

Implementation of the project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, nor would it conflict with or obstruct the implementation of the applicable GHG reduction plans. Therefore, impacts in these areas would be less than significant.

2.6.5 Mitigation Measures

Implementation of the project would not result in significant impacts related to energy. Therefore, no mitigation is required.

2.6.6 Significance Conclusions

Issue 1: Result in a Potentially Significant Impact Due to Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources

The goal of the CAP Update is to reduce GHG emissions generated within the county by increasing the use of alternatively fueled vehicles, reducing VMT, generating and utilizing renewable energy, reducing waste generation, and increasing carbon sequestration. While construction related to CAP Update implementation would consume some energy, the measures and actions would result in overall net improvements in energy efficiency. Thus, implementation of the CAP Update would not result in wasteful, inefficient, or unnecessary consumption of energy during project construction. This impact would be **less than significant** and **would not result in a considerable contribution** such that a new significant cumulative impact would occur. Implementation of the CAP Update **would not result in a new significant impact** not discussed in the 2011 GPU PEIR or a substantial increase in the severity of the previously identified significant effect.

Issue 2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

As stated previously, all GHG-related measures within the CAP Update would support the 2022 Scoping Plan's and the 2021 Regional Plan's goal of achieving GHG reduction targets because the CAP Update is intended to reduce GHG emissions generated within the Plan Area. The proposed CAP Update would not conflict with or obstruct implementation of 2022 Scoping Plan or the 2021 Regional Plan as the measures themselves have been developed in consideration of these plans and their GHG reduction goals. Therefore, implementation of the measures and actions described above would not conflict with these plans and the impact would be **less than significant** and **would not result in a considerable contribution** such that a new significant cumulative impact would occur. Implementation of the CAP Update **would not result in a new significant impact** not discussed in the 2011 GPU PEIR or a substantial increase in the severity of the previously identified significant effect.

Table 2.6-2 SDGE and the State of California Power Mix in 2021

Energy Resources	SDGE Power Mix (%)	California-Wide Power Mix (%)
Eligible Renewables	45	34
Biomass and Waste	*<1*	*2*
Geothermal	*0*	*5*
Eligible hydroelectric	*0*	*1*
Solar	*29*	*14*
Wind	*15*	*11*
Coal	0	3
Large Hydroelectric	2	9
Natural Gas	30	38
Nuclear	0	9
Other	0	<1
Unspecified sources of power[1]	24	7
Total	100	100

Notes: SDGE = San Diego Gas & Electric Company.

[1] Electricity from transactions that are not traceable to specific generation sources.

Source: CEC 2021a.

Table 2.6-3 SDCP and the State of California Power Mix in 2021

Energy Resources	SDCP Power Mix (%)	California-Wide Power Mix (%)
Eligible Renewables	55	34
Biomass and Waste	7	2
Geothermal	4	5
Eligible hydroelectric	<1	1
Solar	29	14
Wind	15	11
Coal	0	3
Large Hydroelectric	12	9
Natural Gas	0	38
Nuclear	0	9
Other	0	<1
Unspecified sources of power[1]	33	7
Total	**100**	**100**

Notes: SDCP = San Diego Community Power.

[1] Electricity from transactions that are not traceable to specific generation sources.

Source: CEC 2021b.

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