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## **2.0 PROJECT DESCRIPTION**

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San Luis Obispo County has prepared a Renewable Energy Streamlining Program (Program, or RESP) that is intended to encourage and streamline permitting of certain renewable energy projects in the most suitable locations in the unincorporated area of the county. This would be formalized through County ordinance revisions and associated updates to County policies. These draft revisions can be found in **Appendix 2.0**.

The Program includes a new Renewable Energy (RE) Combining Designation to identify the most suitable locations for renewable energy development. Section 22.14.010 of the San Luis Obispo County Land Use Ordinance (LUO) defines a combining designation as:

*“Combining designations are used to identify and highlight areas of the county having natural or built features which are sensitive, hazardous, fragile, of cultural or educational value, or of economic value as extractable natural resources. The purpose of combining designation standards is to require project design that will give careful consideration to the land features, structures and activities identified by the combining designations. These standards provide for more detailed project review where necessary to support public safety or proper use of public resources.”*

The Program also includes revisions to the County’s General Plan, LUO, and Williamson Act Rules of Procedure to support siting, review, and permit streamlining of distributed generation renewable energy facilities, including rooftop solar and wind facilities, solar-covered parking lots and small wind generators. The Program focuses only on the inland area of the county and does not include the Coastal Zone.

This programmatic environmental impact report (PEIR) is intended to support streamlining of on-site facilities as well as eligible renewable energy projects in the RE Combining Designation areas. No specific renewable energy development projects are being proposed or approved as part of this environmental review and subsequent consideration of Program adoption.

### **2.1 APPLICANT**

County of San Luis Obispo Planning and Building Department  
976 Osos Street, Room 200  
San Luis Obispo, CA 93408

### **2.2 PROGRAM SETTING**

San Luis Obispo County is located along California’s Central Coast. The county is bounded by the Pacific Ocean to the west, Monterey County to the north, Kern County to the east, and Santa Barbara County to the south. San Luis Obispo County encompasses a total area of 3,616 square miles. Of this total area, 3,304 square miles are land and 311 square miles are water. The county’s coastline spans 96 miles.

San Luis Obispo County is physically diverse, ranging from beaches to mountains and valleys. The majority of land in the county is used for agriculture, primarily for livestock grazing. Land in the county is also actively farmed and harvested. Most of the county’s remaining land is used for rural land uses and open space. Rural land uses are distributed throughout the county. In the county’s central area, the southern portion consists of large open space areas. Urban land uses and incorporated cities comprise less than 10 percent of the county’s land, including residential, public facility, recreation, commercial, office, or multi-use land uses. Current development patterns are often dominated by low-density automobile-oriented development outside of the urbanized areas.

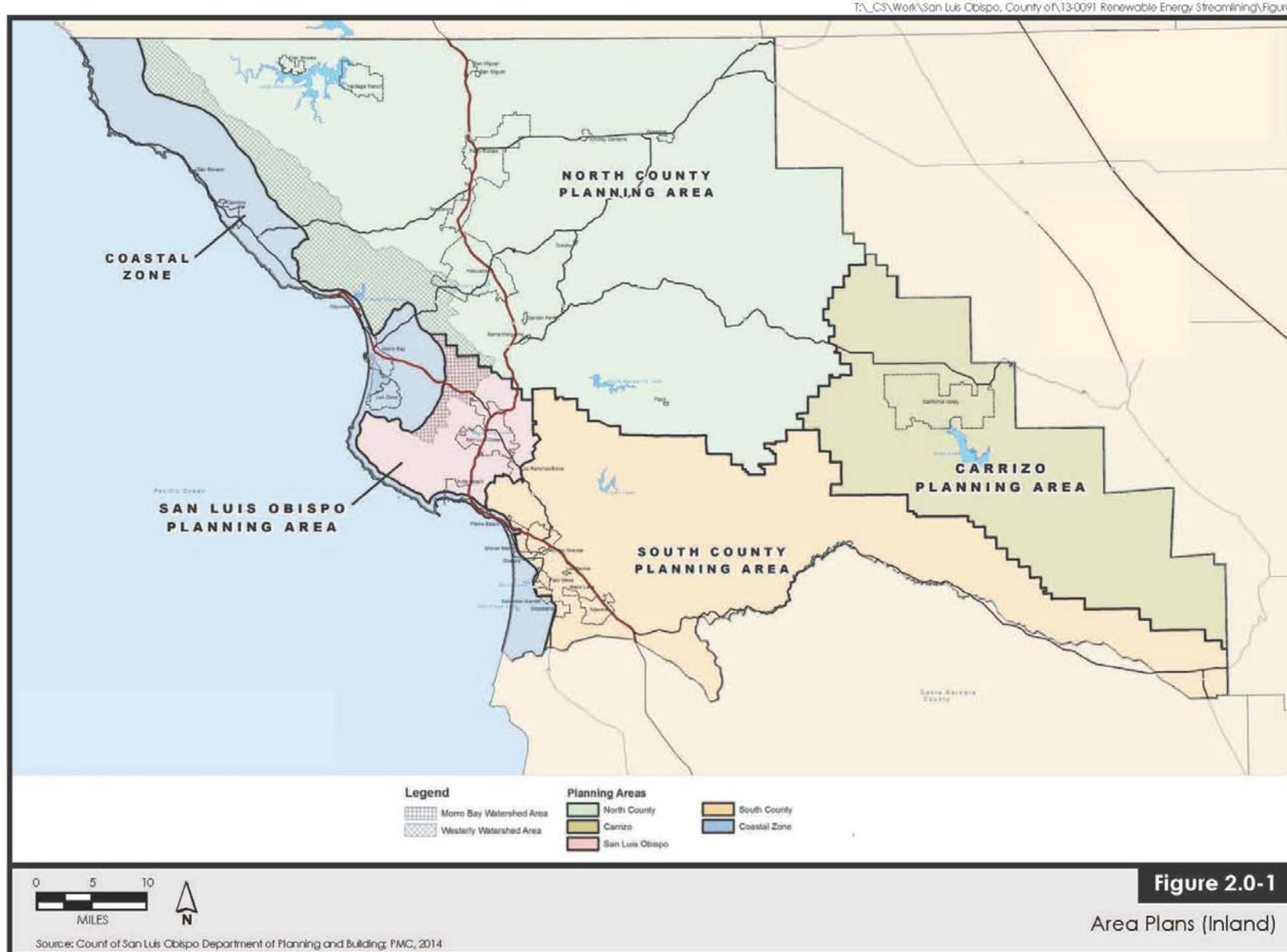
## 2.0 PROJECT DESCRIPTION

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San Luis Obispo County consists of unincorporated land, unincorporated communities, and seven incorporated cities. Cities in the county include Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo. Urban concentrations and communities in the unincorporated portions of the county include Avila Beach, Cambria, Cayucos, Garden Farms, Halcyon, Heritage Ranch, Los Osos/Baywood Park, Nipomo, Oceano, San Simeon, Santa Margarita, San Miguel, Shandon, and Templeton. The urban areas in the county are linked to the primary transportation corridors serving the region, including Interstate Highways 1 and 101 and State Route 46, in addition to other corridors such as State Route 227. The city of San Luis Obispo and the city of Paso Robles both serve as major county centers for employment, entertainment, education, and shopping activities of the region (**Figure 2.0-1**).

The County has jurisdictional authority over unincorporated, non-federal lands. Incorporated cities within the county maintain jurisdictional control within respective city boundaries. For unincorporated areas within city spheres of influence, the County coordinates with relevant jurisdictions but maintains jurisdictional authority. Of 2,124,248 total acres of land countywide, San Luis Obispo County operates jurisdictional control over 1,470,784 acres of unincorporated land.

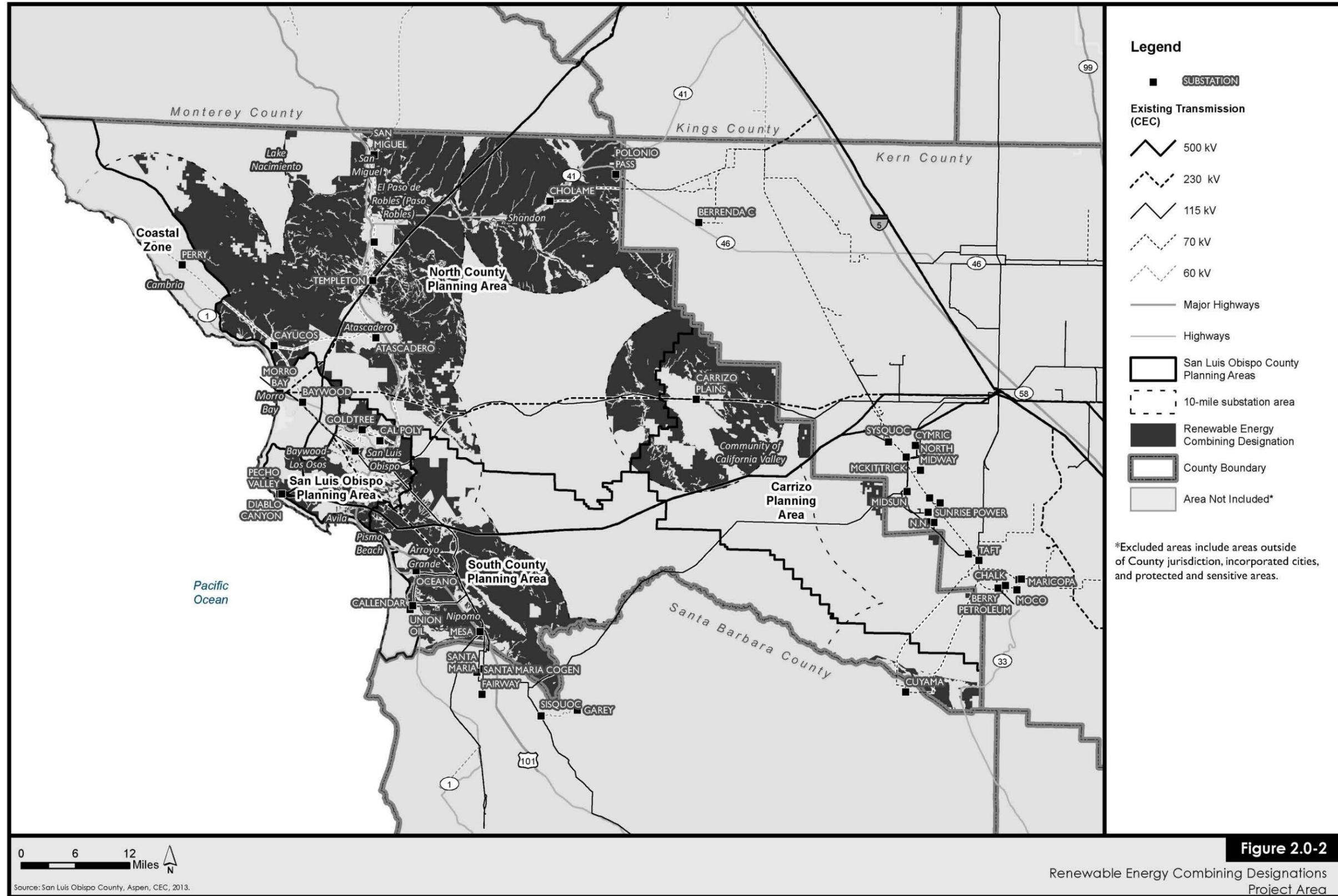
For purposes of the Program, the project area consists of unincorporated areas under County jurisdiction, exclusive of the Coastal Zone. Approximately 1,049,134 acres of unincorporated land is included in the Program. These lands are located throughout the county's regions, as shown in **Figure 2.0-2**.



## **2.0 PROJECT DESCRIPTION**

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## 2.0 PROJECT DESCRIPTION

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### **2.3 SAN LUIS OBISPO COUNTY PLANNING FRAMEWORK**

The existing San Luis Obispo General Plan, Land Use Ordinance, and other implementing ordinances currently guide the land uses in the unincorporated county. Section 3.9, Land Use and Planning, provides an analysis of the Program's consistency with applicable County planning documents. The county is first divided into Coastal and Inland areas. Within each of these areas, it is further divided into planning areas or Area Plans. The proposed project only affects land in the Inland Area Plans (project area).

The Area Plans (Inland) is divided into the following: Carrizo, North County, San Luis Obispo, and South County (**Figure 2.0-2**). The following is a general description of each of the four Inland planning areas as excerpted from the introduction section of The Area Plans (Inland):

- **Carrizo Planning Area.** The Carrizo Planning Area consists of the Carrizo Plain and Rafael/Big Springs watersheds. It is bordered by Kern County to the east, the Cuyama Valley to the south, and the Los Padres National Forest to the west. This area consists of undulating terrain devoted almost exclusively to the agricultural uses of dry farming and rangeland, which traditionally have been the principal industry and the foundation of the rural lifestyle and image of the region.
- **North County Planning Area.** The North County Planning Area includes the unincorporated areas north of the Cuesta Ridge to Monterey County and is bounded by the Coastal Zone to the west and Kern County to the east. It contains four unincorporated urban areas (San Miguel, Templeton, Santa Margarita, and Shandon), all located along Highway 101, and six village areas (Creston, Heritage Ranch, Oak Shores, Garden Farms, Whitley Gardens, and Pozo). The North County Planning Area is experiencing diverse economic growth in all sectors, including agriculture, which traditionally has been the principal industry and the foundation of the rural lifestyle and image of the North County. Much of the new development is increasingly oriented to commuter and retirement living, light industry, service businesses, and tourism.
- **San Luis Obispo Planning Area.** The San Luis Obispo Planning Area includes most of Montana de Oro State Park, as well as Cuesta College, Camp San Luis Obispo, and the California Men's Colony. It is bounded by the Coastal Zone to the west and the Los Padres National Forest to the east. The southern portion of the planning area includes the Irish Hills, See Canyon, and Squire Canyon. It contains the rural areas surrounding the city of San Luis Obispo, the inland portion of the Avila Beach urban area, and the village of Los Ranchos/Edna.
- **South County Planning Area.** The South County Planning Area generally consists of the land south of the Cuesta Grade to the Santa Barbara county line, between the Coastal Zone and the Carrizo Plain. Land uses within this large area are diverse, ranging from urban and suburban development in the incorporated cities and older town sites to rural residential and agricultural uses in the foothill and Nipomo Mesa areas, and the scenic and natural characteristics of the coastal ridges and Los Padres National Forest.

Area Plans and standards address each of the four planning areas within the General Plan, and each of the Area Plans is required to be consistent with the overall General Plan. The Area Plans also provide maps showing detailed overlays of environmental concern or resource protection called combining designations. This overlay distinction requires special design and/or development considerations to provide more detailed review when necessary for environmental issues such as sensitive habitats, flood hazards, and other natural resources.

## **2.0 PROJECT DESCRIPTION**

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The Inland Land Use Ordinance (Title 22) governs land use in the area affected by the project. Title 22 provides specific land use definition, standards, and thresholds consistent with the General Plan and the four Area Plans. The Program proposes a new Renewable Energy Combining Designation (RE). The intent of the new RE Combining Designation is to allow streamlined development of qualifying renewable energy projects. To implement the key elements of the Program, they would be integrated into the County's LUO (Inland).

Both the Land Use and Circulation Element (LUCE) and the Conservation and Open Space Element (COSE) will also be amended to support the Program.

### **2.4 AREAS UNDER THE JURISDICTION OF OTHER AGENCIES**

Geographic areas that are controlled by agencies other than the County are not generally subject to the provisions in the County's General Plan and implementing ordinances and similarly would not be subject to the Program. These areas typically have their own distinct planning process and land use guidelines/policies.

### **2.5 PROGRAM OBJECTIVES**

The primary objectives of the Program are to:

- Create a Renewable Energy (RE) Combining Designation that identifies locations where certain renewable solar electric facilities will qualify for permit streamlining if they meet specified standards and conditions for project size, site characteristics, and environmental protections.
- Revise the Land Use Ordinance to foster permit streamlining for other specified types of renewable energy facilities throughout the non-Coastal Zone portions of the unincorporated county (both within and outside of the RE Combining Designation).
- Support achievement of the County's goal to increase the production of renewable energy from small- and commercial-scale energy installations to account for 10 percent of total local energy by 2020 as presented in the County EnergyWise Plan.
- Provide a clear process and expectations for renewable energy projects in suitable locations that minimize environmental impacts.

### **2.6 PROGRAM COMPONENTS AND CHARACTERISTICS**

The two main components of the Program are:

- 1) A new Renewable Energy (RE) Combining Designation that identifies locations where certain solar electric facilities (SEF)<sup>1</sup> will be afforded permit streamlining if they meet specified standards and conditions for project size, site characteristics, and environmental protections.

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<sup>1</sup> A solar electric facility (SEF) is any solar electric system including the components and subsystems that, in combination, convert solar energy into electric energy suitable for use.

- 2) Revisions to the Land Use Ordinance that foster permit streamlining for specified types of renewable energy facilities throughout the project area (both within and outside of the RE Combining Designation), including small-scale roof-mounted wind energy conversion systems (WECS),<sup>2</sup> and SEFs less than 20 acres, and accessory renewable energy facilities that provide power to on-site uses only.

The changes to the General Plan, as well as the amendments to Title 22, are summarized in this project description. The specific revisions are included as **Appendix 2.0** and are considered a necessary companion piece to the description of the Program contained in this chapter.

### 2.6.1 RENEWABLE ENERGY COMBINING DESIGNATION AND STANDARDS

Areas included in the RE Combining Designation are those that are most conducive to streamlining permits for SEFs. The RE Combining Designation maps (**Figures 2.0-3** through **2.0-6**) include inland, unincorporated county areas under the County's jurisdiction without any of the following resource issues or characteristics:

- Location within a visual Sensitive Resource Area (SRA)
- Location within certain Highway Corridor Design Standard areas
- Areas covered by conservation easements
- Areas that have been or are intended for preservation for unique biological values
- Parcels in the Recreation (REC) and Open Space (OS) land use categories
- Any areas beyond a 10-mile distance from an existing substation
- Areas with Class I or Class II irrigated soils

The maps also show 5- and 10-mile radii around existing electricity substations, as renewable energy projects are most likely to be located where electricity distribution tie-ins are most readily available, feasible, and cost-effective.

The mapping identifies areas where renewable energy projects could occur, but not necessarily where they will occur. Because the exact location of projects is unknown the EIR evaluates potential environmental impacts at a programmatic level. Provisions of the program that regulate site characteristics, as well as the requirements of the LUO, will govern the potential for a project to occur in a specific location or whether the project qualifies for the program. Section 22.14.100 of the proposed Land Use Ordinance identifies project site characteristics that would trigger additional studies or standards that must be achieved, often referred to as performance standards. For instance, the RE Combining Designation would require additional biological studies, setbacks, and/or mitigation when sensitive species such as the San Joaquin kit fox may be present.

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<sup>2</sup> A wind energy conversion system (WECS) is any device which converts wind energy to a form of usable energy or provides storage of wind energy including all equipment and accessory structures related to the system, including but not limited to wind turbines, mounting posts, on-site transmission lines, operations and maintenance buildings, and other related accessory structures.

## **2.0 PROJECT DESCRIPTION**

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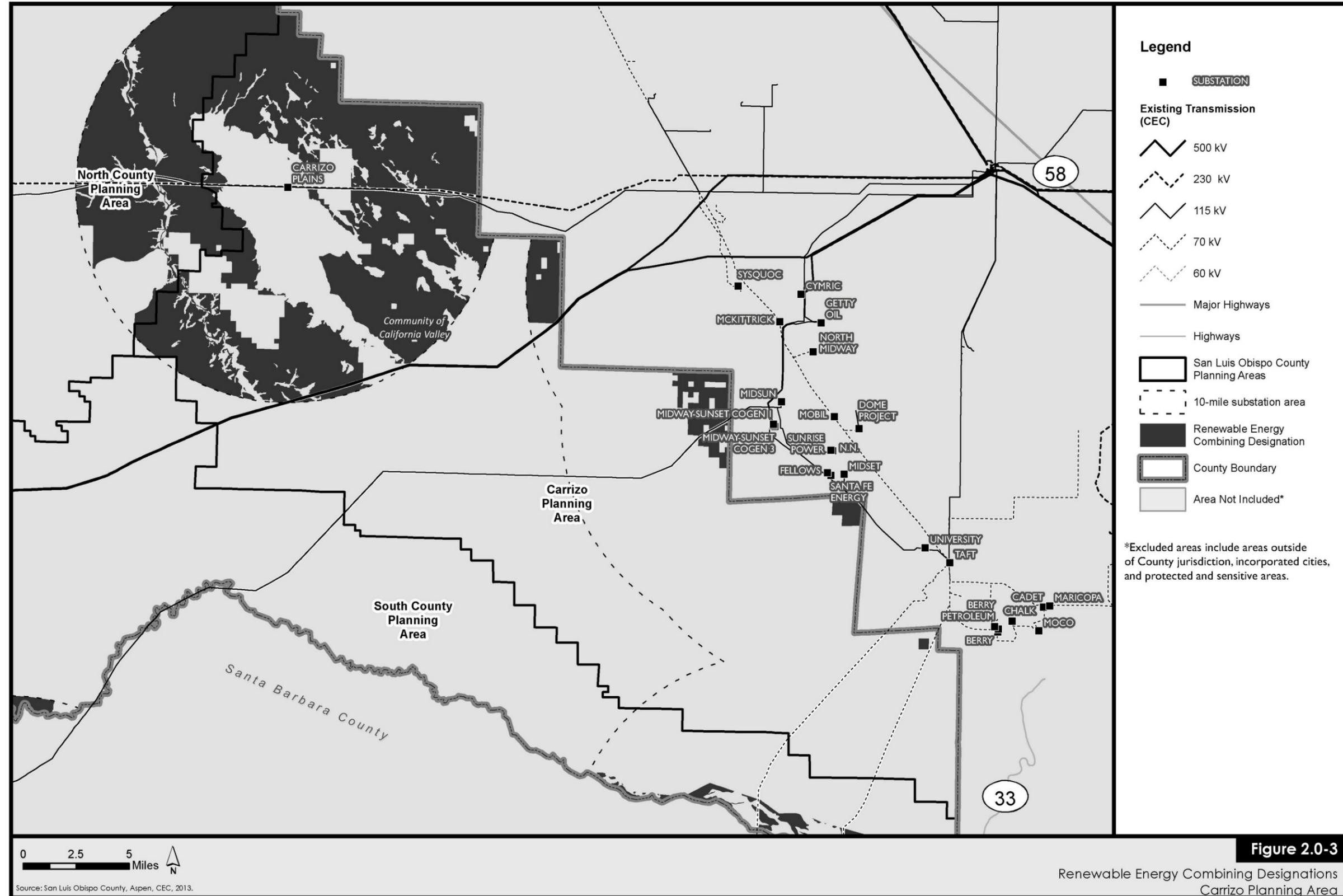


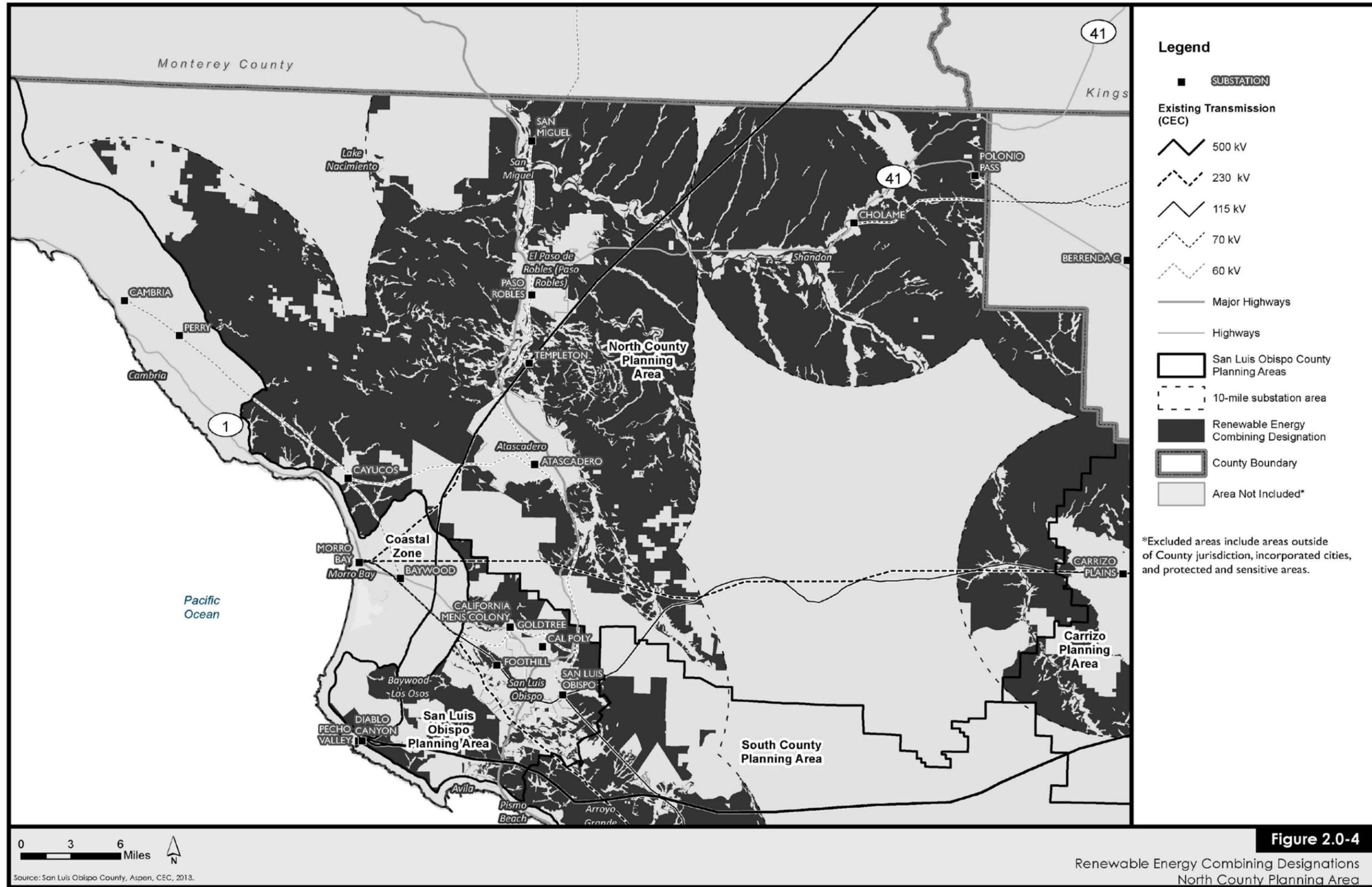
Figure 2.0-3

Renewable Energy Combining Designations  
Carrizo Planning Area

## 2.0 PROJECT DESCRIPTION

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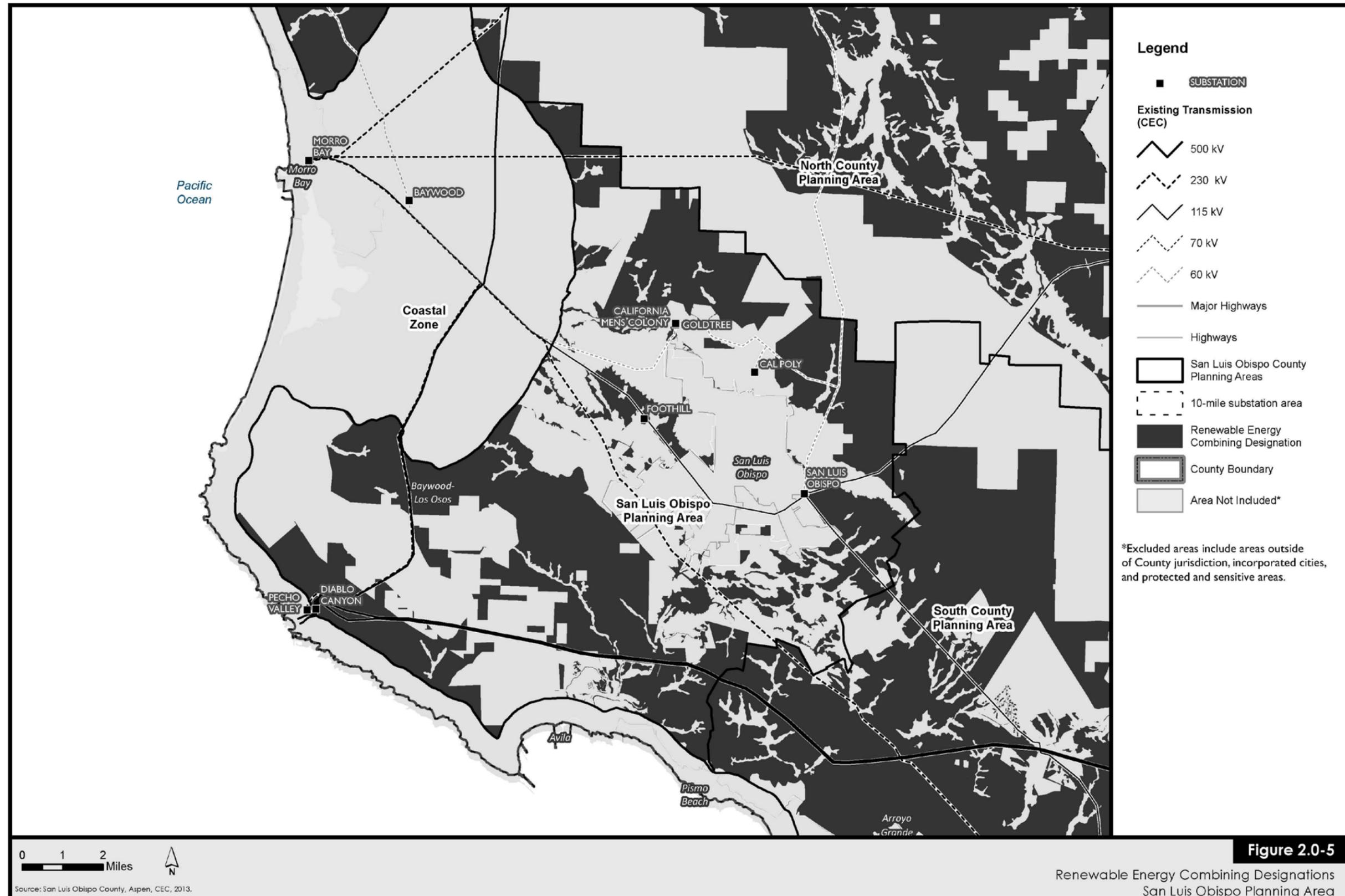
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## 2.0 PROJECT DESCRIPTION

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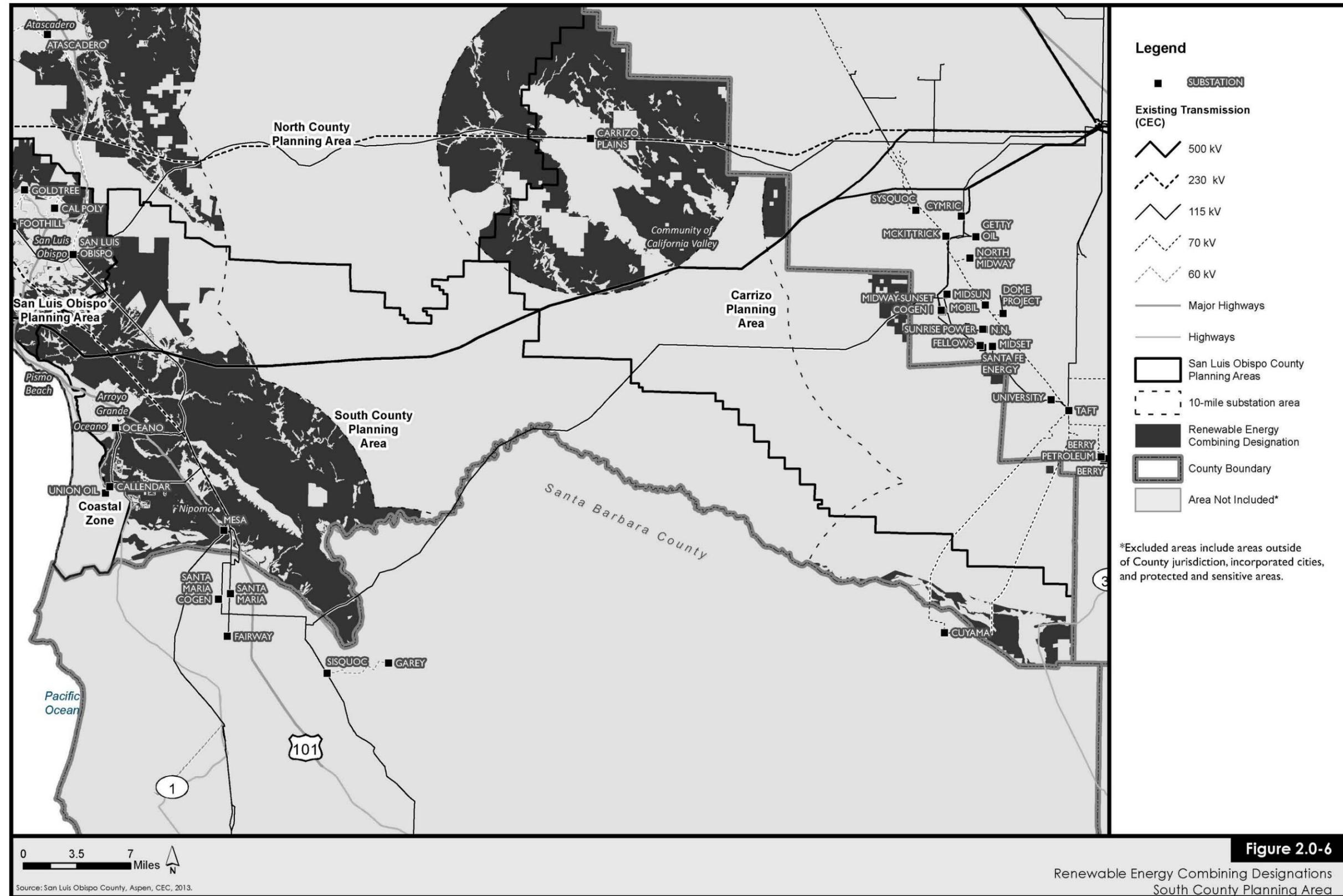
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## 2.0 PROJECT DESCRIPTION

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## 2.0 PROJECT DESCRIPTION

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2.6.2 REVISIONS TO OTHER SECTIONS OF THE COUNTY LUO

Chapter 22.32 (Electric Generating Facilities) will also be updated to provide development standards and performance criteria for renewable energy technologies proposed throughout the project boundaries. These revisions include streamlined permit review for certain types of renewable energy facilities and foster greater clarity and transparency in the renewable energy entitlement process. New content in Chapter 22.32 would simplify and standardize the application and entitlement process for all SEFs and WECs countywide, both within and outside of the RE Combining Designation.

For instance, Chapter 22.32 would include new setbacks and development standards for ground-mounted wind energy conversion facilities. Updates to Chapter 22.32 and Article 8 would also provide greater certainty for other categories of renewable energy development and reduce barriers to permitting certain renewable energy technologies. The Program also includes changes to clarify the process to determine the level of discretionary permit requirements for renewable energy technologies.

Other minor ordinance and plan revisions include the following:

- Williamson Act Rules of Procedure: revisions to allowed uses of Table 2 to allow electric-generating plants (electricity generation)
- Framework for Planning, Part I of the Land Use and Circulation Elements, as well as the Official Maps: amendments to establish and map the RE Combining Designation
- Article 9 and Article 10 of Title 22, Planning Area Standards and Community Planning Area Standards: revisions to remove prohibitions on electricity-generating uses that would otherwise fall within the RE Combining Designation
- Conservation and Open Space Element: minor updates to goals, policies, and glossary to ensure consistency of renewable energy definitions with new distributed generation and technology definitions in Title 22

2.6.3 SUMMARY OF PROGRAM STREAMLINING

The types of projects that would become eligible for permit streamlining as a result of the Program are summarized in **Table 2.0-1**. Streamlined reviews and approvals would be achieved either through the building permit process, zoning clearance process, or site plan review process, as specified in the table.

**TABLE 2.0-1  
PROJECTS ELIGIBLE FOR PERMIT STREAMLINING UNDER THE PROGRAM**

Renewable Energy Project Class	Definition and Conditions	Permit Streamlining Afforded
Renewable energy-generating facility as an accessory use	An accessory renewable energy-generating facility that meets the following criteria: <ul style="list-style-type: none"> <li>• Does not provide energy for sale to off-site uses.</li> <li>• Is not within an area designated Open Space (OS) or Recreation (REC).</li> <li>• Is not within an Airport Review, Flood Hazard, or Sensitive Resource Area Combining Designation.</li> </ul>	Allowed by Building Permit as described in Chapter 22.32.

## 2.0 PROJECT DESCRIPTION

Renewable Energy Project Class	Definition and Conditions	Permit Streamlining Afforded
	<ul style="list-style-type: none"> <li>• Is 21,780 square feet or less in area (exclusive of the total parcel area).</li> <li>• Is setback 100 feet from any adjacent property or public road.</li> <li>• Is proposed on a non-vacant parcel with an existing use or development on the property.</li> <li>• Is sited on Class I or Class II soils.</li> <li>• Is subject to environmentally-related permits.</li> </ul>	
Tier 1 SEF, roof- or structure-mounted	Located on the roof or structure of a conforming use	Allowed with Zoning Clearance as described in Chapter 22.32.
Tier 1 SEF, ground-mounted	<p>A solar electric facility that is 20 acres or less or less and meets the following:</p> <ul style="list-style-type: none"> <li>• Is not located on Class I or Class II soils,</li> <li>• Is ground-mounted, and</li> <li>• Is located on land that is graded, disturbed, or altered; or</li> <li>• Is located on land that was previously developed for industrial or commercial purposes and degraded or contaminated and then abandoned or underused.</li> </ul>	Allowed with Site Plan Review as described in Chapter 22.32.
Tier 1 WECS	A wind energy conversion system that is mounted on a roof or structure of a conforming use located in one of the following land use categories: Agriculture (AG); Rural Lands (RL); Residential, Rural (RR); Commercial, Service (CS); Industrial (IND); Open Space (OS); or Public Facilities (PF).	Allowed with Zoning Clearance as described in Chapter 22.32.
Tier 2 SEF	<p>A solar electric facility that is 40 acres or less in the Renewable Energy Combining Designation and meets the following:</p> <ul style="list-style-type: none"> <li>• Proposed on a parcel included in any land use category other than Open Space (OS) or Recreation (REC); and <ul style="list-style-type: none"> <li>a. In the Agriculture (AG) land use category, is not sited on any type of Important Agricultural Soils as defined in the Conservation and Open Space Element, unless sited on Important Agricultural Soils designated as Highly Productive Rangeland Soils.</li> </ul> </li> </ul>	Allowed by Site Plan Review as described in Section 22.14.100.
Tier 3 SEF	<p>A solar electric facility that is 160 acres or less in size in the Renewable Energy Combining Designation, and meets the following:</p> <ul style="list-style-type: none"> <li>• Proposed on a parcel included in the Commercial, Service (CS), Industrial (IND), or Agriculture (AG) land use categories (vacant or non-vacant). <ul style="list-style-type: none"> <li>a. In the Agriculture (AG) land use category, is not sited on any type of Important Agricultural Soils as defined in the Conservation and Open Space Element, unless sited on Important Agricultural Soils designated as Highly Productive Rangeland Soils.</li> </ul> </li> </ul>	Allowed by Site Plan Review as described in Section 22.14.100.

### 2.6.4 ASSUMPTIONS FOR RENEWABLE ENERGY PROJECT BUILDOUT UNDER THE PROGRAM

As part of the County's comprehensive greenhouse gas reduction program directed by the Conservation and Open Space Element, the County EnergyWise Plan includes a goal to increase the production of renewable energy from small- and commercial-scale energy installations to account for 10 percent of total local energy by 2020. The County will report on progress toward its greenhouse gas reduction target and implementation of programs to

support the goals, including this renewable energy production goal, as part of implementation and monitoring for the EnergyWise Plan. For consistency with the County and state greenhouse gas emissions inventories and forecasts, projects that are eligible to count toward the County's goal are renewable energy projects in the unincorporated county that are obligated by renewable energy power purchase agreement contracts to meet the state's Renewables Portfolio Standard. This goal was used as a starting point in developing the renewable energy development assumptions used for analysis of the potential impacts resulting from Program implementation.

The calculation started by estimating 2020 energy demand in the county. Based on the California Energy Commission's 2013 Integrated Energy Policy Report Proceeding, Energy Demand 2014–2024 adopted forecast for the Pacific Gas & Electric (PG&E) territory, PG&E's 2024 high forecast is 132,510 gigawatt hours (CEC 2013).<sup>3</sup> San Luis Obispo County's load is 1.5 percent of the PG&E overall load.<sup>4</sup> This information was used to calculate 10 percent of the 2024 forecast to represent the local renewable energy likely to be developed consistent with the County's EnergyWise Renewable Energy goals. The result was 92 megawatts (MW) of renewable energy production in the county by 2024.<sup>5</sup>

In addition to the forecast load, the California Energy Demand forecast assumed 2,180 MW of installed self-generation photovoltaics (PV) in the overall PG&E territory by 2024 in the high demand case. Using San Luis Obispo County's 1.5 percent of the PG&E overall load would result in 32 MW of rooftop solar anticipated in the San Luis Obispo region. This brings the total anticipated renewable development to 125 MW. To be conservative in the impact analysis, the 125 MW estimate was increased 20 percent. Therefore, for purposes of environmental impact analysis, this EIR assumes the Program will result in a total of 150 MW of renewable energy projects.

While it is not possible to establish the exact proportion of the 150 MW that would be solar projects and wind projects, current renewable energy trends and the renewable resources in the county were considered. The renewable energy development assumes the majority of the 150 MW would be solar PV projects, with minor numbers of wind projects. For purposes of the EIR analyses, the total foreseeable land footprint assumed for development of these projects is 1,500 acres. Note that this does not represent a cap or limit on the amount of land that can be developed under the Program, but rather the total developed area anticipated using the above methodology. The construction and operational characteristics of typical projects that would be anticipated under the program are further described below.

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<sup>3</sup> The high forecast includes high economic and demographic projections, low energy price projects, and low-efficiency impact assumptions. It is a highest energy demand forecast presented in the report and is a conservative demand forecast.

<sup>4</sup> The county's load is 1,987.65 gigawatt-hours or 1,987,650 megawatt-hours. The 10 percent goal translates to 198,765 megawatt-hours or 92 megawatts. The megawatts were calculated using 2,150 hours per megawatt using the 2013 Integrated Energy Policy Report Draft Lead Commissioner Report Table 18 at <http://www.energy.ca.gov/2013publications/CEC-100-2013-001/CEC-100-2013-001-LCD.pdf>.

<sup>5</sup> The EnergyWise Plan's Renewable Energy goal is for local production of energy for local use goal, exclusive of the large-scale solar projects that support the state's overall Renewables Portfolio Standard (RPS). Utility-scale solar projects are not credited toward the local EnergyWise Plan goal but are counted toward the RPS. The EnergyWise Plan goal is for small-scale local production that powers uses in the county.

## **2.0 PROJECT DESCRIPTION**

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### **2.6.4.a Typical Characteristics of Renewable Energy Projects Developed Under the Program**

#### Solar Electric Facilities (SEF)

Solar energy projects developed under the Program would include solar photovoltaic (PV) panels mounted on rooftops of other structures as well as ground-mounted systems. The maximum SEF project size in the RE energy combining designation is 160 acres. A typical PV module or panel includes several PV cells wired together into a PV array. PV arrays generate direct current (DC) electricity that is converted to alternating current (AC) electricity using an inverter.

PV projects can be mounted on existing structures such as rooftops or parking structures or can be ground mounted (i.e., freestanding). Ground-mounted solar PV projects can use a fixed-tilt or tracking structure. Ground-mounted PV structures are assumed to require 7–10 acres per megawatt of energy produced and range between 4 feet and 30 feet in height, depending on the type of panel and the ground mount.

To maximize electricity generation, solar PV modules are designed to absorb light rather than reflect it. However, panel glass remains relatively smooth and homogenous and is capable of producing a concentrated reflection. Glare is most problematic at glancing angles when the sun is low on the horizon.

In addition to solar panels, solar photovoltaic projects typically include DC to AC inverters and transformers, additional electrical equipment, an interconnection or generation tie (gen-tie) line, telecommunications equipment, potentially a meteorological data collection system, switchgear buildings or structures, and security fencing. Inverters, transformers, and other electrical equipment are generally housed in enclosures that can be up to 20 feet wide by 45 feet long for a Tier 3 SEF project but would likely be smaller for a Tier 1 SEF or Tier 2 SEF project.

The DC output of multiple PV modules is generally collected through an underground trench system to the inverters and transformers. Depending on the size of the line either underground or above ground connection is then made to the distribution system. The generator tie (gen-tie) lines for Tier 1 SEF, Tier 2 SEF, and Tier 3 SEF would likely be 12 kilovolts (kV) and would be strung on either existing or new 35-foot-tall wood poles.

#### Construction Characteristics of SEFs

Construction of a rooftop SEF would occur entirely on top of a pre-existing structure and would occur within a built environment. Construction activities would include drilling, hammering, installation, and other activities, but they would be confined to the built environment footprint or a nearby laydown area. Rooftop construction would likely take one to two weeks, although the time and size of the workforce is directly related to the size of the roof and system. Additional time would be needed for pre- and post-permitting activities and inspections.

For larger ground-mounted SEFs, up to 160 acres in size, new access roads may be needed. On-site access roads would likely consist of compacted gravel. Vegetation clearance and site grading could occur throughout the entire project site, although some technologies require minimal grading. Topsoil would be stored and used for replanting of areas no longer required for operation. If grading is needed, the most likely heavy equipment used in the site preparation phase would include bulldozers, graders, excavators, scrapers, front-end loaders, and trucks, although other equipment may be needed depending on site conditions.

Some ground-mounted SEFs will include permanent security/protection fencing surrounding the perimeter of the site. During construction, temporary drainage and erosion control measures would likely be used on the site, including diversion channels, retention/detention basins, and silt fences. Permanent drainage modifications may also be necessary to divert or control runoff.

Activities including water spraying and use of chemical suppressants are typically used to reduce fugitive dust during construction. These activities would be undertaken on an as-needed basis following standard industry best management practices.

Construction for Tier 1 SEF, Tier 2 SEF, and Tier 3 SEF projects is likely to take less than one year and for smaller projects, closer to six months. For a Tier 3 SEF project, the EIR assumes up to 40 construction personnel. Tier 1 and 2 SEF projects would average fewer personnel depending on the construction schedule and phasing.

### Operational Characteristics of SEFs

Operations and maintenance of generation facilities and associated structures (i.e., gen-tie lines, switchyards, access roads, etc.) would occur on an as-needed basis. For Tier 1 SEF, Tier 2 SEF, and Tier 3 SEF projects, it is likely that up to 3 personnel would be required to periodically service and maintain each facility (no full-time on-site personnel expected). For Tier 1 and 2 projects, no permanent office or restroom facilities are anticipated on site. Should extensive maintenance be required licensed portable sanitation would be provided. Tier 3 facilities may be large enough to require on-site management that would include restrooms.

Solar PV systems do not require water during operations other than for panel washing, estimated at 5 gallons per megawatt-hour (MWh). Panel washing requirements and frequency would depend on technologies and site conditions, but could occur up to four times a year. A typical 20 MW facility would be expected to use less than 1 acre-foot of water per year (approximately 215,000 gallons per year) during operations.

Vegetation management would likely be required to reduce risk of fire and to eliminate any shade on the panels. Maintenance and repair of the panels would occur on an as-needed basis, including disposal of any broken or damaged PV panels.

Any lighting installed for security and nighttime use of facilities would be motion sensor activated and designed to prevent spillover onto adjacent properties. .

### Decommissioning of SEFs

Decommissioning of facilities would involve removal of all facilities associated with the project. Dismantled components would be recycled or disposed of, subject to approval of a recycling and disposal plan, to ensure that the process doesn't pose a risk to human health or the environment. Reclamation of all disturbed areas would commence immediately upon completion of the dismantlement of the system to return the location to pre-project conditions.

### Wind Energy Conversion Systems (WECS)

Tier 1 WECS projects can only be mounted on a building and are limited to the maximum building height in the land use category plus 5 to 10 feet.

Tier 2 WECS projects, with a minor use permit, could be up to 100 feet in height. Wind projects generally include a rotor, generator, or alternator mounted on a frame; a tail; and a tower.

## **2.0 PROJECT DESCRIPTION**

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Through the spinning blades, the rotor captures the kinetic energy of the wind and converts it into rotary motion to drive the generator, which produces AC energy. Tier 2 WECS are limited to 2 MW total generation on site.

There are two types of wind towers that could be used in a Tier 2 WECS project:

- Self-supporting tower: The base of a self-supporting structure is a single, large, square concrete pad approximately 15 feet by 15 feet with three anchor groups. Typically, anchor rods would be at least 4 feet deep.
- Freestanding and guyed tower: The base pad for most guyed towers up to 100 feet tall would be approximately 4.5 feet by 4.5 feet and would typically be built 6 feet deep for guyed towers. Guyed towers consist of lattice sections, pipe, or tubing, supporting guy wires, and the foundation. Because the guy radius must be one half to three quarters of the tower height, guyed towers increase the overall size of the project, as the guys would extend out between 50 to 60 feet from the base.

Because Tier 2 WECS would be no taller than 100 feet, they would not be required to use flashing lights for nighttime safety under Federal Aviation Administration (FAA) regulations unless they were within certain distances from airports or heliports as described in the FAA Title 14 Section 77.9. If the WECS were within the FAA-proscribed distances, an obstruction evaluation would need to be filed, with recommendation provided by the FAA followed regarding lighting. Turbines over 100 feet do not qualify for the program and would require a conditional use permit.

### Construction Characteristics of WECS

Tower construction generally consists of digging the hole where the tower would be placed. If the tower is being set in concrete, a substantial foundation hole, up to 6 feet deep, may be required, which would likely require use of a backhoe or excavator. Other tower types may require use of a forklift, tractor, or crane due to the weight and height of the tower components. Construction of the tower would likely require between 3 and 5 people. It can take between 14 to 28 days for the concrete for the pads to cure, but the actual construction days would be fewer.

### Operational Characteristics

Wind turbines require annual maintenance. Bolts and electrical connections are checked and tightened. The machines are checked for corrosion and the guy wires for proper tension. In addition, the blades are checked for any worn leading-edge tape. After 10 years, the blades or bearings may need to be replaced, but with proper installation and maintenance, the turbine can last 20 years or longer. Wind turbines do not require water for maintenance.

### Decommissioning of WECS

WECS would generally have a life span of 20 to 25 years. Decommissioning work will depend on the site conditions but would likely involve removing all visible traces of the wind turbine. This requires taking down and disposing of the wind turbine, and likely recycling the scrap metals and other useful parts. Concrete bases may be removed or may be left in place underground. There will likely be some ground disturbance during the decommissioning work, and use of a crane or tractor may be required.

## **2.7 PROGRAM ALTERNATIVES**

The California Environmental Quality Act (CEQA) requires an analysis of a reasonable range of alternatives to the proposed Program that are feasible and would achieve the main objectives of the Program as proposed, while reducing at least some of the environmental impacts associated with it. The alternatives described below are analyzed in Chapter 4.0 of this EIR.

### **Alternative 1: Limited Combining Designation Scope**

Alternative 1 consists of an RE Combining Designation that is more limited in scope than that of the proposed RESP by limiting projects to rooftop and structure-mounted projects, and ground mounted projects of 40 acres or less. This alternative would also limit streamlining (i.e. ministerial approvals) to only those projects that could be fully screened from public view adjacent to a project site, and would require that Tier 1 ground-mounted SEFs not be located on Important Agricultural Soils. The intent of this alternative is to reduce the project's Class I impacts for aesthetics, agricultural resources, and land use and planning, and reduce overall impacts to other resource areas by substantially reducing the maximum allowed project footprint. .

### **Alternative 2: Smaller Combining Designation Footprint**

Alternative 2 consists of a RE Combining Designation that excludes all land with Important Agricultural Soils. This would reduce the total acreage of the RE Combining Designation from 801,910 acres to approximately 483,570 acres, a reduction of approximately 40 percent. The sole intent of this alternative is to reduce the potential for Class I impacts associated with the conversion of agricultural land to nonagricultural uses, identified in the Sections 3.2 and 3.9. All other aspects of the Program as proposed would remain unchanged.

### **Alternative 3: No Project**

Alternative 3 is the CEQA-mandated No Project Alternative. Under Alternative 3, existing policies governing renewable energy development in the county would remain in place. Environmental impacts may be reduced in some instances because all projects would be evaluated individually and with potentially greater scrutiny. However, Alternative 3 could also result in more cumbersome permitting processes with less certain outcomes, thus resulting in less renewable energy development than would occur under the proposed Program.

## **2.8 INTENDED USES OF THE EIR**

This EIR is intended to evaluate the environmental impacts of adoption and implementation of the Program. This EIR should be used as the primary environmental document to evaluate all subsequent actions associated with renewable energy projects in the county. The types of specific projects that are associated with the project are identified in subsection 2.6 above. These projects will be evaluated at the time they are proposed to determine whether they are eligible for streamlined approvals or if subsequent environmental review under CEQA is required.

## **2.9 PROGRAM APPROVALS AND SUBSEQUENT ACTIONS**

A set of actions must be taken by the County, including certification of the EIR, adoption of the Program, adoption of General Plan amendments, policy and procedure changes, and other miscellaneous implementation actions. Each of these is described in more detail below.

## 2.0 PROJECT DESCRIPTION

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### CERTIFICATION OF THE ENVIRONMENTAL IMPACT REPORT

Before taking action on the Program, the Board of Supervisors (Board) must certify that the EIR was completed in compliance with CEQA. The Board will review and consider the information in the EIR before taking action on the project and determining if the EIR reflects the County's independent judgment and analysis.

### PROGRAM ADOPTION

The Board of Supervisors will consider adoption of the Program following certification of the EIR. This adoption may include incorporation of any identified mitigation measures from the EIR as policies and/or actions into the new Program. Before adoption, the County is required to make specific findings of fact pursuant to State CEQA Guidelines Sections 15090, 15091, and 15093 regarding the significant environmental impacts of the project, the feasibility of measures to mitigate those impacts, and, if appropriate, a statement of overriding considerations. The Board's action on the Program will be based on consideration of recommendations of the San Luis Obispo County Planning Commission.

To enact the Program, the County would adopt amendments to the following documents:

- Conservation and Open Space Element of the General Plan (Chapter 5 and Glossary)
- Land Use and Circulation Element Part I – Framework for Planning (Inland) (Chapter 7)
- Land Use and Circulation Element Part II – Area Plans
- Land Use and Circulation Element Part III – The Official Maps
- Title 22, Land Use Ordinance (Articles 2, 3, 4, and 8)
- Land Use Permit Application Package
- Williamson Act Rules of Procedure

**Appendix 2.0** provides all proposed changes, including General Plan amendments, map amendments, land use ordinance revisions, Williamson Act Rules of Procedure, and the proposed changes to the Land Use Permit Application Package.

### REFERENCES

CEC (California Energy Commission, Electricity Supply Analysis Division). 2013. *California Energy Demand 2014–2024 Final Forecast Volume 2: Electricity Use by Utility Planning Area*. CEC-200-2013-004-V2-CMF.

