

---

## CHAPTER 1: PURPOSE AND NEED

---

### 1.1 INTRODUCTION

In accordance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), the U.S. Department of Agriculture, Forest Service (USFS), the U.S. Department of the Interior, Bureau of Land Management (BLM), and the City of Los Angeles Department of Water and Power (LADWP) have prepared this joint Final Environmental Impact Statement / Environmental Impact Report (Final EIS/EIR) for the proposed Barren Ridge Renewable Transmission Project (BRRTP or Project). This action is in response to LADWP's application (1) to the USFS for a Special Use Authorization and (2) to BLM for a right-of-way grant. The grant of these applications by the agencies is a federal action requiring compliance with NEPA. As a governmental agency within California, LADWP is required to comply with CEQA for its direct undertaking of governmental actions (CEQA Guidelines, Section 15002(b)).

The BRRTP, as proposed by LADWP (Proposed Action), would be located in Kern and Los Angeles counties. It would extend 76 miles in length from the Barren Ridge Switching Station to Rinaldi Substation and extend 12 miles from the Castaic Power Plant to the proposed Haskell Canyon Switching Station. As shown in Figure 1-1, the Proposed Action would include the following components:

- (1) Expansion of the existing Barren Ridge Switching Station 12 miles north of the unincorporated community of Mojave, California. The existing switching station is 250 feet by 500 feet. The 250-foot side would be expanded by 235 feet, for a total station size of 485 feet by 500 feet (5.7 acres).
- (2) Construction of a new 500-foot by 600-foot switching station in Haskell Canyon.
- (3) Construction of 61 miles of a new double-circuit 230 kilovolt (kV) transmission line from the Barren Ridge Switching Station to a new switching station within Haskell Canyon. National Forest System (NFS) lands, BLM-managed public lands, and private property would be traversed.
- (4) Reconductoring of 76 miles of the existing Barren Ridge – Rinaldi (BR-RIN) 230 kV transmission line with larger capacity conductors between the Barren Ridge Switching Station and Rinaldi Substation. NFS lands, BLM-managed public lands, and private property would be traversed.
- (5) Addition of 12 miles of a new 230 kV circuit on the existing double-circuit structures from Haskell Canyon to the Castaic Power Plant. NFS lands and BLM-managed lands would be traversed.

It has been determined that this Project is a major federal action significantly affecting the quality of the human environment, and the appropriate environmental analysis document is an EIS/EIR. This is an informational disclosure document used to: 1) inform agency decision makers and the public of environmental impacts that are expected to result from construction, operation, maintenance, and decommissioning of the proposed BRRTP; 2) present recommended mitigation measures that, if adopted, would avoid or minimize many of the significant

environmental impacts identified; and 3) identify alternatives to the Proposed Action that could avoid or minimize significant environmental impacts associated with the Project as proposed, and evaluate the environmental impacts associated with these alternatives. This Final EIS/EIR has been prepared by the USFS and BLM as Co-Lead Agencies under NEPA, and LADWP as the Lead Agency under CEQA.



### 1.1.1 BACKGROUND

The LADWP is the nation's largest municipal utility and serves approximately four million people. Its service territory covers the City of Los Angeles and certain parts of the Owens Valley, with annual sales exceeding 24 million megawatt-hours (MWh). LADWP has an annual electrical demand of 6,200 megawatts (MW). To maintain a reliable electrical system, it must obtain a system reserve requirement of 1,200 MW; therefore, LADWP must generate 7,400 MW per year.

Despite the growing population in Los Angeles, LADWP predicts that electrical consumption within its service territory would have a minimal increase at an average rate of 0.9 percent per year, and the peak demand would increase at an average of 60 megawatts (MW) per year for the next 20 years (LADWP IRP 2010).

LADWP's current resource mix relies primarily on fossil fuels (39% from coal and 31% from natural gas-fired plants) to produce electricity for its customers (LADWP Power Content Label 2009). The primary sources of coal-energy are the Utah Intermountain Power Project and the Navajo Generating Station in Arizona. The natural gas plants are located throughout the Los Angeles Basin. Seven percent is generated from large hydroelectric power plants and nine percent is generated from nuclear plants. Approximately 14% of the energy mix is generated from renewable resources (biomass and waste, geothermal, small hydroelectric, solar and wind). LADWP has a number of transmission lines that connect to these various generation sources in the western United States and within the Los Angeles basin.

In 2007, LADWP prepared an energy resource planning document called the Power System Integrated Resource Plan (IRP) that provided a framework for ensuring the future electrical energy needs of LADWP. The IRP focuses on increased energy efficiency and conservation, greenhouse gas reduction, and power generated from renewable energy sources.

To encourage energy efficiency and conservation, the City has implemented a number of programs such as customer Energy Efficiency (EE), Demand-Side Management (DSM), Leadership in Energy and Environmental Design (LEED), and Green Power for a Green LA.

Los Angeles Mayor Antonio Villaraigosa's "GREEN LA Plan" is an action plan to lead the nation in fighting global warming and reduce the City's greenhouse gas emissions to 35% below the 1990 levels by the year 2030. The cornerstone of the GREEN LA Plan is the reduction of greenhouse gases by increasing the use of renewable energy.

The State of California has one of the most aggressive renewable energy programs in the country and has established a Renewable Portfolio Standard (RPS) policy requiring the increased production and use of renewable energy (such as wind, solar, small hydroelectric, biomass, and geothermal energy). As a component to the IRP, LADWP has also adopted an RPS policy that matches the State's.

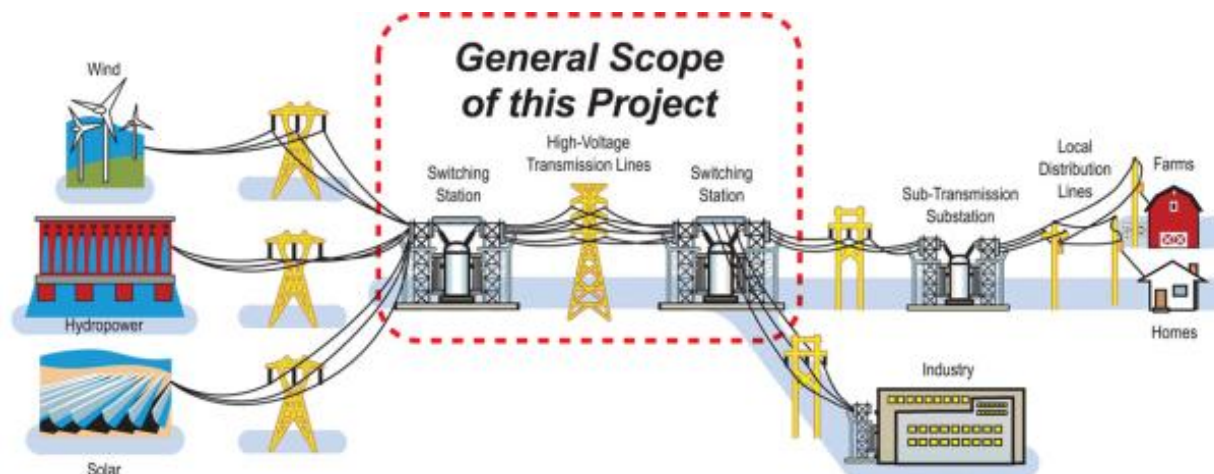
To achieve a more environmentally sustainable energy resource mix and meet RPS goals, LADWP must access renewable energy sources. Most of the renewable sources are located in more remote areas such as the Owens Valley, Mojave Desert, Tehachapi Mountains, and

Imperial Valley areas of Southern California where limited electrical infrastructure exists. To meet RPS goals and increase use of renewable energy, investment in new transmission is needed to access renewable resource areas and deliver the renewable energy to the electrical demand areas. This process is described and illustrated in the following section.

### 1.1.2 ELECTRICAL TRANSMISSION

Electrical energy is generated in a power plant or at a generation facility. The most common generation facilities are natural gas, hydropower, coal, nuclear, geothermal, solar, and wind. The electrical energy cannot be stored, but must be generated and delivered the moment it is needed. Transmission lines carry the electrical energy from generating facilities to areas of electrical demand, such as homes and businesses. Switching stations provide utility companies with the ability to connect and disconnect the transmission lines, or other components, to and from the electrical system. Switching stations allow for electrical energy to be redirected to perform maintenance and upgrades to an electrical system without disrupting service. Transmission substations “step-down” or reduce the electrical voltage so that the power can be transmitted through smaller distribution lines to the customer. A simplified electrical transmission system is illustrated in Figure 1-2.

**FIGURE 1-2. SIMPLIFIED ELECTRICAL TRANSMISSION SYSTEM**



Utility companies must maintain a reliable electrical system that can meet customer demands, including variations in seasonal and daily power supplies and demands. The reliability of an electrical system is dependent on its ability to operate when some transmission lines or generators are out of service. Utility companies create networks of transmission lines, switching stations, and substations to create redundant paths within a transmission grid or system. In the event that a transmission line is taken out of service, utility companies require the ability to reroute the electrical energy to adjacent transmission lines to provide reliability to the overall electrical system.

## **1.2 PROJECT PURPOSE AND NEED/OBJECTIVES**

An EIS must explain the “underlying purpose and need to which the Lead Agency is responding in proposing the alternatives, including the proposed action” (40 CFR 1502.13). An EIR is required to include a statement of objectives to be achieved by the Proposed Action (CEQA Guidelines, Section 15124(b)). The objectives help the implementing agency develop a reasonable range of alternatives and assist decision-makers in preparing findings or a statement of overriding considerations, if necessary. To meet the Project needs, LADWP has the following purpose and need, in accordance with NEPA, or objectives, in accordance with CEQA:

- Reduce the environmental impacts associated with greenhouse gas emissions and create a more sustainable environment.
- Assist LADWP in meeting RPS goals.
- Meet LADWP’s future electrical energy demands.
- Allow interconnection and expansion of LADWP’s renewable energy in the Tehachapi Mountains and Mojave Desert areas.
- Increase LADWP’s system reliability and flexibility in the utilization of renewable energy sources.
- Enable the delivery of renewable energy.

BLM’s purpose and need is addressed in Section 1.3.1, and USFS’ purpose and need is addressed in Section 1.3.2.

### **1.2.1 GREENHOUSE GAS (GHG) REDUCTION**

The primary purpose and need/objective of LADWP for the Proposed Action is to reduce the environmental impacts associated with GHGs and emissions of other air pollutants, and to create a more sustainable environment.

The principal GHGs that enter the atmosphere because of human activities are: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated gases. The primary sources of the City of Los Angeles’ GHGs are transportation, electrical power, and industrial fuels. The burning of fossil fuels to produce electricity accounts for approximately 32% of the City’s total carbon emission (LADWP IRP, 2007). About half of LADWP’s electrical power resources come from coal-burning power plants in Utah and Arizona that are under long-term contracts. LADWP receives another quarter of its electrical power resources from natural gas power plants in the Los Angeles Basin. Renewable energy sources such as solar and wind do not produce GHGs.

In 2006, California Senate Bill (SB) 1368 required utility companies to establish a GHG emission performance standard and implement regulations for all long-term commitments in electrical energy generation. California Assembly Bill 32, the Global Warming Solutions Act of 2006, required the California Air Resources Board (CARB) to develop regulations to reduce California’s GHG emissions to 1990 levels by 2020.

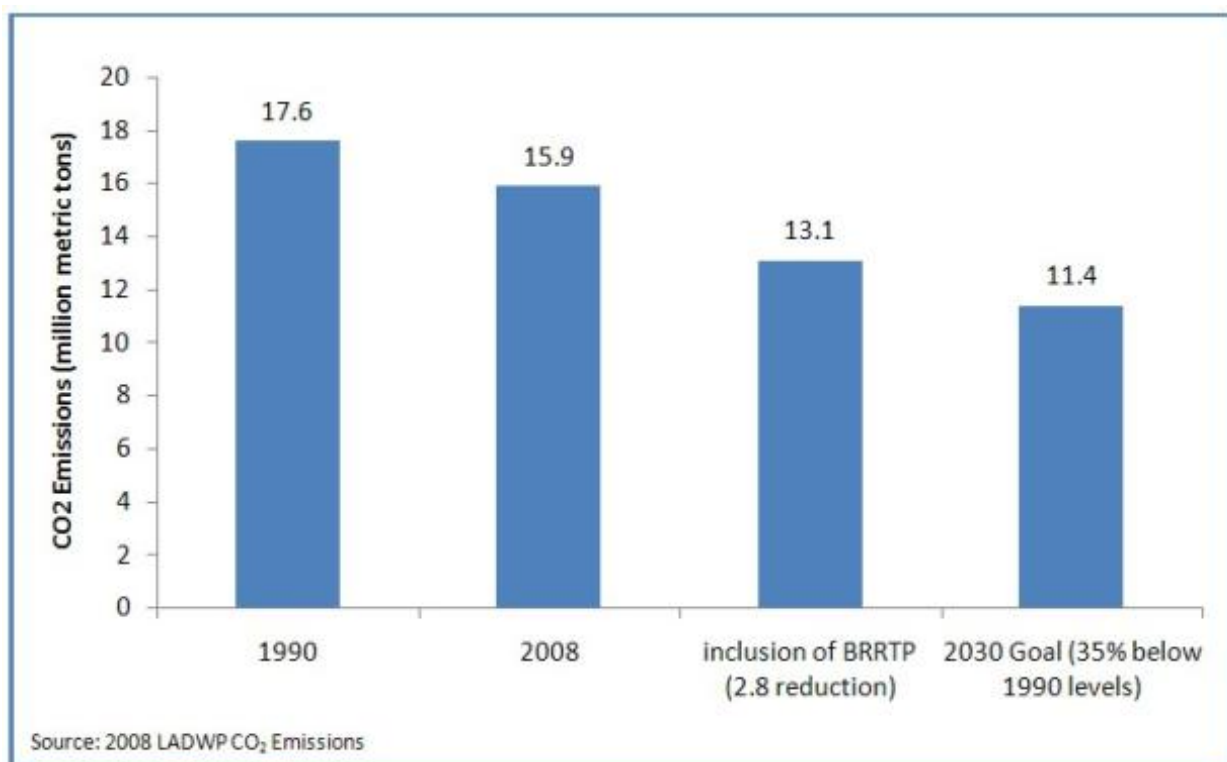
The U.S. Environmental Protection Agency (EPA) has also recently taken steps toward regulating GHG emissions under the authority of the current Clean Air Act. In April 2009, the EPA issued a finding that GHG emissions pose a threat to public health and welfare (EPA 2009),

and in January 2011, EPA began regulating GHGs from mobile and stationary sources of air pollution under the Clean Air Act (EPA 2010).

In 1990, LADWP produced (from owned and purchased generation) 17.8 million metric tons of CO<sub>2</sub> emissions. Beginning in 1991, a number of programs to reduce CO<sub>2</sub> emissions were implemented by the utility. These included replacement of older power plants with more efficient generators, conservation and energy efficiency programs, and increased use of renewable energy resources. These efforts have led to a 2.2 million metric ton reduction of CO<sub>2</sub> emissions in 2008 from 1990 levels (a 12% reduction).

The GREEN LA Plan would allow 11.4 million metric tons of CO<sub>2</sub> emissions per year. To obtain this GHG goal by 2030, LADWP must reduce 2008 CO<sub>2</sub> emissions levels by 4.5 million metric tons per year (refer to Figure 1-3). The Proposed Action would be a component of increasing LADWP's utilization of renewable resources to meet this goal. By allowing the delivery of potential renewable energy sources such as solar and wind from the high quality renewable energy areas of the Mojave Desert and Tehachapi Mountains, LADWP estimates the Proposed Action could reduce the City's GHG emissions by approximately 2.8 million metric tons of CO<sub>2</sub> emissions per year, based on estimates of the additional renewable generation that would be made accessible to LADWP by BRRTP and the assumed associated displacement of existing LADWP fossil fuel energy sources (N. Parker personal communication 2009).

**FIGURE 1-3. ANNUAL CO<sub>2</sub> EMISSIONS**



## 1.2.2 RPS GOALS

In 2002, California SB 1078 established a 20% RPS for California investor-owned utilities. In April 2007, the City of Los Angeles' City Council approved LADWP's RPS Policy to increase its goals to 20% by December 2010 and to 35% renewable energy by 2020 (exceeding the state of California's 33% renewable goal by 2020).

Electricity produced from the following technologies are considered "eligible" renewable resources for meeting RPS goals: biomass; biodiesel; digester gas; fuel cells using renewable fuels; geothermal; landfill gas; municipal solid waste (only if the energy conversion process does not employ direct combustion of solid fuel); ocean wave; ocean thermal and tidal current technologies; polar photovoltaic; small hydroelectric (30 MW or less); and solar thermal, wind, and other renewables that may be defined later.

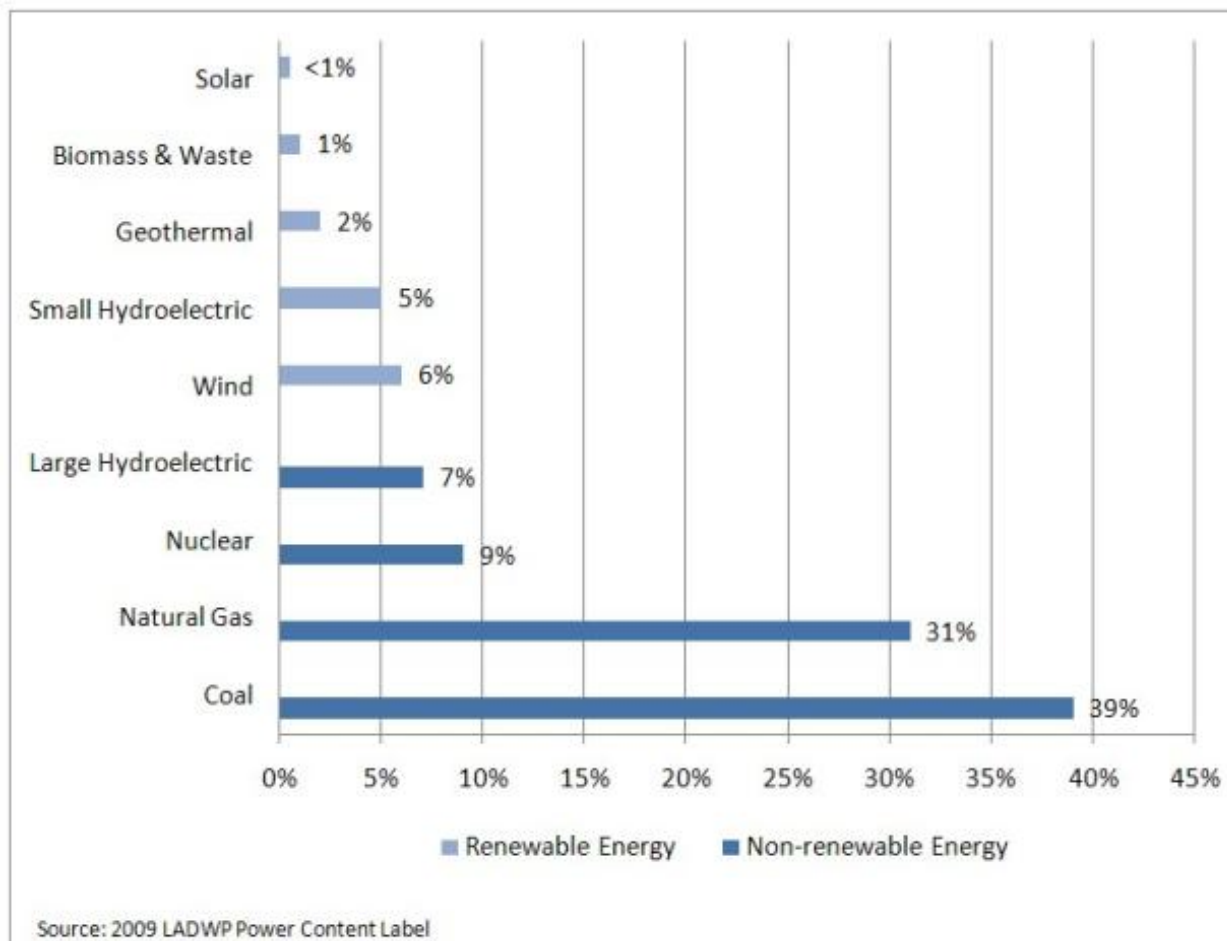
As reported in LADWP's 2009 Power Content Label, the resource mix for that year consisted of 39% coal, 31% natural gas, 9% nuclear, 7% large hydroelectric, and 14% renewables (refer to Figure 1-4). The 14% renewable energy was generated from a mixture of LADWP's hydroelectric generation plants along the Los Angeles Water Aqueduct System, digester and landfill gas from sewage treatment plants and landfills which are converted into energy, and purchase from wind farms, small hydroelectric facilities, and other renewable resources. LADWP still needs an additional 6% of renewable energy to meet its 2010 goals and an additional 15% on top of that to meet its 2020 RPS goal of 35%.

One of the primary purposes for the BRRTP is to assist LADWP in meeting its 2020 RPS goal. The implementation of the BRRTP would allow wind and solar resources to be transmitted to the Los Angeles Basin and could contribute approximately 22%<sup>1</sup> of renewable energy into LADWP's resource mix.

---

<sup>1</sup> LADWP generates approximately 7,400 MW of power annually. BRRTP would provide approximately 1,600 MW of transmission capacity.

**FIGURE 1-4. LADWP ELECTRICAL RESOURCE MIX, 2009**



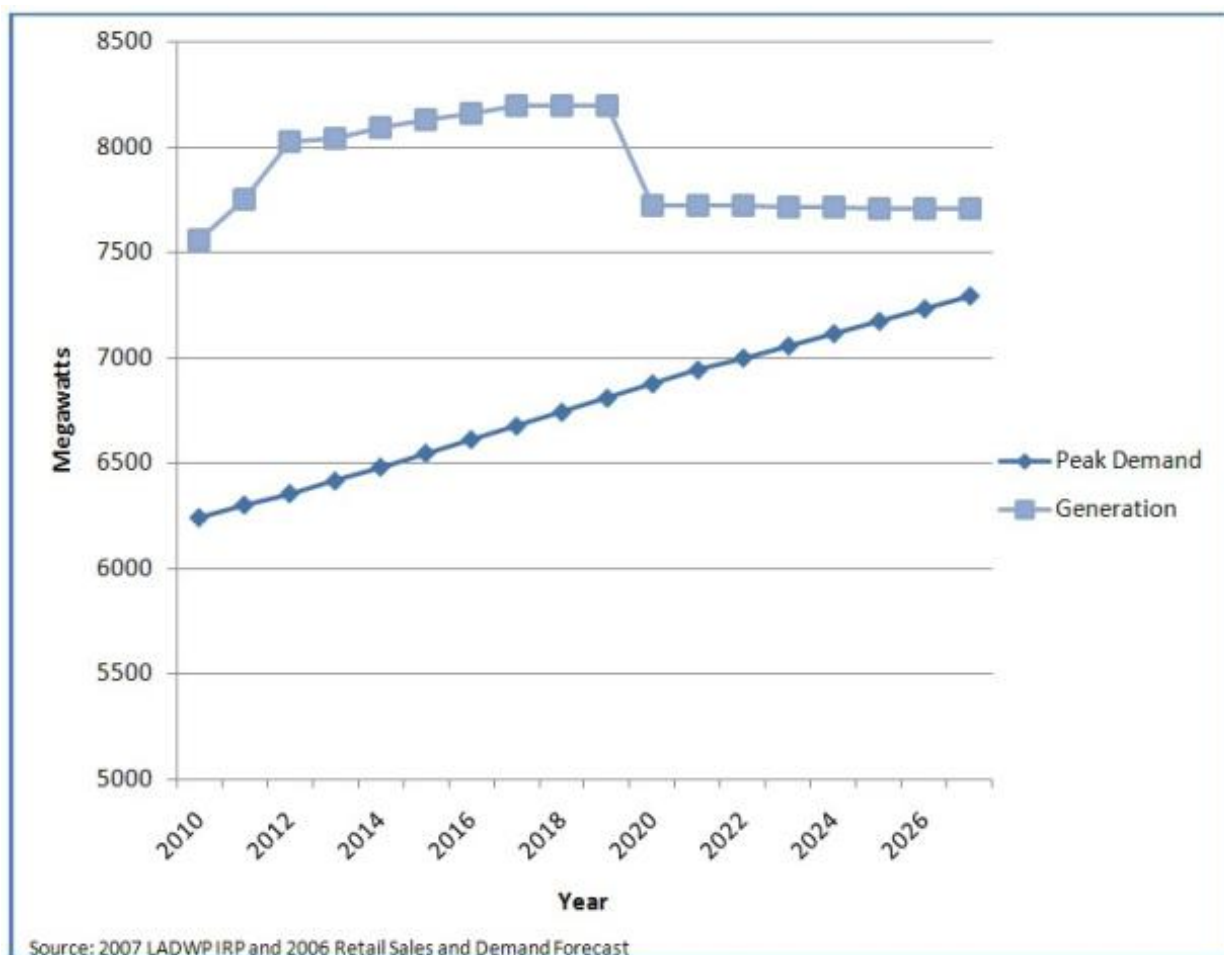
### 1.2.3 MEET ELECTRICAL DEMAND

As part of a complex electric power grid of the western United States and Canada (and a small section of northern Mexico), LADWP is required to meet operational, planning reserves, reliability criteria, and resource adequacy standards of the Western Electricity Coordinating Council (WECC) and the North American Electric Reliability Corporation (NERC). These standards define the system reserve margin requirements and other criteria for which LADWP must plan and operate. The minimum operating reserves must include a regulating reserve to meet on-demand needs, contingency reserve in the event of a loss of generating capacity due to forced outages, and additional reserves for interruptions of service.

LADWP utilizes a more conservative scenario to estimate electrical demands and ensure peak customer electricity needs are met. Electrical demands are highest (or at their peak) on hot days when air conditioners are operating and at certain times each day (such as around evening meals). On a typical summer day, LADWP's daily peak electrical demand is about 6,200 MW (IRP 2010). To maintain a reliable electrical system, LADWP must obtain a system reserve requirement of 1,200 MW. Therefore, the generating capacity required to meet the City's peak electrical demand is 7,400 MW.

In October 2006, a Load Forecast Study was performed to project electrical energy sales, production, and peak demands in the City of Los Angeles and Owens Valley (LADWP service territories). It predicted that LADWP customers' electricity consumption would increase at an average rate of 0.9% per year, and the peak demand would increase an average of 60 MW per year for the foreseeable future. Figure 1-5 illustrates the forecasted peak electrical demands and the projected amount of power generation to meet those demands. Figure 1-5 includes the contribution from the construction of the BRRTP in 2012. In addition, in 2019, LADWP's coal contracts terminate and LADWP must seek other sources of generation to ensure it has sufficient energy to meet long-term electrical demand.

**FIGURE 1-5. ELECTRICAL DEMAND VS. POWER GENERATION**



#### 1.2.4 INTERCONNECT AND EXPAND LADWP'S RENEWABLE ENERGY

The Renewable Energy Transmission Initiative (RETI) has identified the Tehachapi/Owens Valley area as one of several high quality renewable energy areas in Southern California. While other Southern California areas, such as the Imperial Valley, have potential renewable energy resources that could be accessed by future projects, LADWP's purpose and need/objective for the BRRTP is to access the Tehachapi Mountains and Mojave Desert wind and solar resource areas (refer to Figure 1-6, Renewable Resources Map). The Mojave Desert has some of the

highest solar insolation<sup>2</sup> in the world, as well as highly economical solar resources. Furthermore, the Tehachapi Mountains have excellent wind resources. The BR-RIN transmission line is the only existing LADWP transmission line that currently accesses the Tehachapi Mountains and Mojave Desert renewable resource area, although it is near its capacity to transfer any more energy.

In the mountains northeast of Tehachapi, LADWP developed the Pine Tree Wind Project (generates 135 MW), which began operating in 2010. Furthermore, LADWP currently has several requests for interconnection by private generation developers for 1,500 MW of wind and 1,100 MW of solar generation, for a total of 2,600 MW. While all of these private generation projects are in various stages of planning and/or permitting and may not all be constructed, there is the potential for future projects to be developed because of the solar and wind resources that exist in the area. The existing Pine Tree Wind Project as well as future renewable projects would share an interconnection point at the Barren Ridge Switching Station and deliver energy into LADWP's system through the existing BR-RIN 230 kV transmission line. The current maximum transfer capacity of BR-RIN is 570 MW and is nearly used up with the completion of the Pine Tree Wind Project. Without the additional transmission capacity being proposed by the BR RTP, these renewable energy sources would be stranded in remote areas with no way of getting energy to the load centers in the Los Angeles Basin.

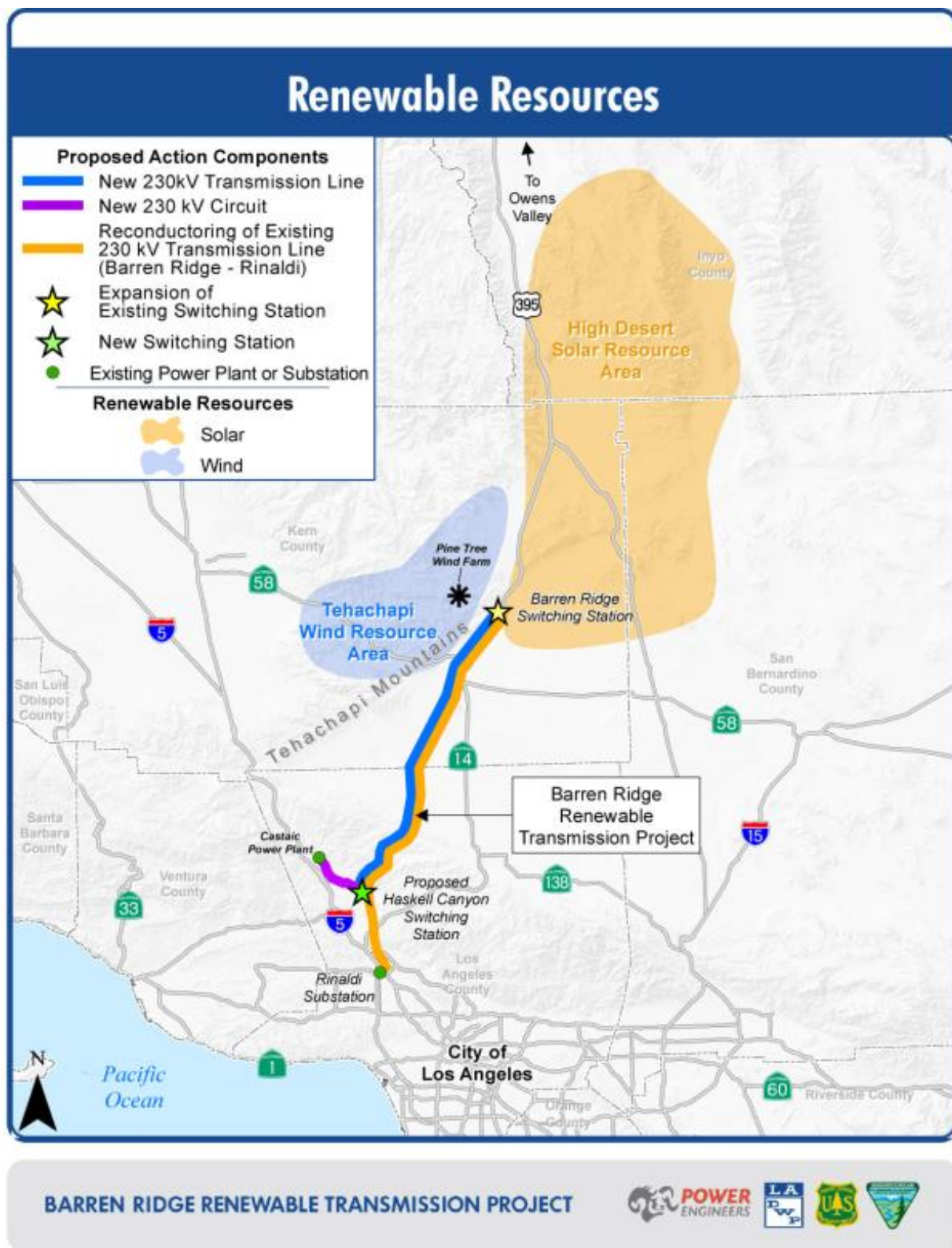
Conversely, no change to the Proposed Action would be anticipated if planned or expected wind projects in the Tehachapi area were not permitted or constructed. Adequate resources would be expected to allow for the interconnection and expansion of LADWP's renewable energy in the Tehachapi Mountains and Mojave Desert areas even without the permitting of any specific wind projects.

LADWP's process for approving generator interconnection to BR RTP would follow the FERC's approved Large Generator Interconnection Procedures (LGIP). Per FERC requirements, LADWP is required to treat all Interconnection Customers (IC) equally. While all current ICs of the BR RTP are either wind or solar projects, LADWP does not have the ability to preferentially treat renewable energy ICs over other non-renewable generators should they request interconnection. LADWP processes interconnection requests in the order received until all applications have been processed or facility capacity has been reached. If one project withdraws, the next queued request would be processed.

---

<sup>2</sup> Solar Insolation is the amount of solar radiation on the surface of the earth. The insolation levels of a particular region help determine the solar collector size that is required.

FIGURE 1-6. RENEWABLE RESOURCES MAP



### **1.2.5 PROVIDE INCREASED RELIABILITY AND FLEXIBILITY OF RENEWABLE RESOURCES**

Wind and solar are intermittent renewable energy sources that do not provide a consistent energy source and cannot be depended upon to meet peak demand conditions; therefore, they are not controllable or dispatchable by power system operations as a consistent, reliable source. Wind resources only produce energy when the wind is blowing (a majority of the energy is produced at night, when energy demands are low). Solar generating resources only produce energy during the day when the sun is shining (when energy demands are high). The typical peak consumer demand periods are around evening meals and during summer months when air conditioners are operating.

Together, wind and solar energy tend to provide a consistent source of energy for the power system; however, average monthly wind energy production profiles are not representative of actual hourly production. Matching the renewable energy production with consumer demand for power is an enormous challenge for utilities and would require LADWP to increase operating flexibility to provide an increased utilization of both wind and solar energy within their electrical system. This requirement can be satisfied only through the combined and integrated use of other generation sources. With BRRTP's addition of an electrical circuit between the Castaic Power Plant and the proposed Haskell Canyon Switching Station, Castaic could be utilized to "balance" the intermittent energy sources into LADWP's electrical system.

As a pumped-storage hydroelectric power plant, Castaic could be used for load balancing when the transfer of renewable energy would potentially exceed electrical demand. When generation levels are high and demand is low, LADWP can use electricity to pump water from the lower elevation Castaic Reservoir to the higher elevation Pyramid Lake, effectively storing potential energy in the water. Later, when energy demand increases, this water can be transferred back to Castaic Reservoir through the power plant turbines to generate electricity for immediate use.

### **1.2.6 DELIVERY OF RENEWABLE RESOURCES**

Another purpose and need/objective of the BRRTP is to maximize the delivery of renewable wind and solar energy from the Tehachapi Mountains and Mojave Desert areas to LADWP's customers residing in the Los Angeles Basin.

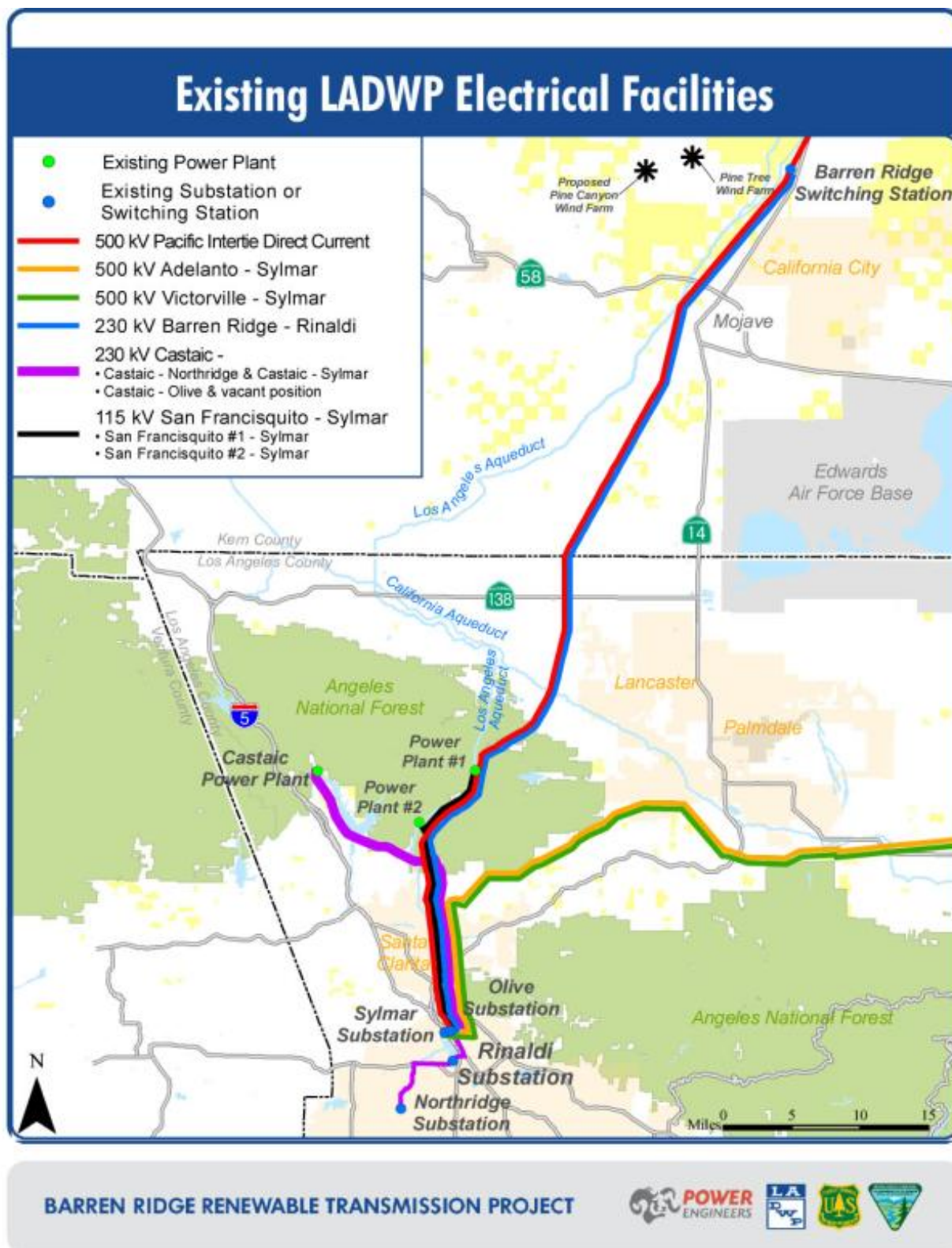
Within the Project area, which generally extends from the Tehachapi Mountains and Mojave Desert areas to the San Fernando Valley area of Los Angeles Basin, LADWP has the following existing high-voltage electrical facilities, which are illustrated in Figure 1-7, Existing LADWP Electrical Facilities:

- 500 kV Pacific Direct Current Intertie (PDCI)
- Barren Ridge Switching Station
- Barren Ridge – Rinaldi (BR-RIN) 230 kV transmission line (single- and quad-circuit towers)
- Castaic Transmission Lines
  - Castaic – Northridge (RS-J) and Castaic – Sylmar 230 kV transmission lines (double-circuit towers)

- Castaic – Olive 230 kV transmission line (double-circuit tower with one vacant circuit position)
- Castaic Power Plant
- Sylmar, Olive, Rinaldi, and Northridge Substations

As explained below, only the existing BR-RIN 230 kV transmission line exists to transfer the renewable resources from these areas; therefore, investment in new transmission is needed to ensure a reliable transmission grid and to meet the delivery needs of renewable energy generation facilities.

FIGURE 1-7. EXISTING LADWP ELECTRICAL FACILITIES



### **500 kV Pacific Direct Current Intertie (PDCI)**

The 500 kV PDCI consists of a single-circuit high-voltage direct current (DC) bipole transmission system. DC transmission lines are typically point-to-point transmission systems where current flows in one direction at a time, and are generally used for long-distance transmission (400 miles or more). The PDCI is jointly owned by Bonneville Power Agency (BPA), Southern California Edison, and the cities of Los Angeles, Glendale, Burbank, and Pasadena. The PDCI can be used to transfer 3,100 MW of hydroelectric power from the Pacific Northwest to California, or it can be used to transfer thermal power from California to the Pacific Northwest. The PDCI is currently at capacity.

### **Barren Ridge Switching Station**

The existing Barren Ridge Switching Station is 12 miles north of the unincorporated community of Mojave, California, and west of Highway 14, off Pine Tree Canyon Road. The fenced-in station is 250 feet by 500 feet and contains three existing transmission positions, which are occupied by the Pine Tree Wind Development and BR-RIN Transmission Line. No positions are available for the connection of the proposed new double-circuit 230 kV transmission lines (Barren Ridge – Haskell Canyon #2 and #3) or interconnections of future renewable energy projects in the Tehachapi Mountains and Mojave Desert.

### **Barren Ridge - Rinaldi (BR-RIN) 230 kV Transmission Line**

Parallel to the 500 kV PDCI is the BR-RIN 230 kV transmission line, which transfers 110 MW of power from hydroelectric plants in Owens Valley and 135 MW of wind power from the Pine Tree Wind Project. It has a current total operating capacity of 245 MW and maximum transfer capacity of 570 MW. The maximum transfer capacity is equal to the conductor's maximum transfer capability without suffering from heat-related deterioration. For a utility company to safely operate its electrical system it must avoid overextending its electrical facilities and conductors; therefore, the operating capacity is lower than the maximum transfer capacity.

The BR-RIN is close to LADWP's Pine Tree Wind Project in the Tehachapi Mountains. It is LADWP's only existing AC transmission line available to transfer the renewable energy from the Tehachapi Mountains and Mojave Desert area to the City of Los Angeles. Any disruption of service to the BR-RIN would prevent the transfer of 245 MW of wind and hydroelectric energy.

### **Castaic Power Plant**

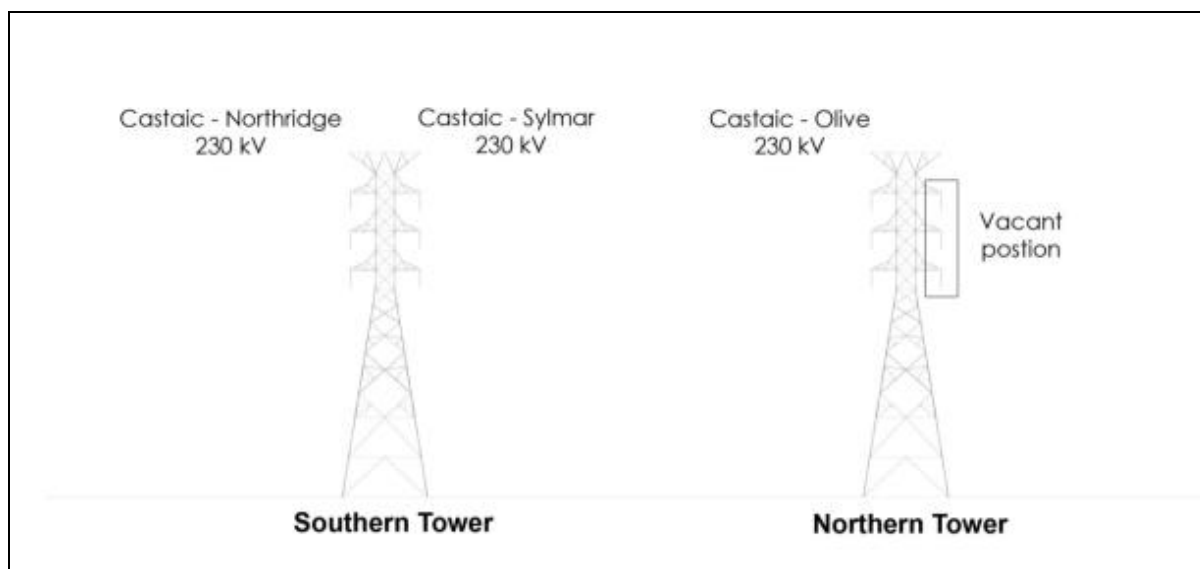
The Castaic Power Plant is a pumped storage hydroelectric generation station with a generating capacity of 1,250 MW that is used to balance LADWP's electrical system load. The facility consists of two water reservoirs, an upper and a lower reservoir connected by a tunnel, Pyramid Lake and Elderberry Reservoir, respectively, where water can be pumped uphill to Pyramid Lake or flow down to Elderberry through turbines, thus creating electricity. The power plant stores potential energy in the form of water. When the electrical demand is low and electrical generation high, water is pumped from the lower elevation reservoir to a higher elevation. When the electrical demand is high and electrical generation low, water is released through the turbines to create electrical energy.

## **Castaic Transmission Lines**

From the Castaic Power Plant to the San Fernando Valley area, three circuits connect to three different LADWP substations in the Los Angeles Basin (Northridge, Sylmar, and Olive). The three circuits are carried on two parallel double-circuit 230 kV towers that make up the Castaic Transmission Corridor (refer to Figure 1-8). The southern towers carry the Castaic – Northridge and Castaic – Sylmar 230 kV circuits. The northern towers carry the Castaic – Olive 230 kV circuit, and the second position is vacant.

The Castaic Transmission Corridor has a maximum transfer capacity of 2,000 MW and operating capacity of 1,300 MW. The Castaic transmission lines currently do not connect to the renewable energy resource areas in the Tehachapi Mountains and Mojave Desert.

**FIGURE 1-8. CASTAIC TRANSMISSION CORRIDOR CIRCUITS**



## **Rinaldi, Northridge, Sylmar, and Olive Receiving Stations**

LADWP has four receiving stations within the Project area—Rinaldi, Northridge, Sylmar, and Olive. Receiving stations step down electrical energy, such as converting 500 kV to 230 kV. These stations are part of an electrical system that services the Los Angeles basin.

## **1.3 AGENCY USE OF THIS DOCUMENT**

A portion of the Barren Ridge Renewable Transmission Project, as proposed, would be constructed within or adjacent to existing LADWP rights-of-way on public lands managed by the USFS and BLM. The Project has been determined to be a “major Federal action [...] significantly affecting the quality of the human environment” as set forth at section 102(2)(C) of NEPA, 42 USC 4332(2)(C). NEPA mandates that federal agencies consider the environmental consequences of such actions and their alternatives.

When the federal agency determines that a major federal action may “significantly affect the quality of the human environment,” an EIS is required (42 USC 4332(2)(C)). The USFS and BLM are the federal Co-Lead Agencies responsible for the preparation of this Final EIS/EIR in compliance with the requirements of NEPA and the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 CFR Parts 1500 -1508).

The Project is also considered a governmental action under CEQA, thereby requiring the preparation of an EIR. The purpose of the EIR is to “identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided” (California Public Resources Code Section 21002.1). LADWP is the CEQA Lead Agency responsible for preparation of an EIR. LADWP, USFS, and BLM have prepared this joint Final EIS/EIR to evaluate potential alternatives and potential environmental impacts of the proposed BR RTP.

### **1.3.1 BLM PURPOSE OF AND NEED FOR ACTION**

The Proposed Action would traverse approximately four miles of public lands managed by the BLM along the existing BR-RIN 230 kV transmission line (under the jurisdiction of the Ridgecrest Field Office). LADWP is requesting (1) 3.7 miles of new 200-foot-wide right-of-way adjacent to existing transmission lines on BLM-managed public lands for the new 230 kV double-circuit transmission line; (2) authorization for 3.8 miles of reconductoring of the existing Barren Ridge-Rinaldi transmission line on an existing right-of-way on BLM-managed public lands (BLM Right-of-Way Grant LA-088876 as authorized by Congress in the Act of October 10, 1949); and (3) authorization for 275 feet of new 230 kV circuit on existing double-circuit structures on an existing right-of-way on BLM-managed public land (BLM Right-of-Way Grant RI-2822). To implement the Proposed Action, or action alternatives to the Proposed Action, on public lands managed by the BLM, LADWP must obtain a right-of-way grant and possible amendments to existing right-of-way grants.

In accordance with sections 102(a)(7), 103(c), and 202(c) of the Federal Land Policy and Management Act (FLPMA) of 1976, public lands are to be managed for multiple uses that take into account the long-term needs of future generations for renewable and non-renewable resources. The Secretary of the Interior is authorized to grant rights-of-way on public lands for systems for generation, transmission, and distribution of electric energy (Section 501(a)(4), 43 USC 1761(a)(1)). Taking into account the BLM’s multiple use mandate, BLM’s purpose and need for action is to respond to a FLPMA right-of-way application submitted by LADWP for a right-of-way grant. This grant would authorize the construction, maintenance, and operation of proposed 230 kV transmission lines (and ancillary improvements) on public lands administered by the BLM in accordance with BLM right-of-way regulations and other applicable federal laws and policies.

In conjunction with FLPMA, the BLM’s applicable guidance includes the following:

- Executive Order 13212, dated May 18, 2001, 66 FR 28357 (May 22, 2001), which sets forth a policy that agencies shall take appropriate action, consistent with applicable laws, to expedite projects that will increase the production, transmission, or conservation of energy in a safe and environmentally sound manner.

- Section 211 of the Energy Policy Act of 2005 (EPAct 05 or EPAct), which established a goal for the U.S. Department of the Interior (DOI, BLM's parent agency) to approve at least 10,000 megawatts of non-hydropower renewable energy power on public lands by 2015.
- Secretarial Order 3285A1, Renewable Energy Development by the DOI, dated February 22, 2010. This Secretarial Order establishes the development of renewable energy as a priority for the DOI and creates a Departmental Task Force on Energy and Climate Change. It also announced a policy goal of identifying and prioritizing specific locations (study areas) best suited for large-scale production of solar energy and other renewables.

The BLM would decide whether to deny the proposed right-of-way, grant the right-of-way, or grant the right-of-way with modifications. Modifications may include modifying the proposed use or changing the route or location of the proposed facilities (43 CFR 2805.10(a)(1)).

### **1.3.2 USFS PURPOSE OF AND NEED FOR ACTION**

The Proposed Action route would traverse approximately 17 miles of NFS lands managed by the Angeles National Forest. LADWP must obtain approval through Special Use Authorizations and/or amendments to existing authorizations from the USFS to implement the Proposed Action, or alternatives to the Proposed Action, on NFS lands. The Proposed Action, and applicable alternatives to this action, includes the issuances of these authorizations.

#### **Purpose of Action**

Executive Order 13212 (2001) encourages increased production and transmission of energy in a safe and environmentally sound manner. According to this Executive Order, for energy-related projects, agencies shall expedite their review of permits or take other actions as necessary to accelerate the completion of such projects. The agencies shall take such actions to the extent permitted by law and regulations and where appropriate.

The USFS's purposes (objectives) in authorizing the Proposed Action, or an Alternative, are the following:

- Minimize adverse environmental effects to NFS lands, such as impacts to the following resources: visual, biological, cultural, recreation, air, soil, and water, among others as applicable (Land Management Plan, Part 1, pp. 38 and 47; Part 2, pp. 7, 32, 35, 69, and 79);
- Maintain the outstandingly remarkable values, potential classification, or free-flowing character of the eligible San Francisquito Canyon as a Wild and Scenic River. If the Proposed Action could compromise the eligibility, a suitability study would be completed for that eligible river segment prior to initiating activities (Land Management Plan, Standard 59, Part 3, p. 13);
- Minimize the effects of urbanization, or negative effects to open space and natural settings, on the Angeles National Forest (Land Management Plan, Part 2, pp.35, 67-70);
- Ensure that future Forest management activities such as wildland fire fighting, among others, are not detrimentally affected by the location and/or design of the Proposed

Action (Region 5 Supplement FSM 2726.43; Land Management Plan, Part 1, p. 19; Part 2, p. 37); and

- Ensure that the location of the transmission line on NFS lands maximizes the accommodation of future utility needs (Land Management Plan, Part 2, p. 121; Part 3, p. 59).

The USFS may deny authorization for special uses for a number of different reasons, such as if “the proposed use would be inconsistent or incompatible with the purpose(s) for which the lands are managed, or with other uses,” or the proposed use “would not be in the public interest” [36 CFR 251.54(e)(5)(i) and (ii)]. To authorize LADWP to occupy and use NFS lands for the Proposed Action or an Alternative, the Proposed Action or Alternative must be consistent with the Land Management Plan (16 USC 1604(i)). Proposals that are inconsistent with Land Management Plans may be either rejected or modified to be consistent with the Land Management Plan (36 CFR 251.54(e)(1)(ii)). If a project cannot be modified to be consistent with the Land Management Plan, the USFS may amend the conflicting management direction in the Land Management Plan as part of the project decision so that all actions occurring on NFS lands are consistent with the Land Management Plan (Forest Service Manual 1926.41(1)).

### **Need for Action**

Pursuant to the FLPMA of 1976 (as amended), the USFS’s need for action is to respond to applications from LADWP for a Special Use Authorization to construct, maintain, and use transmission lines (and ancillary improvements) through the Santa Clara/Mojave Rivers Ranger District of the Angeles National Forest. The USFS would consider the application for use of NFS lands to ensure that the Proposed Action is in the public interest and is appropriate based on the governing land management plan. FLPMA provides the authority to the Secretary of Agriculture (USFS) to issue, renew, or grant authorizations to occupy, use, or traverse NFS lands for the generation, transmission, and distribution of electrical power (43 USC 1761).

The USFS is required (under 36 CFR 219.10) to review all site-specific projects, including applications for Special Use Authorizations, to ensure they are consistent with the 2005 Angeles National Forest Land Management Plan (“LMP”), per the National Forest Management Act (NFMA) (16 U.S.C 1600-1614, as amended). As noted above, the USFS cannot issue Special Use Authorizations to LADWP without first ensuring a project’s consistency with the LMP (through improvement in design and/or LMP amendment). Any proposed LMP amendments pertaining to this Project would be included as part of the need for action and included in the appropriate Alternatives, including the Proposed Action, analyzed in this document. Details of the LMP amendments required to approve the Proposed Action are described in the Proposed Action and Alternative descriptions (Chapter 2 of this document).

Necessary amendments to the LMP would be made using the amendment process defined in the Forest Service Manual 1920 and Forest Service Handbook 1909.12, following all “appropriate public notification and satisfactory completion of NEPA procedures.” The decision by the USFS to approve or deny Forest Plan amendments associated with the Proposed Action and each of the Project Alternatives in this Final EIS/EIR would be based, in part, on the findings of the impact analyses reported in this Final EIS/EIR and also on the NFMA determination of the consistency of the proposed use with the parameters specified in the LMP.

### 1.3.3 LADWP'S CEQA REQUIREMENTS

CEQA applies to all discretionary activities proposed to be carried out or approved by California public agencies, including state, regional, and local agencies, unless an exemption applies (CEQA Guidelines Section 15378). As a municipal utility in the State of California, LADWP is required to analyze the proposed Project under CEQA. To implement and construct the BR RTP, LADWP must evaluate the Project's environmental impacts and disclose them in an EIR for public review and comment, and for consideration of Project approval by the LADWP Board of Commissioners.

## 1.4 PERMITS/AUTHORIZATIONS/CONSULTATIONS

The BR RTP would conform to all relevant federal, state, and local statutes, regulations, and plans. Table 1-1 lists the anticipated authorizations, permits, reviews, and approvals.

**TABLE 1-1. AUTHORIZATIONS, PERMITS, AND APPROVALS**

Triggering Action	Permit/Approval	Accepting Authority/Approving Agency	Statutory Reference
<b>FEDERAL</b>			
Proposed construction, operation, maintenance and decommissioning would occur in part on lands under USFS and BLM management	National Environmental Policy Act (NEPA) compliance - Environmental Impact Statement (EIS)	Federal Co-Lead Agencies: USFS and BLM	NEPA, 40 CFR Parts 1500 et seq., 43 CFR Part 2800
Proposed construction, operation, maintenance and decommissioning would occur in part on public lands under USFS management	Special Use Authorization or Easement	USFS	36 CFR 251
Proposed construction, operation, maintenance and decommissioning would occur in part on lands under BLM management	Grant of Right of Way (ROW) and Temporary Use Permit	BLM	Federal Land Policy and Management Act (FLPMA) of 1976 (PL 94-579); 43 CFR Part 2800
Grant of Special Use Authorization or Easement by USFS and Right-of-Way by BLM	Biological Assessment (BA), and Biological Opinion (BO)	USFWS	Endangered Species Act (ESA), Section 7
Grant of Special Use Authorization or Easement by USFS and Right-of-Way by BLM	National Historic Preservation Act (NHPA) compliance, Section 106	USFS, BLM, and California State Historic Preservation Office (SHPO)	National Historic Preservation Act (NHPA) of 1966; 36 CFR 800
Proposed construction, operation, maintenance and decommissioning may occur across or within federal highway rights-of-way	Permit to cross Federal Aid Highway	Federal Highway Administration (FHWA)	23 CFR 1.23 and 1.27; 23 CFR 645 Subpart B; 23 CFR 77
Proposed construction, operation, maintenance and decommissioning may occur near or within air traffic corridors	Notice of Proposed Construction or Alteration	Federal Aviation Administration (FAA)	14 CFR 77, Objects Affecting Navigable Airspace
Proposed construction may occur in part within a floodplain and/or wetland	Floodplain Assessment and Findings	USFS and BLM	10 CFR 1022
Proposed construction may involve discharge of dredged or fill materials in Waters of the U.S. and/or wetlands	Clean Water Act (CWA) 404 Permit (Individual or Nationwide)	U.S. Army Corps of Engineers	Clean Water Act (CWA), Section 404; 33 CFR 320-330
<b>STATE OF CALIFORNIA</b>			
Proposed project is located in California	CEQA compliance – Environmental Impact Report	Los Angeles Department of Water and Power	CEQA, California Public Resources Code, Sec. 21000 et seq.

Triggering Action	Permit/Approval	Accepting Authority/Approving Agency	Statutory Reference
Proposed construction, operation, maintenance and decommissioning may occur in part on lands under California State Lands Commission management	Right of Way Grant and/or Use Permit	California State Lands Commission	California Public Resources Code, Section 6501-6509
Proposed construction, operation, maintenance and decommissioning may result in take of California endangered or threatened species	Incidental Take Permit	California Department of Fish and Game, Central (4) and South Coast (5) Regions	California Fish and Game Code, Section 2081
Proposed construction may involve the alteration of a river, stream, or lake	Streambed Alteration Agreement	California Department of Fish and Game, Central (4) and South Coast (5) Regions	Fish and Game Code, Section 1602 and 1603
Proposed construction may impact cultural resources that are listed in or eligible to be listed in the National Register of Historic Places (NRHP)	Consultation pursuant to Section 106 of the NHPA	California State Historic Preservation Office	California Public Resources Code, Section 5097.5
Proposed construction, operation, maintenance and decommissioning may occur across or within California highway rights-of-way	Encroachment Permit	California Department of Transportation, Kern and Los Angeles Counties	California Vehicle Code, Division 1, Chapter 3; Division 2, Chapters 2.5 and 5.5; Division 6; Chapter 7; Division 13; Chapter 5; Division 14.1; Chapters 1 and 2; Divisions 14.8 and 15
Proposed project may involve point discharge of waste water into surface waters of the State	State Waste Discharge Requirements (WDRs)	State Water Resources Control Board – California Water Quality Control Boards for Lahontan and Los Angeles Regions	Porter-Cologne Water Quality Act
Proposed construction may involve storm water discharges to surface waters of the State	General Discharge Permits for Storm Water Associated with Construction Activity	State Water Resources Control Board – California Water Quality Control Boards for Lahontan and Los Angeles Regions	Federal Clean Water Act, Section 402
Proposed action, undertaking, or project which may result in discharge of dredged or fill material into waters of the State	Water Quality Certification	State Water Resources Control Board	Federal Clean Water Act, Section 401
Proposed construction, operation, or maintenance may include a utility crossing over State Water Project facilities or work within a Department of Water Resources right-of-way	Encroachment Permit	California Department of Water Resources	California Public Resources Code, Section 12899.1