

## 5.0 Environmental Information

### 5.1 General

The following 17 subsections of this Application for Certification (AFC) address the various resource areas identified in the California Energy Commission (CEC) Energy Facilities Siting Regulations (Title 20, California Code of Regulations, Section 1704, Appendix B):

- 5.2 Air Quality
- 5.3 Biological Resources
- 5.4 Cultural Resources
- 5.5 Geologic Hazards and Resources
- 5.6 Hazardous Materials Handling
- 5.7 Land Use
- 5.8 Noise
- 5.9 Paleontological Resources
- 5.10 Public Health
- 5.11 Socioeconomics
- 5.12 Soils
- 5.13 Traffic and Transportation
- 5.14 Transmission Line Safety and Nuisance
- 5.15 Visual Resources
- 5.16 Waste Management
- 5.17 Water Resources
- 5.18 Worker Safety

For consistency and ease of review, each of these discipline areas are presented in a standardized format under the following subheadings:

- LORS (laws, ordinances, regulations and standards) Compliance (including involved agencies and agency contacts; permit requirements and permit schedules);
- Affected Environment;
- Environmental Impacts (including construction, operations, and cumulative impacts);
- Mitigation Measures; and
- References.

### 5.1.1 Projects Considered in Cumulative Impact Analysis

The following paragraphs identify and briefly summarize the projects that were considered in the cumulative impacts analysis for each of the 17 resource areas. As required under CEQA, the impacts of the BSEP must be considered together with those of other past, present, and reasonably foreseeable future projects in the area that may produce related or cumulative impacts. The area of interest for potential cumulative projects included other parts of unincorporated Kern County (the BSEP site is in unincorporated Kern County), and the incorporated community of California City.

Past and present projects, because they already exist, are inherently part of the environmental baseline or “affected environment” discussed in detail in this AFC for each environmental area. For purposes of determining the BSEP’s cumulative impacts, the impacts associated with past and present projects are inherent in the affected environment and represent the starting point to which impacts from the proposed Project are added, along with the reasonably foreseeable projects presented below.

According to Kern County Planning Department (KCPD) staff, there are no open applications for development projects within the CEC-required six-mile radius of the BSEP site (Hollier, 2007). A search of the Kern County planning database also showed no open projects. However, there is one approved development project that is located approximately six miles west of the BSEP site in unincorporated Kern County that is currently under construction: the Pine Tree Wind Development Project. In addition, the LADWP is proposing to upgrade and build new transmission capacity from the Barren Ridge Switching Station approximately 1.5 southwest of the BSEP site in unincorporated Kern County to the Castaic Power Plant near Lake Castaic located in unincorporated Los Angeles County near Santa Clarita.

The Kern County Air Pollution Control District (KCAPCD) was also contacted (Stephens, 2007) to obtain a list of permit applications currently being processed for projects within 6 miles of the BSEP plant site or of project recently permitted that have not yet been constructed. Similar to KCPD, KCAPCD also did not identify any recently permitted projects or applications being processed in this area.

According to California City Building Department staff, there are currently no major commercial, residential, retail, or industrial projects in the planning or development process within the City; the only building projects currently in the construction, permitting, or planning phase are individual single-family residences (Green, 2007). Thus, no future projects within the jurisdiction of California City are included in the cumulative impacts analysis of this AFC.

In addition to the above agencies, Beacon Solar also reviewed the U. S. Bureau of Land Management’s (BLM’s) web site ([http://www.blm.gov/nhp/what/lands/realty/solar\\_energy.htm](http://www.blm.gov/nhp/what/lands/realty/solar_energy.htm)) to identify other proposed solar projects to be included in the cumulative analysis for the BSEP. As discussed below, although certain solar projects have been identified on a conceptual basis, none have reached the stage in the development process (e.g., initiation of project scoping or formal review process) where sufficient data are available in order to include those projects in the cumulative impacts analysis sections of this AFC.

Accordingly, the only reasonably foreseeable projects identified in the vicinity of the BSEP site for inclusion in the cumulative impacts analysis are the Pine Tree Wind Development Project and the Barren Ridge-Castaic Transmission Project. Brief descriptions of these two projects are provided below. Further discussion of the BLM projects is also provided.

### **5.1.1.1 Pine Tree Wind Development Project**

The Pine Tree Wind Development Project, currently under construction, is located approximately six miles west of the BSEP site in Kern County and will consist of 80, 1.5-megawatt (MW) wind turbine generators located on approximately 8,000 acres. The LADWP is working with Wind Turbine Prometheus, LLC, a wind energy development company, to develop and construct the project; however, LADWP will own and operate the project. The Pine Tree project's total installed capacity of 120 MW will support LADWP's efforts to supply an increased share of its electrical generation capacity from renewable sources. As part of the proposed project, LADWP is currently in the process of constructing, and will eventually operate, approximately eight miles of 230 kilovolt (kV) transmission line and a switching station, which will connect the proposed project substation to the existing Inyo-Rinaldi LADWP 230 kV transmission line (located west of and generally paralleling SR-14). The new switching station is currently under construction adjacent to the existing Inyo-Rinaldi 230 kV line right-of-way, approximately 1,500 feet north of where this regional transmission line crosses the existing Pine Tree Canyon dirt road. The project is being built in one phase with an estimated completion date in 2009 (Adelman, 2008).

Primary access to the Pine Tree Wind Development Project site is from Jawbone Canyon Road at SR-14. The intersection of Jawbone Canyon Road and SR-14 is located approximately 2.5 miles north of the BSEP site. The Pine Tree wind turbine facilities site is located approximately 10 miles northwest of California City, and approximately six miles west of the BSEP site. While the overall footprint of the Pine Tree project extends over much of an overall 8,000-acre site, the actual area of new ground disturbance will total approximately 238 acres (LADWP and BLM, 2005), including approximately 106 acres of temporary disturbance related to construction activities (temporary roads, materials laydown areas, etc). The area of permanent disturbance will total approximately 132 acres, including areas for the wind turbines, maintenance access roads, the substation and O&M building, and the transmission line and switching station.

### **5.1.1.2 LADWP Barren Ridge-Castaic Transmission Project**

LADWP is proposing to upgrade and build new transmission capacity from the new Barren Ridge Substation approximately 1.5 miles southwest of the BSEP site in unincorporated Kern County to the Castaic Power Plant near Lake Castaic/Santa Clarita in unincorporated Los Angeles County. The environmental review process for this project is in its early stages as of the beginning of 2008. As described on the LADWP website ([www.ladwp.com/barrenridge](http://www.ladwp.com/barrenridge)) the upgraded transmission system will "improve reliability and capacity of renewable energy from the Mojave Desert and Tehachapi Mountain areas" to serve LADWP's customers. The Barren Ridge-Castaic Transmission Project is designed to tie into LADWP's Pine Tree Wind Development Project, and as stated on the website "to access several other wind and solar projects in various stages" of development. The Barren Ridge-Castaic Transmission Project is designed to be built in multiple phases, beginning with construction of a new 230 kV transmission line from the Barren Ridge Switching Station to the Castaic Power Plant. The second phase of the project involves upgrading an existing 230-kV line (the Barren Ridge-Rinaldi line) to provide further increased transmission capacity for renewable energy projects. The third phase involves construction of a new substation near Santa Clarita to maximize operational flexibility.

### 5.1.1.3 BLM Solar Project Applications

There are currently four solar power project applications that have been submitted to the BLM in Kern County or just to the east of the Kern County line in San Bernardino County. According to the BLM web site, the information regarding these projects is as follows:

- The Opti-Solar Sapphire Project is a proposed 6,000-acre, 745 MW photovoltaic facility located approximately 12 miles southwest of the Project site. It would be situated just west of SR-14 near the town of Mojave.
- The Opti-Solar Turquoise Project is a proposed 11,800-acre, 400 MW photovoltaic facility located in the Little Dixie Wash area just east of SR-14. This location is approximately 15.5 miles north of the BSEP.
- An 11,000-acre, 1,000 MW parabolic trough facility, known as the Solar Millenium - Ridgecrest project, is proposed along Jacks Ranch Road south of Ridgecrest and approximately 28 miles northeast of the Project site.
- Another Solar Millenium project, a 5,000-acre, 300 MW parabolic trough facility, is proposed for a site near the intersection of Highway 395 and Cuddeback Road just inside San Bernardino County. The site is 22 miles east of the BSEP site.

An additional four recent applications for solar facilities within the area discussed above have been rejected by the BLM. One application for a parabolic facility proposed for the Redrock area was rejected as non-responsive in July of 2007. An additional three applications, two of which were in the Little Dixie Wash area and one near Kramer Junction, were rejected on January 10, 2008 as a result of being within the Mohave Ground Squirrel Conservation Areas.

According to the BLM web site, the above projects have applied for a right-of-way (ROW) from the Ridgecrest BLM office. Several BLM offices in the California Desert were contacted to ascertain the status of these applications. According to BLM staff (McFessel, 2008), solar project proponents often submit minimal information at the time of their initial application. Review of the BLM website, and conversations with BLM staff, indicates that a substantial number of these projects never reach a point where a site plan is submitted and actual environmental review commences. Until such time as that level of detail is provided, the project schedules and potential for impacts are unknown. As such, the projects are considered speculative and cannot be assessed from a cumulative standpoint.

### 5.1.2 References

Adelman, Jacob, 2008. Associated Press news article "L.A. breaks ground on 8,000-acre wind farm," Santa Rosa Press Democrat, accessed at <http://www1.pressdemocrat.com/> on February 4.

Green, Rona, 2007. California City Building Department, Building Official personal communication with Elizabeth Martinez, ENSR, on December 13.

Hollier, Michael, 2007. Kern County Planning Department, Planner, personal communication with Elizabeth Martinez, ENSR, on December 12.

LADWP and BLM, 2005. Pine Tree Wind Development Project Environmental Assessment/Final Environmental Impact Report (EA/FEIR) SCH #2004041076, BLM #CA-650-2005-13; April 4.

McFessel, George, 2008. BLM Planning & Environmental coordinator, Needles Field Office, personal communication with William Graham, EDAW, on January 24.

Stephens, Glenn, 2007. KCAPCD Engineering Supervisor, personal communication with Russ Kingsley, ENSR, December.