SECTION 1.0

Executive Summary

1.1 Project Overview

AES Southland Development, LLC (AES-SLD) proposes to construct, own, and operate an electrical generating plant in Huntington Beach, Orange County, California. The Huntington Beach Energy Project (HBEP) is a natural gas-fired, combined-cycle, air-cooled, 939-megawatt (MW) electrical generating facility that will replace, and be constructed on the site of, the AES Huntington Beach Generating Station, an existing and operating power plant in the Huntington Beach. HBEP will be developed on previously disturbed land zoned for industrial use, will use an air-cooled condenser, which will allow it to use less than 20 percent of the fresh water used by the units it is replacing, and will eliminate the use of ocean water for once-through cooling (OTC) that is required for the existing Huntington Beach Generating Station. It will connect to the existing high-voltage electric transmission and natural gas pipeline systems at the site, avoiding the need to construct any new offsite linear facilities. By replacing the existing Huntington Beach Generating Station, HBEP will ensure reliable generation is maintained at an electrical system location critical to southern California, and will provide fast response, modern, clean, and efficient electrical power that fully supports and assists California in achieving much greater reliance on intermittent renewable electricity generation sources, such as wind and solar.

The California Independent System Operator (CAISO) and the California Energy Commission (CEC) have recognized the importance of the existing Huntington Beach Generating Station location in providing energy and contingency reserve for the western Los Angeles Basin Local Reliability Area and northern San Diego County (CAISO, 2011; CEC, 2012). Specifically, this location serves Orange County by providing essential electrical service to the existing Sothern California Edison (SCE) Ellis substation through a dedicated 230-kilovolt (kV) transmission line connection. HBEP will ensure the long-term viability of this existing critical generating location and will provide essential electrical service to the residents of Orange County and Huntington Beach.

HBEP will consist of two power blocks, each composed of three natural gas combustion turbine generators (CTG) with supplemental fired heat recovery steam generators (HRSG), a steam turbine generator (STG), an air-cooled condenser, and ancillary facilities. The project will have a generator ramping rate of up to 30 percent per minute, which allows it to rapidly respond to changes in generation and demand in the western Los Angeles Basin, providing needed stability for the grid. It will also have rapid start capability—the CTGs will be able to start up and come on-line in less than 10 minutes—and, with supplemental natural gas duct-firing, provide almost immediate generation from the STGs as well. This design will provide considerable flexibility in maintaining the reliability of the regional electrical transmission and distribution grid, and will enable integration of the highly variable nature of renewable energy generation. HBEP will be an important component of the electrical system as California strives to meet the statewide Renewable Portfolio Standard for electrical generation.

The existing Huntington Beach Generating Station currently has four operating steam generating units (Units 1, 2, 3, and 4). Existing Units 3 and 4 are owned by Edison Mission Huntington Beach, LLC, and are operated under contract by AES Huntington Beach, LLC. Units 3 and 4 are scheduled to be permanently retired from service by November 2012. Units 3 and 4 will be demolished following construction of the first HBEP power block. Once HBEP construction is completed, the remaining units at the existing Huntington Beach Generation Station will be demolished. The HBEP facilities will be located farther away from the Pacific Coast Highway and will have a lower profile, making views of the project considerably less prominent from the Pacific Coast Highway or Huntington State Beach compared to the existing units. Because of the significant increase in efficiency compared to the older units, HBEP will also considerably reduce emissions of air pollutants and greenhouse gasses per unit of generation, compared to the existing units.

The four steam generating units at the existing Huntington Beach Generating Station were originally constructed in the late 1950s by SCE, with major upgrades to Units 1 and 2 occurring in 1995 and upgrades to Units 3 and 4 in 2001. Units 3 and 4 were first retired in 1995 but re-entered service following a retool project that was certified in

May of 2001 by the CEC, under its Emergency Certification process following the 2001 power emergency. Unit 5, a 133-MW peaking unit brought on line in 1969, was retired in 2002 as a condition of the retool project certification and will be demolished to make room for construction of the first HBEP power block.

AES-SLD conducted an assessment for alternative technologies that would have reduced environmental impacts, while satisfying the project objectives and providing the power and reliability services needed in a densely populated area, which has limited ability to import power from other areas. Alternative generating technologies, including wind, solar, nuclear, energy storage, and biomass power were considered but rejected due to the lack of suitable sites for such technologies in the area. Alternative technologies for the balance of the plant were also considered, and the HBEP design reflects the most efficient and effective design with the least environmental effects to meet the project objectives.

The existing Huntington Beach Generating Station has various ancillary facilities that will support HBEP, such as the Southern California Gas Company (SoCalGas) natural gas pipeline serving the site, the existing onsite SCE 230-kV switchyard, and the existing connections to the City of Huntington Beach potable water system and sanitary sewer system. Other existing infrastructure at the existing Huntington Beach Generating Station, such as the fire water distribution system, (including two emergency diesel-fired fire water pumps), and process water distribution and storage systems will also be reused to the greatest extent possible. The ability to reuse these facilities, coupled with the fact that the existing Huntington Beach Generating Station is a highly disturbed brownfield site zoned for industrial use, makes the existing Huntington Beach Generation Station site the optimal location for HBEP.

The HBEP site is bounded on the west by a manufactured home/recreational vehicle park, on the north by a tank farm, on the north and east by the Huntington Beach Channel and residential areas, on the southeast by the Huntington Beach Wetland Preserve / Magnolia Marsh wetlands, and to the south and southwest by the Huntington Beach State Park and the Pacific Ocean. The site is located on a gently sloping coastal plain with suitable geology for construction of new industrial facilities.

HBEP will use potable water, provided by the City of Huntington Beach, for construction and operational process and sanitary uses, but total water use will be less than 20 percent of the use of the existing Huntington Beach Generating Station's units that HBEP is replacing. During HBEP operation, stormwater and process wastewater will be discharged to a retention basin and then ultimately to the Pacific Ocean via an existing outfall. Sanitary wastewater will be conveyed to the Orange County Sanitation District via the existing City of Huntington Beach sewer connection. Two 230-kV transmission interconnections will connect HBEP Blocks 1 and 2 to the existing onsite SCE 230-kV switchyard. No offsite facilities are needed for HBEP operation.

Construction of HBEP will require the removal of the existing Huntington Beach Generating Station Units 1, 2, and 5. Demolition of Unit 5, scheduled to occur between the fourth quarter of 2014 and the end of 2015, will provide the space for the construction of HBEP Block 1. Construction of Blocks 1 and 2 are each expected to take approximately 42 and 30 months, respectively, with Block 1 construction scheduled to occur from the first quarter of 2015 through the second quarter of 2018, and Block 2 construction scheduled to occur from the first quarter of 2018 through the second quarter of 2020. Removal/demolition of existing Huntington Beach Generating Station Units 1 and 2 is scheduled to occur from the fourth quarter of 2020 through the third quarter of 2022.

The existing Huntington Beach Generating Station Units 3 and 4, now owned by Edison Mission Huntington Beach, LLC, were licensed through the CEC (00-AFC-13C) and demolition of these units is authorized under that license and will proceed irrespective of the HBEP. Therefore, demolition of existing Huntington Beach Generating Station Units 3 and 4 is not part of the HBEP project definition. However, to ensure a comprehensive review of potential project impacts, the demolition of existing Huntington Beach Generating Station Units 3 and 4 is included in the cumulative impact assessment. Removal/demolition of existing Huntington Beach Generating Station Units 3 and 4 will be in advance of the construction of HBEP Block 2.

HBEP construction will require both onsite and offsite laydown and construction parking areas. Approximately 22 acres of construction laydown will be required, with approximately 6 acres at the Huntington Beach Generating Station used for a combination of laydown and construction parking, and 16 acres at the AES Alamitos Generating

Station (AGS) in Long Beach, California, used for construction laydown (component storage only/no assembly of components at AGS). During HBEP construction, the large components will be hauled from the construction laydown area at the AGS site to the HBEP site as they are ready for installation.

Construction worker parking for HBEP and the demolition of the existing units at the Huntington Beach Generating Station will be provided by a combination of onsite and offsite parking. A maximum of 330 parking spaces will be required during construction and demolition activities. As shown on Figure 2.3-3 in Section 2.0, Project Description, construction/demolition worker parking will be provided at the following locations:

Approximately 1.5 acres onsite at the Huntington Beach Generating Station (approximately 130 parking stalls)

Approximately 3 acres of existing paved/graveled parking located adjacent to HBEP across Newland Street (approximately 300 parking stalls)

Approximately 2.5 acres of existing paved parking located at the corner of Pacific Coast Highway and Beach Boulevard (approximately 215 parking stalls)

225 parking stalls at the City of Huntington Beach shore parking west of the project site.

Approximately 1.9 acres at the Plains All American Tank Farm located on Magnolia Street (approximately 170 parking stalls)

1.2 Project Objectives

HBEP's key design objective is to provide up to 939 MW of environmentally responsible, cost-effective, operationally flexible, and efficient generating capacity to the western Los Angeles Basin Local Reliability Area in general, and specifically to the coastal area of Orange County. The project would serve local area reliability needs, southern California energy demand and provide controllable generation to allow the integration of the ever increasing contribution of intermittent renewable energy into the electrical grid. The project will displace older and less efficient generation in Southern California, and has been designed to start and stop very quickly and be able to quickly ramp up and down through a wide range of generating capacity. As more renewable electrical resources are brought on line as a result of electric utilities meeting California's Renewable Portfolio Standard, projects strategically located within load centers and designed for fast starts and ramp-up and down capability, such as HBEP, will be critical in supporting both local electrical reliability and grid stability.

Consistent with the Energy Action Plan, as drafted by the CEC and the California Public Utilities Commission, HBEP will assist in meeting the state's goal of ensuring that electric energy in the state is "*adequate, affordable, technologically advanced, and environmentally-sound*." It will also assist in meeting greenhouse gas reduction targets under the Global Warming Solutions Act of 2006 (AB-32), and will help utilities integrate renewable energy into their systems as required under the State's Renewable Portfolio Standard. HBEP will provide needed electric generation capacity with improved efficiency and operational flexibility to help meet southern California's long-term electricity needs.

The CAISO has identified a need for new power generation facilities in the Western Los Angeles Basin Local Reliability Area to replace the ocean water OTC plants that are expected to retire as a result of the California State Water Resources Control Board's (SWRCB) *Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling*. The base case study results from CAISO's year 2021 long-term Local Capacity Requirement proceeding estimates that between 2,424 and 3,834 MW of new generation is required in the Los Angeles Basin due to planned OTC retirements consistent with SWRCB OTC Policy. The requirement for new generation in light of OTC retirements in the Los Angeles Basin is also confirmed in CAISO's Once-Through Cooling and AB-1318 Study Results presented on December 8, 2011. CAISO also notes that many of the OTC facilities have characteristics that support renewable integration and that repower or replacement generating capacity must retain or improve upon such capabilities.

The project objectives are also consistent with the South Coast Air Quality Management District's Air Quality-Related Energy Policy and Rule 1304(a)(2), which encourages the replacement of older, less-efficient electric

utility steam boilers with gas turbine-based generation technologies equipped with best available control technology.

HBEP was designed to address the local capacity requirements within the Los Angeles Basin with the following objectives:

- Provide the most efficient, reliable, and predictable power supply available by using combined-cycle, natural gas-fired combustion turbine technology to replace the OTC generation, support the local capacity requirements of Southern California's Western Los Angeles Basin and be consistent with SCAQMD Rule 1304(a)(2).
- Develop a 939-MW project that provides efficient operational flexibility with rapid-start and fast ramping capability to allow for the efficient integration of renewable energy sources into the California electrical grid with competitive electrical generation pricing.
- Reuse existing electrical, water, wastewater, and natural gas infrastructure and land to minimize terrestrial resource and environmental justice impacts by developing on a brownfield site.
- Secure a sufficiently sized site to maintain existing generating capacity to meet regional grid reliability requirements during the development of HBEP.
- Site the project to serve the Western Los Angeles basin load center without constructing new transmission facilities.
- Assist the State of California in developing increased local generation projects, thus reducing dependence on imported power.
- Site the project on property that has industrial land use designation with consistent zoning.
- Ensure potential environmental impacts can be avoided, eliminated or mitigated to a less-than-significant level.

As discussed above, locating the project on the existing Huntington Beach Generation Station site avoids the need to construct new linear facilities, including gas and water supply lines, discharge lines, and transmission interconnections. This reduces potential offsite environmental impacts, the cost of construction, and ensures no new site is converted to industrial use. The HBEP site meets all project siting objectives.

HBEP will provide power to the grid to help meet the need for electricity and to help replace dirtier, less efficient fossil fuel generation resources retired because of age, thereby reducing the cost of producing power, and eliminates the use of OTC, which affects aquatic resources. HBEP will enhance the reliability of the state's electrical system by providing power generation near the centers of electrical demand and by providing fast response generating capacity to enable increased renewable energy development. Additionally, as demonstrated by the analyses provided in this Application for Certification (AFC), the project will not result in any significant environmental impacts.

The Assessor's Parcel Numbers for the HBEP site are 114-150-82 and 114-150-96. HBEP will utilize 28.6 acres, using only a portion of APN 114-150-96. Following project approval, the Project Owner will obtain a lot line adjustment to establish a single parcel for the 28.6 acre HBEP site, prior to commencing construction of the first power block. The site is located in Township 6S, Range 11, and southeast corner of Section 13, San Bernardino base and meridian. Appendix 1A provides a list of the property owners located within 1,000 feet of the HBEP site, and 500 feet from the boundary of the offsite construction worker parking areas in the vicinity of the HBEP site and the offsite construction laydown area at the AGS site in Long Beach.

Figure 1.1-1 is an artistic rendering of the project, Figure 1.1-2 shows the location of the project within the Orange County region, and Figure 1.1-3 shows the site location.

FIGURE 1.1-1
Artist Rendering
AES Huntington Beach Energy Project
Huntington Beach, California

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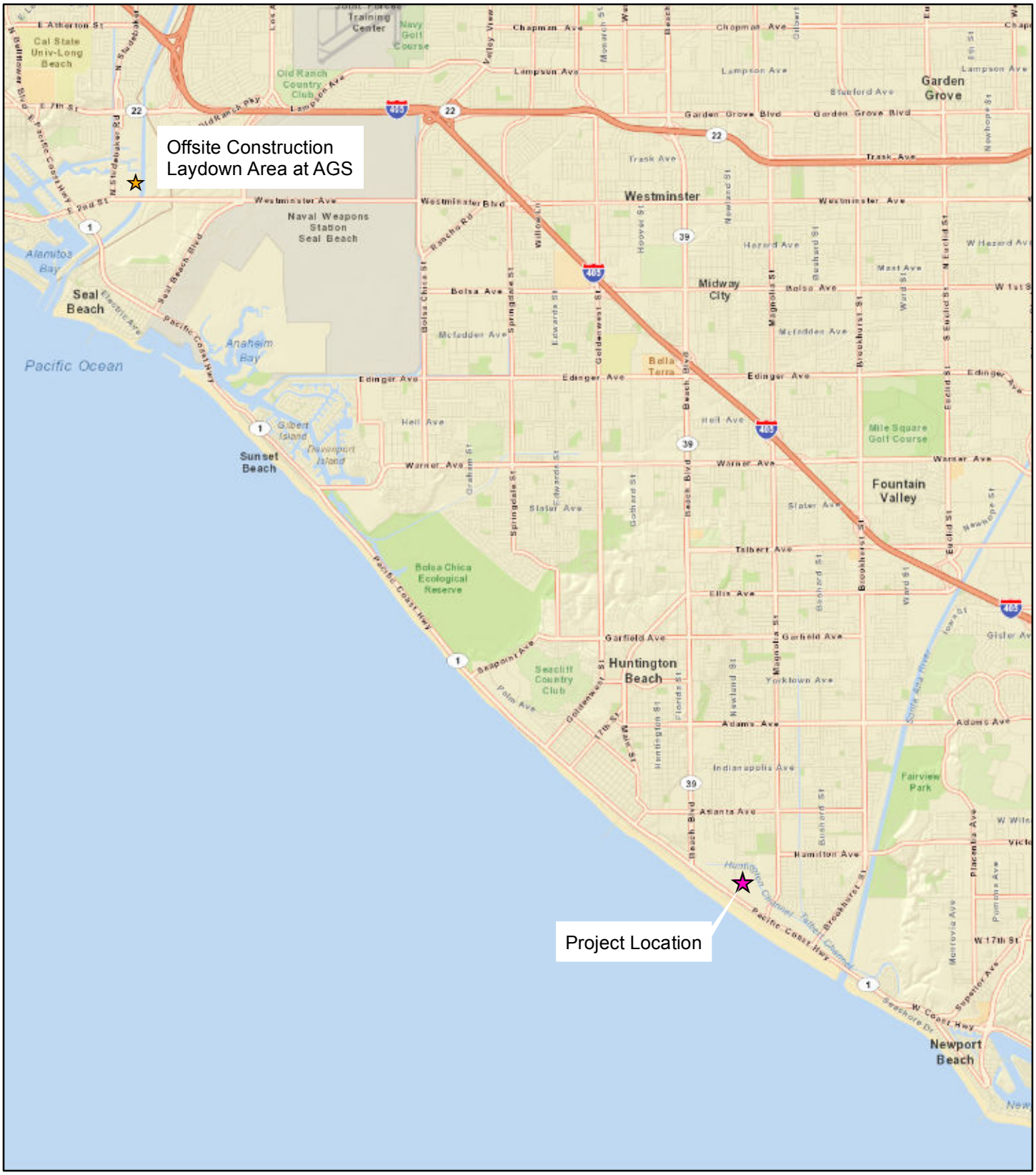

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FIGURE 1.1-2
Regional Location Map
AES Huntington Beach Energy Project
Huntington Beach, California

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Legend

- AES Huntington Beach Generating Station
- AES Huntington Beach Energy Project
- Onsite Construction Parking
- AES Huntington Beach Energy Project
- City of Huntington Beach
- Southern California Edison

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FIGURE 1.1-3
Site Location Map
AES Huntington Beach Energy Project
Huntington Beach, California

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The primary project features include the following components:

- Six Mitsubishi Power Systems Americas (MPSA) 501DA CTGs with a nominal rating of 118 MW each.[1] The CTGs will be equipped with evaporative coolers on the inlet air system and dry low NO_x (oxides of nitrogen) combustors.
- Two MPSA single-cylinder, single flow, impulse, axial-exhaust-condensing STGs for outdoor installation. Six HRSGs, which will be horizontal, single-pressure, and natural circulation. Each HRSG has a natural-gas-fired duct burner in the HRSG inlet ductwork and an emission reduction system consisting of a selective catalytic reduction unit to control NO_x stack emissions, and an oxidation catalyst to control carbon monoxide and volatile organic compounds emissions in the outlet ductwork.
- Two air-cooled condensers and two closed-loop cooling coolers.
- Two 230-kV interconnections to the existing onsite SCE 230-kV switchyard.
- Direct connection with the existing onsite 16-inch-diameter SoCalGas natural gas pipeline.
- Connection to an existing onsite 8-inch-diameter City of Huntington Beach potable water line.
- Connection to an existing onsite 4-inch-diameter City of Huntington Beach combined sanitary and process forced main sewer line.

1.3 Project Owner

The HBEP Project Owner is AES Southland Development, LLC. AES Southland Development, LLC, is a wholly owned subsidiary of AES Corporation (AES Corp.). AES Corp. is a global power company with generation and distribution businesses across five continents. Founded in 1981, AES Corp. built its first power plant in 1985. Today, through their portfolio of thermal and renewable fuel sources, AES Corp. safely provides affordable and sustainable energy in 27 countries. In California, AES Corp. generates enough electricity from both thermal and renewable sources to power millions of homes and businesses. AES Corp. brings the combined expertise of a global force of approximately 27,000 people.

1.4 Project Schedule

AES-SLD is filing this AFC under the CEC's certification process. Assuming the project receives certification by the first quarter of 2014, construction would begin in the first quarter of 2015. HBEP construction will require the removal of existing Huntington Beach Generating Station Units 1, 2, and 5 during the construction process. The demolition of Unit 5, scheduled to occur between the fourth quarter of 2014 and the end of 2015, provides the space for the construction of HBEP Block 1. Construction of Blocks 1 and 2 are each expected to take approximately 42 and 30 months, with Block 1 construction scheduled to occur between the first quarter of 2015 through the second quarter of 2018, and Block 2 construction scheduled to occur between the first quarter of 2018 through second quarter of 2020. Removal/demolition of existing Huntington Beach Generating Station Units 1 and 2 is scheduled to occur between the fourth quarter of 2020 through the third quarter of 2022.

1.5 Project Alternatives

A review of project alternatives was conducted to identify potential or alternative technologies that could meet HBEP's design objectives with lower environmental, social, or economic impacts, but no feasible alternative was identified. The project alternative analysis included the review of the "no project" alternative, where no new generation would be constructed.

Under the no project alternative, the existing Huntington Beach Generating Station would still need to comply with the SWQCB's OTC policy, by retrofitting the present cooling system with wet cooling technology or other

[1] Nominal CTG only output at site average ambient temperature conditions.

engineered solution, or be decommissioned. Installation of wet-cooling technology would be cost prohibitive based on the capital and operational costs and would further decrease the existing unit's efficiency. Potential alternative means of complying with the SWQCB's OTC policy are discussed in Section 6.7.2. Based on CAISO's 2021 projection of the need for OTC replacement generation, decommissioning the existing Huntington Beach Generating Station units without replacement generation would create reliability concerns due to a projected shortage in energy and power production, and therefore is not feasible.

In summary, the no project alternative would not serve the growing needs of Southern California and California's businesses and residents for economical, reliable, and environmentally sound generation resources. Moreover, the no project alternative would not satisfactorily meet the specified project objectives and, thus, was rejected in favor of the proposed HBEP.

The HBEP will be located entirely within the boundaries of the existing Huntington Beach Generating Station site and will have a strong relationship to the existing industrial site. HBEP will provide enhanced electrical service in the same location as the existing Huntington Beach Generating Station, using the existing infrastructure to the extent possible, including the SCE 230-kV switchyard, the SoCalGas 16-inch-diameter natural gas pipeline, and City water and sanitary sewage connection. For these reasons, it is unlikely that a suitable brownfield site could be identified with the combination of existing infrastructure and lower environmental impacts then those identified for HBEP.

Several alternative generating technologies were also reviewed in a process that resulted in the selection of a uniquely designed application of commercially proven technology in a combined-cycle gas turbine power plant for the HBEP. The alternative technologies included conventional oil and natural-gas-fired plants, simple-cycle combustion turbines, reciprocating internal combustion, natural-gas-fired turbines, biomass-fired plants, waste-to-energy plants, solar plants, energy storage, wind generation plants, and others. None of these technologies was considered equal or superior to the combined-cycle turbine technology selected for HBEP in meeting the project goals and objectives.

A comprehensive review of alternatives to the HBEP, the HBEP location, and the no project alternative are presented in Section 6.0 of this AFC.

1.6 Environmental Considerations

Pursuant to the requirements set forth in existing environmental laws and the CEC's regulations, 16 environmental disciplines with possible environmental impact from the proposed HBEP were evaluated. Detailed descriptions and analyses of these areas are presented in Sections 5.1 through 5.16 of this AFC. As discussed in detail in this AFC, with the implementation of the proposed mitigation measures and the anticipated CEC's Conditions of Certification, there will be no significant unmitigated environmental impacts associated with HBEP construction and operation. This executive summary highlights findings related to five subject areas that have historically been of interest in CEC proceedings: air quality, biological resources, noise, visual resources, and water resources.

1.6.1 Air Quality

The HBEP site is located in an area designated as nonattainment for state and federal ozone, particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$) air quality standards, and for the state nitrogen dioxide (NO_2) standard. An assessment of project impacts to air quality was conducted using a comprehensive, numerical air dispersion modeling system. No significant air quality impacts would result from the project because emissions will be controlled through the use of inherently low-emission natural gas combustion turbine technology and best available emission control technology. Ground level ambient concentrations of NO_2, SO_2, carbon monoxide, $PM_{2.5}$, and PM_{10}, resulting from the project would be a fraction of the relevant ambient air quality standard. In addition, the potential public health impacts from the operation of HBEP would be negligible. Furthermore, operational emission increases from HBEP will be offset consistent with federal, state, and local requirements for the project.

See Section 5.1, Air Quality, for a detailed analysis of the air quality impacts from the project.

1.6.2 Biological Resources

The project site does not contain any wetlands or suitable habitat for sensitive plant or wildlife species and would not cause an adverse impact to sensitive biological resources. Although no threatened or endangered plants or wildlife were observed at the project site, and the project site does not provide suitable habitat for any special-status wildlife species, threatened or endangered plant or wildlife species may still be present. Potential impacts to sensitive and special-status wildlife such as Belding's savanna sparrow, California least tern, and western snowy plover, among others, could occur as a result of disturbance from HBEP construction noise. The applicant will mitigate these potential effects in accordance with the U.S. Fish and Wildlife Service and California Department of Fish and Game policies and guidelines by conducting preconstruction surveys to determine the presence/absence of any of these species on the project site and laydown areas. If any of the species are present, they would be avoided or appropriate mitigation would be implemented.

Because HBEP will draw process water from an existing connection to the City of Huntington Beach potable water supply system, there will be no mechanism for entrainment of aquatic species. The discharge of process and stormwater to the ocean via the existing outfall will not result in a significant effect on aquatic resources and species during HBEP operations.

HBEP will result in the cessation of the use of ocean water at the power plant site and will eliminate the potential for impacts to marine life through impingement and entrainment in an OTC system.

Section 5.2 provides details on biological resources.

1.6.3 Noise

The applicant conducted ambient noise monitoring at the project site, and also prepared a noise-generation model for the HBEP. The final design of the HBEP facility will ensure the City of Huntington Beach industrial noise standard of 70 dBA at the property line is satisfied. Section 5.7, Noise, provides a detailed analysis of the noise assessment.

1.6.4 Visual Resources

HBEP will result in an improvement to the aesthetic quality of the project area since it will result in the removal of the existing Huntington Beach Generating Station facilities which are significantly larger in size. This determination was based on an analysis of simulated views of the project from five key observation points. The tallest feature of HBEP will be the 120-foot exhaust stacks, which are significantly shorter than the existing Huntington Beach Generating Station's two 214-foot-tall stacks. Section 5.13 provides a detailed discussion of the visual resources assessment.

1.6.5 Water Resources

HBEP will result in the elimination of the use of ocean water at the existing Huntington Beach Generating Station. Water use for OTC discharges will fall to zero upon implementation of HBEP, and all water quality (and aquatic) impacts associated with OTC use will be eliminated. Discharges to the ocean outfall from stormwater runoff and process wastewater will continue to occur; however, discharge flows will substantially decrease compared to existing conditions because of decreased plant water use, and all discharges will meet ocean discharge standards. Operational impacts to surface water quality are less than significant.

Section 5.15 provides a detailed analysis of water resources.

1.7 Key Benefits

1.7.1 Environmental

As noted previously, HBEP will reuse an existing industrial brownfield site, and will reuse existing infrastructure to minimize land use impacts. The HBEP design uses a dry cooling technology, which reduces water consumption by over 90 percent relative to a similarly sized wet-cooled facility, and is projected to use 20 percent of the fresh water currently being used by the existing Huntington Beach Generating Station. Replacement of the existing

Huntington Beach Generating Station with the HBEP eliminates all aquatic impacts associated with the use of OTC. HBEP will also be more thermally efficient, resulting in fewer air emissions on a pound per megawatt basis than the existing Huntington Beach Generating Station. Additionally, HBEP, with its more compact combined-cycle design and shorter exhaust stacks, will result in a reduced visual impact compared to the existing Huntington Beach Generating Station.

1.7.2 Employment and Economic Benefits

HBEP is an approximately $500-$550 million capital project that will result in over $45 million in local purchases of materials and supplies during construction and approximately $3 million per year of operational expenditures in the community. In addition, HBEP will result in continued (and likely increased) property taxes for the City of Huntington Beach.

HBEP will provide for a peak of approximately 230 construction workers for Block 1, and approximately 240 construction workers for Block 2. The average workforce during the construction and demolition period is 192 workers. The operating facility will permanently employ 33 staff, including plant operators, supervisors, administrative staff, mechanics, engineers, chemists, and electricians in three rotating shifts over a 24-hour, 7-day-a-week basis.

HBEP will use the services of local or regional firms for major maintenance and overhauls, plant supplies, and other support services throughout the life of the facility, resulting in additional direct employment and economic benefits.

1.8 Persons Who Prepared the AFC

Persons with primary responsibility for the preparation of each section of this AFC are listed in Appendix 1B.

1.9 References

California Independent System Operator (CAISO).2011. *Once-Through Cooling & AB1318 Study Results*. December 8.

California Energy Commission (CEC). 2012. May 31, 2012 Business Meeting, Relating to the Carlsbad Energy Center Project Final Decision (agenda item 6).