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HUNTINGTON BEACH ENERGY PROJECT AMENDMENT

Commission Decision

CALIFORNIA
ENERGY COMMISSION
Edmund G. Brown Jr, Governor

May 2017
CEC-800-2017-002-CMF

DOCKET NUMBER 12-AFC-02C

CALIFORNIA
ENERGY COMMISSION
1516 Ninth Street
Sacramento, CA 95814

http://www.energy.ca.gov/sitingcases/huntington Beach energy

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BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – www.energy.ca.gov

PETITION TO AMEND THE:

HUNTINGTON BEACH ENERGY PROJECT

Order No. 17-0412-2
Docket No. 12-AFC-02C

COMMISSION ADOPTION ORDER

This Commission Order adopts the Commission Decision for the Petition to Amend the Huntington Beach Energy Project. The Commission Decision consists of the Presiding Member's Proposed Decision (PMPD) filed February 24, 2017,[1] as modified by the Errata filed on April 11, 2017,[2] and as further modified by Order Paragraph 1, below. The Commission Decision is based upon the evidentiary record of these proceedings and takes into consideration the comments received prior to and at the April 12, 2017 Business Meeting. The Commission Decision contains a summary of the proceedings, the evidence presented, and the rationale for the findings reached and conditions imposed.

This Order incorporates by reference the text and evidence referred to in the PMPD and the Errata to the PMPD. The requirements contained in the Commission Decision ensure that the proposed facility will be designed, sited, constructed, and operated in a manner to protect environmental quality, to assure public health and safety, and to operate in a safe and reliable manner.

FINDINGS

The Commission hereby adopts the following findings pursuant to the California Environmental Quality Act (California Public Resources Code, section 21000 et seq.), the Warren-Alquist Act (California Public Resources Code, section 25000 et seq.) and the Energy Commission Regulations (California Code of Regulations, Title 20), in addition to those contained in the Commission Decision:

1. Imposition and implementation of the conditions of certification contained in the Commission Decision will ensure that the Amended Huntington Beach Energy Project is designed, sited, constructed, and operated in conformity with applicable local, regional, state, and federal laws, ordinances, regulations, and

[1] TN 216247.
[2] TN 216931.

standards, including applicable public health and safety standards, and air and water quality standards.

2. Imposition and implementation of the conditions of certification contained in the Commission Decision will ensure protection of environmental quality and assure reasonably safe and reliable operation of the facility. The conditions of certification also ensure that the Amended Huntington Beach Energy Project will neither result in, nor contribute substantially to, any significant direct, indirect, or cumulative environmental impacts.

3. Changes or alterations have been incorporated into the Amended Huntington Beach Energy Project, which mitigate or lessen the impacts of the Amended Huntington Beach Energy Project and will be beneficial to the public.

4. Existing governmental land use restrictions are sufficient to adequately control population density in the area surrounding the facility and may be reasonably expected to ensure public health and safety.

5. While located near Huntington Beach State Park, the plant has been set back from the shoreline to permit reasonable public use and to protect scenic and aesthetic values.

6. The Amended Huntington Beach Energy Project will not be sited, constructed, or operated on land designated for use as a state, regional, county or city park; wilderness, scenic or natural reserve; area for wildlife protection, recreation, historic preservation; or natural preservation or on an estuary in an essentially natural and undeveloped state.

7. There is not an environmental justice population, based on either the presence of minority or low-income populations, within six miles of the Amended Huntington Beach Energy Project. As such, the Amended Huntington Beach Energy Project will not have a disproportionate impact on low-income or minority populations.

8. The Commission Decision contains a discussion of the public benefits of the Amended Huntington Beach Energy Project as required by Public Resources Code section 25523(h).

9. The Amended Huntington Beach Energy Project benefits the local and regional study areas in terms of an increase in local expenditures and payrolls during construction and operation of the facility, as well as a possible benefit to public finance and local economies through taxation. These activities will provide a degree of economic benefits to the local area. In addition, the Amended Huntington Beach Energy Project reduces water usage and eliminates the use of ocean water for cooling and includes more efficient equipment for the generation of electricity.

10. The evidence does not establish the existence of any environmentally superior alternative site.

11. The Commission Decision contains measures to ensure that the planned, temporary, or unexpected closure of the Amended Huntington Beach Energy Project will occur in conformance with applicable laws, ordinances, regulations, and standards.

12. The proceedings leading to the Commission Decision have been conducted in conformity with the regulations governing the consideration of an amendment to an approved Application for Certification and thereby meet the requirements of Public Resources Code sections 21000 et seq. and 25500 et seq.

ORDER

Therefore, the Commission **ORDERS** the following:

1. The PMPD docketed on February 24, 2017,[3] modified to change the verification of Condition of Certification GEO-3 to read as follows,

> The project owner shall submit the THMP 30 days prior to construction for CPM review and approval. The project owner shall submit any subsequent updates to the THMP to the CPM within 90 days of an update to an applicable THMP,

and the Errata docketed on April 11, 2017.4are hereby adopted as the Commission Decision and incorporated by reference into this Order.

2. The Huntington Beach Energy Project Amendment as described in the Commission Decision is hereby granted, and a certificate to construct and operate the project is hereby granted.

3. The approval of the Huntington Beach Energy Project Amendment is subject to the timely performance of the conditions of certification and compliance verifications. The conditions of certification and compliance verifications are integrated with this Order and are not severable therefrom. While the project owner may delegate the performance of a condition or verification, the duty to ensure adequate performance of a condition or verification may not be delegated.

4. This Order is adopted, issued, effective, and final on April 12, 2017.

5. Reconsideration of this Order is governed by Public Resources Code section 25530.

6. Judicial review of this Order is governed by Public Resources Code section 25531.

[3] TN 216247.
[4] TN 216931.

7. The Commission hereby adopts the conditions of certification, compliance verifications, and associated dispute resolution procedures set forth in the Commission Decision as its mitigation monitoring program required by Public Resources Code section 25532. All conditions take effect immediately upon adoption and apply to all construction and site preparation activities including, but not limited to, ground disturbance, site preparation, and permanent structure construction.

8. This Order licenses the project owner to commence construction on the Amended Huntington Beach Energy Project, subject to the provisions of California Code of Regulations, title 20, section 1720.3; this license expires by operation of law when the Amended Huntington Beach Energy Project's start-of-construction deadline passes with no construction.

9. The Executive Director of the Commission shall transmit a Notice of Decision and appropriate accompanying documents, as provided by Public Resources Code section 25537, and California Code of Regulations, title 20, section 1768.

10. The Hearing and Policy Unit of the Chief Counsel's Office shall incorporate the PMPD and Errata into a single document. Publication of that compilation shall not affect the adoption, effective, issuance, or final dates of this Order established in paragraph 4, above.

IT IS SO ORDERED.

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of an Order duly and regularly adopted at a meeting of the California Energy Commission held on April 12, 2017.

AYE: Weisenmiller, Douglas, McAllister, Hochschild, Scott
NAY:
ABSENT:
ABSTAIN:

Original Signed by:

Cody Goldthrite
Secretariat

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I. INTRODUCTION

SUMMARY OF THE PROPOSED DECISION

This Decision contains the rationale of the California Energy Commission (Energy Commission) in approving proposed amendments to the previously approved Huntington Beach Energy Project (2014 Project[1]). It determines that the proposed amended Huntington Beach Energy Project (Amended Project) will, as mitigated, have no significant impacts on the environment and will comply with all applicable laws, ordinances, regulations, and standards (LORS). This Decision is based exclusively upon the evidentiary record established during this amendment proceeding and summarized in this document. We have independently evaluated the evidence, provided references to the evidentiary record[2] supporting our findings and conclusions, and specified the measures required to ensure that the Amended Project is designed, constructed, and operated in the manner necessary to protect public health and safety, promote the general welfare, and preserve environmental quality.

The Energy Commission has exclusive jurisdiction to license this project and is considering the amendment under a review process established by Public Resources Code section 25540.6 and California Code of Regulations, title 20, section 1769.

Prior Energy Commission Action and Decision

On June 27, 2012, AES Southland Development, LLC (AES),[3] submitted an Application for Certification (AFC) seeking approval from the Energy Commission to develop the

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[1] A table of acronyms and abbreviations used in this Decision is contained in **Appendix B** for reference.

[2] The Reporter's Transcripts of the evidentiary hearings are cited as "date of hearing RT page:line-page:line. For example: 12/21/16 RT 77:14-78:16. The exhibits included in the evidentiary record are cited as "Ex. Number," followed by a page reference. Where the document is unpaginated, or is a compilation of two or more documents with overlapping pagination, we may refer to the page location in the official pdf file copy of the document. Where a document is referred to by "TN" (transaction number), it may be accessed via the Energy Commission's web page for this project, more specifically the "Docket Log," whose address for the Huntington Beach Compliance proceedings is https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=12-AFC-02C. Alternatively, you may type the TN number into the search dialog at: http://docketsearch.energy.ca.gov/Pages/default.aspx. A list of all exhibits is contained in **Appendix B** of this Decision.

[3] During the pendency of the amendment proceedings, AES Southland, LLC, sought and obtained permission to transfer ownership of the Huntington Beach Energy Project to AES Huntington Beach Energy, LLC (Ex. 5025). For ease, we will refer to AES Huntington Beach Energy, LLC as "AES" or "Petitioner."

2014 Project, a natural-gas-fired, combined-cycle, and air-cooled electrical power plant facility proposed in the city of Huntington Beach, Orange County, California.[4] The Energy Commission issued its Final Decision allowing AES to construct and operate the 2014 Project on October 29, 2014 (the 2014 Decision).[5]

The 2014 Project, as approved, was to be built on 28.6 acres of the Huntington Beach Generating Station (HBGS) site, an operating power facility, located just northeast of the intersection of the Pacific Coast Highway 1 (PCH 1) and Newland Street. Construction of the 2014 Project requires the removal of the existing HBGS Units 1, 2, and 5. Demolition of HBGS Units 3 and 4 was authorized under a separate Energy Commission license and will proceed irrespective of the 2014 Project or the Amended Project.[6] Therefore, demolition of existing HBGS Units 3 and 4 is not part of the Amended Project description. However, to ensure a comprehensive review of potential project impacts, the demolition of existing HBGS Units 3 and 4 is included in the cumulative impact assessment for the Amended Project.

The 2014 Project was approved to generate 939 megawatts (MW) (nominal output) as a combined-cycle power plant, employing the Mitsubishi Heavy Industries (MHI) 501DA (M501DA) gas turbine generators (also referred to as combustion turbine generators, or CTGs) in a combined-cycle configuration.[7] The 2014 Project's power blocks connected to two 230-kilovolt (kV) transmission interconnections at the existing Southern California Edison (SCE) 230-kV switchyard; the switchyard is located on a separate parcel within the existing HBGS site.[8]

The 2014 Project was approved to use up to a maximum of 134 acre-feet per year (AFY) of water for industrial, wash-down and associated processes necessary for its industrial steam generation and landscape irrigation.[9] The source of this water was the city of Huntington Beach. During the 2014 Project operation, storm water 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.[10]

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[4] Ex. 6000, p. 1-1.

[5] https://efiling.energy.ca.gov/getdocument.aspx?tn=203309; see also, Ex. 5114.

[6] 00-AFC-13C; see http://www.energy.ca.gov/sitingcases/huntingtonbeach/index.html

[7] *Id.* at p. 2-2.

[8] *Id.* at p. 1-2.

[9] *Id.* at p. 1-1.

[10] *Id.* at p. 1-2.

The Current Amendments

On September 9, 2015, AES submitted a Petition to Amend (PTA) based on the results of the 2013 Local Capacity Requirements Request for Offers by Southern California Edison (SCE).[11] The PTA proposes to modify the previously approved 939 MW power plant to a new configuration that would total 844 MWs. Construction would commence in two phases with the first phase consisting of a natural-gas-fired, combined-cycle, air-cooled, 644-MW electrical generating facility. After the first phase, combined-cycle power block is operational, phase two construction is scheduled to begin for two 100-MW simple-cycle gas turbines (SCGT) totaling 200 MW. The second phase, two LMS-100 PB combustion turbine generators, is currently not under a Power Purchase Agreement (PPA) with SCE. However, AES is requesting to license and install these turbines for future projected needs through a separate PPA with SCE.[12]

The changes to the 2014 Project proposed by the amendments are described in greater detail in the **PROJECT DESCRIPTION** section of this decision.

STANDARDS APPLICABLE TO AMENDMENT PROCEEDINGS

Warren-Alquist Act and Title 20 Regulations

The Amended Project and its related facilities are subject to Energy Commission licensing jurisdiction.[13] The Energy Commission's amendment process provides a thorough review and analysis of all aspects of a proposed power plant project. During this process, the Energy Commission conducts a comprehensive examination of a project's potential economic, public health and safety, reliability, engineering, and environmental ramifications. Specifically, the Energy Commission's process allows for and encourages public participation so that members of the public may become involved either informally or on a formal level as intervenors that have the opportunity to present evidence and question witnesses. Public participation is encouraged at every stage of the process.

Depending on the complexity of the proposed change, an amendment may be analyzed by Energy Commission staff (Staff) and referred directly to the Energy Commission for a final decision. Alternatively, as is the case in this proceeding, the amendment may be

[11] Ex. 5001.

[12] Ex. 6000, p. 1-2.

[13] Pub. Resources Code, § 25500 *et seq*.; Cal. Code Regs., tit. 20, §1769.

referred to a committee of two Commissioners (Committee)[14] who take evidence and submit a Presiding Member's Proposed Decision (PMPD) to the full Energy Commission.

A critical component of the amendment review process is Staff's preparation of its Final Staff Assessment (FSA).[15] The FSA contains Staff's final, independent, objective evaluation of the engineering, environmental, and safety aspects of the project, and a determination of whether the project conforms to all applicable LORS. The FSA also includes Staff's recommendations for any needed modifications to the existing conditions of certification for an approved project and any proposed new conditions of certification to mitigate any significant environmental effects and ensure compliance with all relevant LORS for the proposed amendment.

Following publication of the FSA, the Committee holds Evidentiary Hearings on the Amended Project. Prior to the Evidentiary Hearings, the Committee holds a Prehearing Conference to assess the readiness of the parties to proceed to Evidentiary Hearings, including adequacy of available information, unresolved issues or questions, and the positions of the parties. At the Evidentiary Hearings, all formal parties (petitioner, Staff and intervenors) may present sworn testimony, which is subject to questioning by the other parties and the Committee. Members of the public may offer oral or written comments at these hearings. Evidence submitted at the Evidentiary Hearings provides the basis for the Committee's analysis and recommendations to the full Energy Commission.

The Committee's analysis and recommendations appear in the PMPD, which is available for a 30-day public comment period. Depending upon the extent of revisions necessary after considering comments received during this period, the Committee may elect to publish a revised version. If so, the Revised PMPD triggers an additional public comment period. Finally, the full Energy Commission decides whether to accept, reject, or modify the Committee's recommendations at a public hearing.

Throughout the licensing process, members of the Committee, and ultimately the Energy Commission, serve as fact-finders and decision-makers. Parties, including the petitioner, Staff, and intervenors, function independently with equal legal status. An "ex parte" rule prohibits parties in the case, or other persons with an interest in the case, from communicating on any issues in the proceeding with the decision-makers, their

[14] The Committee for the Amended Project consists of Commissioner Andrew McAllister, Presiding Member, and Commissioner Karen Douglas, Associate Member. The full Commission made this Committee assignment at an Energy Commission Business Meeting on October 14, 2015.

[15] Ex. 6000.

staffs, or the assigned Hearing Officer, unless these communications are made on the public record. The Office of the Public Adviser is available to assist the public in participating in all aspects of the amendment proceeding.

Before approving an amendment, the Energy Commission must find that:

- The amended project will not have significant,[16] unmitigated, environmental effects or that specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the proceeding, and that the benefits of the project outweigh the unavoidable significant environmental effects of the project;
- The amended project will remain in compliance with all applicable LORS or that the facility is required for the public convenience and necessity and that there are not more prudent and feasible means of achieving the public convenience and necessity;
- The change in the project will be beneficial to the public, petitioner, or intervenors; and
- There has been a substantial change in circumstances since the 2014 approval justifying the change or that the change is based on information which was not known and could not have been known with the exercise of reasonable diligence prior to the 2014 approval.[17]

Environmental Review

The California Environmental Quality Act (CEQA)[18] requires that an agency consider the effects on the environment for projects it is considering. During licensing

[16] The Commission's regulations use the term "significant adverse environmental effect." See, e.g., Cal. Code Regs., tit. 20, §1755. "Adverse" is redundant, however, in that by definition in the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15382.) an effect must be "adverse" in order to be "significant"; positive or beneficial effects cannot be significant. Therefore, when we use the terms "significant effect" or "significant impact" in this document, the reader may assume that those effects and impacts are adverse.

[17] Cal. Code Regs, tit. 20, §§ 1769, subd. (a)(3); 1755, subd. (d).

[18] The CEQA statute, California Public Resources Code, section 21000 et seq., codifies a statewide policy of environmental protection. The California Resources Agency promulgates the CEQA Guidelines, California Code of Regulations, title 14, section 15000 et seq., (Guidelines) which detail the protocol by which state and local agencies comply with CEQA requirements. We refer to the statute and the Guidelines collectively as "CEQA." Hereafter, we will refer to the CEQA Guidelines in the format "CEQA Guidelines, section _____".

proceedings, the Energy Commission acts as the lead state agency under CEQA.[19] The Energy Commission's regulatory process, including the evidentiary record and associated analyses, is functionally equivalent to the preparation of an Environmental Impact Report (EIR).[20] As a practical matter, the Energy Commission utilizes the substantive concepts from CEQA, including baseline cumulative impacts and tiering/streamlining of environmental review for projects previously approved by the Energy Commission.

CEQA Guidelines, Section 15162

CEQA encourages decision makers to, where appropriate, use a previous environmental analysis rather than conduct a new duplicative analysis. When an EIR has been previously certified or a negative declaration has been adopted, the Energy Commission is precluded from preparing a subsequent or supplemental EIR unless:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known in 2014 shows:

   (A) The project will have one or more significant effects not discussed in the previous EIR;

   (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

[19] Pub. Resources Code, §§ 25519(c), 21000 *et seq.*

[20] Pub. Resources Code, § 21080.5. An "environmental impact report" is a detailed informational document setting forth such matters as the significant environmental effects of a proposed project, any significant environmental effects which cannot be avoided if the project is implemented, mitigation measures proposed to minimize the significant environmental effects and alternatives to the proposed project. (Pub. Resources Code, §§ 21061, 21100, 21100.1.) Although not called such, the Energy Commission prepares documents that function as EIRs. We use the term "EIR" to refer to our decisional document for ease of comparison with the language of the cases interpreting CEQA. (Pub. Resources Code, § 21080.5; CEQA Guidelines, §15251, subd. (j).)

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.[21]

Doubts are resolved in favor of finality, not in favor of reopening the CEQA process with a supplemental EIR, "even if the initial EIR is discovered to have been fundamentally inaccurate and misleading in the description of a significant effect or the severity of its consequences."[22] The courts err in favor of finality because "the time for challenging the sufficiency of the 2014 EIR has long since expired, and the question is whether circumstances have changed enough to justify repeating a substantial portion of the process."[23]

The Energy Commission's environmental review is limited to those topics for which a subsequent or supplemental analysis is required by CEQA. If so required, we analyze the impacts of the incremental changes associated with the amendments.[24]

The remainder of this document is, thus, organized by topic. The discussions focus on whether supplementation of the previous environmental document (the 2014 Decision) is required and whether the Amended Project will comply with all applicable LORS. Where there are no significant changes to the findings and conclusions in the 2014 Decision,[25] its analysis will not be repeated beyond a brief explanation of the reasons for making that determination. For the convenience of the parties and public, we will, however, include all of the conditions of certification for the Amended Project, whether or not they are changed from those adopted in the 2014 Decision.[26]

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[21] Pub. Resources Code, §21166; CEQA Guidelines §15162.

[22] *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1130.

[23] *Bowman v. City of Petaluma* (1986) 185 Cal.App.3d 1065, 1073, internal citations and italics omitted.

[24] "[I]f the project under review merely constitutes a modification of a previously approved project previously subjected to environmental analysis, then the 'baseline' for purposes of CEQA is adjusted such that the originally approved project is assumed to exist." (Remy & Thomas, *Guide to CEQA* (11th ed., 2006) p. 207.)

[25] Ex. 6000.

[26] See **Appendix A** to this Decision.

Cumulative Impacts

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects.[27] A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.[28] Related projects are past, present, and probable future projects producing similar impacts to the proposed Amended Project.[29]

Under CEQA, there are two acceptable and commonly used methodologies for establishing the cumulative impact setting or scenario: the "list approach" and the "projections approach." The first approach would use a "list of past, present, and probable future projects producing related or cumulative impacts."[30] The second approach is to use a "summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact."[31] This Decision uses the "list approach" to provide a tangible understanding and context for analyzing the potential cumulative effects of the Amended Project.

Introduction Table 1 contains the list of projects used in this Decision for the required cumulative impacts analysis. Most of the projects in **Introduction Table 1** are required to undergo their own independent environmental reviews under CEQA. Staff developed the list by contacting planning staff with the city of Huntington Beach, Costa Mesa, New Port Beach, Fountain Valley, Seal Beach, Cypress, Long Beach, and surrounding jurisdictions in Orange County. Staff also conducted a review of project information from other agencies, including the California Department of Transportation, and the CEQANet database to develop a list of past, present, and reasonably foreseeable projects.[32]

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[27] *San Joaquin Raptor Rescue Center v. County of Stanislaus* (1994) 42 Cal.App.4th 608.

[28] CEQA Guidelines, § 15130, subd. (a)(1).

[29] CEQA Guidelines, § 15130, subd. (b)(1)(A).

[30] *Id.*

[31] CEQA Guidelines, § 15130, subd. (b)(1)(B)

[32] Ex. 6000, pp. 1-17 – 1-28.

Introduction - Table 1
Amended Project Cumulative Project List[33]

Project Title	Description	Location	Distance to Project (Miles)	Status
Huntington Beach Generating Station Demolition (Demolition of Units 3 & 4)	Demo/removal of Units 3 & 4 from the existing Huntington Beach Generating Station.	Huntington Beach Generating Station, Huntington Beach	0.05	Demo estimated Q2 2020 to Q2 2022 (24 mo.)
Poseidon Desalination Plant	A 50-million gallon-per-day seawater desalination facility located on 11-acre portion of the existing Huntington Beach Generating Station (HBGS) facility. Project would use existing HBGS seawater intake and outfall pipelines for operations.	21730 Newland St, Huntington Beach	0.22	Planning and in review with the California Coastal Commission
Magnolia Oil Storage Tank and Transfer Facility Demolition and Removal	Demolition and removal of three empty above ground crude oil storage tanks and ancillary site improvements.	21845 Magnolia St, Huntington Beach	0.35	In Progress
Newland St Residential (Pacific Shores)	Develop and subdivide former industrial site to residential with 204 multi-family residential units and two-acre public park.	21471 Newland St, Huntington Beach	0.40	Completed
Remedial Action Plan for Ascon Landfill Site	Remedial Action Plan (RAP) includes partial removal of waste materials and construction of protective cap over remaining waste materials.	Magnolia St and Hamilton Ave, Huntington Beach	0.43	Plan Check

[33] *Id.* at pp. 1-19 – 1-28.

Project Title	Description	Location	Distance to Project (Miles)	Status
Hilton Waterfront Beach Resort Expansion	Nine-story tower with 156 new guestrooms, appurtenant facilities, 261 parking spaces, a loading dock and other back-of-house facilities.	21100 Pacific Coast Hwy, Huntington Beach	1.02	Plan Check
Brookhurst Street Bridge Preventative Maintenance Project	Repair and rehabilitate the Brookhurst Street Bridge in the city of Huntington Beach.	Brookhurst St Bridge, Huntington Beach	1.11	Plan Check
P2-92 Sludge Dewatering and Odor Control	Build new sludge and odor control facilities at existing Plant 2.	Santa Ana River Channel, Huntington Beach	1.17	Construction scheduled Spring 2016
Pacific City	516 condominiums; 8 story-250-room hotel, spa and health club; and 191,100 sq. ft. visitor-serving commercial with retail, office, restaurant, cultural, and entertainment	21002 Pacific Coast Hwy, Huntington Beach	1.26	Under Construction
Pierside Pavilion Expansion	Proposes to construct a connecting four-story, mixed-use, visitor serving/office building and storefront extension.	300 Pacific Coast Hwy, Huntington Beach	1.51	Plan Check
The Strand	Retail, restaurants, offices, and a 149-room hotel.	155 5th St, Huntington Beach	1.63	Completed
Beach Walk	173 multi-family apartment units within a 4-story building, a 5-level parking structure, public and private open space areas.	19891 & 19895 Beach Blvd, Huntington Beach	2.10	Completed
LeBard Park and	9.7-acre surplus school site	20461 Craimer Ln,	2.16	Approved

Project Title	Description	Location	Distance to Project (Miles)	Status
Residential Project	for public recreation and single-family residential uses.	Huntington Beach		
Truewind- Former Wardlow School Site	49 detached single-family residential units on an 8.35-acre site.	9191 Pioneer Dr, Huntington Beach	2.16	Under Construction
Brookhurst Street and Adams Avenue IIP	Widening of the Brookhurst St/Adams Ave intersection in all directions.	Brookhurst St and Adams Ave, Huntington Beach	2.38	Draft Environmental Impact Report (DEIR)
Lighthouse Project	89-unit (49 residential units, 40 live/work units), three-story mixed-use development. 332-space parking garage, 2aces of common open space.	1620-1644 Whittier Ave, Costa Mesa	2.42	Initial Study (IS)/Mitigated Negative Declaration (MND)
Ebb Tide Residential Project	Demolition of 73 mobile home spaces, three fixed structures and related surface improvements and the development of 81 single-family detached condominium units.	Placentia Ave and 16th St, Newport Beach	2.96	MND
Fairwind- Former Lamb School Site	80 detached single-family residential units on a 11.65-acre site	10251 Yorktown Ave, Huntington Beach	2.96	Under Construction
Westside Gateway Project	Seeking approval to redevelop a 9-acre project site with a mix of 177 dwelling units (residential lofts and live/work). Redevelopment includes demolition of all existing buildings and parking areas.	671 W. 17th St, Costa mesa	3.20	Under Construction

Project Title	Description	Location	Distance to Project (Miles)	Status
Beach and Ellis - Elan Mixed Use	274 units (26 studio, 123 one-bedroom, 6 live-work, 119 two-bedroom units of which 27 are affordable units) also includes: 8,500 sq. ft. commercial, 17,540 sq. ft. public open space and 31,006 sq. ft. residential private open space.	18502, 18508-18552 Beach Blvd, Huntington Beach	3.37	Under Construction
Newport Beach City Hall Reuse Project-Now called the "Lido House Hotel"	Four story, 130-room hotel set on a 4.25-acre site that formerly housed the Newport Beach City Hall.	3300 Newport Blvd, Newport Beach	3.45	IS/ND
2277 Harbor Boulevard Project	Proposal involves demolishing existing 236-room motel and the construction of a four-story, 224-unit luxury apartment project.	2277 Harbor Boulevard, Costa Mesa	3.50	IS/MND
Mesa Verde East Project	Demolition of existing site improvements and construction of a 10-unit, 2-story, detached residential development.	Adams Avenue & Mesa Verde Dr. East, Costa Mesa	3.69	Notice of intent to adopt negative declaration
Oceana Apartments	Four story apartment building with 78 affordable housing units for income levels at 30 to 60 percent of Orange County median income on 2-acre site.	18151 Beach Blvd, Huntington Beach	3.75	Under Construction
Bolsa Chica Roadway Embankment Reconstruction Project	Install pedestrian safety cable rails and metal beam guardrails along State Route 1 in Huntington Beach.	SR 1 (Pacific Coast Hwy) from Warner Ave to Seapoint Ave, Huntington Beach	3.95	IS/ND

Project Title	Description	Location	Distance to Project (Miles)	Status
Huntington Beach Senior Center	One-story senior center on an undeveloped portion of Central Park. Approximately 227 parking spaces will be provided for visitors and City vehicles.	Central Park (5-acre area; SW of the intersection of Goldenwest St and Talbert Ave)	4.14	Under Construction
Hyundai Motor America Corporate Campus Project	Expand existing corporate headquarters with a 469,000-sq. ft. campus	10550 Talbert Ave, Fountain Valley	4.39	Completed
Vision 2020 Facilities Master Plan	1,238,542 sq. ft. of academic, administrative, residential, and parking facilities on Orange Coast College campus.	2701 Fairview Rd, Costa Mesa	4.41	Unknown
Well #6 Colored Water Treatment Plant (WTP)	Construct WTP within the next two years.	Harbor Blvd at Gisler Ave, Costa Mesa	4.48	Unknown
Fountain Valley Civic Center Specific Plan	Build Ayres Hotel, 88 residential units (27 single-family, 61 townhomes), and 2,300 sq. ft. of retail space on 8.62-acres.	Brookhurst St and Slater Ave, Fountain Valley	4.64	Unknown
Costa Mesa High School Sports Complex	Construct sports complex with 997-seat bleachers, replacing existing track and field with synthetic field and rubber track, and provide various associated facilities.	2650 Fairview Rd, Costa Mesa	4.68	Unknown
Back Bay Landing Project	New reservoir foundation, install underground pipelines	East Coast Hwy at Bayside Dr, Newport Beach	4.76	Under review with California Coastal Commission

Project Title	Description	Location	Distance to Project (Miles)	Status
Warner-Nichols Project	Demolish six buildings	Warner Ave at Nichols Ln, Huntington Beach	4.92	Adopted
Beach Blvd and Warner Ave Intersection Improvement Project	Construct westbound right turn lane on Warner Ave at intersection and associated improvements including new 5 ft. wide, 15 ft. long sidewalk along west side of A Lane.	Intersection of Beach Blvd and Warner Ave, on the north side of Warner Ave from Beach Blvd to the alley between A Lane and B Lane, including portions of the adjacent commercial properties to the north at 16990 Beach Blvd, 8021 Warner Ave, and 8071 Warner Ave.	4.92	Adopted
Upper Newport Bay-East Bluff Drainage Repair Project	Drainage improvements and erosion repair within bluff on E side of Upper Newport Bay.	E of Back Bay Dr and W of Vista Del Oro, Newport Beach	5.37	Proposed
Yakult USA Manufacturing Facility	77,000 sq. ft. manufacturing facility on 8.8-acres.	17256 Newhope St, Fountain Valley	5.48	Completed
Parkside Estates	111 single-family residences; 23-acres preserved, restored and enhanced open space; 1.6-acre neighborhood park; public trails; and water quality treatment system.	W side Graham St, S of Warner Ave, along E Garden Grove Wintersburg Flood Channel 17221 (S of Greenleaf Ln), Huntington Beach	5.67	Planning
Ganahl Hardware Store and Lumber	65,263 sq. ft. building materials store with administrative offices and	Bristol St and Northbound Newport Blvd,	5.74	Completed

Project Title	Description	Location	Distance to Project (Miles)	Status
Yard	286 parking spaces.	Huntington Beach		
Brightwater	347 single-family units and over 37-acres habitat restoration and trails.	Warner Ave and Los Patos Ave, Huntington Beach	5.77	Under Construction
Newport Executive Court Project	Project includes construction of two, 2-story medical office buildings and a 324-space surface parking lot on 4-acres.	Cross Streets: Birch St and Mesa Dr, Newport Beach	5.88	Plan Check
General Plan Update EIR (North Newport Center)	Increase the multi-family residential development allocation from 430 units to 524 units on 121-acres.	Newport Beach	5.89	Unknown
Monogram Apartments (Formerly Pedigo)	Four-story apartment building with 510 dwelling units and six-level, 862-space parking structure.	7262,7266,7280 Edinger Ave and 16001, 17091 Gothard St, Huntington Beach	5.96	Plan Check
The Boardwalk (Murdy Commons)	487 dwelling units and 14,500 sq. ft. of commercial area on a 12.5-acre site with 1/2 acre public park.	7441 Edinger Ave-Northeast corner of Edinger Ave and Gothard St (Former Levitz Furniture store site)	5.97	Under Construction. First two phases have opened for occupancy.
Edinger Walmart	100,865 sq. ft. vacant retail building within an existing commercial center.	SW corner of Goldenwest St and Edinger Ave, Huntington Beach	6.02	Completed
Airport Circle Residential Project	45-unit condominium subdivision with open space on 2.5-acre site. Site layout: 8 detached three-story buildings with 4 to 8 attached dwelling units.	16911 Airport Cir. Huntington Beach	6.04	Plan Check

Project Title	Description	Location	Distance to Project (Miles)	Status
The Village at Bella Terra	Costco Wholesale, with gasoline service station and mixed-use retail and residential project.467 multi-family residential units within four-story building.	7777 Edinger Ave, Huntington Beach	6.06	Completed
San Diego Freeway I-405 Improvement Project	One general-purpose lane in each direction on I-405 from Euclid St to the I-605 interchange, add tolled express lane in each direction of I-405 from SR-73 to SR-22 East.	I-405 between SR-73 & I-605, Costa Mesa, Seal Beach	6.06	Unknown
Huntington Beach Lofts	Five-story, 385-luxury residential units located above 10,000 sq. ft. of street level retail and commercial uses.	7302-7400 Center Ave, Huntington Beach	6.16	Under Construction
Vans Skate Park	Construction of a skate park.	7471 Center Ave, Huntington Beach	6.35	Completed
Wyndham Boutique Hotel/High-Rise Residential Project	Demolition of Wyndham Hotel parking garage and construction of a 100-unit condominium tower adjacent to a new 6.5-level parking garage with 1 subterranean level and 5.5 levels above ground.	3350 Ave of the Arts, Costa Mesa	6.53	Approved
Harmony Cove Marina Development	23-boat slip marina, eating and drinking establishment with outdoor dining area and alcoholic beverage sales, and ancillary uses to marina.	N side of Warner Ave, W of Weatherly Ln-Formerly Percy Dock	6.55	Proposed

Project Title	Description	Location	Distance to Project (Miles)	Status
OC-44 Pipeline Rehabilitation Project	Sip-line existing 42-inch pipeline with new 30-inch Ductile Iron Pipe (DIP). To accommodate these improvements, a pipe jacking operation would be conducted, requiring three access pits.	University Dr and La Vida, Newport Beach	6.61	Approved-Construction 2018-2020
Civic Center and Park Project	Construction of park, city hall building, and 450 parking spaces.	Avocado Ave and McArthur Blvd, Newport Beach	6.62	Unknown
Uptown Newport Village Specific Plan Project	Mixed-use project with 1,244 residential units, 11,500 sq. ft. retail, and a 2-acre park.	Jamboree Rd and Fairchild Rd, Newport Beach	6.92	Approved
Tennis Estates Tree Trimming and Management Plan	Tree Trimming and Management Plan for the Tennis Estates Homeowners Association property in the Coastal Zone.	16380 Wimbledon Ln, Huntington Beach	7.05	In Progress
Rofael Marina and Caretaker Facility	Construct marina on 6,179 sq. ft. property.	16926 Park Ave, Huntington Beach	7.12	In Progress. Requires Coastal Development Permit and a Conditional Use Permit.
Campus and Jamboree	1,600 residential units (5 to 6-story apartments), 17,000 sq. ft. plus primary retail in Irvine Technology Center, and up to 23,000 sq. ft. accessory retail and/or residential-serving	NW corner of Campus and Jamboree, Irvine	7.37	Phase 1 Under Construction (9/26/2015)

Project Title	Description	Location	Distance to Project (Miles)	Status
	amenities, 1-acre public park, and two 0.5-acre public plazas.			
Mater Dei High School Parking Structure	Three-level parking structure	1202 W Edinger Ave, Santa Ana	7.80	Proposed, 3-5 years 2018 at earliest
Sunset/Huntington Harbour Maintenance Dredging and Waterline Installation Project	Maintenance dredging and waterline Installation.	Edinger Ave and Sunset Way, Huntington Beach	7.80	Unknown
Warner Avenue Widening	Widening to six lanes.	Warner Ave, Santa Ana	8.48	Approved. Construction in four phases. Phase 1 Jan. 2016 to Jan 2017.
2801 Kelvin	384-unit apartments.	2801 Kelvin Ave, Irvine	8.70	Under Construction. 18-month construction period
Bristol St. Widening	Widening to six lanes.	3.9-mile stretch of Bristol St from Memory Ln to Warner Ave, Santa Ana	8.79	Under Construction. Phase 1 complete out of four phases, Phase 2 out to bid with 11-month construction period. Phase 3 June 2015 to June 2016. Phase 4 currently

Project Title	Description	Location	Distance to Project (Miles)	Status
				unfunded.
Vista Verde	Build 55-unit project, which is proposing to add 3 additional units to the project	5144 Michelson Dr, Irvine	10.00	Unknown
Grand Avenue Widening	Widening to six lanes	Grand Ave, Santa Ana	10.15	Under Construction July 2015 to March 2016.
I-5 Central County Improvement Project	Add second carpool lane in each direction on I-5 between the SR-55 and the SR-57.	I-5 between SR-55 and SR-57, cities of Santa Ana, Tustin and Orange.	10.39	Approved. Construction Jan. 2016 to Jan 2017.
I-5, SR-73 to El Toro Road	Widen I-5 to accommodate general-purpose lanes in each direction. Reestablish existing auxiliary lanes. Extend second carpool lane from El Toro Rd. to Alicia Parkway in both directions and modify ramps as needed. Reconstruct Avery Parkway and La Paz Rd. interchanges. 2018 to 2022	I-5 between SR-73 to El Toro Rd, cities of Laguna Hills, Laguna Woods, Laguna Niguel, Mission Viejo, Lake Forest, and San Juan Capistrano.	10.67	Proposed
Alamitos Energy Center	Two natural gas turbine power blocks. Power Block 1:natural-gas-fired combustion turbine generators in combined-cycle configuration, two unfired heat recovery steam generators, one steam turbine generator, air-cooled condenser, auxiliary boiler, related ancillary equipment..	690 N Studebaker Rd, Long Beach	10.74	Application in review

Project Title	Description	Location	Distance to Project (Miles)	Status
	Power Block 2: four simple-cycle combustion turbine generators with fin-fan coolers and ancillary facilities. 21-acre site within larger 71.1-acre Alamitos Generation Station site.			
Sexlinger Farmhouse & Orchard Residential Development Project	24 single-family homes on 5-acres.	E Santa Clara Ave at Tustin Ave, Santa Ana	11.38	On Hold, CEQA Lawsuit-Possible Appeal
Santa Fe Depot Specific Plan	Potential infill development at as many as 11 locations.	Between Walnut and Palmyra Aves, Orange	12.13	Unknown
Irvine Center Drive and Alton, NWC.	766-unit apartments.	Northwest corner of Irvine Center Dr and Alton Pkwy, Irvine	12.84	Under Construction. Estimated 24-month construction
Great Park Neighborhoods (Heritage Fields)	Residential housing, parks, and sports fields/complex.	Former El Toro Marine Air Station, Irvine	13.12	Unknown
Pacifica and Spectrum NWC	573-unit apartments	SW corner of Alton Pkwy and Spectrum, Irvine	13.19	Under Construction. 24-month construction
Cypress Community College AST	Construct storage tank.	9200 Valley View St, Cypress	14.25	Unknown
Recycled Water Distribution System Expansion	Build tertiary treatment facilities and transmission pipeline.	Ridge Route Dr & Moulton Pkwy, Laguna Hills and Laguna Woods	14.66	Approved
Coastal Treatment Plant Export Sludge	Replacement of 16,600 ft. of two 4-inch iron pipelines,	Aliso Viejo, Awma	15.61	Unknown

Project Title	Description	Location	Distance to Project (Miles)	Status
Force Main Replacement	eastern side of Aliso Creek.	Rd at Alicia Pkwy, Laguna Niguel		
ND-12-02 Aliso Creek Pedestrian Bridge/Service Road	Replace pedestrian bridge with new build.	Laguna Woods	15.91	Unknown
Radha Raman Vedic Mandir	Church renovation and additional construction of facilities.	1022 N Bradford Ave, Placentia	17.54	Unknown
Robert Diemer Filtration Plant Improvements	New reservoir foundation, install underground pipelines	3972 Valley View, Yorba Linda	19.62	Completed
I-5 between Avenida Pico to San Juan Creek Road	Add carpool lane both directions on I-5 between Avenida Pico to San Juan Creek Road. Reconstruct interchange at Avenida Pico. Widen northbound Avenida Pico on-ramp to three lanes. Provide dual left-turn lanes to both northbound and southbound Avenida Pico on-ramps. Add sound walls where needed.	I-5 between Avenida Pico and San Juan Creek Rd, San Clemente, San Juan Capistrano and Dana Point.	21.14	Under Construction 2013 to 2017.

PROCEDURAL HISTORY OF THE CURRENT PETITION TO AMEND

The Warren-Alquist Act and Energy Commission regulations[34] mandate a public review process and specify the occurrence of certain procedural events in which the public may participate. The key procedural events that occurred in the present case are summarized below.

The formal parties to this action are the Petitioner, Staff, and Robert Simpson, individually and on behalf of Helping Hand Tools.[35]

On September 9, 2015, AES filed the Petition to Amend with Appendices.[36] The Committee published a Notice of Public Site Visit, Environmental Scoping Meeting, and Informational Hearing and Committee Order on November 23, 2015.[37] The Committee conducted the Public Site Visit, Environmental Scoping Meeting, and Informational Hearing on December 8, 2015, in Huntington Beach, California. On December 21, 2015, the Hearing Officer corresponded with the prior intervenors from the 2014 Project's proceedings, informing them of the need to file a new Petition to Intervene if they desired to become intervenors in the amendment proceeding.

Staff held a public workshop on December 8, 2015, on the topics of air quality, cultural resources, socioeconomics, transmission system engineering, visual resources, and other technical issues.[38]

The Committee issued a scheduling order on January 13, 2016,[39] that was subsequently revised on March 9, 2016,[40] July 8, 2016,[41] August 29, 2016,[42] and

[34] Cal. Code Regs., tit. 20, § 1701 et seq.

[35] Mr. Simpson and Helping Hands Tools requested intervenor status on December 16, 2016, after the deadline for Petitions to Intervene had passed under the Scheduling Orders (see below). (TN 213868) On December 20, 2016, the Committee found good cause to grant limited intervenor status after the deadline for Petitions to Intervene, but limited Mr. Simpson's intervention to the topics of greenhouse gas emissions, air quality and public health. (TN 214950)

[36] Ex. 5001.

[37] TN 206730.

[38] TN 206922.

[39] TN 207324.

[40] TN 210666.

[41] TN 212210.

[42] TN 213017.

November 30, 2016.[43] On January 27, 2016, the Committee filed a notice scheduling Status Conferences on February 16, 2016, April 19, 2016, and June 22, 2016.[44]

On March 14, 2016, Petitioner filed a Supplemental Application for Certification Revisions with the South Coast Air Quality Management District (SCAQMD) proposing to increase the number of cold start-ups for the combined-cycle turbines on a monthly and annual basis.[45] These changes required SCAQMD to update their previous engineering analysis (for the Preliminary Determination of Compliance) and review the health risk assessment and emissions modeling. SCAQMD filed the Preliminary Determination of Compliance on June 8, 2016.[46]

Staff published its Preliminary Staff Assessment (PSA) on June 24, 2016.[47] Staff provided a Notice of a Public Workshop for the PSA on June 30, 2016.[48] Staff conducted a public workshop on the PSA on July 12, 2016, at the Huntington Beach Public Library.[49] The 30-day public comment period for the PSA ended on July 24, 2016.

On October 17, 2016, Staff published Part 1 of the Final Staff Assessment (FSA) that contained all of the sections of a complete FSA except for Air Quality, Greenhouse Gases, and Public Health.[50] Those sections were delayed pending receipt of the Final Determination of Compliance (FDOC) from South Coast. The Committee conducted a Prehearing Conference for an Evidentiary Hearing on Part 1 of the FSA on November 14, 2016.[51] The FDOC for the Amended Project was published on November 18, 2016.[52]

Staff published Part 2 of the FSA on December 9, 2016.[53] Part 2 of the FSA contained the previously unpublished sections of Air Quality, Greenhouse Gases, and Public Health, as well as responses to questions and comments from the Committee and the

[43] TN 214581.

[44] TN 209986.

[45] TN 210807.

[46] TN 211747.

[47] TN 211973.

[48] TN 212043.

[49] TNs 212213, 212267.

[50] Ex. 6000.

[51] TN 214127.

[52] Ex. 6002.

[53] Ex 6003.

city of Huntington Beach that had been raised during the November 14, 2016 Prehearing Conference.

The Committee conducted a Prehearing Conference on Part 2 of the FSA and an Evidentiary Hearing on December 21, 2016, at the California Energy Commission in Sacramento, California. The Committee filed its PMPD on February 24, 2017, subject to a 30-day comment period. The Committee conducted a Committee Conference on the PMPD on March 9, 2017. The comment period closed on March 27, 2017.

On April 11, 2017, the Committee filed an Errata to the PMPD, containing corrections to the PMPD and responses to significant comments on the PMPD. At its April 12, 2017, Business Meeting, the full Energy Commission considered the PMPD and the Errata and adopted an Order approving the Petition to Amend.

ENERGY COMMISSION OUTREACH

Several divisions within the Energy Commission provide various notices concerning power plant siting cases. Staff provides notices of Staff workshops and the release of the Staff Assessments. The Hearing Office notices Committee-led events such as the Informational Hearing and Site Visit, Status Conferences, the Prehearing Conference, and Evidentiary Hearings. The Public Adviser's Office provides additional outreach for critical events, language support, and information to interested persons that would like to become more actively involved in a power plant siting proceeding or require translation services. The public may also subscribe to a proceeding's e-mail List Serve offered on the Energy Commission's website, which gives an immediate notification of documents filed in the proceeding. Through the activities of these entities, the Energy Commission has attempted to ensure that interested persons are notified of activities in this proceeding.

AGENCY AND PUBLIC COMMENTS

The record contains public comments from concerned individuals and organizations. Throughout these proceedings, as reflected in the transcribed record, the Committee provided an opportunity for public comment at each Committee-sponsored conference and hearing. A summary and response to substantive comments is included in the individual topic sections that follow.

California Coastal Commission

In the 2014 Decision, one of the critical issues concerned the interplay of the Energy Commission and the California Coastal Commission (Coastal Commission) in the siting process. We noted the Coastal Commission's important status in our proceedings.[54]

This status is reflected in the April 14, 2005 "Memorandum of Agreement between the California Energy Commission and the California Coastal Commission Regarding the Coastal Commission's Statutory Role in the Energy Commission's AFC Proceedings" (MOA).[55] The MOA assigns responsibilities to each agency. The responsibilities of the Coastal Commission, among others, are to provide a report specifying provisions regarding the proposed site and related facilities to meet the objectives of the California Coastal Act[56] and to participate in public hearings regarding that report, including responding to questions regarding the report and to sponsor that document into the evidentiary record.[57] In turn, the Energy Commission is obligated to incorporate the findings and mitigation measures for coastal resources contained in the report or, alternatively, to make findings that such measures are infeasible or would result in a greater adverse impact on the environment.[58]

The 2014 Decision addressed the applicability of the MOA and Public Resources Code section 30413, subdivision (d) to the Application for Certification for the 2014 Project. We noted that the Coastal Commission report on the 2014 Project was received late in the proceedings and that no witness had been provided at the Evidentiary Hearings on the 2014 Project.[59]We determined that, whether the Coastal Commission report on the 2014 Project was mandatory or permissive, we afforded it "due deference" under the terms of the MOA.[60]

We are again presented with the issue of the proper treatment of a Coastal Commission report, this time for the Amended Project. On August 15, 2016, the Coastal Commission submitted the "California Coastal Commission's Report for Petition to Amend Application for Certification - Section 30413(d)" (Report).[61]

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[54] Ex. 5114, pp. 6.1-11 – 6.1-13.

[55] TN 215430.

[56] *Id.* at p. 2.

[57] *Id.* at p. 6.

[58] Pub. Resources Code §§25523, 30413; Cal. Code Regs., tit. 20, §§ 1745.5, subdivs. (b)(3)(C) and (D).

[59] *Id.* at pp. 6.1-12 – 6.1-13.

[60] Ex. 5114, pp. 6.1-11 – 6.-12.

[61] TNs 212797-1, 212797-3.

The statutory and regulatory provisions for Coastal Commission reports do not specifically apply to amendment proceedings under section 1769 of the Energy Commission's regulations.[62] Public Resources Code sections 25523 and 30413 specifically refer to notice of intention proceedings under the Warren-Alquist Act. The MOA is also silent on its applicability to amendment proceedings, referring only to applications for certification.[63]

Even if the MOA, statutes, and regulations were applicable, we are required to determine the feasibility of the mitigation measures proposed in the Report. The Report was received in time for Staff to include responses to its comments and recommendations in the FSA. However, as in 2014, the Coastal Commission did not provide a witness during the Evidentiary Hearings on the Amended Project to provide needed information on the feasibility of the proposals.

Accordingly, we treat the Report as comments from the Coastal Commission to which we give due deference.[64] Our analysis of these proposals must also be measured against the limited nature of our review, particularly under CEQA. We note that Staff reviewed each comment from the Report in its FSA, addressing whether the comment contained new information requiring supplementation of our previous environmental review.[65] To the extent that the Report's recommendations relate to environmental effects previously analyzed in the 2014 Decision, and for which we find that no subsequent or supplemental analysis is required for the Amended Project, we will not make specific findings for each recommendation.

Intervenor Robert Simpson/Helping Hand Tools

Intervenor Robert Simpson/Helping Hand Tools filed an Opening Brief in which he contended that the Energy Commission is not properly considering input from the Coastal Commission and that the provisions of Public Resource Code sections 25523(b) and 30413(d) apply to amendments.[66] As seen above, there is no clear

[62] Cal. Code Reg., tit. 20, §1769.

[63] "The purpose of this agreement is to ensure timely and effective coordination between the Energy Commission and the Coastal Commission during the Energy Commission's review of an Application for Certification (AFC) of a proposed site and related facilities under Energy Commission jurisdiction." (TN 215430, p. 1.)

[64] California Code Regs., tit. 20, §§ 1742, subd. (a); 1744, subd. (e).

[65] Ex. 6000, pp. 4.2-8 - 4.2-9, 4.9-11 - 4.9-13, 4.10-6 - 4.10-7, 5.2-4 -5.2-8.

[66] TN 215259. Mr. Simpson/Helping Hand Tools was admitted as an Intervenor only on the topics of air quality, greenhouse gases, and public health (TN 214950). As such, we treat the portions of his brief addressing topics on which he was not admitted as an Intervenor, as public comment.

support for finding a statutory, regulatory, or MOA basis for the Report. Also, as outlined above, the Energy Commission has carefully considered the Coastal Commission and its Report.

Mr. Simpson further contended that consideration of the Amended Project needed to be by Application for Certification, and not by Petition to Amend.[67] He argued that AES has proposed an entirely different project than what was approved in the 2014 Decision, citing several circumstances that are not "substantially the same," such as the need for a new FDOC, natural-gas shortages from the restrictions on Aliso Canyon, changes in project ownership, and modifications to visual enhancements.[68]

Mr. Simpson misapprehends the scope of the amendment process. The Energy Commission's regulations make it clear that, if a license has previously been granted by the Energy Commission, then any proposed changes to the design, operation, or performance requirements must be made through a petition to the Energy Commission.[69] Thus, the question is not the quantum of changes proposed, but whether there is an existing license. In this case, the 2014 Project is the subject of an Energy Commission license. Therefore, any changes to that project, no matter how great, are properly the subject of an amendment proceeding.

[67] TN 215259. Mr. Simpson/Helping Hand Tools was admitted as an Intervenor only on the topics of air quality, greenhouse gases, and public health (TN 214950). As such, we treat the portions of his brief addressing topics on which he was not admitted as an Intervenor, as public comment.

[68] *Id.*at pp. 1-4.

[69] Cal. Code Regs., tit. 20, § 1769, subd. (a)(1),

II. PROJECT DESCRIPTION

INTRODUCTION

This section of the Decision describes the amended Huntington Beach Energy Project (Amended Project) proposed to be built, its general setting,[1] where it will be built, its objectives, and other land uses and physical features near the proposed project site. The section also includes a comparison to the previously approved Huntington Beach Energy Project (2014 Project) and its changes, as well as a description of any work already undertaken for that project.

Evidence on the topic of Project Description is contained in Exhibits 5001, 5055, 5056, 6000, 6001, and 6003.

SETTING

The Amended Project will be located within the existing operating Huntington Beach Generating Station (HBGS) located at 21730 Newland Street, Huntington Beach, California. The site is located just north of the intersection of the Pacific Coast Highway (Highway 1) and Newland Street. The Amended Project borders a manufactured home/recreational vehicle park on the west, a tank farm on the north, the Magnolia Marsh wetlands on the north and east, and the Pacific Ocean and Huntington Beach State Park on the south and southwest.[2]

Construction laydown on 22 acres of combined construction parking and construction laydown area is proposed at the Plains All-American Tank Farm site (Plains site). The Plains site is east of the HBGS site, next to the Huntington Beach Channel, adjacent to the Huntington Beach Wetland Preserve/Magnolia Marsh wetlands, and adjacent to Magnolia Street. The Plains site contains three storage tanks, a pump house, and a valve/manifold structure, surrounded by a vegetated earthen containment berm. Each tank is located within a shallow retention basin. **Project Description Figure 1** shows the layout of the Plains site, the Amended Project site, and the regional location.

The 2014 Project was also to be located within the HBGS site, but only used 1.9 acres of the Plains site.[3]

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[1] Setting refers to the general location of the facility. Where necessary, specific details about the Amended Project and its vicinity will be included in each substantive section. For example, in the Land Use section, additional zoning details will be provided.

[2] Ex. 6000, p. 3-1.

[3] Ex. 6000, p. 3-3.

PROJECT DESCRIPTION - FIGURE 1
Amended Huntington Beach Energy Project - Construction / Laydown Parking Areas

CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION
SOURCE: CH2M - Figure 2.3-3 (Rev 1)

PROJECT DESCRIPTION

The proposed amendment to the 2014 Project flows from a change in equipment in order to conform with the Power Purchase Agreement with Southern California Edison (SCE).

Summary of the 2014 Decision[4]

In 2014, the Energy Commission approved the Huntington Beach Energy Project (2014 Project). The 2014 Project was licensed as a 939 megawatt (MW) power plant consisting of two independently operating, three-on-one, combined-cycle gas turbine power blocks. Each power block consisted of three Mitsubishi natural-gas-fired combustion turbine generators, three supplemental-fired, heat-recovery steam generators, one steam turbine generator, an air-cooled condenser, and related ancillary equipment.

The 2014 Project was to be built on 28.6 acres in the HBGS location. Site preparation, including demolition of the existing HBGS Units 1, 2, and 5, and construction were anticipated to take 90 months. The 2014 Project site has a General Plan designation of "Public," which includes public utilities. The 2014 Decision concluded that the 2014 Project was consistent with the Huntington Beach General Plan.[5]

The 2014 Project site is located in the Coastal Zone and is, thus, subject to the city of Huntington Beach's Local Coastal Program and Coastal Element of the General Plan. The existing HBGS was noted as an important coastal-dependent facility within the Coastal Zone. The 2014 Decision concluded that the 2014 Project was consistent with the city of Huntington Beach's Local Coastal Program and Coastal Element of the General Plan.[6]

Further, the 2014 Project is located in the Public/Semi-public zoning designation that requires a conditional use permit for major utilities. The 2014 Project's exhaust stacks were 120 feet tall; however, the applicable zoning and subdivision ordinances limited structures to 50 feet. Therefore, approval of the 2014 Project required a variance. The 2014 Decision included findings for a coastal development permit, a variance, and a conditional use permit.[7]

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[4] Ex. 5114.

[5] *Id.* at pp. 6.1-3, 6.1-15 – 6.1-17.

[6] *Id.* at p. 6.1-17.

[7] *Id.* at pp. 6.1-17- 6.1-20.

Construction laydown facilities for the 2014 Project were to be located on 16 acres of the Alamitos Generating Station in Long Beach, California. The 2014 Decision concluded that use of the Alamitos Generating Station for construction laydown was consistent with the land use regulations of the city of Long Beach.[8]

The 2014 Decision found that the 2014 Project created a significant impact on visual resources at Key Observation Points (KOP) 4[9] and 5.[10] In order to mitigate those impacts, the 2014 Decision imposed Conditions of Certification **VIS-1** and **VIS-2** that required the Project Owner to build three architectural surfboards and three architectural wave forms approximately 125 feet tall to screen the power blocks. With the imposition and implementation of Conditions of Certification **VIS-1** and **VIS-2**, the 2014 Decision found the impacts to visual resources at KOPs 4 and 5 to be "less than significant."[11]

Potable and process water for the 2014 Project were to be provided by the city of Huntington Beach. The 2014 Project required approximately 134 AFY for potable and process water demands. The use of reclaimed water was found to be infeasible.[12] The 2014 Decision included a water supply assessment, as required by California Water Code sections 10910 et seq. The 2014 Decision concluded that there was sufficient water to serve the 2014 Project and that the impacts of obtaining the water from the identified sources had been adequately analyzed.[13]

Petition to Amend

On September 4, 2015, AES Southland, LLC (AES)[14] submitted a Petition to Amend the 2014 Decision (Petition).[15] AES proposed to modify the design of the 2014 Project in order to construct and operate an 844 MW power plant. The Petition follows from the SCE selection of an AES proposal to provide power under the 2013 Local Capacity Requirements Request.[16] The selection by SCE authorized the purchase of 644 MW

[8] *Id.* at p. 6.1-6.

[9] *Id.* at pp. 6.5-13 – 6.5-15.

[10] *Id.*at pp. 6.5-15 – 6.5-17.

[11] *Id.* at pp. 3.1-4, 6.5-8, 6.5-13 – 6.5-17.

[12] *Id.* at pp. 2-6, 5.2-11 - 5.2-13.

[13] *Id.* at pp. 5.2-18 – 5.2-23.

[14] AES Southland, LLC, is now known as AES Huntington Beach Energy, LLC, which is an indirect, wholly-owned subsidiary of the AES Corporation. (Ex. 6000, p. 3-1, fn.1; see also, Ex. 5025.)

[15] Ex. 5001, Ex. 6000, p. 3-1.

[16] Ex. 6000, p. 3-2.

from AES using a different suite of components than that approved in the 2014 Decision:

- One combined-cycle, gas-turbine (CCGT), 644 MW power block consisting of two General Electric (GE) Frame 7FA.05s;
- Two GE simple-cycle gas-turbine LMS-100 PBs;
- Proposed stack height of 150 feet for the GE Frame 7FA.05 combustion-turbine generator units;
- Two unfired heat-recovery steam generators equipped with two emission control systems to control CO, NOx and VOC emissions;
- One steam-turbine generator;
- One air-cooled condenser (ACC) and one closed-loop, air-cooled heat exchanger;
- One natural-gas-fired auxiliary boiler to support the power block; and
- Related ancillary equipment.[17]

Construction is proposed to commence in two phases with the first phase consisting of the 644 MW electrical generating facility described above. After the first phase combined-cycle power block is operational, the second phase construction adds two GE simple-cycle gas-turbine LMS-100 PBs (SCGT) with a nominal capacity of 200 MWs, and proposed stack height of 80 feet for the LMS100 units. This second phase does not yet have a power purchase agreement.[18]

As with the 2014 Project, construction of the Amended Project will require the phased demolition of the HBGS units to grade level.[19] Units 3 and 4 are already authorized for demolition though an Energy Commission license (00-AFC-13C). Demolition of Units 3 and 4 is expected to be completed by 2022.[20] Because of the prior license, the demolition of these units is not included in the Amended Project analysis.[21] Demolition of Units 1, 2, and 5 were approved as part of the 2014 Project and are also included in the Amended Project analysis.

[17] *Id.*

[18] *Id.*

[19] Ex. 5055, pp. 5, Ex. A.

[20] Ex. 5106.

[21] Ex. 6000 at pp. 3-3 - 3-4.

Construction Laydown and Parking

In addition to using 16 acres at the Alamitos Generating Station site in Long Beach for temporary equipment storage and truck parking when heavy haul deliveries cannot be immediately accommodated at the Amended Project site, the Amended Project intends to use the Plains site for construction laydown and some construction parking. The Plains site has an existing coastal development permit from the city of Huntington Beach that allows for removal of the existing tanks and other structures and site grading, but does not include any additional development.[22] In order to access the Plains site, AES will be required to signalize the intersection of Magnolia Avenue and Banning Street. After the intersection modifications are constructed, a gravel access road is to be constructed to access the Plains site for equipment laydown and parking.[23]

Pipelines and Transmission System

No new off-site linear facilities are proposed as part of the Amended Project. Like the 2014 Project, the Amended Project will continue to use the transmission system used by the HBGS. The Amended Project connects to the on-site SCE Ellis switchyard through two 230-kV transmission interconnections.[24]

Similarly, natural gas for the Amended Project will be delivered to the project site via an existing 16-inch-diameter line. As with the 2014 Project, two new metering stations will be constructed, along with a new gas-pressure control station and gas scrubber/filtering equipment.[25]

Water Supply and Wastewater Treatment

The Amended Project proposes to utilize the existing connections to the city of Huntington Beach water and wastewater treatment systems. Water demand from the Amended Project is estimated to be 120 AFY, 14 AFY less than the 134 AFY demand analyzed in the 2014 Project.[26]

[22] *Id*. at p. 3-3.

[23] *Id.*; see also, Ex. 5055, p. 3.

[24] *Id*. at p. 3-8.

[25] Ex. 5001, p. 2-3; Ex. 6000 at p. 3-8.

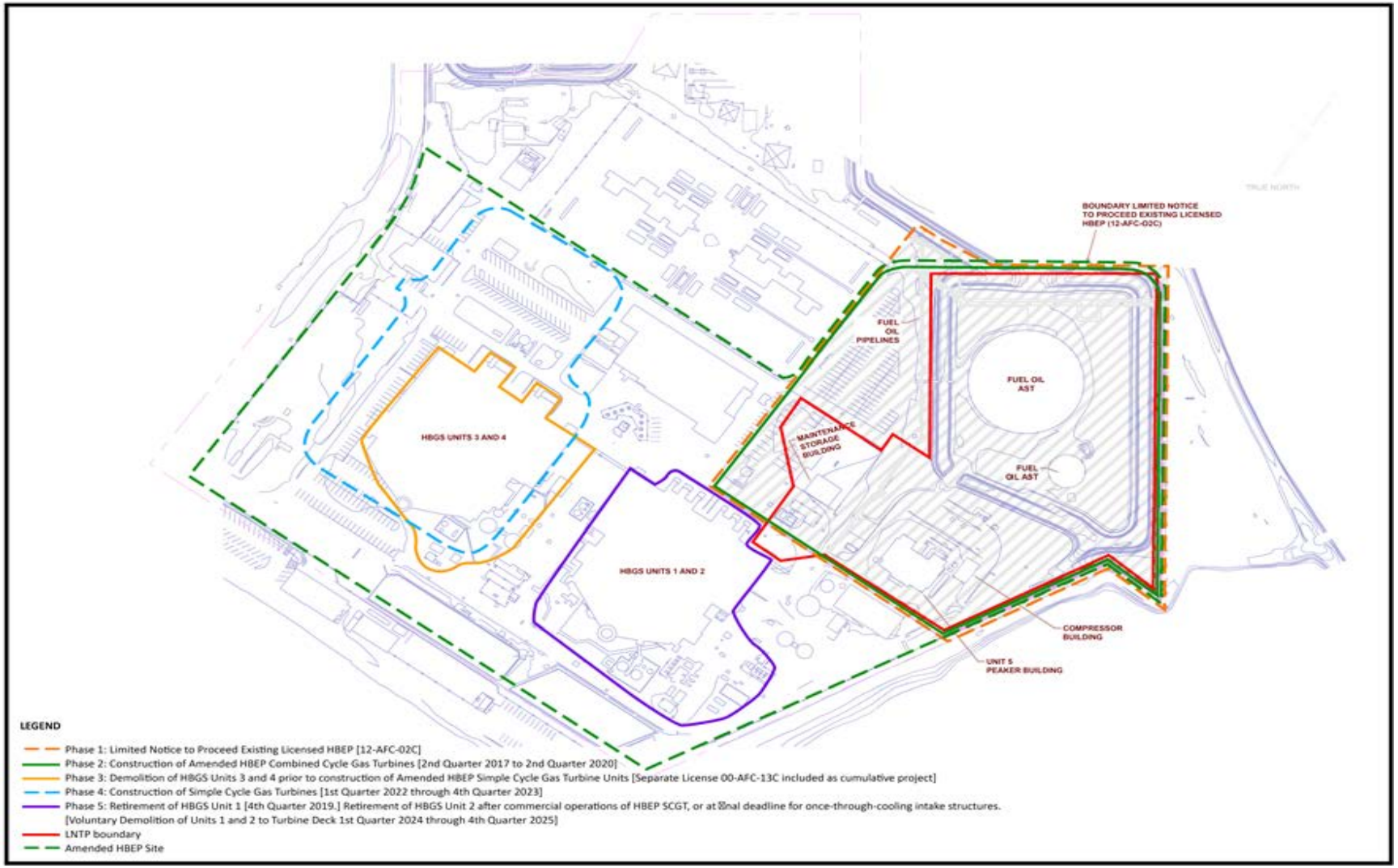
[26] Ex. 6000, pp. 3-8, 4.9-5.

Site Layout

Project Description Figure 2 shows the general layout and location of the equipment for the Amended Project, along with the phasing plan for the construction and demolition.[27]

[27] *Id*. at pp. 3-10 – 3-11.

Project Description - Figure 2
General Layout for the Amended Project



Schedule

Site preparation, including demolition of HBGS Units 1, 2, and 5, and construction of the Amended Project will take approximately nine years to complete.[28] **Project Description Table 1** shows the phasing of the demolition and construction.

Project Description - Table 1
Site Preparation / Construction Activity Timeline[29]

Site Preparation / Construction Activity	Timeline
Demolish HBGS Unit 5 and fuel tanks[30]	Q1 2016 - Q2 2017 16 months
Construction of Amended Project Power Block 1	Q2 2017 – Q2 2020 36 months
Commercial Operation of Amended Project Power Block 1	Q2 2020
Demolish HBGS Units 3 and 4 (under separate approved license and not part of the current Amended Project)	Q2 2020 – Q2 2022 24 months
Construction Amended Project Power Block 2	Q1 2022 – Q4 2023 24 months
Commercial Operation Amended Project Power Block 2	Q1 2024
Demolish HBGS Units 1 and 2[31]	Q1 2024 – Q4 2025 24 months

PROJECT OBJECTIVES

The Amended Project's objectives are as follows:

- Provide efficient, reliable, and predictable power supply by using combined-cycle, natural-gas-fired combustion turbines to replace the retirement of once-through cooling (OTC) generation;

[28] Ex. 5005, App. A; Ex. 6000, pp. 1-2 – 1-3, 3-3 – 3-4.

[29] Ex. 6000, pp. 3-3 –3-4.

[30] This work has already been completed (12/21/16 RT 104:19 – 105:11).

[31] In the Petition to Amend, AES had indicated that demolition of the HBGS Units 1 and 2 was only to the turbine deck. However, during analysis of the Amended Project, the level of demolition was increased so that HBGS Units 1 and 2 will now be demolished to ground level. (Ex. 5055, p. 5, Ex. A.)

- Provide replacement generation for Southern California customers from the closure of the San Onofre Nuclear Generating Station;
- Eliminate use of ocean water for OTC;
- Offer support for the local capacity requirements of Southern California's Western Los Angeles Basin;
- Develop an 844 MW power generation plant that provides efficient operational flexibility with rapid-start and fast-ramping capability to allow for efficient integration of renewable energy sources in the California electrical grid;
- Reuse existing electrical, water, wastewater, and natural-gas infrastructure and land to minimize land resource and environmental justice impacts by developing on an existing brown field site;
- Site the Amended Project to serve the load area without constructing new transmission facilities; and
- Site the Amended Project on property that has an industrial land-use designation with consistent zoning.[32]

The Amended Project could provide up to 844 MW of power generation capacity to the western Los Angeles Basin Local Reliability Area and will replace the retiring HBGS. The HBGS is scheduled to cease operation by December 31, 2020, in compliance with the California State Water Resources Control's Board's (SWRCB) *Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling.* This policy was adopted by the SWRCB on May 4, 2010*,* and regulates the use of seawater by power generation plants utilizing the OTC method.

FINDINGS SPECIFIC TO AN AMENDMENT

As noted in the **INTRODUCTION** section of this Decision, before approving an amendment, the Energy Commission must find that:

- The Amended Project will not have significant unmitigated environmental effects or that specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the proceeding, and that the benefits of the project outweigh the unavoidable significant environmental effects of the project;
- The Amended Project will remain in compliance with all applicable LORS or that the facility is required for the public convenience and necessity and that there are not

32 *Id.* at pp. 1-8, 3-6 – 3-7.

more prudent and feasible means of achieving the public convenience and necessity;

- The change from the previously-approved project will be beneficial to the public, petitioner, or intervenors; and
- There has been a substantial change in circumstances since the original approval justifying the change or that the change is based on information which was not known and could not have been known with the exercise of reasonable diligence prior to the original approval.[33]

Benefits

The California Independent System Operator (California ISO) has recognized the importance of the existing HBGS location in providing energy and contingency reserve for the Western Los Angeles Basin Local Reliability Area and northern San Diego County. The Amended Project ensures the long-term viability of this existing critical generating location and provides essential electrical service to the residents of Orange County and Huntington Beach. The Amended Project's quick-start, peaking electric generation capacity helps meet peak demand and resource adequacy requirements as identified by California Public Utilities Commission Resource Adequacy Requirements (AB 380) and the California ISO.[34]

The Amended Project will be air cooled, resulting in a substantial reduction in fresh water usage by using 20 percent of the fresh water used by the existing HBGS. In addition, the Amended Project will eliminate the use of seawater for OTC and its potential impacts to marine life through impingement and entrainment.[35]

The Amended Project is located entirely within the footprint of the existing HBGS site thereby avoiding the need to construct new linear facilities, including gas and water supply lines, discharge lines, and transmission interconnections. Siting of the Amended Project is consistent with the city of Huntington Beach's existing zoning regulations, will result in reducing potential off-site environmental impacts and the cost of construction, and will ensure no new site in the city of Huntington Beach is converted to industrial use to generate power.[36]

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[33] Cal. Code Regs, tit. 20, §§ 1755, subd. (d); 1769, subd. (a)(3).

[34] Ex. 5001, p. 1-2; Ex. 6000, p. 3-10.

[35] Ex. 6000, p. 3-10.

[36] *Id.*

Changed Information or Circumstances

As set forth above, the primary motivation for the Petition is to have the Amended Project conform to the Power Purchase Agreement with SCE. The 2014 Project was premised on AES's best commercial assumption for the generating type and quantity required to maintain electric reliability after the retirement of HBGS in accordance with SWRCB's OTC policy. The suite of generation technology could not have been known when the Application for Certification for the 2014 Project was filed by AES, nor could it have been known at the time the Energy Commission adopted the 2014 Decision.[37]

AGENCY AND PUBLIC COMMENTS:

No agency or public comments on the topic of **PROJECT DESCRIPTION** were received during the Evidentiary Hearing.

Intervenor Robert Simpson/Helping Hand Tools filed an Opening Brief[38] raising various issues regarding the appropriateness of the use of the amendment process to consider the proposed changes to the 2014 Project, arguing that AES knew or should have known that the 2014 Project was not the project approved by the procurement authorized by the California Public Utilities Commission (CPUC). Mr. Simpson claims that AES should have known of changes to the 2014 Project because there was an announcement of its successful bid approximately one week before the Energy Commission approved the 2014 Project on October 29, 2014. We first note that Mr. Simpson's comments are not evidence we can rely upon to support this contention. More critically, we note that the CPUC did not approve the Power Purchase Agreement between Southern California Edison and AES until November 19, 2015.[39] We, thus, note that there was almost a year delay before the option for changes to the project were confirmed. More importantly, regardless of whether denominated as an application for certification or petition to amend, our analysis would have been similar because of the constraints of CEQA Guidelines, section 15162, regarding supplemental environmental review (see, e.g., discussions in Biological Resources, Geological and

[37] Ex. 5001, p. 1-2.

[38] TN 215259. Mr. Simpson/Helping Hand Tools was admitted as an Intervenor only on the topics of air quality, greenhouse gases, and public health (TN 214950). As such, we treat the portions of his brief addressing topics on which he was not admitted as an Intervenor as public comment. During the comment period on the PMPD, Mr. Simpson refiled his opening brief as "public comments" (TN 216462). Because these comments were addressed in the PMPD, we do not further respond to them.

[39] Application of Southern California Edison Company (U 3380E) for Approval of the Results of Its 2013 Local Capacity Requirements Request for Offers for the Western Los Angeles Basin, Decision 15-11-041, dated November 19, 2015.

Paleontological Resources, and Visual Resources). In addition, see **ALTERNATIVES**, "Response to Agency and Public Comments," regarding relationship between CPUC and Energy Commission in power plant project approval.

In comments on the PMPD, John in Huntington Beach[40] asked, "Why would this project take 9 years to complete?" and "Why are Power Plants guaranteed a 10.5% return on their investment and would AES build/remodel this Huntington Beach plant if the guarantee did NOT exist?"

In response to the first question, as shown in Project Description – Table 1 and Project Description – Figure 2, General Layout for the Amended Project, of this Decision, the entire project has several phases, with the later phases reliant on the completion of the prior phases, because the same physical space is needed. For example, demolition of existing Units 3 and 4 must occur prior to the construction of Power Block 2 because Power Block 2 is to be built in the location of existing Units 3 and 4. In addition, the planned phased construction and demolition activities of the Amended Project allow for continued operation of the existing Huntington Beach Generating Station's power generation and synchronous condensers to maintain power delivery and grid reliability during construction.[41]

Regarding the rate of return on investment, there is no evidence in the record on this topic. Moreover, any such discussion is irrelevant to these proceedings. The purpose of this Decision, and the Energy Commission's review in general, is to analyze the potential environmental impacts of the proposed project and its conformity with laws, ordinances, regulations, and standards. For further analysis of the interaction of the CPUC and the Energy Commission, please see the "Public and Agency Comments" portion of the "Alternatives" section of this Decision.

FINDINGS OF FACT

Based upon the evidence, the Energy Commission makes the following findings:

1. The amended Huntington Beach Energy Project will be beneficial to the public, petitioner, and intervenor by re-using an existing industrial site and its related in-place infrastructure, reducing water use, additional local generating capacity, construction and operations employment, tax revenues and reduced environmental impacts compared to the approved Huntington Beach Energy Project, aligning the project configuration with the equipment selected by

[40] TN 216560.

[41] Ex. 6000, p. 3-4.

Southern California Edison, and by helping the integration of renewables by providing efficient, fully-dispatchable, quick-start, air-cooled generation.

2. There has been a substantial change in circumstances justifying the change, in that Southern California Edison chose an alternate thermal technology configuration than was approved by the 2014 Decision. This information was not known, nor could it have been known, at the time the Energy Commission adopted the 2014 Decision.

CONCLUSIONS OF LAW

The amended Huntington Beach Energy Project is described at a level of detail sufficient to allow review in compliance with the provisions of the Warren-Alquist Act, the California Environmental Quality Act, and the California Code of Regulations, title 20, section 1769.

V. ENGINEERING ASSESSMENT

The broad engineering assessment of the amended Huntington Beach Energy Project (Amended Project) consists of separate analyses that examine **FACILITY DESIGN ENGINEERING**, **EFFICIENCY**, and **RELIABILITY**. These analyses include the on-site power generating equipment and the project-related linear facilities.

A. FACILITY DESIGN

INTRODUCTION

Facility Design encompasses the civil, structural, mechanical, and electrical engineering design of the Amended Project. The purpose of the Facility Design analysis is to verify that the laws, ordinances, regulations, and standards (LORS) applicable to the design and construction of the project have been identified; verify that the project and ancillary facilities have been described in sufficient detail; determine whether special design features should be considered during final design to deal with conditions unique to the site; describe the design review and construction inspection process,; and establish conditions of certification that will be used to monitor and ensure compliance with the LORS and any special design requirements. Evidence on the topic of Facility Design can be found in Exhibits 5001, 5053, 5055, 5056, 5057, 5114, 5121, and 6000.

SETTING

For detailed information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For detailed information regarding the design and features of the Amended Project, please refer to the “Project Description” section of this Decision.

ENVIRONMENTAL ANALYSIS

No environmental standards apply to the topic of Facility Design.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision[1] approving the Huntington Beach Energy Project (2014 Project) identifies all of the LORS applicable to the 2014 Project.[2] The evidence establishes that, since the 2014 Decision, the same LORS apply to the Amended Project for design

[1] Ex. 5114.

[2] Ex. 5114, pp. 3.1-1 – 3.1-2.

review and inspection. Further, the roles, qualifications, and responsibilities of engineering personnel who would oversee project design and construction are unchanged.[3]

Energy Commission staff (Staff) testimony was sponsored by witness Shahab Khoshmashrab. After reviewing the Petitioner's design proposals for the project's structural features, site preparation, major structures and equipment, mechanical systems, electrical designs and ancillary facilities, the Staff witness concluded that, with the implementation of conditions of certification,[4] the project design will meet all LORS.[5]

The only facility design change since the 2014 Decision relates to the visual screen walls, as described in the **VISUAL RESOURCES** section of this Decision. With the substitution of the spherical wall for the surfboards and wave forms, the design and construction of these screening walls must comply with the California Building Standards Code, as set forth in Condition of Certification **GEN-2**.[6]

We, thus, continue to impose Condition of Certification **GEN-2** to ensure compliance with the California Building Standards Code for the changed screening wall design. With the imposition and implementation of Condition of Certification **GEN-2**, we find that the Amended Project would conform to all relevant LORS.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **FACILITY DESIGN** were received during the Evidentiary Hearings.

FINDINGS OF FACT

Based on the uncontroverted evidence, the Energy Commission makes the following findings:

1. The laws, ordinances, regulations, and standards identified in the 2014 Decision and supporting documents are applicable to the amended Huntington Beach Energy Project.
2. The Energy Commission design review and construction inspection process will provide the necessary reviews to ensure compliance with applicable facility

[3] Ex. 6000, pp. 5.1-2 – 5.1-3.

[4] The conditions of certification for Facility Design, as well as all other conditions of certification for the AHBEP, are in **Appendix A** to this Decision.

[5] Ex. 6000, pp. 5.1-1 - 5.1-3.]

[6] Ex. 6000, p. 5.1-2.

design laws, ordinances, regulations, and standards and conditions of certification.

3. If the Project Owner submits a decommissioning plan required in the **COMPLIANCE AND CLOSURE** portion of this Decision prior to the commencement of decommissioning, the decommissioning procedure is likely to result in satisfactory decommissioning performance.

4. The evidentiary record contains sufficient information to establish that the proposed facility can be designed and constructed in conformity with the applicable laws, ordinances, regulations, and standards set forth in the 2014 Decision.

5. The conditions of certification set forth in **Appendix A** will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable engineering laws, ordinances, regulations, and standards.

6. The conditions of certification in **Appendix A** and the provisions of the Compliance Plan contained in this Decision set forth requirements to be followed in the event of the planned, the unexpected temporary, or the unexpected permanent closure of the facility.

CONCLUSIONS OF LAW

We, therefore, conclude that with the imposition and implementation of the conditions of certification in **Appendix A**, the proposed amended Huntington Beach Energy Project would be designed and constructed in conformity with applicable laws, ordinances, regulations, and standards pertinent to its geologic location, and its civil, structural, mechanical, and electrical engineering aspects.

B. POWER PLANT EFFICIENCY

INTRODUCTION

This section reviews whether the amended Huntington Beach Energy Project (Amended Project) will use energy efficiently and avoid unnecessary consumption of energy.

Evidence on the topic of Power Plant Efficiency is contained in Exhibits 5001, 5053, 5055, 5056, 5057, 5114, 5121, and 6000.

SETTING

For detailed information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

Natural gas fuel for the Amended Project is delivered to the Amended Project site via an existing 16-inch-diameter Southern California Gas Company (SoCalGas) pipeline located on the northwest side of the project site. Gas demand is both instantaneous and long-term (e.g., annual). The natural gas comes from resources in the Southwest, Canada, and the Rocky Mountains—sources of considerable capacity with access to adequate annual supplies of natural gas. However, the record indicates that the closure and potential long-term de-rate of SoCalGas' Aliso Canyon natural gas storage facility may impact instantaneous natural gas deliveries to the power plants it serves, including the Amended Project.[1]

SUMMARY OF 2014 DECISION

The 2014 Decision[2] found that the 2014 Project would provide approximately 939 MW of electrical power with two power blocks. The 2014 Project consumed natural gas at a 9,780 British thermal units per hour, low heat value, during full load operation.[3] The 2014 Project's equipment efficiency of 46 percent was comparable to the average fuel efficiency of a typical rapid-response/flexible combined-cycle power plant.[4] The 2014 Decision concluded that the needed quantities of natural gas fuel for the project did not

[1] Ex. 6000, p. 5.3-1.

[2] Ex. 5114.

[3] Ex. 5111, 3.2-1.

[4] *Id.* at p. 3.2-2.

create a direct, indirect, or cumulative impact on natural gas supplies and resources and found the source of natural gas fuel for the project to be reliable.[5]

We further found the project would not create a substantial increase in fossil fuel demand. The project has access to an abundance of natural gas through the existing SoCalGas 16-inch-diameter pipeline that serves the Amended Project site

There were no conditions of certification imposed for Power Plant Efficiency.[6]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, we need not repeat environmental analysis where the conditions of CEQA Guidelines section 15162 are met. The evidence establishes that, even with the substitution of equipment and reconfiguration of the power plant footprint, there would be:

1. No new significant impacts related to power plant efficiency not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts related to power plant efficiency;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project related to power plant efficiency; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment related to power plant efficiency.[7]

The efficiency of the combined-cycle portion of the Amended Project would be 56 percent—greater than the approved HBEP. The efficiency of the simple-cycle portion of the Amended Project would be 41 percent. The 2014 Project did not include CTG simple-cycle units. The evidence establishes that the efficiency of the simple-cycle portion of the Amended Project is comparable to the efficiency of other currently-operating modern simple-cycle CTGs.[8]

The closure and potential long-term de-rate of the SoCalGas' Aliso Canyon natural gas storage facility, may impact instantaneous naturalgas deliveries to the AHBEP. The State Water Resources Control Board's program of requiring the phase out of once-

[5] Ex. 6000, p. 5.3-1.

[6] Ex. 5114, p. 3.2-9.

[7] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162; Ex. 6000, p. 5.5.

[8] Ex. 6000, p. 5.3-2.

through-cooling power plants is forcing the retirement of a substantial amount of dispatchable generation in coastal areas and their replacement with new electrical generation to preserve the reliability of the California electric grid system. In keeping with this program, the HBGS (a 50- to 60-year-old OTC Facility) is replaced by the modern and more efficient Amended Project, resulting in less natural-gas consumption per megawatt (MW) of generation. Additionally, dispatch orders generally call for the most efficiently generated energy first, especially when peaking capacity is required (the Amended Project includes peaking units). Therefore, the electric grid system's reliance on new generation in the region rather than on the aging existing plants will result in further decreases in natural-gas consumption per megawatt of generation and will help alleviate the potential effect of the closure of the Aliso Canyon natural-gas storage facility as described more fully in the **POWER PLANT RELIABILITY** section of this Decision.[9].

Therefore, we find, on the basis of this uncontroverted evidence, no need to conduct additional environmental review on the potential environmental impacts of the Amended Project related to power plant efficiency.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, OR STANDARDS (LORS)

No federal, state, or local laws, ordinances, regulations, or standards (LORS) apply to power plant efficiency.[10]

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of efficiency were received during the Evidentiary Hearing.

FINDINGS OF FACT

Based upon the uncontroverted evidence, the Energy Commission makes the following findings:

1. The amended Huntington Beach Energy Project would provide approximately 844 MW (nominal net output) of electrical power from two General Electric (GE) 7FA combustion-turbine generators, two heat-recovery steam generators, and one steam-turbine generator, and a second power block containing two General Electric LMS100 PB CTG simple-cycle units.
2. The amended Huntington Beach Energy Project would generate electricity at a full load efficiency of approximately 56 percent low-heat value for the combined-

[9] *Id.*

[10] Ex. 6000, p. 5.3-1.

cycle configuration and 41 percent low-heat value for the simple-cycle configuration.

3. None of the factors that require a subsequent or supplemental environmental analysis set forth in the California Environmental Quality Act Guidelines section 15162 described in the **INTRODUCTION** section of this Decision are present regarding this topic.

4. There are no applicable laws, ordinances, regulations, or standards on the topic of energy efficiency.

5. There are no conditions of certification required for energy efficiency.

CONCLUSION OF LAW

We, therefore, conclude that the amended Huntington Beach Energy Project satisfies the standards established by the California Environmental Quality Act Guidelines for non-renewable energy consumption because it will not result in adverse effects upon energy supplies or resources, nor require additional sources of energy supply, nor consume energy in a wasteful or inefficient manner.

C. POWER PLANT RELIABILITY

INTRODUCTION

The topic of power plant reliability focuses on whether the amended Huntington Beach Energy Project (Amended Project) will be designed, sited, and operated to ensure safe and reliable operation.[1] The Energy Commission generally makes the determination of reliability by looking at whether a project is at least as reliable as other power plants in the system, including the already-licensed Huntington Beach Energy Project (2014 Project).[2]

Evidence on the topic of Power Plant Reliability is found in Exhibits 5001, 5053, 5055, 5056, 5057, 5114, and 6000.

SETTING

For information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF 2014 DECISION

The 2014 Decision[3] did not impose any conditions of certification specifically for the reliability aspects of the 2014 Project.[4] Instead, the 2014 Decision focused on various aspects of reliability and utilized conditions of certification from other sections of the 2014 Decision to ensure reliability. For example, equipment availability for the 2014 Project was ensured by the use of appropriate quality assurance/quality control (QA/QC) programs during design, procurement, construction, and operation of the plant and by the Project Owner providing adequate maintenance and repair of the equipment and systems. We further required the 2014 Project to purchase equipment from qualified suppliers based on technical and commercial evaluations of their personnel, production capability and past performance, and mandated that receipt inspections, test components, and administration of independent testing contracts be conducted. Those requirements were incorporated into the appropriate conditions of certification in the **FACILITY DESIGN** section of the 2014 Decision.[5] Provisions for reliability in the face of

[1] Pub. Resources Code, § 25520, subd. (b); Cal. Code Regs., tit. 20, §§ 1741(b)(3); 1745.5(b)(15).)

[2] Ex. 6000, p. 5.4-1.

[3] Ex. 5114.

[4] *Id.* at p. 3.3-5.

[5] *Id.*at p. 3.3-2.

natural hazards, including earthquakes and tsunamis, were governed by the conditions of certification for **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES**.[6]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act (CEQA) Guidelines section 15162 are met. The evidence establishes that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized environmental concerns and conditions, there would be:

1. No new significant power plant reliability impacts not previously analyzed;
2. No substantial increase in the severity of environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project related to reliability; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision[7] would substantially reduce one or more significant effects of the Amended Project on the environment related to reliability.[8]

Similar to the 2014 Project, the Amended Project would include two independent power blocks. This arrangement would provide inherent reliability. Failure of one power block cannot affect the operation of the other block, thereby allowing the power plant to continue to generate electricity, but at reduced output. Also, the Amended Project's simple-cycle block would consist of two independent combustion turbine generators (CTGs). Failure of one CTG would not hinder the operation of the other one, thus allowing the power block to continue to generate electricity (at reduced output). The Amended Project's ancillary systems would also include adequate redundancy to ensure their continued operation if equipment fails.[9]

Consistent with the 2014 Project, natural-gas fuel for the Amended Project will be delivered to the Amended Project site via an existing 16-inch-diameter Southern California Gas Company (SoCalGas) pipeline located on the northwest side of the project site. The natural gas comes from resources in the Southwest, Canada, and the Rocky Mountains—sources of considerable capacity with access to adequate annual supplies of natural gas. However, the record indicates that the closure and potential

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[6] *Id.* at pp. 3.3-3 – 3.3-4.

[7] Ex. 5114.

[8] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 5.4-2 - 5.4-3.

[9] Ex. 6000, p. 5.4-2.

long-term de-rate of SoCalGas's Aliso Canyon natural gas storage facility may impact instantaneous natural gas deliveries to the power plants it serves, including the Amended Project.[10]

The evidence also indicates that the modern and more efficient Amended Project will replace older and less efficient power facilities, resulting in less natural gas consumption per megawatt of generation.

The 2014 Project was approved to use water from the city of Huntington Beach for gas turbine inlet air evaporative cooling, process water, fire protection, and potable water. We found that a reliable source of water had been secured for the 2014 Project, which has not changed.[11]

The evidence shows that, other than the conditions and project changes discussed above, the conditions at the proposed site of the Amended Project are similar to those previously analyzed in the 2014 Decision. Therefore, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for power plant reliability.

LORS ANALYSIS

No federal, state, or local/county laws, ordinances, regulations, or standards (LORS) apply to power plant reliability.[12]

The requirements to ensure project reliability for the 2014 Decision were incorporated into the appropriate conditions of certification in the **FACILITY DESIGN** and **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES** sections. We re-impose the appropriate conditions of certification in the **FACILITY DESIGN** and **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES** in this Decision. With the imposition and implementation of the appropriate conditions of certification in the **FACILITY DESIGN** and **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES** sections, we find that the Amended Project will comply with all applicable LORS. We further find that with the imposition and implementation of the appropriate conditions of certification in the **FACILITY DESIGN** and **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES** sections,[13] the Amended Project will have no significant unmitigated direct, indirect, or cumulative impacts to reliability.

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[10] *Id.*

[11] Ex. 5114, p.3-3. For further discussion of water supply for the Amended Project, see the **SOIL AND WATER RESOURCES** section of this Decision.

[12] Ex. 6000, p. 5.4-1.

[13] The conditions of certification for Reliability, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **RELIABILITY** were received during the Evidentiary Hearing.

Intervenor Robert Simpson/Helping Hand Tools filed an Opening Brief[14] raising an issue regarding the reliability of the Amended Project because of the circumstances surrounding Aliso Canyon. We have addressed this issue above.[15]

In his Reply Brief, Mr. Simpson also challenged the reliability of the Amended Project. He argued that the Amended Project's combined-cycle units do not meet resource adequacy requirements specified in the California Independent System Operator (California ISO) Tariff section 40.3.1.1. He avers that the California ISO Tariff section 40.3.1.1 requires any resource selected to support grid reliability go from start to full power in 20 minutes or less under any startup scenario (cold, warm, or hot).[16] This comment was also made by the Sierra Club, California Coastal Protection Network, 350.org, Coastal Environmental Rights Foundation, Los Angeles Waterkeeper, Surfrider Foundation, Earth Law Center, Heal the Bay, and Protect Our Communities in their comments on the PMPD.

The tariff section cited concerns only the California ISO's obligations in performing the annual Local Capacity Technical Study and has no applicability to power plant facilities, nor does it make any mention of a 20-minute response time.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision found that the Huntington Beach Energy Project's plant maintenance program and redundant equipment list, the sources of the project's natural gas fuel and water supplies, and the project's ability to withstand natural disasters by complying with the conditions of certification for **FACILITY DESIGN** and **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES** resulted in an adequate level of reliability; a level of reliability which equals or exceeds the reliability of other power plants.
2. The amended Huntington Beach Energy Project will be built and operated in a manner consistent with industry norms for reliable operation and will maintain a level of reliability which equals or exceeds the reliability of other electric generation power plants, including the Huntington Beach Energy Project.

[14] TN 215259. Mr. Simpson/Helping Hand Tools was admitted as an Intervenor only on the topics of air quality, greenhouse gases, and public health (TN 214950). As such, we treat the portions of his brief addressing topics on which he was not admitted as an Intervenor as public comment.

[15] TN 216544.

[16] TN 215425, p. 1-2.

3. None of the factors that require a subsequent or supplemental environmental analysis as set forth in the California Environmental Quality Act Guidelines section 15162, and described in the **INTRODUCTION** section of this Decision, are present regarding this topic.

4. The 2014 Decision included no conditions of certification for Power Plant Reliability specifically, except for conditions of certification for **FACILITY DESIGN** and **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES**.

CONCLUSIONS OF LAW

1. The amended Huntington Beach Energy Project does not create significant direct, indirect, or cumulative environmental effects related to reliability.

2. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative impacts relating to reliability.

E. TRANSMISSION SYSTEM ENGINEERING

INTRODUCTION

Under this topic, the Commission assesses the engineering and long-term planning consequences of new transmission facilities associated with a proposed project. The Commission's jurisdiction includes "…any electric power line carrying electric power from a thermal power plant … to a point of junction with an interconnected transmission system."[1] Under this authority, the Commission evaluates whether the project's new transmission facilities and outlet line to the point of interconnection will comply with applicable laws, ordinances, regulations, and standards (LORS) and whether any upgrades beyond the interconnection point are necessary to mitigate potential project-related impacts to the electrical grid.

This topic was uncontested and evidence on it can be found at: 5001, 5005, 5020, 5028, 5031, 5051, 5053, 5055, 5056, 5057, 5114, 5121, and 6000.

SETTING

For detailed information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For detailed information regarding the transmission system engineering of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION**, we need not repeat environmental analysis where the conditions of CEQA Guidelines, section 15162, are met. The Staff witnesses, Laiping Ng and Mark Hesters, concluded that, even with the substitution of equipment and reconfiguration of the project footprint there would be:

1. No new significant transmission system engineering impacts not previously analyzed;
2. No substantial increase in the severity of environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the amended HBEP; and

[1] Pub. Resources Code, §25107.

4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects on the environment of the amended HBEP.[2]

Therefore, we conclude that adoption and implementation of Conditions of Certification **TSE-1** through **TSE-5** would mitigate any impacts associated with the project.

LORS ANALYSIS

After reviewing Applicant's design proposals for the Amended Project's transmission system engineering, the Staff witnesses concluded that, with the implementation conditions of certification,[3] the transmission system engineering will meet all LORS, identified in Facility Design Table 1 of the 2014 Decision.[4] The evidence establishes that, since the 2014 Decision, the same LORS apply to the Amended Project for transmission system engineering and are unchanged. In specific, the California Independent System Operator (California ISO) Phase II Interconnection Study Report dated December 3, 2013, is still valid, and no new study is required.[5]

We thus find that with the implementation of the conditions of certification contained in **Appendix A** to this Decision, the Amended Project would not cause any significant effects on transmission system engineering.

AGENCY AND PUBLIC COMMENTS

No agency or public comments were received on the topic of **TRANSMISSION SYSTEM ENGINEERING** during the Evidentiary Hearing.

FINDINGS OF FACT

Based upon the uncontroverted evidence, we find as follows:

1. The laws, ordinances, regulations and standards identified in the 2014 Decision and supporting documents are those applicable to the project.
2. The 2014 Decision found that the Amended Project would conform with all applicable laws, ordinances, regulations, and standards and that, with the implementation of the conditions of certification of the original project, the Amended Project would not have any significant direct, indirect, or cumulative impacts to transmission system engineering.

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[2] Ex. 6000, pp. 1-16; 5.5-2 - 5.5-3.

[3] The conditions of certification for Facility Design, as well as all other conditions of certification for the Amended Project, are in **Appendix A** to this Decision.

[4] Ex. 1000, p. 3.4-8; Ex. 6000, pp. 5.5-2.

[5] Ex. 5031; Ex. 6000, pp. 5.5-2 – 5.5-3.

3. The approved two 230 kV overhead generator tie-lines which interconnect power block 1 and 2 to the Huntington Beach Switching Station remain unchanged. Power would be distributed to the transmission system in the same way as the approved HBEP.

4. None of the factors that require a subsequent or supplemental environmental analysis set forth in the CEQA Guidelines, section 15162, described in the **INTRODUCTION** section of this Decision, are present regarding this topic.

5. The proposed transmission facilities between the new generators at the HBEP and SCE Huntington Beach Switching Station, including the step-up transformers, the 230 kV overhead transmission lines and terminations, are acceptable and would comply with all applicable laws, ordinances, regulations, and standards. The interconnection with the transmission grid would not require additional downstream transmission facilities (other than those proposed by the applicant) that require CEQA review.

6. The Amended Project would not cause additional downstream transmission impacts other than those identified in the Queue QC5 Phase II Interconnection Study Report dated December 3, 2013, from California ISO. The Study Report is still valid, and no new study would be required.

CONCLUSIONS OF LAW

1. The project, as amended, will continue to comply with all applicable laws, ordinances, regulations, and standards.

2. The transmission system engineering aspects of the Amended Project do not create significant direct, indirect, or cumulative environmental effects.

3. The revised conditions of certification set forth in **Appendix A** are appropriate and will ensure that the Amended Project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable laws, ordinances, regulations, and standards.

E. TRANSMISSION LINE SAFETY AND NUISANCE

INTRODUCTION

This topic focuses on ensuring that the proposed amended Huntington Beach Energy Project's (Amended Project) transmission line is constructed and operated in a manner that protects environmental quality, ensures public health and safety, and complies with applicable law. This section assesses the potential impacts of the transmission line on aviation safety, radio frequency interference, audible noise, fire hazards, and the creation of hazardous and/or nuisance electrical shocks. This section also evaluates any potential risks resulting from electric and magnetic field (EMF) exposure, and identifies mitigation measures that would reduce any potential impacts to insignificant levels.

Evidence on the topic of Transmission Line Safety and Nuisance can be found in Exhibits 5001, 5028, 5051, 5053, 5055, 5056, 5057, 5114, 5121, and 6000.

SETTING

For detailed information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For general and detailed information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF 2014 DECISION[1]

The Huntington Beach Energy Project (2014 Project) connects to the regional electric power grid through the existing Southern California (SCE) 230-kilovolt (kV) switchyard located within the site of the existing Huntington Beach Generating Station (HBGS). No off-site lines are proposed or approved as part of 2014 Project.[2] We analyzed the 2014 Project's potential direct, indirect, and cumulative environmental impacts related to transmission line safety and nuisance.[3]

We also analyzed the 2014 Project's compliance with laws, ordinances, regulations, and standards (LORS).[4] We concluded that with the imposition of Conditions of Certification **TLSN-1** through **TLSN-4**, the 2014 Project's potential direct, indirect, and cumulative

[1] Ex. 5114.

[2] *Id*. at p 3.5-3

[3] *Id*. at pp 3.5-4 – 3.5-9.

[4] *Id*. at pp. 3.5-1 – 3.5-3, 3.5-4 – 3.5-9.

impacts to transmission line safety and nuisance were mitigated to a level of "less than significant," and the 2014 Project was in conformity with all LORS.[5]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act (CEQA) Guidelines, section 15162, are met.

The Energy Commission staff (Staff) witness, Obed Odoemelam, Ph.D., concluded that, even with the substitution of equipment and reconfiguration of the 2014 Project's footprint, there would be:

1. No new significant transmission line safety and nuisance impacts not previously analyzed;
2. No substantial increase in the severity of previously-identified environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[6]

Based on the foregoing, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative transmission line and safety impacts.

COMPLIANCE WITH LAW, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[7] The evidence establishes that, since the 2014 Decision, the LORS that apply to the Amended Project for transmission line safety and nuisance have not changed. After reviewing the Amended Project's transmission line system engineering, including its design, operational plan, and routing, the Staff witness concluded that, with the implementation

[5] *Id*. at pp. 3.5-9 – 3.5-10.

[6] Ex. 6000, pp. 1-15, 4.11-2.

[7] Ex. 5114, pp. 3.5-1 – 3.5-3.

of conditions of certification,[8] the transmission system engineering will meet all LORS, as previously identified in the 2014 Decision.[9]

We, thus, find that, with the implementation of the conditions of certification contained in **Appendix A** to this Decision, the Amended Project does not cause any direct, indirect, or cumulative impacts on transmission line safety and nuisance.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **TRANSMISSION LINE SAFETY AND NUISANCE** were received during the Evidentiary Hearings.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards, and that, with the implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant direct, indirect, or cumulative impacts to transmission line safety and nuisance.
2. None of the factors that require a subsequent or supplemental environmental analysis set forth in the California Environmental Quality Act Guidelines section 15162, described in the **INTRODUCTION** section of this Decision, are present regarding this topic.
3. No new laws, ordinances, regulations, or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.

CONCLUSIONS OF LAW

1. Construction and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding transmission line safety and nuisance.
2. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to transmission line safety and nuisance.

[8] The conditions of certification for Transmission Line Safety and Nuisance, as well as all other conditions of certification for the Amended Project, are in **Appendix A** to this Decision.

[9] Ex. 5114, pp. 3.5-1 – 3.5-3; Ex. 6000, p. 4.11-2.

3. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative impacts to transmission line safety and nuisance.

IV. PUBLIC HEALTH AND SAFETY

Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project (Amended Project) will create combustion products and utilize certain hazardous materials that pose health risks to the general public and to the workers at the facility. The following sections discuss the regulatory programs, standards, protocols, and analyses pertaining to these issues, as they relate to **GREENHOUSE GAS EMISSIONS**, **AIR QUALITY**, **PUBLIC HEALTH**, **HAZARDOUS MATERIALS MANAGEMENT**, and **WORKER SAFETY/FIRE PROTECTION**.

A. GREENHOUSE GAS (GHG) EMISSIONS

INTRODUCTION

Generation of electricity using any fossil fuel, including natural gas, produces GHG and criteria air pollutants that have been traditionally regulated under the federal and state Clean Air Acts. Criteria air pollutants are defined as air contaminants for which the state and/or federal government has established an ambient air quality standard to protect public health, such as nitrogen dioxide (NO2), sulfur dioxide (SO2), carbon monoxide (CO), ozone (O3), inhalable particulate matter (PM10), and fine particulate matter (PM2.5).[1]

GHG emissions are not criteria pollutants with direct impacts; instead, they are discussed in the context of cumulative impacts.[2] This is particularly true because electricity is produced by operation of an inter-connected system of generation sources. Operation of one power plant, like the Amended Project, affects all other power plants in the interconnected system.[3]

GHGs from fossil-fuel-fired power plants are primarily carbon dioxide (CO2), with smaller amounts of nitrous oxide (N2O), methane (CH4), sulfur hexafluoride (SF6), hydrofluorocarbons (HFC), and perfluorocarbons (PFC). CO2 emissions are the most common and abundant of these emissions.[4]

There is general scientific consensus that climate change is occurring as a result of man-made emissions of GHGs, of which electricity generation from fossil fuels are a significant contribution, and that reducing man-made emissions of GHGs is essential in

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[1] Ex. 5114, p. 4.4-1; Ex. 6003, p. 4.1-153.

[2] For a discussion of the impacts of criteria pollutants, please see the **AIR QUALITY** and **PUBLIC HEALTH** sections of this Decision. For the definition of cumulative impacts, please see the **INTRODUCTION** section of this Decision.

[3] Ex. 6003, pp. 4.1-150, 4.1-153.

[4] *Id.* at p. 4.1-153.

order to decrease or stop future global temperature increases. The California Legislature has declared that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California."[5] The California Legislature and the Governor have called for the California to achieve a 40 percent reduction from 1990 levels of GHGs by 2030.[6]

Evidence on the topic of Greenhouse Gas Emissions is contained in Exhibits 5001, 5004, 5005, 5012, 5028, 5053, 5055, 5056, 5057, 5059, 5060, 5061, 5062, 5063, 5064, 5065, 5066, 5067, 5068, 5069, 5070, 5071, 5072, 5073, 5074, 5075, 5076, 5077, 5078, 5079, 5080, 5081, 5082, 5083, 5084, 5085, 5086, 5087, 5088, 5089, 5090, 5091, 5092, 5093, 5094, 5095, 5096, 5097, 5098, 5099, 5100, 5101, 5102, 5103, 5106, 5108, 5109, 5110, 5111, 5112, 5113, 5114, 5115, 5116, 5120, 5121, 6000, 6002, and 6003.

SETTING

For general information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision. Emissions from the Amended Project are described in greater detail in the **AIR QUALITY** section of this Decision.

The emission rate of the proposed combined-cycle unit would be 967.6 lbs. CO2 per MWh (megawatt hour) (net), assuming 8 percent performance degradation, which is less than the allowable 1,030 lbs. CO2/MWh (net). The General Electric (GE) LMS-100PB simple-cycle turbines are expected to have capacity factors less than their lower heating value efficiency and, thus, would be required to emit no more than 120 lb. CO2 per million British Thermal Units (BTUs) of heat input. Each GE LMS-100PB turbine is estimated to emit 117 lb. CO2 per MMBtu.[7]

PROJECT DESCRIPTION

For general project description, including location of the facility and the equipment to be installed, please see the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF 2014 DECISION

In the 2014 Decision, we analyzed the equipment to be used by the previously approved Huntington Beach Energy Project (2014 Project), as well as the GHG impacts from demolition activities related to site preparation and construction.

The 2014 Decision concluded that GHG emissions from demolition and construction would be temporary and intermittent, and not continue during the life of the project. The

[5] Ex. 5114, pp. 4.1-1 – 4.1-2.

[6] Health & Safety Code §§ 38550 (Senate Bill 32, California Global Warming Solutions Act of 2006).

[7] Ex. 6003, p. 4.1-155.

2014 Decision did not adopt any specific conditions of certification to mitigate short-term demolition and construction impacts. However, Condition of Certification **AQ-SC5** would require implementation of best practices[8] to reduce any GHG emissions from demolition and construction equipment. Therefore, the 2014 Decision concluded that GHG emissions from demolition and construction activities resulted in a "less than significant" impact.[9]

The 2014 Decision then reviewed the operational GHG impacts. The 2014 Decision began by reviewing the California electricity system need for new efficient, gas-fired generation to displace and replace less efficient generation in order to help integrate additional intermittent renewable generation. The 2014 Decision recognized that, as new plants are built, the system will change, resulting in each plant having different impacts. Additional technologies such as storage, smart grid, and distributed generation, as well as greater efficiency and demand response measures, will also change the physical needs and operation of the electrical system. Within this framework, and given current conditions, the 2014 Decision concluded that the 2014 Project would support the integration of existing and new renewable generation and displace less efficient gas-fired generation, thereby reducing system-wide GHG emissions. The 2014 Project was subject to the state's cap-and-trade program, a programmatic approach to addressing stationary source GHG emissions. The 2014 Decision therefore found that approval of the 2014 Project did not result in any adverse cumulative impacts to air quality and was consistent with state energy policy and the achievement of the state's renewable energy goals. No specific conditions of certification for GHG impacts related to operation of the power plant were adopted; however, the analysis noted that conditions of certification imposed under the **AIR QUALITY** section ensured compliance with laws, ordinances, regulations and standards (LORS) and/or mitigate impacts to "less than significant" levels.[10]

ENVIRONMENTAL ANALYSIS

The Energy Commission's GHG analysis is a cumulative impact assessment. The Amended Project alone would not be sufficient to change global climate, but would emit GHG and, therefore, has been analyzed as a potential cumulative impact in the context

[8] These best practices included limiting idling times and requiring, as appropriate, equipment that meets the latest emissions standards. In addition, mandating the use of newer equipment and low-carbon fuel (e.g., bio-diesel and ethanol) were outlined. (Ex. 5114, p. 4.1-8.)

[9] Ex. 5114, pp. 4.1- 2, 4.1-4.1-8.

[10] *Id.* at pp. 4.1-1, 4.1-9 – 4.1-16.

of existing GHG regulatory requirements and GHG energy policies.[11] Nonetheless, we review the Amended Project's GHG emissions over its phases.

Thresholds of Significance

The CEQA Guidelines provide three factors for lead agencies to consider when assessing the significance of impacts for the analysis of GHG emissions impacts:

1. The extent to which the project may increase or reduce greenhouse Gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.[12]

We evaluate the emissions of the Amended Project in the context of the electricity sector as whole. This approach does not include a specific number threshold of significance for GHG; instead, we look to how the Amended Project will affect the electricity sector's emissions based on its proposed role and its compliance with applicable regulations and policies.

Included in this sector-wide GHG emission analysis method is the determination of whether a project is consistent with the *Avenal* precedent decision, which requires a finding as a conclusion of law that any new natural-gas-fired power plant certified by the Energy Commission must:

- not increase the overall system heat rate for natural-gas plants;
- not interfere with generation from existing renewables or with the integration of new renewable generation; and

[11] Ex. 6003, p. 4.1-165.

[12] CEQA Guidelines, §15064.4.

- taking into account the two preceding factors, reduce system-wide GHG emissions.[13]

Demolition and Construction Impacts

Greenhouse Gas Table 1 shows the maximum annual construction GHG emissions of the 2014 Project compared to the Amended Project. Overall, construction of the Amended Project will have higher off-site emissions than the 2014 Project.[14]

Greenhouse Gas Table 1
Estimated Maximum Annual Construction Greenhouse Gas Emissions[15]

Source	CO_2	CH_4	N_2O	CO_2E
Amended Project				
Construction Total (Metric Tons/year)	8,289	0.13	0.063	8,311
2014 Project				
Construction Total (Metric Tons/year)	2,938	0.14	0.06	2,960

Note: The term CO2E represents the total GHG emissions after weighting by the appropriate global warming potential.

Despite having higher GHG emissions than the 2014 Project, we find that demolition and construction of the Amended Project will not have a substantial adverse impact on GHG emissions. This conclusion arises from the short-term intermittent nature of the emissions. In addition, the control measures used to address criteria pollutant emissions such as limiting idling times and requiring new equipment that may be compatible with low-carbon fuels (e.g., bio-diesel and ethanol) will reduce GHG emissions from construction vehicles and equipment.[16]

[13] California Energy Commission, 2009 Final Commission Decision for the Avenal Energy Plant (CEC-800-2009-006-CMF, December 2009), p. 114.

[14] Ex. 6003, p. 4.1-162.

[15] *Id.*

[16] *Id*. at pp. 4.1-162, 4.1-165.

Operational Impacts

The primary sources of GHG emissions during operation of the Amended Project would be the natural-gas-fired combustion turbines and the auxiliary boiler. The employee and delivery traffic GHG emissions from off-site activities are negligible.[17]

Greenhouse Gas Table 2 shows the operations-related GHG emissions for the 2014 Project and the Amended Project. The Amended Project would produce more energy with less GHG emissions compared to the 2014 Project. The estimated annual GHG performance (0.381 $MTCO_2$/MWh[18]) of the Amended Project would be better (lower $MTCO_2$/MWh) than that estimated for the 2014 Project (0.479 $MTCO_2$/MWh).[19]

Greenhouse Gas Table 2
Estimated Potential Operational Greenhouse Gas Emissions[20]

Emissions Source	**Operational GHG Emissions ($MTCO_2E$/yr)[a]**
Amended Project	
Carbon Dioxide (CO_2)	1,782,131
Methane (CH_4)	840
Nitrous Oxide (N_2O)	1,001
Sulfur Hexafluoride (SF_6) Leakage	65.2
Total Project GHG Emissions ($MTCO_2E$/yr)	**1,784,036**
Estimated Annual Energy Output (MWh/yr)[b]	4,676,327
Estimated Annualized GHG Performance ($MTCO_2$/MWh)	**0.381**

[17] *Id*. at p. 4.1-163.

[18] Metric tons of carbon dioxide per megawatt-hour. (Ex. 5114, p. 4-1.)

[19] Ex. 6003, p. 4.1-163.

[20] *Id.*

2014 Project	
Total Project GHG Emissions ($MTCO_2$/yr)	1,997,634
Estimated Annual Energy Output (MWh/yr)	4,170,821
Estimated Annualized GHG Performance ($MTCO_2$/MWh)	0.479

Notes: a. One metric tonne (MT) equals 1.1 short tons or 2,204.6 pounds or 1,000 kilograms.

b. Annualized basis uses Petitioner's assumed maximum permitted operating basis.

Determining Operational GHG Impacts: A System Approach

As established by the *Avenal* decision,[21] any assessment of the impact of a new power plant on system-wide GHG emissions must begin with the understanding that electricity generation and demand must be in balance at all times; the energy provided by any new generation resource simultaneously displaces exactly the same amount of energy from an existing resource or resources.[22] The GHG emissions produced by any new facility – whether the 2014 Project, Amended Project, or some other facility – are thus not incremental additions to system-wide emissions, but are offset by reductions in GHG emissions from those generation resources that are displaced. The output from new natural-gas-fired generators instead displaces that from less-efficient existing natural-gas-fired generators, whose variable costs are higher because they combust more natural gas per unit of electricity generated and, thus, produce more GHG emissions. Under some circumstances the displaced output will be that from coal-fired generators, whose GHG emissions are even higher per MWh than those from natural-gas-fired generators, as they are less thermally efficient and use a fuel with a higher carbon content per Btu.[23]

The 2014 Decision found that the 2014 Project would reduce GHG emissions from the state's electricity sector.[24] The evidence shows that development of the Amended

[21] California Energy Commission, 2009 Final Commission Decision for the Avenal Energy Plant (CEC-800-2009-006-CMF, December 2009).

[22] Over time, the development of demand-side and storage technologies that can cost-effectively substitute for dispatchable generation as providers of regulation, load-following, and multi-hour ramping services may obviate the need for gas-fired generation, but this is not expected to occur soon enough to eliminate the need for gas-fired generation to replace a share of the capacity retired at SONGS, and by the retirement of aging OTC facilities such as EPS. (Ex. 2000, p. AQ1-12.)

[23] Ex. 6003, p. 4.1-167.

[24] *Id.*

Project reduces GHG emissions from the electricity system compared to the alternative of developing the 2014 Project or from developing no project at all.[25]

It is not possible to determine – with any accuracy – the GHG emissions that would be expected from an electricity system that includes the 2014 Project with one that includes the Amended Project. While the maximum amount of natural gas that can be combusted annually under the air quality and other permits for either the 2014 Project or the Amended Project provides a ceiling for the plants' CO_2-equivalent emissions, permitted levels of operation and expected operation, while related, are very different metrics.[26] More importantly, the ceiling is for GHG emissions *from the plant itself*; its consideration ignores the quantity of GHG emissions from the generators that are displaced.[27]

Similarly, a comparison of the thermal efficiencies of the two projects (e.g., at full load) does not provide any information regarding their expected GHG emissions or the system-wide emissions that would result from their development. While the combined-cycle portion of the Amended Project has a higher thermal efficiency than the 2014 Project at most levels of output, the differences in the efficiency and operating flexibility of the two projects mean that they would be operated differently. As such, each project would displace different existing generation resources whose thermal efficiencies and, thus, GHG emissions, cannot be known a priori. As a result, their relative impact on system GHG emissions cannot be known with certainty. Similarly, while the LMS 100s now proposed are less efficient than the approved combined-cycles, they are also more flexible, able to start up faster, cycle on and off multiple times per day, and turn down to lower levels of output, etc. Again, they would be dispatched differently than a combined-cycle and, thus, displace different existing gas-fired resources.[28]

It is very likely, however, that the Amended Project would lead to greater reductions in GHG emissions than the 2014 Project, as the Amended Project's increased flexibility facilitates the integration of zero-carbon variable energy resources (solar and wind). This can be seen in **Greenhouse Gas Figure 1**, which depicts the estimated operating

[25] *Id.*

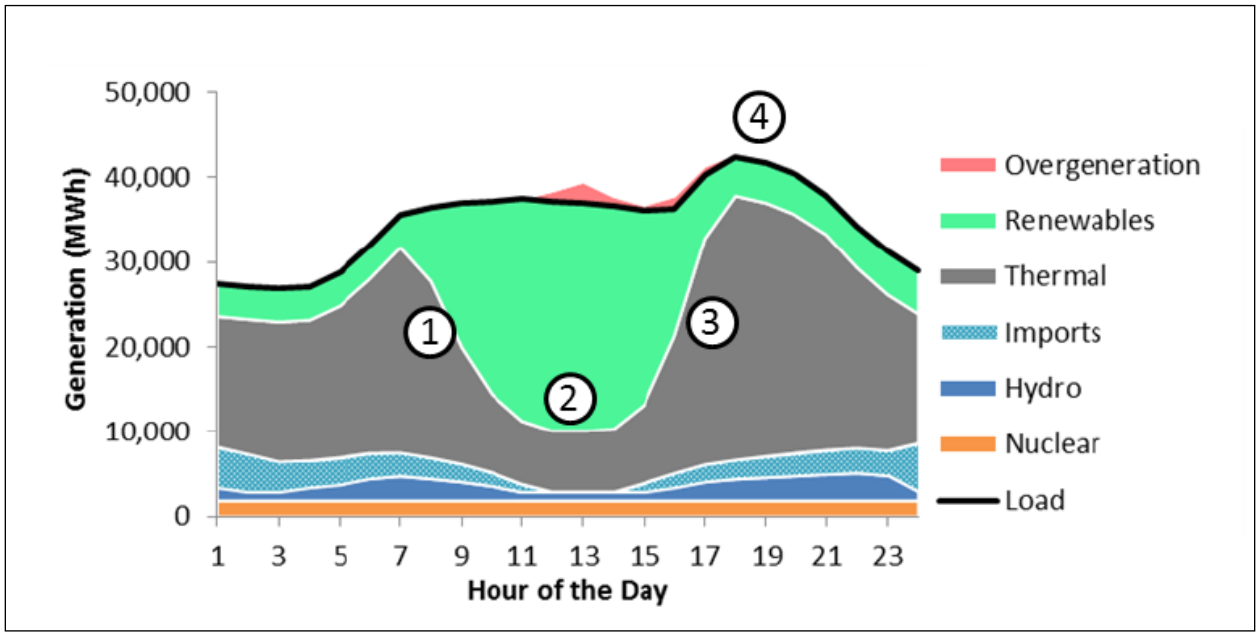
[26] Natural-gas-fired peaking facilities are usually permitted at roughly a 30 percent capacity factor, but are expected to operate in the range of two to five percent. Load following generation is permitted at a 30 to 50 percent capacity factor, but expected to operate in the 10 to 20 percent range. Finally, combined cycles have frequently permitted at close to 100 percent, but are expected to operate in the 40 to 70 percent range. (Ex. 6003, p. 4.1-168.)

[27] Ex. 6003, p. 4.1-168.

[28] *Id.*

profile of the generating resources of the high-solar electricity system that California will increasingly have over the next 15 years and beyond.[29]

Greenhouse Gas Figure 1
California Generation Typical for a Non-Summer Day ("Duck" Chart)[30]



The large "belly" (No. 2 in the figure) represents solar generation on a typical non-summer day; this "belly" gets larger over time as more solar is added to the system. The gray area represents necessary thermal generation, which is increasingly natural gas over time as California portfolios are divested of coal pursuant to the state's Emission Performance Standard.[31]

Greenhouse Gas Figure 1 also demonstrates the need for dispatchable generation, notwithstanding the potential for over-generation by renewables at midday. A large share of midday generation must also be flexible dispatchable natural gas as: (a) a threshold amount of thermal capacity needs to be idling (or at least readily available, not unlike a hybrid car) at mid-day at minimum output to protect against sudden component failures (major power plants and transmission lines), or drops in solar output; and (b) a large amount of gas-fired generation will be needed four to eight hours later when solar

[29] *Id.*

[30] *Id.* at p. 4.1-169.

[31] *Id.*

energy is unavailable and, thus, must be on line and generating at minimum output at mid-day.[32]

Greenhouse Gas Figure 1 shows a case of over-generation, in which renewable output at mid-day and necessary gas-fired generation jointly result in too much energy being produced. The long-term solution for potential over-generation and serving-peak demand (which falls outside the time of maximum renewables generation) is expected to be the development of cost-effective, multi-hour storage, allowing the surplus to be stored until it can be used in the evening hours. Further, the use of renewable resources currently classified as "over-generation" will increase as methods are proven that allow renewables to provide more ancillary services, for example frequency support, which will decrease the need for thermal generation at the margin. In the interim, developing gas-fired resources that can cycle on and off at least twice a day, provides the needed flexible generation to meet peak demand.[33]

Conditions of Certification **AQ-3**, **AQ-15**, **AQ-56**, **AQ-58**, and **AQ-61** in the **Air Quality** section of this Decision relate to the GHG emissions. These conditions require the Project Owner to report the Amended Project's GHG emissions as required by California's GHG cap-and-trade program. The Amended Project is also required to obtain GHG emissions allowances (and offsets) for those reported emissions, by purchasing allowances from the capped market and offsets from outside the AB 32 program. Additional reports and GHG reductions, depending on the future regulations formulated by the U.S. Environmental Protection Agency (EPA) or the California Air Resources Board, may also be required.[34]

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the majority of the GHG LORS applicable to the 2014 Project and found the 2014 Project to be consistent with the identified LORS. For example, the 2014 Project was required to participate in the cap-and-trade program; that requirement also applies to the Amended Project.[35] After adoption of the 2014 Decision, several new LORS were adopted that apply to the Amended Project.

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[32] *Id.*

[33] For a detailed discussion of the operational needs for a high-solar portfolio, see Energy and Environmental Economics, *Investigating a Higher Renewables Standard in California*, January 2014, available at http://www.ethree.com/public_projects/renewables_portfolio_standard.php. (Ex. 6003, pp. 4.1-169 – 4.1-170.)

[34] Ex. 6003, pp. 4.1-160, 4.1-166.

[35] Ex. 5114, p. 4.1-2 – 4.1-5; Ex. 6003, p. 4.1-156.

The U.S. EPA published new source performance standards (NSPS) for GHG emissions for new, modified, and reconstructed fossil-fuel-fired electric utility-generating units on October 23, 2015. The Amended Project turbines would be subject to these new requirements.[36] The Final Determination of Compliance (FDOC)[37] shows that the proposed combined-cycle turbines and simple-cycle turbines of the Amended Project would comply with the new NSPS. Conditions of Certification **AQ-15** and **AQ-61** in the **AIR QUALITY** section of this Decision ensure compliance with the new standards.[38]

In addition, on September 8, 2016, Senate Bill 32 (SB 32) was adopted. SB 32 extends California's commitment to reduce GHG emissions by requiring the state to reduce GHG emissions to 40 percent below the statewide GHG emissions limit by the end of 2030. Health and Safety Code section 38550 defines the statewide GHG emission limit to be equivalent to 1990 emissions.[39]

The Amended Project's emission of 0.381 MTCO2/MWh complies with California's SB 1368 Emissions Performance Standard (EPS) limit of 1,100 lb. CO2/MWh (0.5 MT/MWh).[40]

The evidence, thus, shows that the Amended Project will comply with all LORS.

We find that imposition and implementation of Conditions of Certification **AQ-3**, **AQ-15**, **AQ-56**, **AQ-58**, and **AQ-61** in the **AIR QUALITY** section of this Decision ensure the Amended Project's compliance with all relevant updated LORS. We further find that, with the imposition and implementation of the conditions of certification contained in **Appendix A** to this Decision, the Amended Project would not cause any significant effects related to GHG emissions.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **GREENHOUSE GAS EMISSIONS** were received during the Evidentiary Hearing.

In comments on the PMPD, the Sierra Club, California Coastal Protection Network, 350.org, Coastal Environmental Rights Foundation, Los Angeles Waterkeeper, Surfrider Foundation, Earth Law Center, Heal the Bay, and Protect Our Communities,[41] contend that approval of the Amended Project is inconsistent with California laws and policies,

[36] Ex. 6003, p. 4.1-154.

[37] Ex. 6002.

[38] Ex. 6003, p. 4.1-155.

[39] *Id.*at p. 4.1-156.

[40] *Id.* at 4.1-156.

[41] TN 216544.

arguing that the amount of energy to be generated by Phase 1 of the Amended Project (644 MW generated by the combined-cycle units) is all that is required for grid reliability.

As set forth above, the Amended Project complies with all LORS related to GHG emissions.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. Greenhouse gases include carbon dioxide, nitrous oxide, methane, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons.
2. The greenhouse gas emissions from the amended Huntington Beach Energy Project's site preparation (including demolition) and construction are likely to be 8,311 $MTCO_2E$ during the nine-year site preparation (including demolition) and construction period.
3. The amended Huntington Beach Energy Project will use best practices to control its demolition- and construction--related greenhouse gas emissions.
4. The small greenhouse gas emission increases from mitigated demolition and construction activities will not be significant.
5. The maximum annual carbon dioxide emissions from the amended Huntington Beach Energy Project's operation will be 1,784,036 MTCO2E, which constitutes an emissions performance factor of 0.381 MTCO2E/MWh.
6. The amended Huntington Beach Energy Project's emission of 0.381 MTCO2/MWh complies with California's SB 1368 Emissions Performance Standard limit of 1,100 lb. CO2/MWh (0.5 MT/MWh).
7. The greenhouse gas emissions produced by the amended Huntington Beach Energy Project are not incremental additions to system-wide emissions, but are offset by reductions in greenhouse gas emissions from those generation resources that it displaces.
8. The development and operation of the amended Huntington Beach Energy Project would not lead to the displacement of energy from zero-carbon generation such as that of renewable, hydroelectric, or nuclear facilities.
9. When it operates, the amended Huntington Beach Energy Project will displace generation from plants with higher greenhouse gas emissions.
10. The amended Huntington Beach Energy Project's operation will reduce overall greenhouse gas emissions from the electricity system.

11. The amended Huntington Beach Energy Project will result in a cumulative overall reduction in greenhouse gas emissions from California's power plants and will not worsen current conditions.

12. The amended Huntington Beach Energy Project will not result in impacts that are cumulatively considerable.

13. The amended Huntington Beach Energy Project will be required to participate in California's cap-and-trade program and will be required to purchase allowances for greenhouse gas emissions.

CONCLUSIONS OF LAW

1. The amended Huntington Beach Energy Project's construction and demolition-related greenhouse gas emissions will not cause a significant environmental impact because they are limited in duration.

2. The greenhouse gas emissions from a power plant's operation should be assessed in the context of the operation of the entire electricity system of which the amended Huntington Beach Energy Project is an integrated part.

3. When considered on a system-wide basis, the operation of the amended Huntington Beach Energy Project will reduce greenhouse gas emissions and will, therefore, not cause a significant environmental impact.

4. The amended Huntington Beach Energy Project's operation will help California utilities meet its Renewable Portfolio Standards obligations.

5. The amended Huntington Beach Energy Project's construction, demolition and operation will be consistent with California's loading order for power supplies.

6. The amended Huntington Beach Energy Project's operation will foster the achievement of the greenhouse gas goals of SB32.

7. The amended Huntington Beach Energy Project and other fossil generation resources in California are subject to AB 32's cap-and-trade program, a statewide program that establishes a ceiling for greenhouse gas emissions for large stationary greenhouse gas sources. As such, the amended Huntington Beach Energy Project will not be dispatched in such a way to cause a system-wide increase in greenhouse gas emissions. Given this, when considered in isolation, the greenhouse gas impacts from operation of the amended Huntington Beach Energy Project will not cause a significant environmental impact related to greenhouse gas emissions.

8. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding greenhouse gases.

   The conditions of certification set forth in **Appendix A** of this Decision are appropriate and will ensure that the amended Huntington Beach Energy Project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable laws, ordinances, regulations, and standard.

B. AIR QUALITY

INTRODUCTION

Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project (Amended Project) will emit combustion products and use certain hazardous materials that could expose the general public and on-site workers to potential health effects. This section on air quality examines whether the Amended Project will comply with applicable state and federal air quality laws, ordinances, regulations, and standards (LORS), whether it will result in significant air quality impacts, and whether the proposed mitigation measures will reduce potential impacts to "less than significant" levels.

Evidence on the topic of Air Quality is contained in Exhibits 5001, 5004, 5005, 5012, 5028, 5053, 5055, 5056, 5059, 5060, 5061, 5062, 5063, 5064, 5065, 5066, 5067, 5068, 5069, 5070, 5071, 5072, 5073, 5074, 5075, 5076, 5077, 5078, 5079, 5080, 5081, 5082, 5083, 5084, 5085, 5086, 5087, 5088, 5089, 5091, 5092, 5093, 5094, 5095, 5096, 5097, 5098, 5099, 5100, 5101, 5102, 5013, 5106, 5108, 5109, 5100, 5111, 5112, 5113, 5114, 5115, 5116, 5120, 5121, 6000, 6002, and 6003.

SETTING

The Amended Project will be located in the city of Huntington Beach in Orange County. Orange County and parts of Los Angeles, San Bernardino, and Riverside counties make up the South Coast Air Basin which falls within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).[1] The South Coast Air Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean on the west, and relatively high mountains forming the north, south, and east perimeters. The climate is mild, tempered by cool sea breezes, and is dominated by the semi-permanent high pressure of the eastern Pacific Ocean.[2]

The United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (ARB) have both established allowable maximum ambient concentrations of criteria air pollutants. These are based upon public health impacts and are called ambient air quality standards. The U.S. EPA, ARB, and the local air district have established air monitoring plans designed to obtain representative data on the ambient levels of pollutants. This data is used to classify an area as attainment, unclassified, or nonattainment, depending on whether or not the monitored ambient air quality data shows compliance, insufficient data is available, or non-compliance with the ambient air quality standards, respectively. The federal and state attainment status of

[1] SCAQMD released its Final Determination of Compliance (FDOC) on November 18, 2016. (Ex. 6002.)

[2] Ex. 6003, p. 4.1-19.

criteria air pollutants in the South Coast Air Basin are summarized in **Air Quality Table 1**.[3]

Air Quality Table 1
Attainment Status of South Coast Air Basin

Pollutants	Attainment Status	
	Federal Classification	**State Classification**
Ozone (1-hr)	No Federal Standard	**Nonattainment**
Ozone (8-hr)	**Nonattainment**	**Nonattainment**
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Respirable Particulate Matter (PM10)	Attainment	**Nonattainment**
Fine Particulate Matter (PM2.5)	**Nonattainment**	**Nonattainment**

Air Quality Table 2 summarizes the existing ambient monitoring data for nonattainment criteria pollutants (ozone and particulate matter) collected from 2009 to 2014 by ARB and SCAQMD from monitoring stations near the Amended Project site. Data in this table in bold-face type indicates that the most stringent current standard was exceeded during that period. However, an exceedance is not necessarily a violation of the standard; only persistent exceedances lead to designation of an area as nonattainment.[4]

Air Quality Table 2
Nonattainment Criteria Pollutants Concentrations, 2009-2014 (ppm or µg/m^3)

Pollutant	Averaging Time	2009	2010	2011	2012	2013	2014
Ozone (ppm)	1 hour	0.087	**0.097**	**0.093**	**0.09**	**0.095**	**0.096**
Ozone (ppm)	8 hour	**0.075**	**0.076**	**0.077**	**0.076**	**0.083**	**0.079**
PM10 (µg/m^3)	24 hour	**62**	44	43	45	37	NA
PM10 (µg/m^3)	Annual	**30.5**	**22**	**24.2**	**23.3**	**23.2**	NA
PM2.5 (µg/m^3)	24 hour	34.2	28.3	27.8	26.4	26.1	NA
PM2.5 (µg/m^3)	Annual	**13**	10.5	11	10.4	11.34	NA

[3] *Id.*at p. 4.1-22.
[4] *Id.* at p. 4.1-23.

Air Quality Table 3 summarizes the existing ambient monitoring data for attainment criteria pollutants collected from 2009 to 2014 by ARB and SCAQMD from monitoring stations near the Amended Project site.[5]

Air Quality Table 3
Attainment Criteria Pollutants Concentrations, 2009-2014 (ppm)

Pollutant	Averaging Time	2009	2010	2011	2012	2013	2014
NO_2	1 hour	0.07	0.07	0.06	0.074	0.0757	0.0606
NO_2	Federal 1 hour	0.057	0.056	0.053	0.05	0.0532	0.0547
NO_2	Annual	0.013	0.011	0.01	0.01	0.0116	0.011
CO	1 hour	3	2	2.9	2.1	2.4	3
CO	8 hours	2.2	2.1	2.2	1.7	2	1.9
SO_2	State 1 hour	0.01	0.01	0.008	0.006	0.0042	0.0088
SO_2	Federal 1 hour (99^{th} percentile)	0.006	0.006	0.005	0.002	0.0033	0.004
SO_2	24 hour	0.004	0.002	0.002	0.001	0.0012	0.0014

For additional information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

The Amended Project will be a natural-gas-fired, combined-cycle and simple-cycle, air-cooled electrical generating facility. Power Block 1 is a combined-cycle power block consisting of a two-on-one, combined-cycle unit with two General Electric (GE) Frame 7FA.05 gas turbines, two unfired heat recovery steam generators (HRSGs), one steam turbine generator, one air-cooled condenser, one natural-gas-fired auxiliary boiler, and related ancillary equipment. Power Block 2 is a simple-cycle power block consisting of two GE LMS-100PB simple-cycle turbines and their separate ancillary equipment. The two existing emergency diesel fire water pumps installed at the Huntington Beach Generating Station (HBGS) will remain in service for the Amended Project under permits previously issued by SCAQMD.[6]

[5] *Id.* at pp. 4.1-25 – 4.1-26.

[6] *Id.* at p. 4.1-27.

As part of the Energy Commission's licensing process, in lieu of issuing a construction permit, SCAQMD prepares and presents a Preliminary Determination of Compliance[7] (PDOC) and a FDOC.[8] The determinations of compliance evaluate whether, and under what conditions, the Amended Project complies with the SCAQMD's applicable rules and regulations.[9] In addition, SCAQMD has certified that the Petitioner, AES, has identified complete emission offsets and that they will be obtained in the time required by the District.[10]

The construction period of the Amended Project (including site preparation and associated demolition activities) is projected to last approximately nine years. During the construction period, air emissions are generated from: vehicle and construction equipment exhaust; fugitive dust from vehicle and construction equipment, including grading and bulldozing during construction of the Amended Project, improvements to the Plains All-American Tank Farm (Plains) site, and the intersection modifications at Magnolia Street and Banning Avenue; and fugitive dust from demolition activities such as the removal of the stacks and loading waste haul trucks with the generated debris. Construction emissions are estimated based on the work schedule of 10 hours per day, 23 days per month.[11]

After construction is complete, the Amended Project will undergo an initial commissioning phase. During this period, initial firing causes greater nitrogen oxides (NOx)[12] and CO emissions than those that occur during normal operations because of the need to tune the combustor, conduct numerous startups and shutdowns, operate under low loads, and conduct testing before emission control systems are functioning or fine-tuned for optimum performance. Gas turbine suppliers can have different commissioning period requirements.[13] The total duration of the combined-cycle power block and simple-cycle power block commissioning periods is anticipated to be up to 1,992 hours (996 hours per turbine) and 560 hours (280 hours per turbine), respectively. AES expects the duration of the auxiliary boiler commissioning to take five days and require up to six "fired hours" per day.[14]

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[7] Ex. 5093.

[8] Ex. 6002; Ex. 6003, pp. 4.1-10.

[9] Ex. 6003, p. 4.1-10.

[10] Public Resources Code, §25523, subd. (c)(2); 12/21/16 RT 84:9-85:7.

[11] Ex. 6003, p. 4.1-28.

[12] Nitrogen oxides (NOx) include nitric oxide (NO) and nitrogen dioxide (NO_2). (Ex. 6003, p. 4.1-25.)

[13] Ex. 6003, p. 4.1-29.

[14] *Id.* at p. 4.1-30.

Once the initial commissioning is complete, the Amended Project will commence operations, and emissions will include CO, PM10, PM 2.5, NOx, volatile organic compounds (VOC), and sulfur oxides (SOx).[15]

For additional information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF 2014 DECISION[16]

In October 2014, the Energy Commission approved the Huntington Beach Energy Project (2014 Project). In the 2014 Decision, we reviewed the project's potential impacts on air quality, noting that demolition, construction, commissioning, and operation activities occurred concurrently throughout the construction time period so that there may be some overlap in potential air quality impacts.[17]

We found that particulate matter emissions from construction would cause a significant impact because they would cause new exceedances or contribute to existing violations of PM10 and PM2.5 ambient air quality standards. We further concluded that significant secondary impacts would also occur for PM10, PM2.5, and ozone because construction-phase emissions of particulate matter precursors (including SOx) and ozone precursors (NOx and VOC) would also contribute to existing violations of air quality standards.[18]

We determined that commissioning phase emissions did not cause new exceedances of any state or federal ambient air quality standard.[19] During operations, we found that the 2014 Project caused a significant impact related to annual PM10 emissions that contributed to existing violations of annual PM10 ambient air quality standards.[20]

On a cumulative basis, we found that the 2014 Project did not cause new exceedances for PM2.5, CO, NO2, and SO2. However, PM10 emissions from the 2014 Project would be cumulatively considerable because they would contribute to the existing violations of annual PM10 ambient air quality standards.[21]

The 2014 Project was subject to prevention of significant deterioration (PSD) review for NO2, SO2, CO, and PM10. After reviewing the evidence, we concluded the PM10, SO2, CO, and annual NO2 impacts from the new units were all below corresponding PSD Significant Impact Levels (SILs). While the maximum 1-hour NO2 impacts exceeded the

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[15] *Id.* at pp. 4.1-23, 4.1-31 – 4.1-32.

[16] Ex. 5114.

[17] *Id.* at p. 4.2-10.

[18] *Id*. at pp. 4.2-10 – 4.2-12.

[19] *Id*. at p. 4.2-19.

[20] *Id*. at pp. 4.2-12 – 4.2-15.

[21] *Id*. at pp. 4.2-19 – 4.2-21.

applicable NO2 SIL (7.5 µg/m3), we found that cumulative sources would not cause new exceedances of the federal 1-hour NO2 standard.[22]

The Energy Commission found the 2014 Project was required to participate in the Regional Clean Air Incentives Market (RECLAIM) program for NOx and SOx emissions.[23]

We also analyzed the 2014 Project's compliance with LORS.[24] We imposed two types of conditions: conditions consistent with the FDOC that SCAQMD issued for the operations of the 2014 Project (Conditions of Certification **AQ-1** through **AQ-43**), and conditions from Energy Commission staff (Staff) related to construction and demolition activities for the 2014 Project (Conditions of Certification **AQ-SC 1** through **AQ-SC 8**).[25] With the imposition and implementation of these conditions of certification, we found that the 2014 Project complied with all LORS and that the 2014 Project did not create any unmitigated direct, indirect, or cumulative impacts to air quality.[26]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act Guidelines, section 15162, are met. The evidence establishes that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized environmental concerns and conditions, there would be:

1. No new significant impacts to air quality not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[27]

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[22] *Id*. at pp. 4.2-21 – 4.2-22.

[23] *Id.* at p. 4.2-17.

[24] *Id*. at pp. 4.2-2 – 4.2-3, 4.2-22.

[25] *Id*. at pp. 4.2-2, 4.2-14, 4.2-18; Ex. 6003, p. 4.1-3.

[26] Ex. 5114, pp. 4.2-23 - 4.2-24.

[27] CEQA Guidelines, § 15162, subd. (a); Ex. 6003, p. 4.1-1.

The evidence shows that the conditions at the proposed site of the Amended Project are similar to those previously analyzed in the 2014 Decision. Therefore, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative impacts related to air quality.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[28] Since the issuance of the 2014 Decision, there have been changes to the LORS that apply to the Amended Project. In addition, there are LORS that were inapplicable to the 2014 Project that apply to the Amended Project. These changes are summarized below:

Heat Recovery Steam Generators (HRSGs)

The 2014 Project was subject to *Title 40 CFR Part 60, Subpart Da* - Standards of Performance for Electric Utility Steam Generating Units because of the licensed fired HRSGs. The Amended Project has unfired HRSGs, and is therefore not subject to *Title 40 CFR Part 60, Subpart Da*.[29]

Auxiliary Boiler

The Amended Project includes an auxiliary boiler that is subject to *Title 40 CFR Part 60, Subpart Dc* - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units; *SCAQMD Rule 404* – Particulate Matter Concentration; and *SCAQMD Rule 1146* – Emissions of Oxides of Nitrogen from Boilers. The 2014 Project did not include an auxiliary boiler and, thus, was not subject to these rules/regulations.[30]

<u>40 CFR 60 Subpart Dc</u>

This performance standard applies to steam generators rated between 10 and 100 MMBtu/hr and constructed after June 9, 1989. However, the emission limits are only applicable to coal- or oil-fired units. Since the Amended Project's auxiliary boiler uses natural gas exclusively, only records of the amount of fuel combusted on a monthly basis are required.[31]

<u>SCAQMD Rule 404</u>

Rule 404 limits the PM concentration based on the stack flow. At maximum firing rate, the SCAQMD estimated the auxiliary boiler stack flow to be 12,059 cubic feet per

[28] Ex. 5114, pp. 4.2-2 – 4.2-3.

[29] Ex. 6003, p. 4.1-4.

[30] *Id.* at p. 4.1-4.

[31] *Id.* at p. 4.1-8.

minute (cfm). Therefore, the corresponding maximum allowable PM concentration is 0.073 grains per cubic foot (gr/scf). The SCAQMD estimated the PM concentration for the auxiliary boiler to be 0.0049 gr/scf.[32] We find that the evidence establishes that the Amended Project complies with Rule 404.

SCAQMD Rule 1146

This rule applies to boilers over 5 MMBtu/hr. Emission limits are 9 ppm NOx for gas firing, and 400 ppm CO. The emissions of the auxiliary boiler would be maintained at 5 ppmvd of NOx and 50 ppmvd of CO at 3 percent O_2. Under the rule, the unit must be tested periodically using a portable analyzer method every 750 operating hours, or monthly, whichever occurs later. If three consecutive tests show compliance without adjustment to the oxygen sensor set points, then the periodic tests are only required every 2,000 hours or quarterly. Furthermore, for boilers greater than 10 MMBtu/hr, a stack test using the reference methods is required every three years. Since the facility is subject to NOx RECLAIM, only the CO limits are applicable to the auxiliary boiler, and the periodic monitoring and stack testing is only required for CO.[33]

Clean Air Act Section 111(b)

On August 3, 2015, the U.S. EPA finalized a rule under Clean Air Act section 111(b) that would limit carbon dioxide emissions from new, modified, and reconstructed stationary turbines. The Amended Project is subject to this new rule.[34]

The rule limits greenhouse gas emissions (specifically, carbon dioxide [CO_2]) from new, base-load, natural-gas-fueled turbines built after January 8, 2014 (for facilities with new turbines) and June 18, 2014 (for facilities with reconstructed turbines) to 1,000 pounds of CO_2 per MWh, gross (or 1,030 lb CO_2 per MWh, net), expressed at three digits of precision. The rule would also apply to non-base-load, natural-gas-fueled turbines by limiting CO_2 emissions to 120 lb CO_2 per million British Thermal Units (Btus) of natural gas heat input, expressed at two digits of precision.[35]

The evidence shows that the GE 7FA.05 combined-cycle turbines are expected to comply with the rules requirements for base-load, natural-gas-fueled turbines. Similarly, the GE LMS-100PB simple-cycle turbines are expected to comply with the limit of 120 lb CO_2 per million Btus (MMBtu) of natural gas heat input for non-base-load, natural-gas-fueled turbines.[36]

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[32] *Id.* at p. 4.1-11.

[33] *Id.* at p. 4.1-12.

[34] *Id.* at p. 4.1-4.

[35] *Id.* at p. 4.1-159.

[36] *Id.* at p. 4.1-152.

We impose revised Conditions of Certification **AQ-15** and **AQ-61** to ensure that the Amended Project complies with the new standards.

SCAQMD Rule 1325 – PM2.5 New Source Review

On December 22, 2015, the U.S. EPA re-classified the South Coast Air Basin as being in serious non-attainment for PM2.5, effectively reducing the major source threshold from 100 tons per year to 70 tons per year. On November 4, 2016, SCAQMD amended its Rule 1325 to align with the reclassification and with the U.S. EPA's Fine Particulate Matter National Ambient Air Quality Standards implementation rule. These amendments will be effective after August 14, 2017, or upon the effective date of the U.S. EPA's approval of these amendments to this rule, whichever is later.[37]

SCAQMD Rule 1325 requires a major PM2.5 facility to off-set PM2.5 emissions at the off-set ratio of 1.1:1. A major polluting facility is defined in the rule as a facility which has actual emissions, or a potential to emit of greater than 100 tons per year. The Amended Project has the potential to emit 69.6 tons of PM2.5 per year. As such, the Amended Project is not a major polluting facility under either the existing rule or under the amendment. Consequently, the Amended Project does not require any PM2.5 offsets.[38]

In his reply brief, Intervener Robert Simpson/Helping Hand Tools contends that the amendments to Rule 1325 establish appropriate major stationary source thresholds for direct PM2.5 and PM2.5 precursors, including VOC and ammonia. He then claims that mitigation is required.[39]

However, as set forth above, the Amended Project is not a major polluting facility under the terms of either the existing or the amended Rule 1325. Therefore, no mitigation is required.

CONTESTED ISSUES

Conditions of Certification AQ-SC1 and AQ-2

The primary area of dispute between Staff and AES concerned Conditions of Certification **AQ-SC1** and **AQ-2**.[40] After the Evidentiary Hearing, Staff submitted a Reply Brief in which it made changes to conditions of certification that had been proposed by AES. In Condition of Certification **AQ-SC1**, Staff removed language requiring that the Air Quality Construction/Demolition Mitigation Manager (AQCMM) could not be removed without the consent of the CPM. In addition, consistent with the testimony during the Evidentiary Hearing, Condition of Certification **AQ-2** was amended

[37] *Id.* at pp. 4.1-15 – 4.1-16.

[38] *Id.* at p. 4.1-53.

[39] TN 215425.

[40] 12/21/16 RT 88:10-16, 92:1 – 94:1, 94:2-96:24.

to establish a deadline of January 15, 2020, for the shutdown of the existing HBGS units.[41]

We impose Conditions of Certification **AQ-SC1** and **AQ-2** as modified by Staff's Reply Brief language.[42]

Condition of Certification AQ-SC 9

Staff proposes new Condition of Certification **AQ-SC9** to ensure that the emissions of the auxiliary boiler and the oil/water separators would be mitigated with the quantity of SCAQMD offsets recommended by the SCAQMD. This condition of certification would also require Staff to consult with SCAQMD if substitutions are made to the emission reduction credits (ERCs).[43]

During the Evidentiary Hearing, AES requested that Condition of Certification **AQ-SC9** not include numeric limits on the ERCs required.[44] Previous testimony by representatives of SCAQMD established that AES had already provided a list of all ERCs it would surrender.[45] Staff, on the other hand, believes that the specific quantities of the ERCs should be kept to ensure the Energy Commission's enforceability of the ERCs. The quantities of the required ERCs in Condition of Certification **AQ-SC 9** are consistent with those shown in the FDOC as required by the SCAQMD. If the specific quantities of required ERCs need to be changed after the Energy Commission approves the Amended Project, a Petition to Amend could be submitted. Staff further asserts that requiring the ERC list will allow the Compliance Project Manager (CPM) to maintain an accurate list of ERCs for the Amended Project, especially to the extent that there are any requested substitutions, modifications, or additions to the ERCs.[46]

We concur with Staff's reasoning and hereby impose Condition of Certification **AQ-SC9** with the numeric limits included.[47]

CHANGES TO CONDITIONS OF CERTIFICATION

Most of the approved Conditions of Certification **AQ-1** through **AQ-43** for the 2014 Project are either inapplicable to the Amended Project or require substantial revision.

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[41] TN 215429.

[42] For ease of comparison, revisions to the conditions of certification for Air Quality are shown in a separate document. (TN 216248) The conditions of certification for Air Quality, as well as for all topics of this Decision, may be found in **Appendix A** of this Decision.

[43] *Id.* at pp. 4.1-55, 4.1-79.

[44] 12/21/16 RT 88:47-89:9.

[45] *Id.* at 96:25-97:13.

[46] Ex. 6003, p. 4.1-77.

[47] The conditions of certification for Air Quality, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

We agree with the approach recommended by Staff and strike the existing conditions of certifications on air quality from the 2014 Decision. We adopt Conditions of Certification **AQ-1** through **AQ-71** that are consistent with the SCAQMD's FDOC.

We impose Conditions of Certification **AQ-1** (SCAQMD condition F2.1) and **AQ-2** (SCAQMD condition F52.1) specifically to include limits and requirements for the existing HBGS units that are not jurisdictional to the Energy Commission to ensure that the Amended Project complies with LORS during the transitional period before the HBGS units are retired and new units of the Amended Project become operational.[48]

Staff has proposed new Condition of Certification **AQ-SC10** to establish appropriate guidelines on what would be considered a significant change to a condition of certification.[49] Staff has also proposed other changes to Conditions of Certification **AQ-SC1** and **AQ-SC6** to update the conditions to reflect standard language in other siting projects and to ensure that the changes from the Amended Project are accurately reflected.[50] We accept the changes to **AQ-SC 1**, **AQ-SC 6**, and **AQ-SC 10**.

We find that, with the imposition and implementation of revised Conditions of Certification **AQ-SC 1** through **AQ-SC 10**,[51] and Conditions of Certification **AQ-1** through **AQ-71**,[52] the Amended Project will comply with all applicable LORS. We further find that with the imposition and implementation of revised Conditions of Certification **AQ-SC 1** through **AQ-SC10**, and Conditions of Certification **AQ-1** through **AQ-71**,[53] the Amended Project has no significant unmitigated direct, indirect, or cumulative impacts on air quality.

AGENCY AND PUBLIC COMMENT

No agency or public comments on the topic of **AIR QUALITY** were received during the Evidentiary Hearing.

In comments on the PMPD, John in Huntington Beach[54] asked "How will noise and dust from [sic] neighboring homes will be controlled?"

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[48] Ex. 6003, pp. 4.1-79 – 4.1-80. The conditions of certification for Air Quality, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

[49] *Id.* at pp. 4.1-55, 4.1-79.

[50] *Id.* at p. 4.1-80.

[51] For ease of comparison, revisions to the conditions of certification for Air Quality are shown in a separate document. (TN 216248) The conditions of certification for Air Quality, as well as for all topics of this Decision, may be found in **Appendix A** of this Decision.

[52] The conditions of certification for Air Quality, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

[53] The conditions of certification for Air Quality, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

[54] TN 216560.

As set forth above, with the imposition and implementation of the Conditions of Certification AQ-SC1 through AQ-SC10 and AQ-1 through AQ-70, the Amended Project will have no significant adverse air quality impacts, including dust, on neighboring properties.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards and that, with the implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant direct, indirect, or cumulative impacts to air quality.
2. The amended Huntington Beach Energy Project has unfired heat recovery steam generators and is, therefore, not subject to *Title 40 CFR Part 60, Subpart Da.*
3. The amended Huntington Beach Energy Project has the potential to emit 69.6 tons of PM 2.5 per year and, therefore, is not a major polluting facility under either the existing Rule 1325 or under the amendment to Rule 1325.
4. South Coast Air Quality Management District Rule 404 limits the particulate matter concentration based on the auxiliary boiler stack flow to 0.073 grains per cubic foot.
5. The amended Huntington Beach Energy Project has an estimated particulate matter concentration for the auxiliary boiler of 0.0049 grains per cubic foot.
6. The South Coast Air Quality Management District released its Final Determination of Compliance on November 18, 2016, stating that the amended Huntington Beach Energy Project will comply with applicable Air District rules, which incorporate state and federal requirements.
7. None of the factors that require a subsequent or supplemental environmental analysis as set forth in the California Environmental Quality Act Guidelines, section 15162, and described in the **INTRODUCTION** section of this Decision, are present regarding this topic.

CONCLUSIONS OF LAW

1. Except as described in this section of the Decision, no laws, ordinances, regulations, or standards related to air quality not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.
2. Imposition and implementation of the mitigation measures contained in the conditions of certification set forth in **Appendix A** of this Decision ensure that the

amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to air quality.

3. Imposition and implementation of the mitigation measures contained in the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative air quality impacts.

C. PUBLIC HEALTH

INTRODUCTION

This section supplements the discussion on air quality and considers the potential public health effects from project emissions of toxic air contaminants (TACs). Here we review the evidence regarding whether such emissions will result in significant public health impacts or violate laws, ordinances, regulations, or standards (LORS) for public health protection.[1]

Evidence on the topic of public health is contained in Exhibits 5001, 5028, 5053, 5055, 5056, 5057, 5062, 5063, 5064, 5071, 5072, 5078, 5079, 5090, 5092, 5093, 5094, 5095, 5096, 5097, 5101, 5102, 5013, 5108, 5109, 5110, 5111, 5112, 5113, 5114, 5115, 5116, 5120, 5121, 6000, 6002, and 6003.

SETTING

The amended Huntington Beach Energy Project (Amended Project) is proposed to be built on the existing Huntington Beach Generating Station (HBGS) site, an industrial brownfield with an operating power plant.

The Amended Project is located in the city of Huntington Beach, a seaside city in Orange County, California. The site is within the boundaries of the South Coast Air Basin in the South Coast Air Quality Management District (SCAQMD). Approximately 353,173 residents live within a six-mile radius of the Amended Project site. Sensitive receptors, such as infants, the aged, and people with specific illnesses or diseases, are the subpopulations which are more sensitive to the effects of toxic substance exposure. The sensitive receptors within a six-mile radius of the project site include:

- 275 preschool/daycare centers;
- 12 nursing homes;
- 81 schools;

[1] This Decision discusses other potential public health concerns under various topics. For instance, impacts from emissions of criteria pollutants are treated in the **AIR QUALITY** section. The accidental release of hazardous materials is addressed in **HAZARDOUS MATERIALS MANAGEMENT**. Electromagnetic fields are covered in **TRANSMISSION LINE SAFETY AND NUISANCE**. Potential impacts to soils and surface water sources are considered in the **SOIL AND WATER RESOURCES** section. Potential exposure to contaminated soils and hazardous wastes is described in **WASTE MANAGEMENT**. (Ex. 6003, p. 4.7-2.)

- 579 hospitals, clinics, and/or pharmacies; and
- 7 colleges.[2]

The nearest sensitive receptor is a daycare facility located 0.3 miles east of the Amended Project site. The nearest school is Edison High School located approximately 0.5 mile to the northeast of the Amended Project site. The nearest residence is located approximately 250 feet west-northwest of the facility along Newland Street. The nearest businesses are located along Edison Drive, just north of the Amended Project site.[3]

Meteorological conditions, including wind speed, wind direction, and atmospheric stability, affect the extent to which pollutants are dispersed into the air and the direction of pollutant transport. This, in turn, affects the level of public exposure to emitted pollutants along with the associated health risks. The South Coast Air Basin lies in the semi-permanent high-pressure zone of the eastern Pacific. This location creates a climate that is mild, tempered by cool sea breezes, interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The annual and quarterly wind rose plots[4] for the National Weather Service John Wayne Airport meteorological station show that the prevailing winds that blow to the Amended HBEP site were mostly from the southwest. Only a small percent of prevailing winds blowing to the Amended HBEP site were from other directions.[5]

For additional information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For information on the design and features of the Amended Project, please see the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF 2014 DECISION

In the 2014 Decision,[6] the Energy Commission reviewed the potential public health effects from project emissions of TACs from the Huntington Beach Energy

[2] *Id.*at p. 4.7-6.

[3] *Id.*at p. 4.7-7.

[4] A wind rose plot is a diagram that depicts the distribution of wind direction and speed at a location over a period of time. (Ex. 6003, 4.7-7.)

[5] *Id.*

[6] Ex. 5114.

Project (2014 Project) by performing a health risk assessment (HRA) consisting of:

- Identification of the types and amounts of hazardous substances that a project may emit into the environment;
- Estimation of worst-case concentrations of project emissions in the environment using dispersion modeling;
- Estimation of amounts of pollutants to which people could be exposed through inhalation, ingestion, and dermal (skin) contact; and
- Characterization of potential health risks by comparing worst-case exposure to a project's emissions with the scientific safety standards based on known health effects.[7]

We utilized the typical approach by performing the initial health risk analysis at a "screening level." This approach is designed to conservatively estimate potential health risks. The risks for screening purposes are based on examining conditions that would lead to the highest or worst-case risks, and then modeling those conditions to analyze results. Such conditions include:

- Using the highest levels of pollutants that could be emitted from the power plant;
- Assuming weather conditions that would lead to the maximum ambient concentration of pollutants;
- Using air quality computer modeling which predicts the greatest plausible impacts;
- Calculating health risks at the location where the pollutant concentrations are estimated to be the highest;
- Assuming that an individual's exposure to cancer-causing agents occurs continuously over a 70-year lifetime; and
- Using health-based standards designed to protect the most sensitive members of the population (i.e., the young, elderly, and those with respiratory illnesses).[8]

[7] Ex. 6003, pp. 4.7-8 - 4.7-9.

[8] Ex. 6003, p. 4.7-12.

During the site preparation (including demolition) and construction of the 2014 Project, we identified a potential public health hazard from exposure to asbestos during construction and demolition of the HBGS.[9] The 2014 Decision also analyzed the potential public health impacts of fugitive dust; that is, dust particles that are introduced into the air through certain activities such as soil cultivation and vehicles operating on open fields or dirt roadways.[10] The last identified demolition- and construction-related impact came from diesel exhaust.[11]

While no conditions of certification specific to public health were imposed, we found that, with the imposition of conditions of certification related to Waste Management and Air Quality, the 2014 Project mitigated any direct, indirect, or cumulative public health impacts from construction to a "less than significant" level.[12]

On an operational level, we determined that the maximum cancer risk and non-cancer hazard index (both acute and chronic) for operations emissions from the 2014 Project were all below the level of significance. We also determined that the 2014 Project did not create any cumulative impacts to public health.[13]

We also analyzed the 2014 Project's compliance with LORS.[14] We concluded that the 2014 Project was in conformity with all LORS.[15]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act Guidelines, section 15162, are met. The evidence establishes that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized environmental concerns and conditions, there would be:

1. No new significant impacts to public health not previously analyzed;

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[9] Ex. 5114, pp. 4.3-6 – 4.3-8.

[10] *Id.*at p. 4.3-8.

[11] *Id*.

[12] *Id.* at pp. 4.3-6 – 4.3-9, 4.3-16.

[13] *Id.* at pp. 4.3-10 – 4.3-13.

[14] *Id*. at pp. 4.3-2 – 4.2-3.

[15] *Id*. at p. 4.3-14.

2. No substantial increase in the severity of previously identified public health impacts;

3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project on public health; and

4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant public health effects of the Amended.[16]

The evidence shows that the conditions at the proposed site of the Amended Project are similar to those previously analyzed in the 2014 Decision. Therefore, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative impacts to public health.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[17] The evidence establishes that there have not been any new LORS, changes to the LORS that apply to the Amended Project, nor any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[18]

CHANGES TO CONDITIONS OF CERTIFICATION

In the 2014 Decision, the Energy Commission imposed no specific conditions of certification for public health, instead relying on Conditions of Certification **AQ-SC3**, **AQ-SC4**, **AQ-SC5**, and **WASTE-2** in order to mitigate the 2014 Project's potential impacts to the public from exposure to asbestos, fugitive dust, and diesel exhaust during construction and demolition.[19] The evidence also shows that Condition of Certification **AQ-SC 6** provides additional mitigation for demolition- and construction-related impacts.[20]

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[16] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6003, p. 4.5-1.

[17] Ex. 5114, pp. 4.3-2 – 4.3-3, 4.3-14.

[18] Ex. 6003, pp. 4.7-4 – 4.7-5, 4.7-23 – 4.7-24.

[19] Ex. 5114, pp. 4.3-5 – 4.3-9.

[20] Ex, 6003, pp. 4.7-13 – 4.7-16.

For the Amended Project, we, thus, impose Conditions of Certification **AQ-SC3**, **AQ-SC4**, **AQ-SC5**, **AQ-SC6**, and **WASTE-2**, as revised in accordance with the sections of this Decision on **WASTE MANAGEMENT** and **AIR QUALITY**.[21]

We find that, with the imposition and implementation of Conditions of Certification **AQ-SC3**, **AQ-SC4**, **AQ-SC5**, **AQ-SC6**, and **WASTE-2**,[22] as revised in accordance with the sections of this Decision on **WASTE MANAGEMENT** and **AIR QUALITY**, the Amended Project will comply with all applicable LORS and will have no significant unmitigated direct, indirect, or cumulative public health impacts.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **PUBLIC HEALTH** were received during the Evidentiary Hearing.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards and that, with the implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant direct, indirect, or cumulative impacts to public health.
2. No new laws, ordinances, regulations, or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.
3. None of the factors that require a subsequent or supplemental environmental analysis, as set forth in the California Environmental Quality Act Guidelines section 15162, and as described in the **INTRODUCTION** section of this Decision, are present regarding this topic.

[21] For ease of comparison, revisions to the conditions of certification for all topics in this Decision are shown in a separate document, TN 216248. The conditions of certification for all topics of this Decision may be found in **Appendix A of this Decision**.

[22] For ease of comparison, revisions to the conditions of certification for all topics in this Decision are shown in a separate document, TN 216248. The conditions of certification for all topics of this Decision may be found in **Appendix A of this Decision**.

4. No specific conditions for public health are proposed; however, Conditions of Certification **AQ-SC3**, **AQ-SC4**, **AQ-SC5**, **AQ-SC6**, and **WASTE-2** apply to identified public health impacts.

CONCLUSIONS OF LAW

1. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding public health.

2. The amended Huntington Beach Energy Project does not create any significant direct, indirect, or cumulative public health impacts.

3. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to public health.

4. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative public health impacts.

D. WORKER SAFETY AND FIRE PROTECTION

INTRODUCTION

Workers at industrial facilities are exposed to potential health and safety hazards on a daily basis. Implementation of various existing laws and standards suffices to reduce these hazards to minimal levels. Therefore, this section of the Decision focuses on whether Applicant's proposed health and safety plans are in accordance with all applicable laws, ordinances, regulations, and standards (LORS), and thus adequate to protect industrial workers. We also address the availability and adequacy of fire protection and emergency response services.[1]

This topic was undisputed. Evidence regarding worker safety and fire protection can be found in Exhibits 5001, 5032, 5053, 5055, 5056, 5057, 5114, 5121, and 6000.

SETTING

For detailed information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For detailed information regarding worker safety and fire protection, please refer to the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF 2014 DECISION

In the 2014 Decision, we reviewed the Huntington Beach Energy Project's (2014 Project) potential impacts on worker safety and fire protection. We concluded that with the adoption of Conditions of Certification **WORKER SAFETY-1** through **WORKER SAFETY-6**, the 2014 Project's potential impacts to worker safety and fire protection were mitigated to a level of "less than significant" and the 2014 Project was in conformity with all LORS.[2]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION**, the Commission need not re-evaluate the potential environmental impacts of the Amended Project unless it meets the conditions set forth in CEQA Guidelines, section 15162. The evidence establishes that, even with the substitution of equipment and reconfiguration of the power plant footprint, there would be:

1. No new significant impacts to worker safety and fire protection not previously analyzed;

[1] Ex. 6000, p. 4.14-1.

[2] Ex. 5114, pp. 4.4-4 - 4.4-8.

2. No substantial increase in the severity of environmental impacts;

3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project; and

4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects on the environment of the Amended Project.[3]

Therefore, we conclude that no supplementation of the 2014 Decision is necessary for the Amended Project's impacts to worker safety and fire protection.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision set forth the LORS applicable to the 2014 Project.[4] The evidence establishes that, except as set forth below, there have been no changes to the LORS that apply to the Amended Project.[5]

The 2014 Decision included *National Fire Protection Association Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations* (NFPA 850) as an applicable LORS. However, NFPA 850 is written as a set of "recommended" practices rather than "required" ones. In order to avoid any potential confusion, we impose Condition of Certification **WORKER SAFETY-7** to require compliance with NFPA 850 as an enforceable building code for the Amended Project.[6]

We, therefore, find that, with the imposition and implementation of Conditions of Certification **WORKER SAFETY-1** through **WORKER SAFETY-7,**[7] the Amended Project will comply with all applicable LORS and will have no significant unmitigated direct, indirect, or cumulative impacts.

[3] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162; Ex. 6000, pp. 4.14-1, 4.14-3.

[4] Ex. 5114, pp. 4.4-2 – 4.4-3.

[5] Ex. 6000, pp. 4.14-2 – 4.14-3.

[6] *Id*.at p. 4.14-3.

[7] The conditions of certification for Worker Safety and Fire Protection, as well as for all other topics of this Decision, may be found in **Appendix A**.

AGENCY AND PUBLIC COMMENTS

No comments were received during the Evidentiary Hearings on the topic of Worker Safety and Fire Protection.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards and did not have any significant direct, indirect, or cumulative impacts related to worker safety and fire protection.
2. None of the factors that require a subsequent or supplemental environmental analysis, as set forth in the California Environmental Quality Act Guidelines, section 15162, and as described in the **INTRODUCTION** section of this Decision, are present regarding this topic.
3. Except as described above, there have been no changes in the laws, ordinances, regulations, and standards applicable to the amended Huntington Beach Energy Project, and the amended Huntington Beach Energy Project would comply with all applicable laws, ordinances, regulations, and standards.
4. Revising Condition of Certification **WORKER SAFETY-7** would clarify that conformance to the National Fire Protection Association 850 is required and ensures that the amended Huntington Beach Energy Project facility is built to comply with the National Fire Protection Association 850 recommendations by allowing the Chief Building Official to enforce all of the applicable provisions.

CONCLUSIONS OF LAW

1. The Amended Project will continue to comply with all applicable laws, ordinances, regulations and standards.
2. The worker safety and fire protection aspects of the Amended Project do not create significant direct, indirect, or cumulative environmental effects.
3. The conditions of certification set forth in **Appendix A** are appropriate and will ensure that the Amended Project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable laws, ordinances, regulations, and standards.

E. HAZARDOUS MATERIALS MANAGEMENT

INTRODUCTION

In this section of the Decision, we review the amended Huntington Beach Energy Project (Amended Project) to determine whether it will create significant impacts to public health and safety resulting from the use, handling, storage, or transport of hazardous materials.

Evidence on the topic of Hazardous Materials Management is contained in Exhibits 5001, 5053, 5055, 5056, 5057, 5121, and 6000.

SETTING

For detailed information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For general and detailed information regarding the design and features of the Amended Project, as well as the hazardous materials associated with the demolition of existing HBGS Units 1, 2, and 5 and construction and operation of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF THE 2014 DECISION

In the 2014 Decision,[1] the Energy Commission reviewed the potential of the Huntington Beach Energy Project (2014 Project) to create significant impacts to public health and safety resulting from the use, handling, storage, or transport of hazardous materials during demolition, construction, and operation.

Construction

During the construction phase of the project, we found that only a limited number of potentially hazardous materials were proposed to be used. We determined that any impact of spills or other releases of these materials was limited to the site because of the small quantities involved, their infrequent use (and therefore reduced chances of release), and/or the temporary containment berms used by contractors. Even for petroleum hydrocarbon-based motor fuels, mineral oil, lube oil, and diesel fuel, these substances were all very low volatility and represented limited off-site hazards even in larger quantities.[2]

[1] Ex. 5114.

[2] Ex. 5114, p. 4.5-4.

Operations

Natural Gas

During operation, we stated that natural gas posed a fire and/or possible explosion risk because of its flammability. However, we noted that, due to its tendency to disperse rapidly, natural gas was less likely to cause explosions than many other fuel gases such as propane or liquefied petroleum gas. We also discussed that natural gas was not stored on site, but delivered to the 2014 Project site via a pipeline owned by Southern California Gas.[3]

To mitigate the potential effects of using natural gas, we imposed Condition of Certification **HAZ-9** to prohibit the use of natural gas for pipe-cleaning blows, either during construction or after the start of operations.[4]

Aqueous Ammonia

Aqueous ammonia was used to control the emission of oxides of nitrogen (NO_x) from the combustion of natural gas at the 2014 Project. The accidental release of aqueous ammonia without proper mitigation can result in significant down-wind concentrations of ammonia gas. The 2014 Project had a 19 percent aqueous ammonia solution in a 24,000-gallon horizontal above ground storage tank. Actual storage contents was limited to 20,400 gallons, or 85 percent of tank capacity.[5]

We imposed Condition of Certification **HAZ-2** to require the preparation of a risk management plan for aqueous ammonia. We also imposed Condition of Certification **HAZ-4** to ensure that the aqueous ammonia secondary containment structure included essential design elements to prevent a worst-case spill from producing significant off-site impacts. Condition of Certification **HAZ-4** also required that the final design drawings for the aqueous ammonia storage (and secondary containment) facility be submitted to the CPM for review and approval.

Engineering and Administrative Controls

We imposed Condition of Certification **HAZ-2** also calls for preparation of a hazardous materials business plan that would incorporate state requirements for the handling of hazardous materials. Other administrative controls were included in Conditions of Certification **HAZ-1** (limitations on the use and storage of hazardous materials and their strength and volume) and **HAZ-3** (development of a safety management plan).[6]

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[3] Ex. 5114, pp. 4.5-4 – 4.5-5.

[4] *Id.*at pp. 4.5-5, 4.5-13.

[5] *Id.* at p. 4.5-5.

[6] *Id.* at pp. 4.5-7 – 4.5-8.

On-Site Spill Response

In order to address the issue of spill response, the facility will prepare and implement an emergency response plan that includes information on hazardous materials contingency and emergency response procedures, spill containment and prevention systems, personnel training, spill notification, on-site spill containment, and prevention equipment and capabilities, as well as other elements. Emergency procedures will be established which include evacuation, spill cleanup, hazard prevention, and emergency response.[7]

Transportation of Hazardous Materials

Hazardous materials, including aqueous ammonia, were to be transported to the facility by tanker truck. The applicant's proposed transportation route for hazardous materials delivery calls for trucks to travel on I-405 to Beach Boulevard, south onto Pacific Coast Highway, and left onto Newland Street, then right into the 2014 Project site.[8]

Ammonia can be released during a transportation accident and the extent of impact in the event of such a release would depend upon the location of the accident and the rate of dispersion of ammonia vapor from the surface of the aqueous ammonia pool.

To address the issue of tanker truck safety, we imposed Condition of Certification **HAZ-5** to ensure that only vehicles that met or exceeded the design standards of Department of Transportation Code MC-307 with capacities of 6,500 gallons delivered aqueous ammonia.[9]

Finally, we imposed Condition of Certification **HAZ-6,** requiring the use of only the specified and California Highway Patrol approved route to the site to mitigate the risk of an accident involving the transport of aqueous ammonia.[10]

Security

In order to ensure that neither this project nor a shipment of hazardous material was the target of unauthorized access, we adopted Conditions of Certification **HAZ-7** and **HAZ-8** that required security plans for both construction and operations.[11]

We found that, with the imposition and implementation of Conditions of Certification **HAZ-1** through **HAZ-9**, the 2014 Project complied with all LORS and did not have any unmitigated significant impacts related to hazardous materials handling.[12]

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[7] *Id.* at pp. 4.5-8 – 4.5-9.

[8] *Id*. at. p. 4.5-9.

[9] *Id.*

[10] *Id*. at p. 4.5-10.

[11] *Id.* at p. 4.5-10.

[12] *Id.* at pp. 4.5-13 – 4.5-14.

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act Guidelines, section 15162, are met.

1. No new significant impacts regarding hazardous materials management not previously analyzed;
2. No substantial increase in the severity of environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project related to hazardous materials management; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment related to hazardous materials management.[13]

The Energy Commission staff (Staff) witnesses concluded that the Amended Project would neither increase nor decrease the use, storage, or transportation of hazardous materials.[14]

We find, on the basis of this uncontroverted evidence, that we need not supplement the environmental analysis on the topic of Hazardous Materials Management contained in the 2014 Decision.

COMPLIANCE WITH LAW, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the majority of the LORS applicable to the Amended Project.[15] Since the 2014 Decision, Staff noted that the City of Huntington Beach repealed Huntington Beach Municipal Code section 17.58, relating to developing and implementing safety management plans, in favor of the state standards contained in the Health and Safety Code. Except for the change to the Health and Safety Code, the evidence establishes that there have been no changes to the LORS that apply to the Amended Project, nor are there any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[16]

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[13] CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 4.4-1, 4.4-3 – 4.4-4.

[14] *Id.*at p 4.4-3.

[15] Ex. 5114, pp. 4.5-1 – 4.5-3; Ex. 6000, pp. 4.4-2 – 4.4-3, 4.4-4.

[16] Ex. 6000, p. 4.4-3.

CHANGES TO THE CONDITIONS OF CERTIFICATION

Staff noted that some standards have been updated and the standard for the aqueous ammonia storage tank was corrected. The updates and correction led Staff to recommend revisions to Conditions of Certification **HAZ-4**, **HAZ-8**, and **HAZ-9** to ensure compliance with LORS.[17]

We have revised the conditions of certification[18] to address these changes. As discussed above, we find that none of these proposed modifications result in new significant impacts, substantially increase the severity of previously identified significant impacts, or necessitate any material changes to the hazardous materials management conditions of certification identified in the 2014 Decision to mitigate impacts or to maintain compliance with LORS.

We find that, with the imposition and implementation of revised Conditions of Certification **HAZ-1** through **HAZ-9**,[19] the Amended Project will comply with all applicable LORS and will have no significant unmitigated direct, indirect, or cumulative impacts.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **HAZARDOUS MATERIALS MANAGEMENT** were received during the Evidentiary Hearings.

FINDINGS OF FACT

Based upon the uncontroverted evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that, with the implementation of the conditions of certification, the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards and did not have any significant direct, indirect, or cumulative impacts to hazardous materials handling.
2. None of the factors that require a subsequent or supplemental environmental analysis, as set forth in the California Environmental Quality Act Guidelines

[17] Ex. 6000, p. 4.4-4.

[18] For ease of comparison, revisions to the conditions of certification for Hazardous Materials Management are shown in a separate document. (TN 216248) The conditions of certification for Hazardous Materials Management, as well as for all other topics of this Decision, may be found in **Appendix A**.

[19] The conditions of certification for Hazardous Materials Management, as well as for all other topics of this Decision, may be found in **Appendix A**.

section 15162, and as described in the **INTRODUCTION** section of this Decision, are present regarding this topic.

3. No new laws, ordinances, regulations, or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.

CONCLUSIONS OF LAW

1. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding hazardous materials handling.

2. The amended Huntington Beach Energy Project does not create any significant direct, indirect, or cumulative environmental impacts to hazardous materials handling.

3. The conditions of certification set forth in **Appendix A** of this Decision are appropriate and will ensure that the amended Huntington Beach Energy Project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable laws, ordinances, regulations, and standards regarding hazardous materials handling.

F. WASTE MANAGEMENT

INTRODUCTION

The proposed amended Huntington Beach Energy Project (Amended Project) will generate hazardous and non-hazardous wastes during site preparation, demolition activities, construction, and operation. This section reviews the Amended Project's waste management plans for reducing the potential health risks and environmental impacts associated with handling, storage, and disposal of project-related hazardous and non-hazardous wastes.[1]

This topic was uncontested. Evidence on the topic of Waste Management is contained in Exhibits 5001, 5028, 5052, 5053, 5055, 5056, 5057, 5114, 5121, 6000, and 6001.

SETTING

For information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For general project description, including location of the facility and the equipment to be installed, please see the **PROJECT DESCRIPTION** section of this Decision.

The Amended Project is projected to generate small quantities of hazardous waste. Hazardous waste consists of materials that exceed criteria for toxicity, corrosivity, ignitability, or reactivity as established by the California Department of Toxic Substances Control (DTSC). State law requires hazardous waste generators to obtain U.S. Environmental Protection Agency identification numbers and to contract with registered hazardous waste transporters to transfer hazardous waste to appropriate Class I disposal facilities.[2] The Amended Project will generate hazardous wastes such as asbestos debris from demolition, heavy metal dust, used oils, universal wastes, solvents, and empty hazardous waste material containers.[3]

The Amended Project will also create non-hazardous wastes. These wastes are degradable materials that do not contain concentrations of soluble pollutants that could degrade water quality and are therefore eligible for disposal at Class II or Class III disposal facilities.[4]

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[1] Ex. 6000, p. 4.13-1.

[2] Cal. Code Regs., tit. 22, § 66262.10 et seq.

[3] Ex. 6000, p. 4.13-11; for additional information on the Amended Project's hazardous waste, please see the **HAZARDOUS MATERIALS** section of this Decision.

[4] Cal. Code Regs., tit. 14, § 17200 et seq.

SUMMARY OF 2014 DECISION

In the 2014 Decision, we reviewed the potential impacts that the previously-approved Huntington Beach Energy Project (2014 Project) may have related to the handling, storage, transportation, and disposal of hazardous and non-hazardous wastes.[5] In addition, we analyzed the laws, ordinances, regulations, and standards (LORS) applicable to hazardous materials.[6] We concluded that, with the imposition and implementation of Conditions of Certification **WASTE-1** through **WASTE-8**, the 2014 Project did not pose a significant risk of impacts related to the use or transport of hazardous and non-hazardous waste and was consistent with all relevant LORS.[7]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat environmental analysis where the conditions of the California Environmental Quality Act (CEQA) Guidelines section 15162 are met. For the Amended Project, the Energy Commission staff (Staff) concluded that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the project footprint, and recognized environmental concerns and conditions, there would be:

1. No new significant waste management impacts not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[8]

Based on the foregoing, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative impacts related to handling, storage, and disposal of project-related hazardous and non-hazardous wastes.

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[5] Ex. 5114, p. 4.6-8 – 4.6-15.

[6] Ex. 5114, p. 4.6-1 – 4.6-7, 4.6-15.

[7] Ex. 5114, p. 4.6-16.

[8] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 4.13-1, 4.13-7, 4.13-1, 4.13-8 – 4.13-17.

LAW, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[9] The Staff witness noted the LORS contained in the 2014 Decision have been unchanged, except for Huntington Beach Municipal Code section 8.21.175.[10] Section 8.21.175 requires all businesses to reuse, recycle, compost or divert refuse, and grants the Huntington Beach Director of Public Works the authority to implement a commercial recycling program for the city of Huntington Beach.[11]

In order to ensure compliance with section 8.21.175, Staff proposed a revision to Condition of Certification **WASTE-5** to require the project owner to prepare and provide a Construction and Demolition Debris Waste Reduction and Recycling Plan to the compliance project manager (CPM) and the city of Huntington Beach.[12]

We impose Conditions of Certification **WASTE-1** through **WASTE-8**, with the revisions to **WASTE-5** as proposed by Staff and Applicant,[13] on the Amended Project.[14] We conclude that adoption and implementation of Conditions of Certification **WASTE-1** through **WASTE-8** ensure the Amended Project's compliance with all applicable LORS.

We further find that the imposition and implementation of Conditions of Certification **WASTE-1** through **WASTE-8**, as set forth in **Appendix A** to this Decision, mitigate any impacts related to waste management from the Amended Project.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **WASTE MANAGEMENT** were received during the Evidentiary Hearing.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations or standards and that, with the implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant

[9] Ex. 5114, pp. 4.5-1 – 4.5-3.

[10] Ex. 6000, pp. 4.13-2 – 4.13-6, 4.13-17; see also, Staff's Opening Brief (TN 215233), pp. 1-2.

[11] *Id.* at 4.13-2 – 4.13-6.

[12] Ex. 6000, p. 4.4-4.

[13] Ex. 5055, Ex. G, Ex. 6001.

[14] For ease of comparison, revisions to the conditions of certification for Waste Management are shown in a separate document (TN 216248). The conditions of certification for Waste Management, as well as for all other topics of this Decision, may be found in **Appendix A**.

direct, indirect, or cumulative impacts related to handling, storage, and disposal of project-related hazardous and non-hazardous wastes.

2. The amended Huntington Beach Energy Project does not present any of the factors that require a subsequent or supplemental environmental analysis, as set forth in the California Environmental Quality Act Guidelines section 15162, described in the **INTRODUCTION** section of this Decision, regarding the handling, storage, and disposal of project-related hazardous and non-hazardous wastes.

3. Except for Huntington Beach Municipal Code section 8.21.175, no new laws, ordinances, regulations or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.

CONCLUSIONS OF LAW

1. Site preparation, demolition activities, construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding handling, storage, and disposal of project-related hazardous and non-hazardous wastes.

2. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to the handling, storage, and disposal of project-related hazardous and non-hazardous wastes.

3. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative impacts relating to the handling, storage, and disposal of project-related hazardous and non-hazardous wastes.

V. ENVIRONMENTAL ASSESSMENT

In this section of the Decision, the Energy Commission considers the potential impacts of project-related activities on resources in the area, including biological resources, soil and water resources, cultural resources, and geological and paleontological resources.

A. BIOLOGICAL RESOURCES

INTRODUCTION

The Energy Commission must consider the potential impacts of the amended Huntington Beach Energy Project (Amended Project) on biological resources, including state and federally listed species, species of special concern, and other resources of critical biological interest, such as wetlands and unique habitats.

This topic was contested. Evidence on the topic of Biological Resources is contained in Exhibits 5001, 5022, 5028, 5036, 5042, 5053, 5055, 5056, 5057, 5114, 5121, 6000, and 6001.

SETTING

The Amended Project would be built on the existing Huntington Beach Generating Station (HBGS) site, an industrial brownfield with an operating power plant. For information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

Vegetation at the Amended Project site is limited to a few weedy species and maintained landscaping. While the site does not itself provide important habitat for native wildlife, it is located in a region with several important ecological reserves, wetland preservation sites, and designated open space areas that do provide habitat for special-status plants and animals. In particular, the Magnolia Marsh wetlands are located to the north and east of the site and provide habitat for both special-status plants and animals.[1] Magnolia Marsh has been the subject of continuing restoration efforts resulting in documented increases in the occurrence of several species.[2]

PROJECT DESCRIPTION

For general information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

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[1] Ex. 5114, pp. 2-2, 5.1-1, 5.1-2 – 5.1- 13, 5.1-17 – 5.1-30; Ex. 6000, pp. 4.2-2 – 4.2-3, 4.2-4.

[2] Ex. 6000, p. 4.2-10.

The Amended Project would be built on the existing HBGS site, an industrial brownfield with an operating power plant. Vegetation is limited to a few weedy species and maintained landscaping. While the 2014 Project site does not itself provide important habitat for native wildlife, it is located in a region with several important ecological reserves, wetland preservation sites, and designated open space areas that do provide habitat for special-status plants and animals. In particular, the Magnolia Marsh wetlands are located to the north and east of the Amended Project site and provide habitat for both special-status plants and animals.[3] Magnolia Marsh has been the subject of continuing restoration efforts resulting in documented increases in the occurrence of several species.[4] In addition, four special-status plant species have been identified within a 10-mile radius of the Amended Project site, and the light-footed clapper rail has been renamed the light-footed Ridway's rail.[5]

The Amended Project also proposes to use 22 acres for construction laydown and parking at the Plains All-American Tank Farm (Plains site). The Plains site consists mostly of pavement, gravel, and disturbed soil. It currently includes three empty petroleum storage tanks along with a containment berm and associated infrastructure. To access the Plains site, the Amended Project will need to upgrade the signal at the intersection of Magnolia Street and Banning Avenue and construct a gravel access road.[6]

The Amended Project proposes stack heights of 150 feet for the GE Frame 7FA.05 combustion-turbine generator units and 80 feet in height for the LMS100 units.[7] The types and locations of equipment for the Amended Project within the 2014 Project site are predicted to increase construction noise levels in the Magnolia Marsh adjacent to upper-60 to lower-70 dBA range.[8]

SUMMARY OF 2014 DECISION

In the 2014 Decision, we reviewed the 2014 Project's potential to impact state and federally-listed species, species of special concern, and other resources of critical biological interest, such as wetlands and unique habitats. The 2014 Decision addressed the potential for project-related noise and lighting to affect special-status bird species in

[3] Ex. 5114, pp. 2-2, 5.1-1, 5.1-2 – 5.1- 13, 5.1-17 – 5.1-30; Ex. 6000, pp. 4.2-2 – 4.2-3, 4.2-4.

[4] Ex. 6000, p. 4.2-10.

[5] *Id.* at 4.2-2- 4.2-4, 4.2-10.

[6] *Id*. at p. 4.2-3.

[7] Ex. 6000, p. 4.5-5.

[8] *Id*. at pp. 4.2-1, 4.2-4 – 4.2-5.

the adjacent Magnolia Marsh, the potential for birds to collide with project structures, and the potential for the 2014 Project's nitrogen emissions to impact sensitive species and their habitats.[9]

We also analyzed the 2014 Project's compliance with laws, ordinances, regulations, and standards (LORS).[10] We concluded that with the imposition of Conditions of Certification **BIO-1** through **BIO-8**, **VIS-2**, **SOIL&WATER-1**, **SOIL&WATER-3, SOIL&WATER-4, AQ-SC3**, and **AQ-SC4**, the 2014 Project's potential impacts to biological resources were mitigated to a level of "less than significant," and the 2014 Project was in conformity with all LORS.[11]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act Guidelines section 15162 are met. The evidence establishes that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized concerns and conditions, there would be:

1. No new significant impacts to biological resources not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[12]

Special-Status Species

The evidence establishes that, due to a lack of suitable habitat at the site, four newly-observed special-status plant species are not expected to occur at the Amended Project's site.[13]

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[9] Ex. 5114, pp. 5.1-2 – 5.1-14, 5.1-17 – 5.1-30.

[10] *Id*. at pp. 5.1-15 – 5.1-17, 5.1-30 – 5.1-31.

[11] *Id*. at pp. 5.1-33 – 5.1-34.

[12] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162; Ex. 6000, pp. 1-11, 4.2-1, 4.2-10.

Individuals of the light-footed Ridgway's rail species have been observed near the Amended Project site. However, no breeding of the species has been documented in areas near the Amended Project site.[14]

Condition of Certification **BIO-8** requires an assessment of habitat for several species, including the light-footed Ridgway's rail, in advance of construction.[15] Condition of Certification **BIO-8** further requires focused surveys in Magnolia Marsh and, if the species is found, adaptive measures such as increasing buffer size, halting disruptive construction activities, and placing sound dampening structures at loud equipment must be implemented.[16] We find that, with imposition and implementation of Condition of Certification **BIO-8**, potential impacts to light-footed Ridgway's rail remain "less-than-significant," and no new mitigation measure is required.

Plains Site

As set forth above, access to the Plains site requires construction of changes to the intersection of Magnolia Street and Banning Avenue. Construction activities include removal of several trees that may have the potential to injure or disturb nesting birds. The construction activities may also cause indirect impacts to Magnolia Marsh from construction dust and storm water runoff.[17]

Condition of Certification **BIO-8** requires a survey for nesting birds in advance of construction and establishment of no-disturbance buffers around active nests. Dust and storm water runoff are addressed by Conditions of Certification **SOIL&WATER-1**, **AQ-SC3**, and **AQ-SC-4**.[18] With the imposition and implementation of these conditions of certification, impacts to biological resources from proposed use of the Plains site are mitigated to a level of "less-than-significant," and no additional mitigation is required.

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[13] Ex. 6000, p. 4.2-2.

[14] *Id*. at p. 4.2-3.

[15] Ex. 5114, p. 5.1-30, APP -93 – APP - 98; Ex. 6000, p. 4.2-2.

[16] Ex. 6000, p. 4.2-4.

[17] *Id*. at p. 4.2-3.

[18] *Id*.

Construction Noise

The evidence shows that the small increase in noise levels may result in a negligible increase in the severity of noise impacts to birds at Magnolia Marsh.[19]

Condition of Certification **BIO-8** mandates monitoring active nests and implementing adaptive measures (e.g., increasing buffer size, halting disruptive construction activities, placing sound dampening structures at loud equipment) if birds are being disturbed by construction noise.[20] We find that, with imposition and implementation of Condition of Certification **BIO-8**, potential construction noise impacts in Magnolia Marsh remain "less than significant," and no new mitigation measure is required.

Change in Stack Height

Stack heights have the potential to create biological impacts through avian collision and the deposition of nitrogen.[21]

Avian Collision

The evidence shows that structures shorter than 350 feet are not considered a substantial collision threat to migrating birds.[22] Thus, the change in stack heights from 120 feet to 150 feet does not increase the risk of avian collisions. Therefore, we find that no supplementation or additional analysis of the risk of avian collisions is required.

Nitrogen Deposition

The evidence shows that the formation of depositional nitrogen from gaseous nitrogen compounds requires time and sunlight—factors independent of stack height. As set forth in the **AIR QUALITY** section of this Decision, nitrogen emissions from the Amended Project are projected to be approximately 42 percent less than from the 2014 Project. In addition, the Amended Project is required to purchase RECLAIM Trading Credits on a 1:1 basis to offset annual nitrogen emissions.[23]

The uncontroverted evidence establishes that nitrogen emissions from the Amended Project will be less than from the 2014 Project. We, therefore, find that nitrogen deposition impacts on sensitive species and habitats would remain "less than significant."

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[19] Ex. 5114, pp. 5.1-22 – 5.1-23; Ex. 6000, p. 4.2-4.

[20] Ex. 5114, p. 5-1-27; Ex. 6000, p. 4.2-4.

[21] Ex. 6000, at p. 4.2-5.

[22] *Id*.

[23] *Id*.

Based on the foregoing, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative impacts to biological resources.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[24] The evidence establishes that there have been no changes to the LORS that apply to the Amended Project nor are there any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[25]

CHANGES TO CONDITIONS OF CERTIFICATION

Since the 2014 Decision, and as described above, the conditions of certification require minor updates to reflect the name change of the light-footed clapper rail to the light-footed Ridgway's rail, the status change of some special-status species, and the consideration of four special-status plant species.[26]

The Amended Project includes several proposed modifications pertinent to the assessment of impacts on biological resources: taller exhaust stacks; reduced nitrogen emissions; removal of additional trees; and the use of the Plains site. As discussed above, we find that none of these proposed modifications result in new significant impacts, substantially increase the severity of previously identified significant impacts, or necessitate any material changes to the biological resource conditions of certification identified in the 2014 Decision to mitigate impacts or to maintain compliance with LORS.

We have revised the conditions of certification[27] to address these non-substantive changes. As discussed above, we find that none of these proposed modifications result in new significant impacts, substantially increase the severity of previously identified significant impacts, or necessitate any material changes to the biological resource conditions of certification identified in the 2014 Decision to mitigate impacts or to maintain compliance with LORS.

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[24] Ex. 5114, pp. 5.1-15 – 5.1-17.

[25] Ex. 6000, p. 4.2-2.

[26] Ex. 6000, p. 4.2-10.

[27] For ease of comparison, revisions to the conditions of certification for biological resources are shown in a separate document. The conditions of certification for Biological Resources, as well as for all other topics of this Decision, may be found in **Appendix A**.

CONTESTED ISSUE

The sole contested issue on the topic of biological resources concerns Condition of Certification **BIO-1**. As contained in the 2014 Decision, this condition of certification creates the process for the appointment and qualification of a Designated Biologist to monitor compliance with the mitigation measures contained in the other conditions of certification for biological resources.[28]

Appointment of a Designated Biologist begins with providing the Compliance Project Manager (CPM) with the resume, references, and contact information of a proposed Designated Biologist at least 75 days prior to the start of site mobilization or construction-related ground disturbance activities. The CPM may withhold approval of a proposed Designated Biologist only if the proposed candidate has repeatedly failed to comply with the conditions of any Energy Commission license as they pertain to biological resources.[29]

The Petitioner, AES, has requested that Condition of Certification **BIO-1** be modified. AES proposes that if the proposed Designated Biologist has previously been approved by Energy Commission staff (Staff), the CPM would be able to disapprove the proposed Designated Biologist only if (1) the failure to comply with the conditions of any Energy Commission license or other performance issues has been documented in the previous Energy Commission project work, or (2) the previous work is not applicable to the specific biological resources identified in the Amended Project's site area. AES contends that this "deemed approved" provision will ensure that it obtains timely review and approval for all designated resource specialists and required plans in order to meet the construction schedule for the Amended Project.[30]

Staff objects to AES's proposed revisions to Condition of Certification **BIO-1**. Staff argues that it understands the need for quick review of and response to the qualifications of proposed resource specialists, but contends that Condition of Certification **BIO-1** reflects its consistent objective approach to the approval of qualified personnel. Also, Staff believes that it should be able to consider non-Energy Commission work in determining the qualifications of the Designated Biologist.[31]

As explained throughout this Decision, the Amended Project has already received a Power Purchase Agreement with Southern California Edison (SCE) to provide

[28] Ex. 5114, pp. 5.1-21 – 5.1-22.

[29] Ex. 5114, pp. APP-80 – APP-81.

[30] Ex. 5055, p. 5, Ex. B.

[31] Ex. 6001, p. 2.

increased local reliability. We also recognize Staff's professionalism and understanding of the time pressures at play in the construction of the Amended Project. Based on the unique circumstances in this case, we believe some modification to Condition of Certification **BIO-1** is warranted.[32] This decision in no way should be interpreted as creating a precedent for changing otherwise time-tested conditions of certification developed to ensure that the appropriate personnel are available to monitor the implementation of mitigation measures.

In revising Condition of Certification **BIO-1**, we have borrowed some of the concepts of AES's proposed changes by adding the need for documented or other specific reasons for the rejection of a proposed Designated Biologist. We are providing the CPM with 10 days to approve or disapprove a proposed Designated Biologist. If the proposed Designated Biologist is disapproved, the CPM and AES are to meet and confer regarding the disapproval. If that meet and confer does not result in an agreement, AES may then pursue further review of the decision through the Energy Commission's regulations regarding investigations and complaints.[33]

We, thus, impose Condition of Certification **BIO-1** as revised. We find that, with the imposition and implementation of revised Conditions of Certification **BIO-1** through **BIO-8**, **SOIL&WATER-1**, **AQ-SC3**, and **AQ-SC-4**,[34] the Amended Project will comply with all applicable LORS. We further find that with the imposition and implementation of revised Conditions of Certification **BIO-1** through **BIO-8**, **SOIL&WATER-1**, **AQ-SC3**, and **AQ-SC-4**,[35] the Amended Project has no significant unmitigated direct, indirect, or cumulative impacts.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **BIOLOGICAL RESOURCES** were received during the Evidentiary Hearing.

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[32] For ease of comparison, revisions to the conditions of certification for biological resources are shown in a separate document. (TN 216248) The conditions of certification for Biological Resources, as well as for all topics of this Decision, may be found in **Appendix A**.

[33] Cal. Code Regs, tit. 20, §§ 1230 et seq.

[34] The conditions of certification for Biological Resources, as well as for all other topics of this Decision, may be found in **Appendix A**.

[35] The conditions of certification for Biological Resources, as well as for all other topics of this Decision, may be found in **Appendix A**.

Intervenor Robert Simpson/Helping Hand Tools filed an Opening Brief[36] raising various issues regarding potential impacts of the Amended Project on avian species. He asserts that the exhaust stacks pose a collision risk, the exhaust plumes increase risks to birds, and the spacing of the transmission lines poses a risk to larger-wingspan species, and he therefore suggests that the impacts of this gas-fired turbine facility are similar to those of the concentrating solar Ivanpah[37] project. These concerns were appropriately addressed in the 2014 Decision and mitigation measures were identified and imposed and no significant environmental impacts were found.[38] The comparison to the Ivanpah facility is inappropriate as Ivanpah's avian issues are related to solar flux, a phenomena not present here.

Mr. Simpson's comments fail to identify any new significant impacts, new information not available during the preparation of the 2014 Decision, or new or newly-feasible mitigation measures. We abide by the environmental analysis contained in that document.

In comments on the PMPD, the Sierra Club, California Coastal Protection Network, 350.org, Coastal Environmental Rights Foundation, Los Angeles Waterkeeper, Surfrider Foundation, Earth Law Center, Heal the Bay, and Protect Our Communities[39] assert that the PMPD failed to account for adverse impacts to nearby coastal wetlands. Similarly, Cabrillo Wetlands Conservancy seeks imposition of mitigation measures for alleged impacts from the Amended Project related to use of a vacant, unpaved area for temporary construction parking.[40]

The record establishes that there are no wetlands within the Amended Project site or the Plains site.[41] Any potential impacts to the wetlands within the Magnolia Marsh adjacent to the Amended Project site were fully analyzed in both the 2014 Decision and this Decision. With the imposition and implementation of Conditions of Certification **BIO-1** through **BIO-8**, **SOIL&WATER-1, AQ-SC3**, and **AQ-SC4**, impacts to biological resources from project, including the use of the Plains site would be less than significant. In the absence of additional information in the hearing record regarding documented wetlands, no further mitigation is required.

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[36] TN 215259. Mr. Simpson/Helping Hand Tools were has admitted as an Intervenor only on the topics of air quality, greenhouse gases, and public health (TN 214950). As such, we treat the portions of his brief addressing topics other than those on which he was admitted as public comment.

[37] 07-AFC-05.

[38] Ex. 5114, pp. 5.1-26 – 5.1-27.

[39] TN 216544.

[40] TN 216661.

[41] Ex. 6000, pp. 1.7, 4.2-3.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations or standards and that, with the implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant direct, indirect, or cumulative impacts to biological resources.
2. The amended Huntington Beach Energy Project results in reduced nitrogen deposition because of the decreased amount of nitrogen emission.
3. The amended Huntington Beach Energy Project does not create any significant direct, indirect, or cumulative environmental effects to biological resources.
4. None of the factors that require a subsequent or supplemental environmental analysis set forth in the California Environmental Quality Act Guidelines section 15162, described in the **INTRODUCTION** section of this Decision, are present regarding this topic.
5. No new laws, ordinances, regulations or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.

CONCLUSIONS OF LAW

1. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding biological resources.
2. The conditions of certification set forth in **Appendix A** of this Decision are appropriate and will ensure that the amended Huntington Beach Energy Project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable laws, ordinances, regulations, and standards.

B. SOIL & WATER RESOURCES

INTRODUCTION

The Energy Commission must consider the potential impacts of project-related activities on soil and water resources, including accelerated wind or water erosion and sedimentation, flood conditions in the vicinity of the project, local water supplies, wastewater disposal, water quality of surface and groundwater, and compliance with all laws, ordinances, regulations, and standards (LORS). Conditions of certification are proposed to ensure compliance with applicable LORS and to mitigate any potentially significant direct, indirect, or cumulative impacts to less than significant levels.

Evidence on the topic of Soil & Water Resources is contained in Exhibits 5001, 5013, 5022, 5028, 5047, 5053, 5055, 5056, 5057, 5114, 5121, 6000, and 6001.

SETTING

For detailed information regarding the setting of the amended Huntington Beach Energy Project (Amended Project), please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For the project description, including detailed information regarding the water demand and supplies, wastewater disposal, water quality, and the potential impacts of project-related activities on soil and water resources of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF 2014 DECISION[1]

Potable and process water for the previously approved Huntington Beach Energy Project (2014 Project) is to be provided by the city of Huntington Beach. The 2014 Project would require approximately 134 acre-feet of water per year (AFY) for potable and process water demands. The 2014 Decision included a water supply assessment, as required by California Water Code sections 10910 et seq. The 2014 Decision concluded that there was sufficient water to serve the 2014 Project and that the impacts of obtaining the water from the identified sources and under various conditions, including sustained periods of drought, had been adequately analyzed.[2]

We examined the use of alternative water supplies, consistent with the 2003 Integrated Energy Policy Report (IEPR) and State Water Resources Control Board Policy 75-58

[1] Ex. 5114.

[2] *Id*. at pp. 5.2-18 – 5.2-23.

that require we find alternative water supply sources and alternative cooling technologies to be "environmentally undesirable" or "economically unsound" before we approve the use of fresh water for power plant cooling. Although the 2014 Project did not propose to use water for steam-cycle cooling because of its use of an air-cooled condenser, we nonetheless examined the use of reclaimed water for non-cooling industrial needs. The 2014 Project was unable to obtain tertiary-treated reclaimed water. Even if tertiary-treated reclaimed water were available, it would restrict use of that water for recharging groundwater aquifers and indirectly impact municipal sources that draw from groundwater. We further determined that, without access to tertiary-treated wastewater, the 2014 Project needed to construct an independent treatment facility on site that would increase the costs of producing energy. Such treatment would also introduce additional environmental concerns relating to the volume and treatment of the wastewater before disposal to the Pacific Ocean. We, therefore, concluded that the use of treated wastewater was both environmentally undesirable and economically unsound.[3]

The 2014 Decision discussed the protection of the 2014 Project site from a theoretical 100-year flood, whether the floodwaters originated inland or from the sea. This discussion included the influence of tides, waves, and sea-level rise. The 2014 Decision concluded that the 2014 Project was adequately protected from coastal flooding. This conclusion included a contemplated sea-level rise of up to 61 cm (or 2.0 feet), based on then-current modeling.[4] The 2014 Decision found that there were no wetlands present on the project site.

The 2014 Decision contains our review of the above issues, as well as other potential direct, indirect, and cumulative impacts that the 2014 Project may have related to soil and water resources.[5] The 2014 Decision also included a recitation and analysis of the laws, ordinances, regulations, and standards (LORS) applicable to soil and water resources.[6] We concluded that, with the imposition and implementation of Conditions of Certification **SOIL&WATER-1** through **SOIL&WATER-7**, the 2014 Project did not pose a significant risk of direct, indirect, or cumulative impacts related to soil and water resources, and was consistent with all applicable LORS.[7]

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[3] Ex. 5114, p. 5.2-11- 5.2-13.

[4] Ex. 5114, pp. 5.2-13 – 5.2-16, 5.2-27; Ex. 6000, p. 4.9-6.

[5] Ex. 5114, pp. 5.2-2 – 5.2-4, 5.2-6 – 5.2-17.

[6] *Id*. at pp. 5.2-4 – 5.2-6, 5.2-17 – 5.2-23.

[7] *Id*. at p. 5.2-25 – 5.2-28.

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act (CEQA) Guidelines section 15162 are met. The evidence establishes that even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized environmental concerns and conditions, there would be:

1. No new significant impacts to soil and water resources not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project related to soil and water resources; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment related to soil and water resources.[8]

The evidence establishes that, except as specifically discussed below, the conditions and associated hazards at the proposed site of the Amended Project are similar to those previously analyzed in the 2014 Decision, so that no new evaluation of the Amended Project's potential impacts to soil and water resources is required.[9]

Water Use and Supply

As we stated in the 2014 Decision, whenever a public entity is considering approval of a land use project subject to CEQA, the public agency must determine whether it is also a "project" within the meaning of Water Code section 10912, subdivision (a). We concluded that the 2014 Project was a project requiring a water supply assessment.[10] The water supply assessment requirement thus implicates both the impact analysis of a project, as well as a project's conformity with LORS.

In considering the Amended Project, we note Water Code section 10910, subdivision (h):

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[8] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 4.9-5.

[9] Ex. 6000, pp. 4.9-5 – 4.9-6, 4.9-11.

[10] Ex. 5114, pp. 5.2-18 – 5.2-21.

> [I]f a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment shall be required for subsequent projects that were part of a larger project for which a water supply assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:
>
> (1) Changes in the project that result in a substantial increase in water demand for the project.
>
> (2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.
>
> (3) Significant new information becomes available which was not known and could not have been known at the time when the assessment was prepared.

The Amended Project proposes to use 14 AFY less water than the 2014 Project for total water use of approximately 120 AFY.[11] There is no evidence of any changes in circumstances or conditions substantially affecting the ability of the city of Huntington Beach to provide a sufficient supply of water to the Amended HBEP.[12] Lastly, no significant new information is available now that was not available when the water supply assessment was prepared. We, therefore, conclude that the Amended Project is not required to prepare a water supply assessment.

Construction-related Land Disturbance

The Amended Project has expanded the project footprint and would temporarily use an additional 22 acres for construction laydown and parking that were not discussed in the 2014 Decision. Part of the land to be used for construction laydown and parking are known to be contaminated. However, Condition of Certification **SOIL & WATER-1** still requires that the Project Owner comply with the Clean Water Act by obtaining a storm

[11] *Id*. at 4.9-5.

[12] Ex. 5013; Ex. 6000, p. 4.9-10.

water discharge permit from the State Water Resources Control Board. In addition, Condition of Certification **SOIL & WATER-1** mandates the creation and implementation of a Storm Water Pollution Prevention Plan (Storm Water Plan) to address remediation, construction, and use of the 22 acres beyond those analyzed in the 2014 Decision.[13]

Coastal Flooding and Sea Level Rise

Since the adoption of the 2014 Decision, the United States Geological Survey has partnered with California public agencies and other coastal community stakeholders to develop a hazard assessment tool called the Coastal Storm Modeling System (CoSMoS). CoSMoS calculates 100-year storm water levels based on the contributions of multiple wave conditions, including those caused by sea-level rise. CoSMoS modeled 50 cm and 100 cm projections. The evidence shows that the Amended Project will not be inundated during a 100-year storm event, even with a 100-cm sea-level rise.[14]

Accordingly, we conclude that no additional environmental analysis of the potential inundation of the Amended Project is required.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision includes the LORS applicable to the Amended Project.[15] The evidence establishes that there have been no changes to the LORS that apply to the Amended Project, nor are there any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[16]

CHANGES TO CONDITIONS OF CERTIFICATION

The Final Staff Assessment included minor, non-substantive changes to the conditions of certification imposed by the 2014 Decision.[17]

In its opening testimony, the Petitioner, AES, requested additional changes to Conditions of Certification **SOIL&WATER-2** and **SOIL&WATER-3**. The proposed changes relate to the timing for hydrostatic testing and proof of payment of fees for issuance of the Report of Waste Discharge.[18] Energy Commission staff (Staff) agreed

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[13] Ex. 6000, p. 4.9-5.

[14] Ex. 6000, p. 4.9-6.

[15] Ex. 5114, pp. 5.2-4 – 5.2-6.

[16] Ex. 6000, pp. 4.9-2 – 4.9-4.

[17] *Id*.at 4.9-13 – 4.9-16.

[18] Ex. 5055, p. 6, Ex. E.

with the language proposed by AES.[19] We also revise Conditions of Certification **SOIL&WATER-2** and **SOIL&WATER-3** to reflect the changes agreed upon by Staff and AES.

We find that none of the proposed modifications to the 2014 Project result in new significant impacts, substantially increase the severity of previously identified significant impacts, or necessitate any material changes to the conditions of certification for soil and water resources identified in the 2014 Decision to mitigate impacts or to maintain compliance with LORS.

We impose revised Conditions of Certification **SOIL&WATER-1** through **SOIL&WATER-7**.[20] With the imposition and implementation of revised Conditions of Certification **SOIL&WATER-1** through **SOIL&WATER-7**,[21] we find that the Amended Project will comply with all applicable LORS and will have no significant, unmitigated direct, indirect, or cumulative impacts on soil and water resources.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **SOIL&WATER RESOURCES** were received during the Evidentiary Hearing.

Intervenor Robert Simpson/Helping Hand Tools filed an Opening Brief[22] on January 11, 2017, that raised various issues regarding soil and water resources. Mr. Simpson asserts that the Amended Project should use reclaimed water for its processes. To bolster his argument, Mr. Simpson attempts to introduce additional facts regarding the amount of available reclaimed water and the infrastructure necessary to support its use at the Amended Project site.[23]

AES objected to the Energy Commission's consideration of this new information filed by Mr. Simpson, citing both the limited nature of Mr. Simpson's intervention in this

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[19] Ex. 6001, p. 5.

[20] For ease of comparison, revisions to the conditions of certification for Soil and Water Resources are shown in a separate document. (TN 216248.). The conditions of certification for Soil and Water Resources, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

[21] The conditions of certification for Soil and Water Resources, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

[22] TN 215259. Mr. Simpson/Helping Hand Tools was admitted as an Intervenor only on the topics of air quality, greenhouse gases, and public health (TN 214950). As such, we treat the portions of his brief addressing topics on which he was not admitted as an Intervenor as public comment.

[23] *Id.* at pp. 25-29.

proceeding and the untimeliness of the evidence as the evidentiary record was closed on December 21, 2016.[24]

The topic of using reclaimed water was previously addressed by the Commission in the 2014 Decision and found to be environmentally undesirable and economically unsound.[25] In addition, Mr. Simpson's intervention petition was submitted on December 16, 2016, and granted by the Committee on December 20, 2016. This intervention was limited to the topics of greenhouse gas emissions, public health, and air quality. The Committee further stated in the order granting intervention, "that deadlines for conducting discovery and other matters, including the evidentiary hearing, shall not be extended or changed by the granting of the petition." In addition, the evidentiary record upon which the Energy Commission may render its Decision was closed on December 21, 2017. Mr. Simpson was specifically cautioned that he could not provide additional factual information beyond what was included in the evidentiary record.[26]

We sustain AES's objection to the new information provided in Mr. Simpson's brief. In the absence of new information that has been properly reviewed, especially through cross-examination during the Evidentiary Hearings, we find our prior analysis on the use of reclaimed water at the Amended Project site to be correct.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision found that the 2014 Huntington Beach Energy Project conforms with all applicable laws, ordinances, regulations, and standards and that, with the implementation of the conditions of certification, the Amended Huntington Beach Energy Project would not have any significant direct, indirect, or cumulative impacts to soil and water resources.
2. None of the factors that require a subsequent or supplemental environmental analysis, as set forth in the California Environmental Quality Act Guidelines, section 15162, and as described in the **INTRODUCTION** section of this Decision, are present regarding this topic.

[24] 12/21/16 RT 125:10-24; Project Owner's Reply to Opening Brief of Helping Hand Tools and Robert Simpson. (TN 215424, pp. 2-5.)

[25] Ex. 5114, pp. 5.2-11 – 5.2-13

[26] 12/21/16 RT at 127:8-14.

3. No new laws, ordinances, regulations or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.

4. The amended Huntington Beach Energy Project proposes to use 14-acre-feet per year less water than the licensed Huntington Beach Energy Project.

5. There is no evidence of any changes in circumstances or conditions substantially affecting the city of Huntington Beach's ability to provide a sufficient supply of water to the Amended Project.

6. No significant new information is available now that was not available when the water supply assessment was prepared.

7. Condition of Certification **SOIL & WATER-1** requires the Project Owner to obtain a storm water discharge permit from the State Water Resources Control Board and to create and implement a Storm Water Pollution Prevention Plan to address remediation, construction, and use of the amended Huntington Beach Energy Project site, including the Plains All-American Tank Farm site.

8. The Coastal Storm Modeling System shows that the amended Huntington Beach Energy Project will not be inundated during a 100-year storm event, even with a 100-cm sea-level rise.

9. The amended Huntington Beach Energy Project does not create any significant direct, indirect, or cumulative environmental effects to soil and water resources.

CONCLUSIONS OF LAW

1. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding soil and water resources.

2. The amended Huntington Beach Energy Project does not need to prepare a water supply assessment under Water Code section 10910, subdivision (h), because the 2014 Decision approving the Huntington Beach Energy Project included a water supply assessment, and the amended Huntington Beach Energy Project will have reduced water demand than that previously analyzed.

3. Imposition and implementation of the mitigation measures contained in the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to soil and water resources.

4. Imposition and implementation of the mitigation measures contained in the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative effects relating to soil and water resources.

C. CULTURAL RESOURCES

INTRODUCTION

The Energy Commission must consider the potential impacts of the amended Huntington Beach Energy Project (Amended Project) on cultural resources, such as prehistoric and historic archaeological sites, buildings, structures, objects, and historic districts.

This topic was contested. Evidence on the topic of Cultural Resources is contained in Exhibits 5001, 5005, 5006, 5007, 5010, 5011, 5028, 5036, 5049, 5053, 5055, 5056, 5057, 5114, 5121, 6000, and 6001.

SETTING

The Amended Project will be built on the existing Huntington Beach Generating Station (HBGS) site, an industrial brownfield with an operating power plant. For information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

In addressing the cultural resources in and around the Amended Project site, we must first define the Project Area of Analysis (PAA).[1] The PAA for built-environment resources is defined as the project site, any linear facilities, and a buffer of a single parcel around the project site and facilities. For the Amended Project, the PAA consists of the Amended Project site; an architectural study area set approximately one parcel beyond the Amended Project site; the on-site construction parking area; four off-site construction parking areas; the construction parking and laydown area at the Plains All-American Tank Farm (Plains); and the area that would be affected by improvements to the Magnolia Street–Banning Avenue intersection.[2]

No ethnographic resources were identified in the PAA.[3] Further, no sacred lands files with the Native American Heritage Commission were identified within one-half-mile radius of the Amended Project.

PROJECT DESCRIPTION

For information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

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[1] Pub. Resources Code, § 21084.1.

[2] Ex. 6000, p. 4.3-6.

[3] *Id.*at p. 4.3-5.

SUMMARY OF 2014 DECISION

In the 2014 Decision,[4] we reviewed the potential of the Huntington Beach Energy Project (2014 Project) to impact cultural resources. The 2014 Project's PAA was defined as the 2014 Project site; an architectural study area set approximately one parcel beyond the 2014 Project site; the on-site construction parking area; four off-site construction parking areas, and the off-site construction laydown area at the Alamitos Generating Station in Long Beach, Los Angeles County.[5]

The 2014 Decision identified one potential built-environment historical resource: the Huntington Beach Generating Station (HBGS) itself. The Energy Commission ultimately determined that the HBGS was not eligible for inclusion on the National Register of Historic Places, the California Register of Historical Resources (CRHR), or any other local listing.[6]

The 2014 Decision also found that construction and operation of the 2014 Project did not result in direct impacts on surface archaeological resources.[7] As to buried archaeological resources, the 2014 Decision concluded that the majority of the site was greatly disturbed by construction and operation of the HBGS, so that the likelihood of impacts to buried archaeological resources was low. Nonetheless, the Energy Commission imposed Conditions of Certification **CUL-1** through **CUL-8** to ensure that unknown archaeological deposits were properly identified and treated and that project-related impacts are reduced to less than significant levels.[8]

As to ethnographic resources, the 2014 Decision found that no such resources were identified in the PAA. However, earth-moving activities during construction and operation could have the potential to impact buried ethnographic resources. As a result, the Commission imposed Conditions of Certification **CUL-1** through **CUL-8** to reduce any impacts to ethnographic resources to less than significant levels.[9]

We also analyzed the 2014 Project's compliance with laws, ordinances, regulations, and standards (LORS).[10] We concluded that with the imposition of Conditions of Certification **CUL-1** through **CUL-8**, the 2014 Project's potential impacts to cultural

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[4] Ex. 5114.
[5] Ex. 5114, p. 5.3-4.
[6] *Id.* at 5.3-6.
[7] *Id.*
[8] *Id.* at pp. 5.3-7- 5.3-8.
[9] *Id*. at pp. 5.3-8 – 5.3-9.
[10] *Id*. at pp. 5.3-9 – 5.3-11.

resources were mitigated to less than significant levels and the 2014 Project was in conformity with all LORS.[11]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act (CEQA) Guidelines, section 15162, are met. The evidence establishes that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized environmental concerns and conditions, there would be:

1. No new significant impacts to cultural resources not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project on cultural resources; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[12]

Tribal Consultation

Since the 2014 Decision, a new statute requires lead agencies implementing CEQA, such as the Energy Commission, to be responsible for conducting consultation with California Native American tribes about tribal cultural resources within specific time frames.[13] If tribal cultural resources could be impacted by project implementation, the lead agency is to continue with the consultation process until agreement or termination of the consultation.[14] Historical resources, unique archaeological resources, and non-unique archaeological resources, as defined, may also be tribal cultural resources.[15]

For the Amended Project, the Native American Heritage Commission (NAHC) reviewed its files and informed Energy Commission staff (Staff) that it had no record of any sacred lands within a one-half-mile radius of the Amended Project.

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[11] *Id*. at pp. 5.3-3 – 5.3-9, 5.3-10 – 5.3-11.

[12] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 4.2-1, 4.2-10.

[13] Pub Resources Code, §§ 21080.3.1; 21080.3.2

[14] Ex. 6000, pp. 4.3-3 – 4.3-4.3-4.

[15] Pub. Resources Code, §§ 21074, subd. (a); 21084.1; 21083.2, subdivs. (g) and (h).

Staff sent letters to all of the NAHC-listed tribes for the project vicinity, inviting them to comment on the proposed Amended Project and offering face-to-face consultation meetings. Staff received comments from the Juaneño Band of Mission Indians, Acjachemen Nation, and Gabrielino-Tongva Tribe that tribal monitors should be required during project ground-disturbing activities. A letter from the United Coalition to Protect Panhe stated concern that the Amended Project site is culturally sensitive and encouraged Staff to promote avoidance as mitigation for any cultural resource discoveries connected with the Amended Project.[16] No tribes requested face-to-face consultation meetings.

In the 2014 Decision, the Energy Commission provided, under Condition of Certification **CUL-1**, for the Cultural Resources Specialist (CRS) to obtain the services of Cultural Resource Monitors and Native American Monitors as needed to assist in monitoring, mitigation, and curation activities.[17] Provisions for monitoring the Amended Project site to avoid culturally sensitive resources are contained in Conditions of Certification **CUL-6** and **CUL-7**.[18] We, thus, find that the Energy Commission has engaged in the required tribal consultation process.

Built-Environment: Plains All-American Tank Farm Site

The Amended Project's modifications include the use of the Plains site for temporary parking and construction laydown. This change results in expanding the built-environment study area by adding the Plains site itself to the project and extending the one-parcel architectural study area to accommodate the revised footprint. The new entrance to the Plains site and reconfiguration of the Magnolia Street–Banning Avenue intersection would require two to three feet of excavation below ground surface—within fill and reworked sediments. Use of the Plains site also necessitates removal of vegetation, including mature trees, from a berm established in 1977 using fill and sediments from the Plains site. Removal of trees and other vegetation from this berm may disturb the fill soils, with the removal of mature trees resulting in disturbance of natural sediments.

The period of significance for the oil industry in Huntington Beach is characterized as 1920 to 1950. The Plains site appears to have been built between 1963 and 1972, after the oil boom, and is unlikely to be of significance to the city of Huntington Beach's

[16] Ex. 6000, pp. 1-4, 4.3-6.

[17] Ex. 5114, pp. APP-103 – APP-105.

[18] *Id.* at pp. APP-113 – APP-120.

development. Therefore, Staff concluded that the Plains site does not meet any of the significance criteria that would make it eligible for listing on the CRHR.[19]

We agree with Staff's conclusion and find that the Plains site is not an eligible built-environment resource.

Built-Environment: Kiowa Lane Residences

With the addition of the Plains site to the Amended Project, a residential neighborhood on Kiowa Lane was identified as a potential historically-significant resource. The evidence establishes that the neighborhood was developed and constructed in 1965 and contains mid-century, single-story ranch, and two-story homes with Asian and Tiki-inspired eaves and hipped roofline treatments and clay tile roofs with a Spanish-eclectic sensibility. The evidence further shows that significant remodeling has occurred, changing the setting, feeling, design, workmanship, and materials of the neighborhood. As such, Staff concluded that the Kiowa Lane residences did not meet the requirements for listing under the CRHR either as individual homes or as a district.[20]

We concur with Staff and find that the Kiowa Lane residences, individually or as a district, are not historical resources under CEQA.

Based on the foregoing, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative impacts to cultural resources.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[21] The evidence establishes that there have been no changes to the LORS that apply to the Amended Project, nor are there any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[22]

CHANGES TO CONDITIONS OF CERTIFICATION

Staff has recommended minor non-substantive changes to the conditions of certification imposed by the 2014 Decision. As discussed above, we find that the Amended Project does not result in new significant impacts, substantially increase the severity of

[19] Ex. 6000, p. 4.3-8.

[20] *Id.* **a**t p. 4.3-9.

[21] Ex. 5114, p. 5.3-3.

[22] Ex. 6000, p. 4.3-2.

previously identified significant impacts, or necessitate any material changes to the cultural resource conditions of certification identified in the 2014 Decision to mitigate impacts or to maintain compliance with LORS. We, thus, impose the revised conditions of certification to address these non-substantive changes identified by Staff.

CONTESTED ISSUE

The sole contested issue on the topic of cultural resources concerns Condition of Certification **CUL-1**. As contained in the 2014 Decision, this condition of certification creates the process for the appointment and qualification of a cultural resource specialist (CRS) to monitor compliance with the mitigation measures contained in the other conditions of certification for cultural resources.[23]

Appointment of a CRS begins with providing the Construction Project Manager (CPM) with the resume, references, and contact information of a proposed CRS at least 75 days prior to the start of Cultural Resources Ground Disturbances,[24] site mobilization, or construction-related ground disturbance activities. The CPM may withhold approval of a proposed CRS only if the proposed candidate has repeatedly failed to comply with the cultural resources conditions of any Energy Commission licensed project for which they were a CRS.[25]

The Petitioner, AES, has requested that Condition of Certification **CUL-1** be modified. AES proposes that if the proposed CRS was previously approved for an Energy Commission licensed project, the CPM would be able to disapprove the proposed CRS only if the failure to comply with the conditions of any Energy Commission license or other performance issue has been documented in the previous Energy Commission project work, or the previous work is not applicable to the specific cultural resources identified in the Amended Project site area. AES contends that this "deemed approved" provision will ensure that it obtains timely review and approval for all designated resource specialists and required plans in order to meet the construction schedule for the Amended Project.[26]

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[23] Ex. 5114, pp. APP-103 – APP-106.

[24] "Cultural Resources Ground Disturbances" are defined as: (1) ground disturbance (as defined in the Compliance Conditions section); (2) post-certification cultural resources activities (including, but not limited to, "survey," "in-field data recording," "surface collection," "testing," "data recovery," or "geoarchaeology"); or (3) site preparation or subsurface soil work during pre-construction activities or site mobilization. (Ex. 5114, p. APP-105.)

[25] Ex. 5114, pp. APP-103 – APP-106.

[26] Ex. 5055, pp. 5-6, Ex. C.

Staff objects to AES's proposed revisions to Condition of Certification **CUL-1**. Staff argues that it understands the need for quick review of and response to the qualifications of proposed resource specialists, and contends that Condition of Certification **CUL-1** reflects its consistent objective approach to the approval of qualified personnel. Also, Staff believes that it should be able to consider non-Energy Commission work in determining the qualifications of the CRS.[27]

As discussed throughout this Decision, the Amended Project has received a Power Purchase Agreement with Southern California Edison (SCE) to provide increased local reliability. We recognize Staff's professionalism and understanding of the time pressures at play in the construction of the Amended Project, however, we agree some modification to Condition of Certification **CUL-1** is warranted for this Amended Project.[28]

In revising Condition of Certification **CUL-1**, we incorporate some of the concepts of AES's proposed changes by requiring the CPM to provide documentation or other specific reasons for the rejection of a proposed CRS. The CPM will have 10 days to approve or disapprove a proposed CRS. If the proposed CRS is disapproved, the CPM and AES are to meet and confer regarding the disapproval. If that meet and confer does not result in an agreement, AES may then pursue further review of the decision through the Energy Commission's regulations regarding investigations and complaints.[29] This decision in no way should be interpreted as creating a precedent for changing otherwise time-tested conditions of certification developed to ensure that the appropriate personnel are available to monitor the implementation of mitigation measures.

We, thus, impose Condition of Certification **CUL-1** as revised in Appendix A.

We find that, with the imposition and implementation of revised Conditions of Certification **CUL-1** through **CUL-8**,[30] the Amended Project will comply with all applicable LORS and will have no significant unmitigated direct, indirect, or cumulative impacts related to cultural resources.

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[27] Ex. 6001, pp. 3-4.

[28] For ease of comparison, revisions to the conditions of certification for cultural resources are shown in a separate document (TN 216248). The conditions of certification for Cultural Resources, as well as for all topics of this Decision, may be found in **Appendix A** of this Decision.

[29] Cal. Code Regs, tit. 20, §§ 1230 et seq.

[30] The conditions of certification for Cultural Resources, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **CULTURAL RESOURCES** were received during the Evidentiary Hearing.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards and that, with the implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant direct, indirect, or cumulative impacts to cultural resources.
2. No new laws, ordinances, regulations, or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.
3. The Energy Commission has conducted the tribal consultation process required under the California Environmental Quality Act.
4. The Plains All-American Tank Farm site is not a historical resource.
5. The Kiowa Lane residences are not historical resources on either an individual or district basis.
6. None of the factors that require a subsequent or supplemental environmental analysis, as set forth in the California Environmental Quality Act Guidelines, section 15162, and as described in the **INTRODUCTION** section of this Decision, are present regarding this topic.

CONCLUSIONS OF LAW

1. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding cultural resources.
2. The amended Huntington Beach Energy Project does not create any significant direct, indirect, or cumulative environmental impacts to cultural resources.
3. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to cultural resources.

4. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative impacts to cultural resources.

D. GEOLOGICAL AND PALEONTOLOGICAL RESOURCES

INTRODUCTION

This section summarizes the potential exposure of the amended Huntington Beach Energy Project (Amended Project) to geological hazards, as well as its potential impacts on geological, mineralogical, and paleontological resources.

The evidence evaluates whether the Amended Project site is located in an area where geologic hazards, such as faulting and seismicity, liquefaction, dynamic compaction, hydrocompaction, subsidence, expansive soils, landslides, tsunamis, or seiches, could damage project structures or injure occupants of the facility. The evidence also discusses whether site preparation (including demolition), construction, or operation of the Amended Project will result in adverse impacts on geological or mineralogical resources in the area. Finally, the evidence examines whether paleontological resources, such as fossilized remains or trace remnants of prehistoric plants or animals, may be present at the site.

Evidence on the topic of Geological and Paleontological Resources is contained in Exhibits 5001, 5028, 5045, 5050, 5052, 5053, 5055, 5056, 5057, 5114, 5121, 6000, and 6001.

SETTING

The Amended Project site is located in Huntington Beach, near the Pacific Ocean on a coastal plain near the Newport-Inglewood fault zone. The Amended Project site is also near two enclosed bodies of water: the Huntington Beach Channel and the Magnolia Marsh Ecological Preserve.[1]

The soils near the Amended Project site are marked by coastal alluvial deposits (gravels, sands, and silts), aeolian deposits (well-sorted, fine-grain windblown sand), estuarine deposits (organic silts and clays), and near shore marine deposits (predominantly well sorted medium-grain sand).[2] Due to the adjacency of the ocean and porous nature of these soils, site soils are likely saturated with sea water at an elevation equal to mean sea level. Because freshwater is less dense than sea water, a blanket of freshwater is “floating” on the seawater saturated soils so that the depth to groundwater is at least two feet above mean sea level. The depth to groundwater fluctuates due to

[1] Ex. 5114, p. 5.4-14.

[2] *Id.*at 5.4-2.

tidal variations, seasonal precipitation, variation in surface elevations, groundwater pumping (dewatering), and projected sea level rise.[3]

The Amended Project site is in the tsunami inundation zone according to the 2009 California Geological Survey. The city of Huntington Beach prepared a Tsunami Evacuation Route map for its residents, placing the Amended Project within evacuation Zone 4.[4]

The Amended Project site is also part of the West Newport Oil Field, which is part of the larger Huntington Beach oil field. The area is home to significant oil fields. One plugged oil and gas well is located on the southwest portion of the Amended Project site, between Huntington Beach Generating Station (HBGS) Units 1 and 2 and the retention ponds. Several off-site wells are also present, including two plugged oil and gas wells located just east of the north and east fuel oil storage tanks to the north of the Amended Project site. An abandoned dry hole is also present off site just north of the north fuel oil storage tank.[5] The Amended Project site lies within a methane district established by the city of Huntington Beach.[6]

For additional information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF 2014 DECISION

The 2014 Decision for the Huntington Beach Energy Project (2014 Project)[7] included a review of the potential presence of unique paleontological resources or sites and unique geographical features. The 2014 Decision also reviewed the exposure of the 2014 Project to geological hazards, including faulting and seismicity, liquefaction, seiches, and tsunamis. Finally, we analyzed geological resources in the 2014 Project's area.

[3] *Id.* at pp. 5.4-2 – 5.4-3.

[4] Ex. 6000, p. 5.2-3.

[5] Ex. 5114, p. 5.4-3.

[6], *Id.* at pp. 5.4-1, 5.4-15- 5.4-16.

[7] Ex. 5114.

Unique Paleontological Resources or Sites

The 2014 Decision found that there were no known mineralogical or paleontological resources existing at the 2014 Project site. To mitigate for the potential to discover paleontological resources during demolition and construction, we imposed Conditions of Certification **PAL-1** through **PAL-8**.[8]

Unique Geographical Features

The 2014 Decision discloses that there were no unique geological features that possessed any recreational, commercial, or scientific value.[9]

Geological Hazard: Faulting and Seismicity

The 2014 Decision recognized that the entire southern California area in the vicinity of the 2014 Project site was "seismically active." However, the 2014 Project itself was not located within an Earthquake Fault Zone.[10]

Geological Hazard: Liquefaction

Because of the presence of shallow groundwater, we found that the 2014 Project could be damaged by liquefaction.[11]

Geological Hazard: Seiche[12] and Tsunami[13]

The 2014 Decision identified the 2014 Project as being at low risk of inundation by seiches.[14] While we recognized that direct inundation by a tsunami was unlikely, the 2014 Decision found that tsunami flooding could also come from behind the beach through the drainage channel outfall and potentially overtop the flood control levees, which protect the 2014 Project site.[15]

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[8] *Id.* at pp. 5.4-5 – 5.4-6; Ex. 6000, p. 5.2-1.

[9] *Id.* at pp. 5.4-6 – 5.4-8.

[10] *Id.* at 5.4-8 – 5.4-13.

[11] Soil liquefaction describes a phenomenon whereby a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress, usually earthquake shaking or other sudden change in stress condition, causing it to behave like a liquid. (Ex. 5114, pp. 5.4-13 – 5.4-14.)

[12] Seiches are waves generated within enclosed water bodies such as bays, lakes or reservoirs caused by seismic shaking, rapid tectonic uplift, basin bottom displacement and/or land sliding. (Ex. 5114, p. 5.4-14.)

[13] Tsunamis are large-scale seismic-sea waves caused by offshore earthquakes, submarine landslides and/or volcanic activity. (Ex. 5114, p. 5.4-15.)

[14] Ex. 5114, pp. 5.4-14 – 5.4-15.

[15] *Id.* at p. 5.4-15.

In order to ensure that the 2014 Project could withstand the geological hazards identified, we imposed Condition of Certification **GEO-1** that required preparation of a project-specific geotechnical report, per state building code requirements. We also imposed Conditions of Certification **GEN-1**, **GEN-5**, and **CIVIL-1**, to ensure that the 2014 Project was designed and built to seismic building standards based on the outcome of the geotechnical report.[16]

Geological Resources

The 2014 Decision recognized that, due to the presence of a plugged oil and gas well off-site, other nearby wells and storage tanks, and an abandoned dry hole near the fuel oil storage tanks, the 2014 Project site was exposed to potential hazards associated with the presence of methane from abandoned oil and gas exploration. These potential hazards made the 2014 Project subject to Huntington Beach Municipal Code section 17.04.085, requiring inspection and mitigation of abandoned oil wells and oil contaminated soil. We imposed Condition of Certification **GEO-2** to require identification of abandoned gas wells on the 2014 Project site.[17]

We also analyzed the 2014 Project's compliance with laws, ordinances, regulations, and standards (LORS).[18] We concluded that with the imposition of Conditions of Certification **GEO-1**, **GEO-2**, **PAL-1** through **PAL-8**, **GEN-1**, **GEN-5**, and **CIVIL-1**, the 2014 Project's potential impacts to geological and paleontological resources were mitigated to a level of "less than significant," and the 2014 Project was in conformity with all LORS.[19]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act Guidelines, section 15162, are met. The evidence establishes that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized environmental concerns and conditions, there would be:

1. No new significant impacts to geological and paleontological resources not previously analyzed;

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[16] *Id.*at pp. 5.4-8 – 5.4-15.

[17] *Id.*at pp. 5.4-15- 5.4-16.

[18] *Id*. at pp. 5.4-4 – 5.4-5, 5.4-19.

[19] *Id*. at pp. 5.4-22 – 5.4-24.

2. No substantial increase in the severity of previously identified environmental impacts;

3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project related to geological and paleontological resources; and

4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[20]

The evidence shows that the conditions at the proposed site of the Amended Project are similar to those previously analyzed in the 2014 Decision. Therefore, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative impacts to geological and paleontological resources.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[21] The evidence establishes that, except as discussed below regarding Condition of Certification **GEO-3**, there have not been new LORS, changes to the LORS that apply to the Amended Project, nor any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[22]

CONTESTED ISSUES

Condition of Certification GEO-3

In the Final Staff Assessment, Energy Commission staff (Staff) recommended that the Amended Project prepare and implement a Tsunami Hazard Mitigation Plan (THMP). The Amended Project shows the project site is in the tsunami inundation zone leading to concerns there may be a threat of impact to public health and safety from tsunami. Also, since the science behind estimating sea-level rise is evolving, it is possible projections could change during the life of the Amended Project so that the project design may not be adequately mitigated for all potential site inundation. In addition, recent fault studies and tsunami modeling that are currently being evaluated by the

[20] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162; Ex. 6000, pp. 1-13, 5.2-1, 5.2-2 – 5.2-4.

[21] Ex. 5114, pp. 5.4-4 – 5.4-5.

[22] Ex. 6000, p. 5.2-2.

scientific community could add to the potential for tsunami impacts at the Amended Project site. Staff recommended new Condition of Certification **GEO-3** to require the Project Owner to prepare and implement the THMP for both workers and visitors to the Amended Project.[23]

Petitioner, AES, objects to the imposition of Condition of Certification **GEO-3**. AES argues that there is no legal or regulatory basis for requiring the THMP. AES also notes that the Tsunami Evacuation Map was adopted by the city of Huntington Beach prior to the Energy Commission's certification of the 2104 Project. AES argues that the provisions of Condition of Certification **GEO-3** requiring training of visitors to the Amended Project are unduly burdensome. Finally, AES contends that tsunami mitigation can be addressed through the Emergency Action Plans required by Conditions of Certification **WORKER-1** and **WORKER-2**.[24]

In response to these concerns, Staff continued to assert the need for Condition of Certification **GEO-3**. Staff testified the hazard to public health and safety from tsunami inundation is significant and requires mitigation. Staff cited to the Huntington Beach/Fountain Valley Hazard Mitigation Plan as a LORS requiring the THMP to ensure public health and safety from tsunami hazards.[25]

We agree with Staff. The potential dangers of tsunami are presently identified, with scientific evidence indicating even greater potential impact with sea-level rise. While Conditions of Certification **WORKER-1** and **WORKER-2** could be modified to include tsunami planning, we believe it more expedient in this proceeding to add a single condition to address the tsunami threats to all persons on the Amended Project site, including visitors, than to amend two conditions in a separate section of this Decision. We also find that the Huntington Beach/Fountain Valley Hazard Mitigation Plan is a LORS applicable to the Amended Project.

We thus impose new Condition of Certification **GEO-3**.

Condition of Certification PAL-1

As contained in the 2014 Decision, Condition of Certification **PAL-1** creates the process for the appointment and qualification of a Paleontological Resource Specialist (PRS) to

[23] *Id.* at pp. 5.2-3 – 5.2-4.

[24] Ex. 5055, p. 7, Ex. I; Ex. 5121, p. 7. See also Project Owner's Post Evidentiary Hearing Opening Brief (TN 215249), pp. 4-11.

[25] Ex. 6001, pp. 6-8.

monitor compliance with the mitigation measures contained in the other conditions of certification for paleontological resources.[26]

Appointment of a PRS begins with providing the Compliance Project Manager (CPM) with the resume, references, and contact information of a proposed PRS at least 60 days prior to the start of ground disturbance activities. The CPM may withhold approval of a proposed PRS only if the proposed candidate has repeatedly failed to comply with the paleontological conditions of any Energy Commission licensed project for which they were a PRS. [27]

AES has requested that Condition of Certification **PAL-1** be modified. AES proposes that if the proposed PRS was previously approved by Staff for an Energy Commission licensed project, the CPM would be able to disapprove the proposed PRS only if the failure to comply with the conditions of any Energy Commission license or other performance issues has been documented in the previous Energy Commission project work, or the previous work is not applicable to the specific biological resources identified in the Amended Project's site area. AES contends that this "deemed approved" provision will ensure that it obtains timely review and approval for all designated resource specialists and required plans in order to meet the construction schedule for the Amended Project.[28]

Staff objects to AES's proposed revisions to Condition of Certification **PAL-1**. Staff argues that it understands the need for quick review of and response to the qualifications of proposed resource specialists, and contends that Condition of Certification **PAL-1** reflects its consistent objective approach to the approval of qualified personnel. Also, Staff believes that it should be able to consider non-Energy Commission work in determining the qualifications of the PRS.[29]

As discussed throughout this Decision, the Amended Project has received a Power Purchase Agreement with Southern California Edison (SCE) to provide increased local reliability. We recognize Staff's professionalism and understanding of the time pressures present in the construction of the Amended Project, however, we agree some modification to Condition of Certification **PAL-1** is warranted for this Amended Project.[30]

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[26] Ex. 5114, APP-123- APP-125.

[27] *Id.*

[28] Ex. 5055, p. 5, Ex. B.

[29] Ex. 6001, p. 2.

[30] For ease of comparison, revisions to the conditions of certification for Geological and Paleontological Resources are shown in a separate document. The conditions of certification for Geological and

In revising Condition of Certification **PAL-1**, we incorporate some of the concepts of AES's proposed changes by requiring the CPM to provide documented or other specific reasons for the rejection of a proposed PRS. The CPM will have 10 days to approve or deny a proposed PRS. If the proposed PRS is denied, the CPM and AES are to meet and confer regarding the denial. If that meet and confer does not result in an agreement, AES may then pursue further review of the decision through the Energy Commission's investigations and complaints procedure.[31] This decision in no way should be interpreted as creating a precedent for changing otherwise time-tested conditions of certification developed to ensure that the appropriate personnel are available to monitor the implementation of mitigation measures.

We thus impose Condition of Certification **PAL-1** as revised (see **Appendix A**).

CHANGES TO CONDITIONS OF CERTIFICATION

Staff has proposed minor modifications to the existing conditions of certification for geological and paleontological resources for the purpose of making the existing requirements clearer.[32]

We have revised the conditions of certification[33] to include these changes. We find that none of these proposed modifications result in new significant impacts, substantially increase the severity of previously identified significant impacts, or necessitate any material changes to the geological and paleontological resource conditions of certification identified in the 2014 Decision to mitigate impacts or to maintain compliance with LORS.

We find that, with the imposition and implementation of revised Conditions of Certification **GEO-1** through **GEO-3**, **PAL-1** through **PAL-8**, **GEN-1**, **GEN-5**, and **CIVIL-1**,[34] the Amended Project will comply with all applicable LORS and will have no

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Paleontological Resources, as well as for all topics of this Decision, may be found in **Appendix A** of this Decision.

[31] Cal. Code Regs, tit. 20, §§ 1230 et seq.

[32] Ex. 6000, p. 5.2-9 -5.2-19.

[33] For ease of comparison, revisions to the conditions of certification for Geological and Paleontological Resources are shown in a separate document. (TN 216248) The conditions of certification for Geological and Paleontological Resources, as well as for all topics of this Decision, may be found in **Appendix A** of this Decision.

[34] The conditions of certification for Geological and Paleontological Resources, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

significant unmitigated direct, indirect, or cumulative impacts related to geological and paleontological resources.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES** were received during the Evidentiary Hearing.

Intervenor Robert Simpson/Helping Hand Tools filed a Reply Brief[35] indicating that we should impose new Condition of Certification **GEO-3**, asserting that Executive Order B-30-15 requires that we adopt this condition. Because we have already imposed the condition, we note the comment, but do not further address this argument.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards and that, with the implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant direct, indirect, or cumulative impacts to geological and paleontological resources.
2. None of the factors that require a subsequent or supplemental environmental analysis as set forth in the California Environmental Quality Act Guidelines, section 15162, and described in the **INTRODUCTION** section of this Decision, are present regarding this topic.
3. The Huntington Beach/Fountain Valley Hazard Mitigation Plan is a law, ordinance, regulation or standard applicable to the amended Huntington Beach Energy Project.
4. Except for the Huntington Beach/Fountain Valley Hazard Mitigation Plan, no laws, ordinances, regulations, or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.

[35] TN 215425. Mr. Simpson/Helping Hand Tools was admitted as an Intervenor only on the topics of air quality, greenhouse gases, and public health (TN 214950). As such, we treat the portions of his brief addressing topics that he was not admitted as an Intervenor as public comment.

CONCLUSIONS OF LAW

1. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding geological and paleontological resources.

2. The amended Huntington Beach Energy Project does not have any significant, unmitigated direct, indirect, or cumulative impacts to geological and paleontological resources.

3. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to geological and paleontological resources.

4. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative impacts to geological and paleontological resources.

VI. LOCAL IMPACT ASSESSMENT

The effect of a power plant project on the local area depends upon the nature of the community and the extent of the associated impacts. Technical topics discussed in this portion of the Decision consider issues of local concern including **LAND USE**, **NOISE AND VIBRATION**, **SOCIOECONOMICS**, **TRAFFIC AND TRANSPORTATION**, and **VISUAL RESOURCES**.

A. LAND USE

INTRODUCTION

This land use analysis focuses on whether the amended Huntington Beach Energy Project (Amended Project) is consistent with local land use plans, ordinances, and policies, and whether the Amended Project is compatible with existing and planned uses. In addition, we analyze whether there are any direct, indirect, or cumulative impacts under the California Environmental Quality Act (CEQA) related to land use.

Evidence on the topic of Land Use can be found in Exhibits 5001, 5022, 5028, 5029, 5036, 5053, 5054, 5058, 5114, 5121, 6000, and 6002.

SETTING

For information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

The Amended Project site is designated by the Huntington Beach General Plan (General Plan) as Public (P). The Land Use Element of the General Plan contains a Community District and Subarea Schedule. The Amended Project site is within Subarea 4G "Edison Plant"; land use categories within Subarea 4G include Public and Conservation, are zoned Public–Semi-public, and are included in the Coastal Zone Overlay District, as well as the Oil Production Overlay District. The Huntington Beach Zoning and Subdivision Ordinance defines a power plant as an Energy Facility; a power plant is also classified as a Major Utility use within the Public and Semi-public Use Classifications.[1] The Public/Semi-public zoning district restricts the height of structures to 50 feet.[2]

[1] Huntington Beach Municipal Code, §§ 203.06, 204.08.

[2] Ex. 5114, p. 6.1-3; Ex. 6000, p. 4.5-3.

The General Plan land use designation for the Plains All American Tank Farm site is Pubic and the zoning is Public-Semi-public.[3]

PROJECT DESCRIPTION

For the project description, including information regarding land use in and around the Amended Project site, please refer to the **PROJECT DESCRIPTION** section of this Decision.

The Amended Project proposes stack heights of 150 feet for the General Electric (GE) Frame 7FA.05 combustion-turbine generator units and 80 feet in height for the LMS100 units.[4] The existing Huntington Beach Generating Station (HBGS) has structures approximately 214 feet high that have been operating since the 1950s.[5]

The Amended Project will be built on 30 acres: 28.6 acres as analyzed for the original Huntington Beach Energy project (2014 Project), and an additional 1.4 acre triangle-shaped paved parking lot between the Southern California Edison (SCE) substation and the boundary of the HBGS that the Petitioner, AES, acquired from SCE.[6]

The Amended Project proposes to use the Plains All-American Tank Farm (Plains site) for construction laydown and construction worker parking.[7] A gravel surface is proposed to be installed on the portion of the site used for equipment laydown and parking to minimize dust and manage storm water. The Petitioner, AES, is responsible for site security to provide a secure, guarded, and clean site. The Plains site has an existing approximately 160-foot-wide landscaped berm area along Magnolia Street that will remain unchanged by the Amended Project's construction parking and laydown area, except where a new vehicle entrance will be created. The Plains site parking and laydown area will be approximately 260 feet from the nearest residence.[8] The improvements will take approximately three months to construct.[9] The Plains site will

[3] *Id.* at p. 4.5-4.

[4] *Id.* at p. 4.5-5.

[5] Ex. 5029.

[6] Ex. 6000 at p. 4.5-3.

[7] For additional information regarding temporary off-site construction laydown and construction worker parking, please see the **TRAFFIC AND TRANSPORTATION** and **BIOLOGICAL RESOURCES** sections of this Decision.

[8] *Id*.at 4.5-10.

[9] 12/21/17 RT 72:24-73:5.

provide overflow parking for approximately 100 workers during the peak construction period, predicted to occur in the winter of 2018/2019.[10]

On May 2, 2016, the Huntington Beach City Council (City Council) adopted Resolution No. 2016-27 (2016 Resolution). The 2016 Resolution revisited the city of Huntington Beach's prior Resolution No. 2014-18 that made certain findings regarding the 2014 Project. Both resolutions stated that, but for the exclusive jurisdiction of the Energy Commission over the Amended Project, the city of Huntington Beach would grant a variance to allow exhaust stacks that exceeded the height limits for the HBGS site's zoning district. Each time, in reaching that conclusion, the City Council relied on a visual screening and landscaping plan that improves the existing characteristics of the viewshed.[11] The 2016 Resolution, thus, recommended that the Energy Commission incorporate the revised conceptual visual screening plan for the Amended Project to support the findings necessary to support issuance of a variance.[12]

SUMMARY OF 2014 DECISION

In the 2014 Decision, the Energy Commission found that the 2014 Project was consistent with the city of Huntington Beach's laws, ordinances, regulations, and standards (LORS). We also found that the 2014 Project was not a coastal dependent use; however, even if not coastal dependent, we found the 2014 Project was consistent with the Coastal Act, the city of Huntington Beach's Local Coastal Program, and the Coastal Element of the City's General Plan.[13]

The 2014 Project was authorized to use off-site parking area options that are used by other businesses and visitors to the nearby state beach. These parking areas are close to existing residential areas, particularly the Huntington by the Sea mobile estates and recreational vehicle park, and are used by residents in the area.[14]

The 2014 Decision contains our review of the potential direct, indirect, and cumulative environmental impacts that the 2014 Project may have related to land use.[15] The 2014 Decision also included a recitation and analysis of the LORS applicable to land use.[16]

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[10] *Id*. at 73:23-74:16.

[11] For additional information on the visual screening and landscaping plan, please see the **VISUAL RESOURCRES** section of this Decision.

[12] Ex. 5029.

[13] Ex. 5114 at pp. 6.1-13 – 6.1-14, 6.1-24.

[14] Ex. 6000, p. 4.5-10.

[15] *Id*. at pp. 6.1-7, 6.1-9 – 6.1- 11, 6.1-22 – 6.1-23.

[16] *Id*. at pp. 6.1-7 – 6.1.9, 6.1-11 – 6.1-22.

We concluded that, with the imposition and implementation of Condition of Certification **LAND-1**, the 2014 Project did not pose a significant risk of direct, indirect, or cumulative land use impacts, and was consistent with all applicable land use LORS.[17]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the CEQA Guidelines, section 15162, are met. The Energy Commission staff (Staff) witness stated that, even with the changes to project acreage, the inclusion of the 22-acre Plains site for construction laydown and parking, and the increase in exhaust stack heights, there would be:

1. No new significant impacts related to land use not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts related to land use;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project related to land use; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment related to land use.[18]

The evidence shows that the conditions at the proposed site of the Amended Project are similar to those previously analyzed in the 2014 Decision. Therefore, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative impacts related to land use.[19]

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identifies the LORS applicable to the 2014 Project.[20] The evidence establishes that the LORS contained in the 2014 Decision have not changed.[21]

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[17] *Id*. at p. 6.1-24 – 6.1-25.

[18] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162; Ex. 6000, pp. 4.5-3 – 4.5-4, 4.5-6 – 4.5-8.

[19] Ex. 6000 at pp. 4.5-1, 4.5-3 – 4.5-6

[20] Ex. 5114 at pp. 6.1-7 – 6.1.9.

[21] Ex. 6000 at pp. 4.5-1 – 4.5-2., 4.5-4 – 4.5-6

While the LORS have not changed, certain features of the Amended Project differ from the 2014 Project. Because the 2014 Project required several land use approvals (a variance, a conditional use permit, and a coastal development permit), we must revisit those requirements for the Amended Project.

Variance

Under the zoning and subdivision ordinance in the city of Huntington Beach, the height of structures in the Public/Semi-public district is limited to 50 feet. The Amended Project proposes stack heights of 150 feet for the General Electric Frame 7FA.05 combustion-turbine generator units[22] and 80 feet for the LMS100 units.[23]

A variance is an exception to one or more of the zoning restrictions on a piece of property. California law establishes the authority of cities and other local planning authorities to grant variances to the development standards and provisions of a zoning code.[24] A variance in the city of Huntington Beach may be granted only if the following findings can be made:

1. No special privilege will be granted by the approval of a variance;
2. Special circumstances exist that would deprive a property of privileges enjoyed by other properties in the vicinity if the variance were not granted;
3. The granting of the variance is necessary to preserve the enjoyment of one or more substantial property rights; and
4. The granting of the variance will not be materially detrimental to the public welfare or injurious to property in the same zone and is consistent with the General Plan.[25]

As discussed earlier, the City Council adopted the 2016 Resolution that recognized the exclusive permitting jurisdiction of the Energy Commission and also stated that, if it had jurisdiction over the Amended Project, it would grant the necessary variance. The City Council's approval of the variance relied on the submission of architectural and landscaping plans for screening.[26]

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[22] The stack heights for the 2014 Project were 120 feet.

[23] *Id*. at 4.5-4 - 4.5-5.

[24] Cal. Govt. Code, §65906.

[25] Huntington Beach Municipal Code § 241.10, subd. (B).

[26] Ex. 5029. For a discussion of the applicable city policies regarding screening and design improvements and the proposed architectural improvement plan please see the **VISUAL RESOURCES** section of this Decision.

We give due deference to the interpretation by the city of Huntington Beach of its own ordinances.[27] The evidence contained in the 2016 Resolution is sufficient to support the necessary findings for a variance related to the over-height of the structures proposed for the Amended Project. The City Council cited to the long history of a power plant being on the site of the Amended Project, as well as the reduction in height from the current HBGS. These factors allowed them to conclude that denying a variance would result in a loss of substantial property rights, especially when coupled with the General Plan and zoning designations on the site authorizing the continued existence of a power plant.

We, therefore, conclude that the findings for a variance for the Amended Project can be made.

Conditional Use Permit

The Amended Project site is zoned Public/Semi-public, and is included in the Coastal Zone Overlay District, as well as the Oil Production Overlay District. The Huntington Beach Zoning and Subdivision Ordinance defines a power plant as an Energy Facility; a power plant is also classified as a Major Utility use within the Public and Semi-public Use Classifications.[28]

Major Utility uses are permitted in the Public/Semi-public District upon the issuance of a Conditional Use Permit (CUP).[29] The city of Huntington Beach requires CUPs for certain use classifications that have unusual site development features or operating characteristics requiring special consideration so that they may be designed, located, and operated compatibly with uses on adjoining properties and in the surrounding area.[30] The Huntington Beach Municipal Code authorizes the issuance of a CUP only upon the making of the following findings:

1. The establishment, maintenance, and operation of the use will not be detrimental to the general welfare or to neighboring property values;
2. The granting of the CUP will not adversely affect the General Plan; and
3. The proposed use will comply with the provisions of the planning and zoning codes.[31]

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[27] Cal. Code Regs., tit. 14, §1744, subd. (e).

[28] Huntington Beach Municipal Code, §§ 203.06, 204.08.

[29] Ex. 5114 at p. 6.1-17.

[30] Huntington Beach Municipal Code, §241.02, subd. (a).

[31] Huntington Beach Municipal Code, § 241.10, subd. (A).

The evidence shows that the findings for a CUP for the Amended Project may be made. The continued use of the HBGS site for power generation and its existing transmission and other linear facilities are not detrimental to the general welfare or to neighboring property values. This conclusion is further supported by the General Plan designation and zoning code authorizing use of the site for electrical generation.[32]

We, therefore, hold that the findings for the issuance of a CUP for the Amended Project can be made.

Coastal Development Permit (CDP)

Generally, any "development" activity in the Coastal Zone requires a Coastal Development Permit from the Coastal Commission or local government with a certified Local Coastal Program.[33] The Amended Project requires a CDP for use of the Plains site for construction laydown and worker parking and for the parcel merger required by Condition of Certification **LAND-1.**

A CDP may be granted where:

1. The proposed project is consistent with the General Plan, including the Local Coastal Program;
2. The proposed project is consistent with the Coastal Zone Overlay District, the base zoning district, and other provisions of the Huntington Beach Municipal Code;
3. The proposed development can be provided with infrastructure consistent with the Local Coastal Program; and
4. The development will meet the public access and public recreation policies of the California Coastal Act.[34]

<u>Plains Site Parking and Laydown</u>

Establishing temporary parking lots at the Plains site for use by construction workers at the Amended Project would typically require approval of a CDP, but for the exclusive jurisdiction of the Energy Commission.[35] The Plains site currently has a CDP from the city of Huntington Beach. However, the CDP only allows for the demolition and removal

[32] Ex. 5114 at p. 6.1-19.

[33] Cal. Pub. Resources, §30600. The Amended Project itself is exempt from the need for a CDP. (Pub. Resources, §25500.)

[34] Huntington Beach Municipal Code, §245.30.

[35] Ex. 6000 at pp. 4.5-9 – 4.5-11.

of the three storage tanks and ancillary pipes on the Plains site, as well as grading associated with demolition activities.[36]

The option of expanded use of the Plains site for parking and laydown is preferable to the use of the off-site parking area options included in the licensed 2014 Project. The Plains site, like the Amended Project site, has a General Plan land use designation of Public/Semi-public. In comparison, the 2014 Project is authorized to use off-site parking options the General Plan designates as Commercial Visitor (CV-F2), Residential Medium Density (RM-15), and Open Space Shoreline (OS-S). Some of the parking areas permitted under the 2014 Decision are only 140 feet from residential areas. By contrast, the Plains site parking area is 260 feet from the nearest residential use. The use of the Plains site for parking is consistent with the General Plan and zoning as a temporary accessory use, as the Huntington Beach Municipal Code requires off-street parking and loading.[37] The use of the Plains site would lessen the demand for shore parking areas that are preferred for use by visitors and residents.[38]

The use of the Plains site for parking would also comply with all city of Huntington Beach requirements for parking, access, and setback requirements. Compliance with the city of Huntington Beach requirements for use of the Plains site is ensured by the imposition and implementation of Conditions of Certification **TRANS-3**, **TRANS-4**, **TRANS-8**, **TRANS-9**, and **VIS-3**.[39]

Based on the foregoing evidence, we conclude that the findings necessary for a CDP for use of the Plains site for construction laydown and construction worker parking can be made.

Parcel Merger

Condition of Certification **LAND-1** requires that the Amended Project be constructed on a single legal parcel.[40] The 30-acre site on which the Amended Project will be built is currently two separate parcels: a portion of the existing HBGS site and the 1.4-acre paved triangular parcel immediately adjacent to the HBGS that AES acquired from SCE. To satisfy Condition of Certification **LAND-1**, a merger of the two parcels, either through

[36] *Id.*

[37] Huntington Beach Municipal Code Ch. 231 (Off-street Parking and Loading Provisions); §221.30 (parking requirements in the Coastal Zone overlay district).

[38] Ex. 6000 at p. 4.5-10.

[39] *Id.* at p. 4.5-11.

[40] *Id*. at 4.5-12.

a lot line adjustment or parcel map, to create a single legal parcel is required. This merger would require a CDP.[41]

The merger of the two parcels is to ensure that the Amended Project is built on a single site. Both properties are already developed and recognized in the city of Huntington Beach's General Plan and zoning code as such. Therefore, continued use of the two properties for power plant purposes is consistent with the General Plan and zoning code. Because of the existing development of the two parcels, they are supported by existing infrastructure, including public streets and water and sewer connections. Finally, as described more fully in the 2014 Decision (incorporated by reference into this Decision), there is adequate public access and public recreation near the Amended Project site by virtue of the state and county beaches nearby.[42] We, thus, find that the findings to support a CDP for the parcel merger can be made.

Based on the foregoing evidence, we conclude that the findings necessary for a CDP for a merger of the two parcels can be made.

AES agrees to create a single legal parcel, but has requested a revision to the verification section of Condition of Certification **LAND-1**: AES seeks to delay merger of the parcels until after construction of the first phase of the Amended Project. AES cites legal and financial considerations as underlying this request.[43] Staff has concurred with the requested change to the verification of Condition of Certification **LAND-1**.[44] We agree with Staff and AES and hereby impose revised Condition of Certification **LAND-1**.[45] We find that this proposed modification does not result in new significant impacts, substantially increase the severity of previously identified significant impacts, or necessitate any material changes to the conditions of certification identified in the 2014 Decision to mitigate impacts or to maintain compliance with LORS related to land use. We find that, with the imposition and implementation of revised Conditions of

[41] Huntington Beach Municipal Code, §§ 245.04 (definition of development includes actions under the Subdivision Map Act); 245.06 (development in coastal zone requires CDP).

[42] Ex. 5114 at pp. 6.1-13 – 6.1-14.

[43] Ex. 5054; Ex. 5055, p. 6, Ex. D.

[44] Energy Commission Staff's Pre-hearing Conference Statement (TN 214452), p.5; see also, 12/21/17 RT 37:2-13.

[45] For ease of comparison, revisions to the condition of certification for Land Use are shown in a separate document. (TN 216248.) The conditions of certification for Land Use, as well as for all other topics of this Decision, may be found in **Appendix A**.

Certification **LAND-1**, **TRANS-3**, **TRANS-4**, **TRANS-8**, **TRANS-9**, and **VIS-3**,[46] the Amended Project will comply with all applicable LORS. We further find that, with the imposition and implementation of revised Conditions of Certification **LAND-1**, **TRANS-3**, **TRANS-4**, **TRANS-8**, **TRANS-9**, and **VIS-3**,[47] the Amended Project has no significant, unmitigated direct, indirect, or cumulative impacts related to land use.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **LAND USE** were received during the Evidentiary Hearing.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision found that the Huntington Beach Energy Project conforms with all applicable laws, ordinances, regulations, and standards and that, with the imposition and implementation of the conditions of certification, the Huntington Beach Energy Project would not have any significant direct, indirect, or cumulative impacts related to land use.
2. The amended Huntington Beach Energy Project would require a variance, a conditional use permit, and a coastal development permit, but for the exclusive licensing jurisdiction of the California Energy Commission.
3. The findings required by the Huntington Beach Municipal Code to support the granting of a variance for the over-height exhaust stacks of the amended Huntington Beach Energy Project can be made.
4. The findings required by the Huntington Beach Municipal Code to support the granting of a conditional use permit to allow the major utility use of the amended Huntington Beach Energy Project can be made.
5. The findings required by the Huntington Beach Municipal Code to support the granting of a coastal development permit for the use of the Plains All-American Tank Farm for construction laydown and worker parking and to allow the parcel merger can be made.

[46] The condition of certification for Land Use, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

[47] The condition of certification for Land Use, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

6. No new laws, ordinances, regulations, or standards not included in the 2014 Decision apply to the amended Huntington Beach Energy Project.

7. None of the factors that require a subsequent or supplemental environmental analysis as set forth in the California Environmental Quality Act Guidelines, section 15162(a), and as described in the **INTRODUCTION** section of this Decision, are present regarding this topic.

CONCLUSIONS OF LAW

1. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding land use.

2. The amended Huntington Beach Energy Project does not create any significant direct, indirect, or cumulative environmental effects related to land use.

3. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to land use.

4. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative impacts to land use.

B. TRAFFIC AND TRANSPORTATION

INTRODUCTION

This section addresses the extent to which the amended Huntington Beach Energy Project (Amended Project) will affect the local transportation network. The record contains an analysis of the roads and routes that are proposed to be used for construction and operation, potential traffic-related problems associated with the use of those routes, the anticipated encroachment upon public rights-of-way during the construction of the project and associated facilities, the frequency of trips and probable routes associated with the delivery of hazardous materials, and the potential effect of project operations on local airport flight traffic.

Evidence on the topic of Traffic and Transportation is contained in Exhibits 5001, 5005, 5015, 5022, 5028, 5032, 5036, 5044, 5053, 5055, 5056, 5057, 5113, 5114, 5116, 5118, 5121, 6000, and 6003.

SETTING

For information regarding the setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For the project description, including information regarding traffic and transportation impacts, please refer to the **PROJECT DESCRIPTION** section of this Decision.

Construction Traffic

The Amended Project's construction activities and workforce estimates are anticipated to generate 638 daily one-way trips and 312 peak-hour trips. All of the workers will park at the Plains site resulting in increased traffic on Magnolia Street. Three intersections on Magnolia Street (Atlanta Avenue, Hamilton Avenue, and Pacific Coast Highway) currently operate at level of service (LOS) A and are estimated to have sufficient capacity to accommodate any increase in project-related trips during both AM and PM peak hours.[1]

Construction Parking

The Amended Project proposes to use the Plains All-American Tank Farm (Plains site) as the primary location for construction worker parking. During peak construction for eight months in the winter of 2018/2019, the Amended Project would use a combination

[1] Ex. 6000, pp. 4.10-4 – 4.10-5.

of overflow parking and the Huntington Beach Generating Station (HBGS) site on Newland Avenue.[2] Workers parking at the Plains site would be transported to the work site by a shuttle operated pursuant to the requirements of the Traffic Control Plan (TCP) mandated under Condition of Certification **TRANS-3**.[3] Use of the Plains site requires AES to modify the intersection of Magnolia Street and Banning Avenue to a 4-way traffic signal.[4]

Construction of the intersection modifications at Magnolia Street and Banning Avenue is anticipated to take four to six weeks.[5] During construction of the intersection modifications, approximately 20 workers will be travelling to the Amended Project site.[6] Until the Plains site parking area is constructed, construction workers will park at the existing HGBS site on Newland Street.[7]

Thermal Plumes

The evidence shows that the Amended Project's air-cooled condenser could cause risk to any light aircraft that may fly over the Amended Project site, with thermal plumes predicted to drop below the critical velocity threshold of 4.3 meters per second (m/s) at 2,200 feet above ground level (AGL).[8]

SUMMARY OF 2014 DECISION

In the 2014 Decision, the Energy Commission reviewed the original Huntington Beach Energy Project's (2014 Project) potential traffic and transportation impacts. The 2014 Project was estimated to generate 734 daily trips and 343 peak hour trips during construction.[9] We noted that construction of the 2014 Project added traffic to local roadways, reducing the level of service (LOS) at the Beach Boulevard/Pacific Coast Highway (PCH) and Brookhurst Street/PCH intersections. These impacts were both direct and cumulative.[10] To reduce these impacts, we imposed Condition of Certification

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[2] 12/21/16 RT 73:15 – 74:16.

[3] The TCP addresses the movement of workers, vehicles, and materials, including arrival and departure schedules and designated workforce and delivery routes and includes, among other things, a parking and staging plan for use of on- and off-site parking facilities. (Ex. 5114, pp. APP-135 – APP-136.)

[4] Ex. 6000, pp. 4.10-3.

[5] 12/21/16 RT 72:12-23.

[6] *Id.* at 73:7-14.

[7] *Id.* at 73:15-22.

[8] Ex. 6000, p. 4.10-5.

[9] *Id.* at 4.10-4.

[10] Ex. 5114 at pp. 6.2-12 – 6.2-15, 6.2-24 – 6.2-27.

TRANS-3 requiring the Project Owner to formulate and implement a traffic control plan (TCP) that, among other things, would ensure that the LOS on local roadways was not significantly degraded and to guarantee the safety of the public and construction workers.[11]

Condition of Certification **TRANS-4** was imposed as a general condition to require the Petitioner to coordinate with local agencies for any roadway work required in the public right-of-way.[12]

Construction worker parking for construction and demolition activities of the 2014 Project was provided by a combination of on-site parking and off-site parking. A maximum of 330 parking spaces was needed during construction and demolition activities. This parking was provided both on the existing 2014 Project site, as well as at three off-site locations including 1.9 acres at the Plains site.[13] The Energy Commission required AES to implement a Parking and Staging Plan for all phases of construction to ensure that all project-related parking remained on site or in designated off-site parking areas.[14]

The Energy Commission also concluded that thermal exhaust plumes from the 2014 Project could present a potential impact to helicopters and small aircraft if they were to fly over the site at low altitude. These thermal plumes were predicted to drop below 4.3 m/s at 1,740 feet AGL. To mitigate this impact, we imposed Condition of Certification **TRANS-7** that required the Project Owner to coordinate with the Federal Aviation Administration (FAA) to issue various notifications to pilots to advise them against direct overflight below 1,740 feet AGL.[15]

The Energy Commission also analyzed the 2014 Project's compliance with laws, ordinances, regulations, and standards (LORS).[16] We concluded that with the imposition of Conditions of Certification **TRANS-1** through **TRANS-7**, the 2014 Project's potential direct, indirect, and cumulative impacts related to traffic and transportation were mitigated to a level of "less than significant," and the 2014 Project was in conformity with all LORS.[17]

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[11] *Id.* at p. 6.2-15.

[12] Ex. 6003, p. 10-11.

[13] Ex. 6000 at pp. 4.10-2 – 4.10-3.

[14] Ex. 5114, pp. 6.2-17 – 6.2-18.

[15] *Id.*at pp. 6.2-21 – 6.2-24.

[16] *Id*. at pp. 6.2-28 – 6.2-31.

[17] *Id*. at pp. 6.2-18, 6.2-24, 6.2-25, 6.2-31.

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the CEQA Guidelines section 15162 are met. The evidence establishes that, even with the substitution of equipment and reconfiguration of the power plant footprint, there would be:

1. No new significant impacts to traffic and transportation not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[18]

Construction Traffic

Implementation of the amended HBEP would result in fewer construction trips than the 2014 Project. The Amended Project generates 638 daily one-way trips for the Amended Project, compared to 734 for the 2014 Project; the Amended Project is estimated to generate 312 peak hour trips, while the 2014 Project contributed 343 peak hour trips.[19]

Routes used for construction workers and truck deliveries, including heavy-haul routes, would not change with implementation of the Amended Project. However, some of the intersections analyzed in the 2014 Decision would see changes in volumes, particularly Magnolia Street. However, even with the increased volumes, the intersections on Magnolia Avenue will still operate within acceptable levels of service. Therefore, the use of the Plains site for construction parking does not create any significant impacts to traffic and transportation.[20]

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[18] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 1-15, 4.10-1, 4.10-2 – 4.10-5.

[19] Ex. 6000, p. 4.10-4.

[20] *Id.* at pp. 4.10-5 – 4.10-6.

Thermal Plumes

The Amended Project is projected to create taller thermal plumes than the 2014 Project. The evidence shows that even this increased height is not a significant impact because of the small number of aircraft likely to fly over the Amended Project site. Also, pilots have the ability to safely avoid the HBEP thermal plumes because of presence of available flight paths to avoid the thermal plumes. Staff proposes that we amend Condition of Certification **TRANS-7** to reflect the increased height of the thermal plumes to be avoided, to update the names of aviation publications and charts, and to improve clarity.[21]

We, therefore, impose revised Condition of Certification **TRANS-7**[22] to reflect the increased height of the thermal plumes to be avoided, to update the names of aviation publications and charts, and to improve clarity.

Cumulative Impacts

Energy Commission staff (Staff) noted that the Poseidon Desalination Project was not specifically identified as a cumulative project in the analysis of traffic and transportation impacts provided in the 2014 Decision. Trips generated by the Poseidon Desalination Project would occur within the transportation network used by the Amended Project and may combine with the Amended Project trips to result in cumulative impacts to the LOS of nearby highways, roadways, and intersections.[23] The Poseidon Desalination Project will likely be subject to the Huntington Beach Municipal Code and its requirement that projects pay traffic impact fees for any impacts it may have on the city of Huntington Beach's roadway system.[24] Payment of these fees would ensure the direct impacts of the Poseidon Desalination Project to affected roadways would be addressed as part of the City's Capital Improvement Program or the road improvements would directly reduce the potential impacts to within acceptable city LOS standards. We, thus, determine that the Amended Project's incremental effects on traffic and transportation systems, even with the addition of the Poseidon Desalination Project, are not cumulatively considerable.[25]

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[21] *Id.* at p. 4.10-5.

[22] For ease of comparison, revisions to the conditions of certification for traffic and transportation are shown in a separate document. (TN 216248) The conditions of certification for Traffic and transportation, as well as for all other topics of this Decision, may be found in **Appendix A**.

[23] Ex. 6000 at p. 4.10-6.

[24] Huntington Beach Municipal Code, Ch. 17.65; Ex. 6000 at p. 4.10-6.

[25] Ex. 6000 at p. 4.10-6.

Based on the foregoing, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative impacts to traffic and transportation.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[26] The evidence establishes that, except as it relates to potential changes to the Magnolia Street/Banning Avenue intersection, there have been no changes to the LORS that apply to the Amended Project, nor are there any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[27]

With the construction of the modifications to the Magnolia Street/Banning Avenue intersection, the Amended Project may remove existing parking space near the coast.[28] The Huntington Beach Municipal Code requires that, if any existing on-street parking is removed, it shall be replaced on a one-for-one basis within walking distance of the existing site. This replacement parking is required before any existing parking is removed.[29] We, therefore, impose Condition of Certification **TRANS-9** to require AES to provide replacement parking on a one-for-one basis before the removal of any parking spaces. With the imposition and implementation of Condition of Certification **TRANS-9,** we find that the Amended Project meets the requirements of the Huntington Beach Municipal Code and that there is no loss of parking in the coastal area near the Amended Project site.

NEW CONDITIONS OF CERTIFICATION

Intersection Improvements at Magnolia Street and Banning Avenue

The Amended Project proposes to use the Plains site for construction worker parking and as a construction laydown area. Workers parking at the Plains site would be transported to the work site by a shuttle operated pursuant to the requirements of the TCP mandated under Condition of Certification **TRANS-3**.[30] Use of the Plains site requires AES to modify the intersection of Magnolia Street and Banning Avenue to a 4-way traffic signal.[31]

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[26] Ex. 5114, pp. 6.2-9 – 6.2-13, 6.2-12 – 6.2-14.

[27] Ex. 6000, p. 4.10-2.

[28] *Id.*at pp. 4.10-3 – 4.10-4.

[29] Huntington Beach Municipal Code, §231.28.

[30] Ex. 5114, pp. APP-135 – APP-136.

[31] *Id.* at pp. 4.10-3.

Because of the Amended Project's need to construct the modified intersection of Magnolia Street and Banning Avenue in the city of Huntington Beach's right-of-way, Staff testified to a need for greater specificity than contained in Condition of Certification **TRANS-4** requiring coordination with local agencies for any roadway work required in the public right-of-way. To accommodate this need, Staff has proposed Condition of Certification **TRANS-8.** Conditions of Certification **TRANS-4** and **TRANS-8** work in tandem recognizing the unique circumstances where the city of Huntington Beach will ultimately accept the improvements. As such, Condition of Certification **TRANS-8** requires the Petitioner to obtain review, comment, and approval of the Magnolia Street/Banning Avenue changes from the city of Huntington Beach, as well as the approval of the Chief Building Official (CBO).[32] The city of Huntington Beach has agreed to review the engineering drawings and plans for the intersection modifications and to complete that review within three months.[33]

We, therefore, impose Condition of Certification **TRANS-8** to ensure the proper review of the engineering plans for the modification of the Magnolia Street/Banning Avenue intersection.

We conclude that with the imposition and implementation of revised Conditions of Certification **TRANS-1** through **TRANS-9**,[34] the Amended Project will comply with all applicable LORS and will have no significant unmitigated direct, indirect, or cumulative impacts related to traffic and transportation.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **TRAFFIC AND TRANSPORTATION** were received during the Evidentiary Hearing.

In comments on the PMPD, John in Huntington Beach[35] asked "why isn't construction parking offered at the beach" and "how will pedestrian traffic be coordinated for construction workers that park on Newland and cross over to the AES plant?"

As described above, in order to avoid impacts to local business and public access to public beaches and parks in the area, the Amended Project and the 2014 Project both provide construction worker parking away from beach areas. As for construction worker pedestrians, Condition of Certification TRANS-3 requires creation and implementation

[32] Ex. 6003, p. 10-11.
[33] 12/21/16 RT 77:4 - 79:10.
[34] For ease of comparison, revisions to the conditions of certification for traffic and transportation are shown in a separate document. (TN 216248) The conditions of certification for Traffic and Transportation, as well as for all other topics of this Decision, may be found in **Appendix A**.
[35] TN 216560.

of a traffic control plan. This traffic control plan will include, among other things, the use of a shuttle to transport construction workers from off-site parking areas, including the All-American Plains Tank site, to the Amended Project site. With the imposition and implementation of the transportation-related conditions of certification identified in Appendix A, there are no significant unmitigated traffic impacts associated with the Amended Project.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards and that, with the imposition and implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant direct, indirect, or cumulative impacts to Traffic and Transportation.
2. In order to use the Plains All-American Tank Farm site for construction parking and laydown, the Petitioner will need to design and construct intersection modifications to Magnolia Street and Banning Avenue.
3. Condition of Certification **TRANS-8** provides for city of Huntington Beach review and approval of the engineering plans for the Magnolia Street/Banning Avenue intersection modifications.
4. Huntington Beach Municipal Code section 231.28 requires the replacement of parking spaces that are removed.
5. Condition of Certification **TRANS-9** requires the Petitioner to replace any parking spaces removed by reason of the Magnolia Street/Banning Avenue intersection modifications on a one-for-one basis.
6. Except for Huntington Beach Municipal Code section 231.28, no new laws, ordinances, regulations, or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.
7. None of the factors that require a subsequent or supplemental environmental analysis as set forth in the California Environmental Quality Act Guidelines, section 15162, and described in the **INTRODUCTION** section of this Decision are present regarding this topic.

CONCLUSIONS OF LAW

1. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards related to traffic and transportation.

2. The amended Huntington Beach Energy Project does not create any significant direct, indirect, or cumulative environmental impacts related to traffic and transportation.

3. Imposition and implementation of the conditions of certification set forth in Appendix A of this Decision ensure that amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to traffic and transportation.

4. Imposition and implementation of the conditions of certification set forth in Appendix A of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative impacts to traffic and transportation.

C. SOCIOECONOMICS

INTRODUCTION

This topic summarizes the potential of the amended Huntington Beach Energy Project (Amended Project) to impact population, housing, employment patterns, and community services, including law enforcement and parks and recreation. We also review the conformity of the Amended Project with all applicable laws, ordinances, regulations, and standards (LORS).[1]

Evidence on the topic of Socioeconomics can be found in Exhibits 5001, 5005, 5012, 5048, 5053, 5055, 5056, 5057, 5114, 5121, and 6000.

SETTING

For information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF THE 2014 DECISION

In the 2014 Decision,[2] we reviewed the potential impacts of the Huntington Beach Energy Project (2014 Project) on population, housing, employment patterns, and community services, including law enforcement and parks and recreation. Included in this review was a discussion of whether there was an "environmental justice" population within six miles of the project site.[3]

For the purposes of assessing project impact on employment, we defined the "local workforce" during project construction as residing within a two-hour commute of the project. This includes the Santa Ana-Anaheim-Irvine Metropolitan Statistical Area (MSA) (Orange County), Los Angeles-Long Beach-Glendale Metropolitan Census County Division (Los Angeles County), and Riverside-San Bernardino-Ontario MSA (Riverside and San Bernardino counties).The "local workforce" during project operation was defined as residing within a one-hour commute of the project.[4]

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[1] Ex. 6000, p. 4.8-1.

[2] Ex. 5114.

[3] Ex. 5114, pp. 6.3-3 – 6.3-8.

[4] *Id.* at p. 6.3-1.

To analyze the HBEP potential project impacts on population and housing, the study area was the city of Huntington Beach and the nearby cities of Costa Mesa, Fountain Valley, and Newport Beach. The city of Huntington Beach was also the study area for impacts to police services and parks. The Huntington Beach Elementary City School District and Huntington Beach Union High School District were used to determine impacts to education. Orange County was used to determine indirect and induced economic impacts.[5]

In assessing environmental effects related to socioeconomics, we first noted that the California Environmental Quality Act (CEQA) does not treat economic and social changes as significant effects on the environment.[6] However, where "a physical change is caused by economic or social effects of a project, the physical change may be regarded as a significant effect in the same manner as any other physical change resulting from the project. Alternatively, economic and social effects of a physical change may be used to determine that the physical change is a significant effect on the environment. If the physical change causes adverse economic or social effects on people, those adverse effects may be used as a factor in determining whether the physical change is significant."[7] In the 2014 Decision, we examined the impact of the 2014 Project on population and housing, recreation, and public services and facilities.[8]

We concluded that there was not a minority population in the six-mile buffer that was meaningfully greater than the minority populations in the comparison geographies.[9] We also determined that the below-poverty-level population in the six-mile buffer is not meaningfully greater than the below-poverty-level population in the comparison geographies.[10] We, therefore, found that there was no environmental justice population with six miles of the project site.[11]

We found that the 2014 Project did not directly or indirectly induce a substantial population growth in the project area in order to provide workers during construction and operation, and, therefore, the project would not have a significant impact.[12]

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[5] *Id*.

[6] CEQA Guidelines, §15064, subd. (e).

[7] *Id.*

[8] Ex. 5114, p. 6.3-2.

[9] *Id.*at p. 6.3-3 – 6.3-7.

[10] *Id.* at pp. 6.3-7 – 6.3-8.

[11] *Id.*

[12] *Id.* at pp. 6.3-9 – 6.3-14.

Because the 2014 Project would be built on the site of the existing Huntington Beach Generating Station, the 2014 Decision concluded that the 2014 Project did not displace any existing housing units.[13] We further concluded that there were sufficient permanent and temporary housing options so that the 2014 Project did not create the need for replacement housing nor did it displace existing residents.[14]

The 2014 Decision considered the potential of the 2014 Project to impact law enforcement, parks, and schools. We determined that the 2014 Project did not affect law enforcement response times and, thus, did not have a significant effect on law enforcement.[15]

Because of the lack of population growth discussed above, we found there was little, if any, increase in the usage or demand for parks or other recreational facilities caused by the 2014 Project and, therefore, did not create the necessity that new parks be constructed in the area. We also determined that the 2014 Project did not increase the use of neighborhood or regional parks or recreational facilities to the extent that substantial physical deterioration of the facility would occur or be accelerated. We, thus, found that the 2014 Project did not create a significant impact on neighborhood or regional parks and recreational facilities.[16]

In analyzing impacts to schools, we discussed the imposition of statutory school mitigation fees as the exclusive method for considering and mitigating impacts on school fees. We imposed Condition of Certification **SOCIO-1**, requiring payment of the statutory mitigation fees to the affected school district. [17]

The city of Huntington Beach charged development impact fees for "industrial development projects," such as the 2014 Project. We, therefore, imposed Condition of Certification **SOCIO-2** to ensure the applicable fees were paid to the city of Huntington Beach.[18]

Finally, we found that the 2014 Project created no cumulative socioeconomic impacts.[19]

We concluded that with the adoption of Conditions of Certification **SOCIO-1** and **SOCIO-2**, the 2014 Project's potential direct, indirect, and cumulative socioeconomic

[13] *Id.*at p. 6.4-14.

[14] *Id.*at pp. 6.3-14 – 6.3-15.

[15] *Id.*at pp. 6.3-15 – 6.3-16.

[16] *Id.* at pp. 6.3-16 – 6.3-17.

[17] Cal. Education Code, §17620; Ex. 5114, pp.6.3-16, 6.3-22 – 6.3-23.

[18] Ex. 5114, p. 6.3-23.

[19] *Id.*at pp. 6.3-17 – 6.3-22.

impacts were mitigated to a level of “less than significant” and that the 2014 Project complied with all LORS.[20]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the CEQA Guidelines, section 15162, are met. The evidence establishes that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized environmental concerns and conditions, there would be:

1. No new significant impacts to geological and paleontological resources not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project related to geological and paleontological resources; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[21]

The Energy Commission staff (Staff) witness, Lisa Worrall, concluded that the Amended Project, like the 2014 Project, will not cause a significant adverse direct, indirect, or cumulative socioeconomic impact on the area’s housing, schools, law enforcement, or parks and recreation. Similar to the 2014 Project, the Amended Project does not induce a substantial growth in population or displacement of population, or induce substantial increases in demand for housing, law enforcement services, or parks and recreation.[22]

In comparison to the 2014 Project, the construction and demolition period for the Amended Project would increase from 56 months to 67 months.[23] The peak construction workforce increases from 236 workers to 306 workers, while the number of

[20] *Id.* at pp. 6.3-27 – 6.3-28.

[21] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 4.8-3 - 4.8-4.

[22] Ex. 6000, pp. 4.8-1, 4.8-3 – 4.8-4.

[23] *Id.* at p. 4.8-1.

workers necessary to operate the Amended Project decreases from 33 to 23 members.[24]

Consistent with our findings in the 2014 Decision, Ms. Worrall also concluded that there was no environmental justice population within a six-mile radius of the project. The minority population within the six-mile radius of the project is neither greater than 50 percent nor meaningfully greater than the minority populations in the geographic areas adjacent to the project site. The below-poverty-level population in the six-mile project radius is not meaningfully greater than that in the adjacent geographic areas.[25]

Based on the foregoing, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, or cumulative socioeconomic impacts.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[26] The evidence establishes that there have not been any new LORS, changes to the LORS that apply to the Amended Project, nor any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[27]

We, therefore, re-impose Conditions of Certification **SOCIO-1** and **SOCIO-2**.[28] We find that, with the imposition and implementation of Conditions of Certification **SOCIO-1** and **SOCIO-2**, the Amended Project will comply with all applicable LORS and will have no significant unmitigated direct, indirect, or cumulative impacts related to geological and paleontological resources.

AGENCY AND PUBLIC COMMENT

No agency or public comments on the topic of **SOCIOECONOMICS** were received during the Evidentiary Hearings.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

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[24] *Id.*

[25] *Id.* at pp. 4.8-1 – 4.8-2, 4.8-12.

[26] Ex. 5114, p. 6.3-3.

[27] Ex. 6000, p. 4.8-3.

[28] The conditions of certification for Socioeconomics, as well as all other conditions of certification for the Amended Project, are in **Appendix A** to this Decision.

1. The 2014 Decision found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards, and that, with the implementation of the conditions of certification of the Huntington Beach Energy Project, the Huntington Beach Energy Project would not have any significant direct, indirect, or cumulative socioeconomic impacts.

2. None of the factors that require a subsequent or supplemental environmental analysis, as set forth in the California Environmental Quality Act Guidelines, section 15162, and as described in the **INTRODUCTION** section of this Decision, are present regarding this topic.

CONCLUSIONS OF LAW

1. No new significant impacts related to socioeconomics that were not previously analyzed;

2. No substantial increase in the severity of previously identified environmental impacts;

3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project related to socioeconomics; and

4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[29]

[29] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 4.8-3 - 4.8-4.

D. NOISE AND VIBRATION

INTRODUCTION

The construction (including any necessary demolition of existing structures) and operation of any power plant creates noise, typically defined as unwanted sound. A combination of different factors, such as loudness, time of day, and proximity to sensitive receptors, determines whether the source of noise will cause significant adverse impacts. In some cases, vibration may be produced by construction activities, such as blasting or pile driving, and may cause structural damage and annoyance.

This topic evaluates the potential impacts of noise and vibration produced during site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project (Amended Project) on adjacent properties and workers at the Amended Project site. We further review whether the Amended Project will comply with the laws, ordinances, regulations, and standards (LORS) related to noise and vibration.

Evidence on the topic of noise and vibration is contained in Exhibits 5001, 5022, 5036, 5041, 5053, 5055, 5056, 5057, 5113, 5114, 5116, 5118, 5119, 5131, 6000, and 6003.

SETTING

The Amended Project would be built on the existing Huntington Beach Generating Station (HBGS) site, an operating power plant within the city limits of Huntington Beach, Orange County. The city of Huntington Beach establishes noise compatibility guidelines in the Noise Element of its General Plan. Huntington Beach Municipal Code Chapter 8.40 implements the goals, policies, and objectives of the General Plan.[1] The Huntington Beach Municipal Code sets maximum acceptable noise levels for both daytime and nighttime.[2] The Huntington Beach Municipal Code also prohibits construction noise from 8 P.M. to 7 A.M. on Mondays through Saturdays and all day Sundays and federal holidays.[3]

For additional information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

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[1] Ex. 5114, p. 6.4-2.

[2] Huntington Beach Municipal Code, § 8.40.050.

[3] Huntington Beach Municipal Code, § 8.40.090, subd. (d).

PROJECT DESCRIPTION

For information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

SUMMARY OF 2014 DECISION

In the 2014 Decision[4] we reviewed the potential of the Huntington Beach Energy Project (2014 Project) to create direct, indirect, and cumulative noise and vibration impacts during site preparation (including demolition), construction, and operation.[5]

We also analyzed the 2014 Project's compliance with LORS.[6] We concluded that, with the imposition and implementation of Conditions of Certification **NOISE-1** through **NOISE-8**, the 2014 Project's potential direct, indirect, and cumulative noise and vibration impacts were less than significant, and the 2014 Project conformed with all LORS.[7]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act Guidelines, section 15162, are met. The evidence establishes that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized concerns and conditions, there would be:

1. No new significant noise and vibration impacts not previously analyzed;
2. No substantial increase in the severity of previously identified noise and vibration impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant noise or vibration impact of the Amended Project; and

[4] Ex. 5114.

[5] Ex. 5114, pp. 4.6-11 – 4.6-14.

[6] *Id*. at pp. 4.6-10 – 4.6-11.

[7] *Id*. at pp. 4.6-10 – 4.6-14, 4.6-15.

4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[8]

The evidence shows that the conditions at the proposed site of the Amended Project are similar to those previously analyzed in the 2014 Decision. Therefore, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative noise and vibration impacts.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[9] The evidence establishes that there have not been new LORS, changes to the LORS that apply to the Amended Project, or any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[10]

CONTESTED ISSUE

Following publication of Part One of the Final Staff Analysis,[11] the city of Huntington Beach provided written comments regarding noise and vibration, identifying potential noise impacts from use of the Plains All-American Tank Farm (Plains) site for construction worker parking. The city of Huntington Beach was concerned about the potential for impacts from workers arriving to the Plains site before 7:00 A.M.—the earliest time allowed for the start of construction noise under the Huntington Beach Municipal Code. The city of Huntington Beach also expressed concerns about increased noise from deliveries of construction materials to the Plains site.[12]

In order to address these concerns, Energy Commission staff (Staff) proposed amendments to Condition of Certification **NOISE-6**.[13] Petitioner, AES, objected to these changes.[14]

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[8] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 4.6-1, 4.6-4 – 4.6-5.

[9] Ex. 5114, pp. 6.4-1 – 6.4-2.

[10] Ex. 6000, p. 4.2-2.

[11] Ex. 6000.

[12] Ex. 6003, pp. 10-6 – 10-7.

[13] Ex. 6003, pp. 10-8 – 10-9. In the 2014 Decision, Condition of Certification **NOISE-6** was imposed to, among other things, restrict construction to the times allowed under the Huntington Beach Municipal Code. (Ex. 5114, pp. 6.4-6 - 6.4-7.); see also 12/21/16 RT 66:4-11.

During the Evidentiary Hearing, Staff, Petitioner, and the city of Huntington Beach reached an agreement regarding the necessary changes to Condition of Certification **NOISE-6**. These changes included clarification that restrictions to deliveries applied to the Plains site and not to deliveries to the HBGS portion of the Amended Project site. This agreement was premised on the fact that the HBGS site is an operating power plant that already receives deliveries outside of the restricted hours listed in Condition of Certification **NOISE-6**.[15]

We impose Condition of Certification **NOISE-6** as revised by the parties' agreement contained in the record.

CHANGES TO CONDITIONS OF CERTIFICATION

In addition to changes to Condition of Certification **NOISE-6**, Staff proposed deleting redundant footnotes and definitions and clarifying certain definitions in the conditions of certification for noise and vibration.[16]

We have revised the conditions of certification[17] to address these non-substantive changes. We find that none of these proposed modifications result in new significant impacts, substantially increase the severity of previously identified significant impacts, or necessitate any material changes to the noise and vibration conditions of certification identified in the 2014 Decision to mitigate impacts or to maintain compliance with LORS.

We, therefore, impose the revised Conditions of Certification **NOISE-1** through **NOISE-8**. We find that with the imposition and implementation of revised Conditions of Certification **NOISE-1** through **NOISE-8**,[18] the Amended Project will comply with all applicable laws, ordinances, regulations, and standards regarding noise and vibration. We further find that, with the imposition and implementation of revised Conditions of

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[14] Ex. 5121, pp. 4, 14-16.

[15] 12/21/16 RT 66-14 to 68:8, 80:13-83:7.

[16] Ex. 6000, pp. 4.6-5 – 4.6-12.

[17] For ease of comparison, revisions to the conditions of certification for noise and vibration are shown in a separate document (TN 216248). The conditions of certification for Noise and Vibration, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

[18] The conditions of certification for Noise and Vibration, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

Certification **NOISE-1** through **NOISE-8**,[19] the Amended Project will not create any significant direct, indirect, or cumulative noise and vibration impacts.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **NOISE AND VIBRATION** were received during the Evidentiary Hearing.

In comments on the PMPD, John in Huntington Beach[20] asked “how will noise and dust from [sic] neighboring homes will be controlled?"

As set forth above, with the imposition and implementation of the Conditions of Certification NOISE-1 through NOISE-8, the Amended Project will have no significant adverse noise impacts on neighboring properties.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards and that, with the implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant direct, indirect, or cumulative impacts related to noise and vibration.
2. None of the factors that require a subsequent or supplemental environmental analysis, as set forth in the California Environmental Quality Act Guidelines section 15162, and as described in the **INTRODUCTION** section of this Decision, are present regarding this topic.
3. Condition of Certification **NOISE-6** ensures that use of the All-American Plains Tank Farm site will not create any noise impacts by limiting delivery to that location during construction.
4. Condition of Certification **NOISE-6** does not apply to deliveries to the HBGS portion of the Amended Project site.
5. No laws, ordinances, regulations, or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.

[19] The conditions of certification for Noise and Vibration, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.
[20] TN 216650.

CONCLUSIONS OF LAW

1. Site preparation (including demolition), construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding noise and vibration.

2. The amended Huntington Beach Energy Project will not create any significant direct, indirect, or cumulative noise and vibration impacts.

3. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to noise and vibration.

4. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative noise and vibration impacts.

E. VISUAL RESOURCES

INTRODUCTION

Visual resources are the natural and cultural features of the landscape that contribute to the visual character or quality of the environment. The California Environmental Quality Act (CEQA) requires an examination of a project's visual impacts to determine whether the project has the potential to cause substantial degradation to existing views of the site and its surroundings.[1]

The topic of visual resources was contested. Evidence on the topic of Visual Resources is contained in Exhibits 5001, 5004, 5005, 5012, 5015, 5017, 5028, 5029, 5043, 5053, 5055, 5056, 5057, 5114, 5121, 6000, and 6001.

SETTING

The amended Huntington Beach Energy Project (Amended Project) is proposed to be built on the site of the existing Huntington Beach Generating Station (HBGS). The HBGS site is an industrial brownfield. The area surrounding the HBGS is characterized by broad sandy beaches, low bluffs and mesas, and lowland areas and is entirely within the Coastal Zone. A sequence of mesas and bays, including the Huntington Beach Mesa, provide the most notable diversity in local landforms in Huntington Beach. The project site is over a mile south of the southern edge of the Huntington Beach Mesa. When viewed from the coast, the bluffs partially mask urban development in the northern coastal area of Orange County. Conversely, broad views of the Pacific Ocean coastline are possible from the bluffs of the Huntington Beach and Bolsa Chica mesas and portions of the Pacific Coast Highway (PCH).[2]

The HBGS is in an area of existing and former energy and utility facilities and warehouse-commercial development that is surrounded to the west, north, and east by residential neighborhoods, open space, and recreational uses. The closed Ascon Landfill site is northeast of the HBGS site. The area on the north side of the HBGS includes the Southern California Edison 230-kilovolt (kV) switchyard and three above-ground, decommissioned fuel-oil storage tanks.[3]

The Huntington Beach Wetlands Conservancy (Conservancy) owns and operates the Wetlands & Wildlife Care Center along the southwest side of the HBGS. Beginning in May 2014, the interpretive center was opened to the public with tours averaging 50–100

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[1] CEQA Guidelines, § 15382 and Appendix G, Part I.

[2] Ex. 5114, p. 6.5-1.

[3] *Id.*

visitors per month with the number expected to double. The Conservancy also manages the Magnolia Marsh Ecological Preserve along the southeast border of the HBGS, which is one of four areas of wetlands making up the Huntington Beach Wetlands complex. The Magnolia Marsh Ecological Preserve is designated as the Conservancy's primary area for interpretive trail use and ecotourism. Visitors to the Magnolia Marsh Ecological Preserve use the observation deck at the southwest corner of the preserve and a pathway along the HBGS fence line to Upper Magnolia Marsh. (Ex. 2000, p. 4.12-4.)[4]

The HBGS site is landscaped with trees and shrubs that have grown tall enough to visually screen the lowest portions of some of the HBGS structures for views along Newland Street, the PCH, and Huntington State Beach. An eight-foot masonry wall fronted by trees was installed along the site border on Newland Street. The main entrance to the HBGS site on Newland Street is landscaped with shrubs and flowers and small lawn areas.[5]

For additional information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

For information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

In addition to changes in the power plant equipment and its location, the Amended Project adds two 50-foot-tall sound/acoustical walls on the northeast portion of the site, with the longest segment stretching along the east/northeast side of the site adjacent to Magnolia Marsh.[6]

The Amended Project proposes new architectural improvements consisting of three approximately 120-foot-tall marine-inspired, sphere-wall design treatments. The visual enhancement concept uses architectural wave forms to screen views of the major structures in the Amended Project.[7] **Visual Resources Figure 1** shows a rendering of the proposed layout of the sphere screen, as well as the new acoustical walls near Magnolia Marsh.[8]

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[4] *Id.*

[5] *Id.* at p. 6.5-2.

[6] Ex. 6000, p. 4.12-12.

[7] *Id.*; see also Ex. 5029.

[8] *Id.*at p. 4.12-17.

On May 2, 2016, the Huntington Beach City Council adopted Resolution No. 2016-27 in support of the new proposed architectural improvements shown in **Visual Resources Figure 2**. [9]

SUMMARY OF 2014 DECISION

In the 2014 Decision,[10] we reviewed the potential impacts to visual resources from the Huntington Beach Energy Project (2014 Project). The visual analysis began by identifying key observation points (KOPs) that showed the visual effects of the 2014 Project. A total of seven KOPs were selected to represent views from nearby residential areas, designated scenic roadways, and visitor and recreation areas with relatively high levels of visual sensitivity. The KOPs are shown in **Visual Resources Figure 3** and are listed below:

- **KOP 1** – View from Huntington State Beach;
- **KOP 2** – View from the Huntington Beach Municipal Pier;
- **KOP 3** – View from Edison Community Park;
- **KOP 4** – View from Magnolia Street near the Pacific Coast Highway;
- **KOP 5** – View from the Driveway Entrance to the Huntington By-The-Sea Mobile Estates and RV Park;
- **KOP 6** – View from the Pacific Coast Highway near Brookhurst Street; and
- **KOP 7** – View from the Southern Bluff of the Huntington Beach Mesa.[11]

Construction Impacts

The 2014 Decision determined that the 2014 Project had the potential to impact visual resources with the presence of unsightly construction equipment, construction worker parking, and construction laydown. To mitigate these potential impacts, the Energy Commission imposed Condition of Certification **VIS-3** to provide for screening of construction staging sites and protection of existing landscaping plantings not scheduled for removal during site preparation (including demolition) and construction.[12]

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[9] Ex. 5029. The visual depiction of the City Council-recommended architectural impovements in **Visual Figure 2** is the view of the Amended Project from Huntington State Beach.

[10] Ex. 5114.

[11] Ex. 6000, p. 4.12-1.

[12] Ex. 5114, p. 6.5-7.

The majority of construction activities for the 2014 Project were proposed to occur during daylight hours. However, some construction activities could take place 24 hours a day, 7 days a week. The frequency of this nighttime work over the 2014 Project's construction schedule was not known. Lighting for construction worker parking was not specified, but could also create visual impacts. To mitigate these potential impacts caused by construction lighting and glare, we adopted Condition of Certification **VIS-4**, mandating that the Project Owner minimize the potential adverse impacts of long-term lighting for site preparation including demolition, construction, and commissioned work.[13]

Operational Impacts

The 2014 Decision describes the 2014 Project's visual impacts during operation for each of the 2014 Project's KOPs. We concluded that KOP-1, -2, -3, -6, and -7 did not have any potentially significant impacts to visual resources.[14] As to KOP-4 and KOP-5, we found the structures resulting from implementation of the 2014 Project substantially degraded the visual character of the site and its surroundings. To mitigate these impacts, we imposed Conditions of Certification **VIS-1** and **VIS-2**.[15]

Condition of Certification **VIS-1** requires preparation and implementation of a Visual Screening and Enhancement Plan for Project Structures. The enhancement plan was mandated to be consistent with a visual screening concept recommended and approved by the city of Huntington Beach.[16] Condition of Certification **VIS-2** requires preparation and implementation of a Perimeter Screening and On-site Landscape and Irrigation Plan to screen and soften views of the power plant.[17]**Visual Resources Figure 4** shows the visual screening concept for the 2014 Project from KOP 1.

Operational Light and Glare

The 2014 Project was found to have the possibility to create a new source of substantial light or glare that could adversely affect nighttime views in the area. We imposed Condition of Certification **VIS-5** to require preparation and implementation of a comprehensive Lighting Management Plan for the 2014 Project that included, at a minimum, provisions for the hooding of exterior lights and the direction of lighting to on-site areas. Because of the long operational time frame for the 2014 Project, we also

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[13] *Id.* at p. 6.5-8.

[14]

[15] Ex. 5114, pp. 6.5-13 – 6.5-17; Ex. 6000, p. 4.12-3 – 4.12-4.

[16] Ex. 5114, pp. 6.5-8 – 6.5-9; Ex. 6000, pp. 4.12-2 – 4.12-4.

[17] Ex. 5114, p. 6.5-15; Ex. 6000, p. 4.12-3.

adopted Condition of Certification **VIS-6** requiring preparation and submittal of a letter report on the approved Lighting Management Plan to determine whether updates to the plan are needed (e.g., to implement lighting technology changes).[18]

The potential for glare from project structures to adversely affect daytime views in the project area was considered a significant impact of the 2014 Project. Condition of Certification **VIS-1** included mechanisms to minimize the potential visual effects of glare from project surfaces.[19]

We also analyzed the 2014 Project's compliance with laws, ordinances, regulations, and standards (LORS).[20] We concluded that with the imposition of Conditions of Certification **VIS-1** through **VIS-6**, the 2014 Project's potential direct, indirect, and cumulative impacts to visual resources were mitigated to a level of "less than significant," and the 2014 Project conformed with all LORS.[21]

ENVIRONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the California Environmental Quality Act Guidelines section 15162 are met. The evidence establishes that, even with the enlargement of the project site, the substitution of equipment, the reconfiguration of the power plant footprint, and recognized environmental concerns and conditions, there would be:

1. No new significant impacts to visual resources not previously analyzed;
2. No substantial increase in the severity of previously identified environmental impacts;
3. No mitigation measures previously found to be infeasible are now feasible, nor would these infeasible mitigation measures substantially reduce a significant effect of the Amended Project; and
4. No mitigation measures or alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[22]

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[18] Ex. 5114, p. 6.5-20.

[19] *Id.*

[20] *Id*. at pp. 6.5-4, 6.5-22 – 6.5-30.

[21] *Id*. at pp. 6.5-31 – 6.5-32.

[22] Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a); Ex. 6000, pp. 4.12-1, 4.12-20.

The evidence shows that the conditions at the proposed site of the Amended Project are similar to those previously analyzed in the 2014 Decision. However, we analyze certain aspects of the Amended Project's potential impacts to visual resources because of the change in equipment and in the proposed architectural screening to be used.

Changes in Major Components of 2014 Project

As previously stated in this Decision, the primary motivation for this Petition to Amend is based on the change in equipment from that approved in the 2014 Decision. The changes to equipment involve different types, sizes, and massing of power plant structures on the site, as well as modifications to the placement of various power plant structures.[23] **Visual Resources Table 1** and **Table 2** show the comparison of the suite of equipment from the 2014 Project and that proposed by the Amended Project.

[23] The arrangement of the various power plant components for the Amended Project can be found in the **PROJECT DESCRIPTION** section of this Decision.

Visual Resources Table 1[24]
Comparison of 2014 Project Power Block 1 to the Amended Project's Combined-Cycle Units

	2014 Project Power Block 1				Amended Project GE Frame 7FA.05			
Project Feature	**Length (feet)**	**Width/ Diameter (feet)**	**Height (feet)**	**Quantity**	**Length (feet)**	**Width/ Diameter (feet)**	**Height (feet)**	**Quantity**
Combustion Gas Turbine (CGT)	89	32	34	3	40	18	30	2
CGT Generator Enclosure	16	39	34	3	65	24	30	2
Steam Turbine Generator (STG)	23	—	52	1	100	50	59	1
STG Enclosure	59	55	40	1	—	—	—	—
Heat Recovery Steam Generators (HRSG)	77	44	92	3	140	32	94	2
Stack	—	18	120	3	—	20	150	2
CGT Air Intake System	40	17	38	3	62	18	75	2
Air Cooled Condenser (ACC)	209	127	104	1	420	128	110	1
Service/Fire Water Tank	—	—	—	—	—	52	40 or 45	1
Demineralized Water Tank	—	—	—	—	—	33	30 or 33	1
Eastern Sound Wall	—	—	—	—	848	2.5	50	1
Western Sound Wall	—	—	—	—	170	2.5	50	1
Transmission Structure	—	—	85–135	3	—	—	85–135	1
Transmission Dead-end Structure	—	—	75	3	—	—	75	4

[24] Ex. 6000, p. 4.12-12.

Visual Resources Table 2[25]
Comparison of 2014 Project Power Block 2 to the Amended Project's Simple-Cycle Units

	2014 Project Power Block 2				Amended Project LMS100			
Project Feature	**Length (feet)**	**Width/ Diameter (feet)**	**Height (feet)**	**Quantity**	**Length (feet)**	**Width/ Diameter (feet)**	**Height (feet)**	**Quantity**
CGT	89	32	34	3	40	35	30	2
CGT Generator Enclosure	16	39	34	3	24	20	20	2
STG	23	—	52	1	—	—	—	—
STG Enclosure	59	55	40	1	—	—	—	—
HRSG (2014 Project)	77	44	92	3	—	—	—	—
Exhaust Transition (Amended Project)	—	—	—	—	45	25	40	2
Stack	—	18	120	3	—	13.5	80	2
CGT Air Intake System	40	17	38	3	50	15	47	2
ACC (2014 Project)	209	127	104	1	—	—	—	—
Fin Fan Cooler (Amended Project)	—	—	—	—	110	102	24	2
Transmission Structure	—	—	85–135	2	—	—	85–135	1
Transmission Dead-end Structure	—	—	75	3	—	—	75	1

The Amended Project includes construction of two sound/acoustical walls on the northeast portion of the site; no similar walls were proposed for the 2014 Project. [26]

Changes at Key Observation Points

As described above, we found in the 2014 Decision that the visual elements associated with the architectural screening concept would have improved the visual character and

[25] *Id.* at p. 4.12-13.

[26] *Id.* The proposed locations of these new walls are depicted on **Visual Resources Figure 1**, a*bove*.

quality of the KOP 4 and KOP 5 viewshed.[27] We further found that there were no significant impacts at KOPs 1, 2, 3, 6, and 7. The evidence establishes that the changes between the 2014 Project and the Amended Project do not result in new or changed impacts at KOPs 1, 2, 3, 6, and 7.[28]

KOP 4

The sole contested issue regarding the topic of **VISUAL RESOURCES** was whether the Amended Project would have a significant impact to visual resources at KOP 4. KOP 4 represents views of the project site from Magnolia Street along the southeast border of Magnolia Marsh near the PCH.[29]

The Petitioner, AES, contends that there is not a significant impact to visual resources at KOP 4 that requires mitigation.[30]

Visual Resources Figure 5 is a visual depiction of the Amended Project from KOP 4 no with no visual enhancements or screening.[31] **Visual Resources Figure 6** depicts KOP 4 with the new proposed screening enhancements. The architectural wave forms in shades of blue partially screen the mass of major power plant structures from this viewpoint. The architectural screening helps to obscure views of the turbines, the lower portions of the exhaust stacks, and the lower end of the ACC unit that is closest to Magnolia Marsh. The color for the sphere wall will be reproduced on the ACC unit, the sound wall, and the upper portions of the stacks as a coordinating paint scheme.[32]

The evidence establishes that, under the Amended Project, the sizes and massing of structures in the northeast portion of the site are greater compared to the 2014 Project and are clearly visible from KOP 4.[33] This greater size is due to the Amended Project's ACC for the combined-cycle units being twice as long as the ACC unit for the 2014 Project (420 feet compared to 209 feet) and its location closer to the project boundary along Magnolia Marsh. The new 50-foot-tall sound wall is also visible from KOP 4.[34]

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[27] Ex. 5114, pp. 6.5-13 – 6.5-17; Ex. 6000, p. 4.12-3 – 4.12-4.

[28] Ex. 6000, p. 4.12-4, 4.12-14 – 4.12-15.

[29] Ex. 6000, p. 4.2-14.

[30] Ex. 5055, p. 6, Ex, F; Ex. 5121, pp. 7-8.

[31] *Id.*at 4.12-14.

[32] *Id.*at p. 4.12-14.

[33] See **Visual Resources Figure 2**.

[34] Ex. 6000, p. 4.12-14.

We, therefore, conclude that the Amended Project has a potentially significant impact to visual resources at KOP 4. To mitigate this potential impact, we impose revised Conditions of Certification **VIS-1** (requiring preparation and implementation of a Visual Screening and Enhancement Plan for Project Structures that is consistent with the architectural treatments and modifications recommended in the City Council's Resolution) and **VIS-2** (requiring the preparation and implementation of a Perimeter Screening and On-site Landscape and Irrigation Plan to screen and soften views of the power plant).[35] We find that with the imposition and implementation of revised Conditions of Certification **VIS-1** and **VIS-2**, the potentially significant visual impact at KOP 4 is reduced to "less than significant."[36]

KOP 5

KOP 5 represents views toward the project site from the northwest-west side of the site along Newland Street near the Huntington By-The-Sea Mobile Estates and RV Park, which is approximately 550 feet inland from the intersection of Newland Street with the PCH.[37] With the Amended Project, the power plant structures have now been relocated on the Amended Project site away from the KOP 5 viewshed. **Visual Resources Figure 7** is a visual depiction of the Amended Project from KOP 5 with no visual enhancements or screening.

We, therefore, find that the Amended Project's redesign avoids the 2014 Project's significant visual impact at KOP 5, and that no mitigation is required.

Based on the foregoing, we find that no supplementation of the environmental analysis contained in the 2014 Decision is necessary for the Amended Project's potential direct, indirect, and cumulative impacts related to visual resources.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The 2014 Decision identified the LORS applicable to the 2014 Project.[38] The evidence establishes that there have been no new LORS that apply to the Amended Project, nor

[35] For ease of comparison, revisions to the conditions of certification for Visual Resources are shown in a separate document, TN 216248. The conditions of certification for Visual Resources, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

[36] Ex. 6000, p. 4.12-14.

[37] Ex. 6000, p. 4.12-14.

[38] Ex. 5114, pp. 5.1-15 – 5.1-17.

are there any LORS inapplicable to the 2014 Project that would apply to the Amended Project.[39]

CHANGES TO CONDITIONS OF CERTIFICATION

Energy Commission staff (Staff) proposed several changes to the conditions of certification adopted by the 2014 Decision. Many of these changes clarified verification requirements, increased consistency between verification requirements for related conditions of certification, and updated content as necessary, as well as typographical or grammatical corrections.[40]

More substantively, Staff recommended that the requirement to submit a Supplement to the Visual Screening and Enhancement Plan for Project Structures (Supplement) under Condition of Certification **VIS-1** be deleted. The Amended Project will submit the plan required by Condition of Certification **VIS-1** after construction of the combined-cycle, gas-turbine units is completed, instead of prior to the start of construction. With this timing change, submittal of the Supplement is likely to be unnecessary and duplicative. Also, due to verification timing changes for Conditions of Certification **VIS-1** and **VIS-2**, written status updates are considered unnecessary and have been omitted from those conditions of certification.[41]

We have revised the conditions of certification[42] to address these changes. We find that none of these proposed modifications result in new significant impacts, substantially increase the severity of previously identified significant impacts, or necessitate any material changes to the visual resource conditions of certification identified in the 2014 Decision to mitigate impacts or to maintain compliance with LORS.

We impose revised Conditions of Certification **VIS-1** through **VIS-6**.[43] With the imposition and implementation of revised Conditions of Certification **VIS-1** through **VIS-6**, we find that the Amended Project will comply with all applicable LORS. We further find that with the imposition and implementation of revised Conditions of Certification

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[39] Ex. 6000, p. 4.12-4 – 4.12-11.

[40] *Id.* at p. 4.12-20.

[41] *Id.*

[42] For ease of comparison, revisions to the conditions of certification for Visual Resources are shown in a separate document. (TN 216248.) The conditions of certification for Visual Resources, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

[43] For ease of comparison, revisions to the conditions of certification for Visual Resources are shown in a separate document. (TN 216248.) The conditions of certification for Visual Resources, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

VIS-1 through **VIS-6**,[44] the Amended Project will have no significant unmitigated direct, indirect, or cumulative impacts to visual resources.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **VISUAL RESOURCES** were received during the Evidentiary Hearing.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project found that the Huntington Beach Energy Project conformed with all applicable laws, ordinances, regulations, and standards, and that, with the implementation of the conditions of certification, the Huntington Beach Energy Project did not have any significant direct, indirect, or cumulative impacts to visual resources.
2. None of the factors that require a subsequent or supplemental environmental analysis, as set forth in the California Environmental Quality Act Guidelines, section 15162, and as described in the **INTRODUCTION** section of this Decision, are present regarding this topic.
3. On May 2, 2016, the Huntington Beach City Council adopted Resolution No. 2016-27 in support of new proposed architectural improvements consisting of three approximately 120-foot-tall marine inspired sphere wall design treatments.
4. The amended Huntington Beach Energy Project's redesign avoids the certified Huntington Beach Energy Project's significant visual impact at Key Observation Point 5.
5. The amended Huntington Beach Energy Project has a potentially significant visual impact at Key Observation Point 4.
6. No laws, ordinances, regulations, or standards not included in the 2014 Decision certifying the Huntington Beach Energy Project apply to the amended Huntington Beach Energy Project.

CONCLUSIONS OF LAW

1. Site preparation including demolition, construction, and operation of the amended Huntington Beach Energy Project will comply with all applicable laws, ordinances, regulations, and standards regarding visual resources.

[44] The conditions of certification for Visual Resources, as well as for all other topics of this Decision, may be found in **Appendix A** of this Decision.

2. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will conform with all applicable laws, ordinances, regulations, and standards relating to visual resources.

3. Imposition and implementation of the conditions of certification set forth in **Appendix A** of this Decision ensure that the amended Huntington Beach Energy Project will not result in significant direct, indirect, or cumulative impacts to visual resources.

VII. COMPLIANCE AND CLOSURE

Public Resources Code section 25532 requires the Energy Commission to establish a post-certification monitoring system. The purpose of this requirement is to ensure that certified facilities are constructed and operated in compliance with applicable laws, ordinances, regulations, standards (LORS), as well as the specific conditions of certification adopted as part of this Decision.

Evidence on the topic of Compliance and Closure is found in Exhibits 5001, 5015, 5028, 5032, 5053, 5055, 5056, 5057, and 6000.

THE COMPLIANCE PLAN AND CONDITIONS OF CERTIFICATION

The 2014 Decision contains a full explanation of the purposes and intent of the Compliance Plan for the Huntington Beach Energy Project's (2014 Project). The Compliance Plan is the administrative mechanism used to ensure that the 2014 Project was constructed and operated according to all of the conditions of certification in the 2014 Decision. It describes the respective duties and expectations of the Project Owner and the Energy Commission staff (Staff) Compliance Project Manager (CPM) in implementing the design, construction, and operation criteria set forth in the 2014 Decision.[1]

The Compliance Plan is not a separate document but rather consists of the whole of the conditions of certification contained in **Appendix A**, with Conditions of Certification **COM-1** through **COM-15** focusing on the procedures and methods of compliance.

Compliance with the conditions of certification contained in this Decision is verified through mechanisms such as periodic reports and site visits. The Compliance Plan also contains requirements governing the future planned closure, as well as the unexpected temporary or permanent closure of the Amended Project.[2]

The Compliance Plan is composed of two broad elements. The first element establishes the "General Conditions" (referred to as "Compliance and Closure" in **Appendix A**) that set forth:

- The duties and responsibilities of the CPM, the Project Owner, delegate agencies, and others;[3]

[1] Ex. 5114, pp. 7-1 – 7-2; Ex. 6000, pp. 7-1.

[2] Ex. 6000, p. 7-9 – 7-10.

[3] Ex. 6000, pp. 7-3 – 7-5.

- The requirements for handling confidential records and maintaining the compliance record;[4]
- The procedures for settling disputes and making post-certification changes;[5]
- The requirements for periodic compliance reports and other administrative procedures necessary to verify the compliance status of all Energy Commission imposed conditions of certification;[6] and
- The requirements for facility closure.[7]

The second general element of the Compliance Plan contains the specific conditions of certification that are described within each individual topic area in this Decision. The individual conditions of certification contain the measures required to mitigate potentially significant project impacts associated with construction, operation, and closure to levels of insignificance. Each condition of certification also includes a verification provision describing the method of assuring that the condition of certification has been satisfied.

The contents of the Compliance Plan are intended to be implemented in conjunction with any additional requirements contained in the individual conditions of certification.

CONTESTED ISSUES

At the Evidentiary Hearings, Petitioner AES contested the language of three different Conditions of Certification: **COM-3**, **COM-4**, and **COM-15**.[8]

Condition of Certification COM-3

Condition of Certification **COM-3** allows the Project Owner to file submittals during the amendment process, particularly if construction is planned to commence shortly after certification. The CPM has discretion to modify the verification procedures.[9]

Petitioner seeks that this condition be modified so that, if the CPM fails to comment on or approve such submittal at least 15 days prior to the approval trigger (e.g., site mobilization, start of construction), such submittal shall be deemed approved. AES argues that timely review and approval of compliance certifications is critical to meeting

[4] Ex. 6000, p. 7-6.

[5] Ex. 6000, pp. 7-6 – 7-9.

[6] Ex. 6000, p. 7-6.

[7] Ex. 6000, pp. 7-9 – 7-10.

[8] Ex. 5055, p. 7, Ex. K: Ex. 5121, p. 8.

[9] Ex. 5114, p. APP-166.

the construction and operation related milestones of the amended Huntington Beach Energy Project (Amended Project).[10]

As explained throughout this Decision, the Amended Project has already received a Power Purchase Agreement with Southern California Edison (SCE) to provide increased local reliability. Condition of Certification **COM-3** already exists to provide processing before actual approval of the Amended Project. The earliest submittals in power plant processing set the stage for future demolition and construction activities. As such, careful review is necessary, and sufficient time for that review must be given. We recognize Staff's professionalism and understanding of the time pressures at play in the construction of the Amended Project. Accordingly, we decline to adopt the modifications proposed by Petitioner.

Condition of Certification COM-4

Condition of Certification **COM-4** concerns the creation of a compliance matrix for those conditions of certification that must be satisfied before the start of construction. Condition of Certification **COM-4** further provides that site mobilization and construction activities are not to commence until the Project Owner has submitted the pre-construction matrix and all submittals required by compliance verifications pertaining to all pre-construction conditions of certification, and the CPM has issued an authorization-to-construct letter. The condition ends with the warning that failure to submit required compliance documents by the specified deadlines may result in delayed authorizations to commence various stages of the Amended Project.[11]

AES would like to add a provision that, if the CPM fails to comment on or approve any compliance submittal listed on the preconstruction matrix at least 15 days prior to planned start of construction, the subject submittal be deemed approved.[12]

As with Condition of Certification **COM-3**, we decline to adopt the modifications proposed by Petitioner. We believe that Staff is fully understanding of the time pressures at play in the construction of the Amended Project. However, artificial deadlines and automatic approval when review may take more time than anticipated do little to assure the public that the Amended Project will be built as approved. We are also cognizant that the review periods contained in the various conditions of certification are the result of Staff's experience in evaluating submittals and are often the result of agreement between Staff and Petitioner. As such, we are loathe to further shorten them.

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[10] Ex. 5055, p. 7, Ex. K: Ex. 5121, p. 8.

[11] Ex. 5114, p. APP-167.

[12] Ex. 5055, p. 7, Ex. K: Ex. 5121, p. 8.

Condition of Certification COM-15

Condition of Certification **COM-15** relates to the future closure of the Amended Project. Staff has proposed modifications to the Final Closure Plan to provide that, if work under an approved closure plan is suspended for more than one year, the Energy Commission may initiate correction actions against the Project Owner to complete facility closure.[13]

Staff contends that this modification is based on the Energy Commission's new standard for the Compliance Conditions and Monitoring Plan, which is different from what existed at the time of the 2014 Decision; the new standard was developed to incorporate new procedures and compliance elements that will give Staff the tools it needs to effectively administer compliance oversight for the Amended Project.[14]

AES, on the other hand, asks that the language of Condition of Certification **COM-15** as contained in the 2014 Decision be retained.[15]

We concur with Staff's rationale and hereby imposed revised Condition of Certification **COM-15**.

CHANGED CONDITIONS OF CERTIFICATION

Staff has suggested changes to the conditions of certification contained in the 2014 Decision to reflect current definitions, clarify roles and responsibilities, and changes in the ways any necessary amendments are processed.[16] We hereby adopt the revised Conditions of Certification **COM-1** through **COM-15**[17] to reflect the changes in definitions, roles and responsibilities, and amendment processing as the Compliance Plan for the Amended Project, along with all conditions of certification contained in this Decision.

AGENCY AND PUBLIC COMMENTS

No agency or public comments on the topic of **COMPLIANCE AND CLOSURE** were received during the Evidentiary Hearings.

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[13] Ex. 6000, p. 7-28.

[14] *Id.*at pp. 7-10 – 7-11, 7-12.

[15] Ex. 5055, p. 7, Ex. K: Ex. 5121, p. 8.

[16] Ex. 6000, pp.7-1, 7-13 – 7-28.

[17] For ease of comparison, revisions to the conditions of certification for Compliance and Closure are shown in a separate document (TN 216248). The conditions of certification for all topics of this Decision may be found in **Appendix A**.

Intervenor Robert Simpson/Helping Hand Tools filed an Opening Brief[18] advocating that we impose a requirement for funding for future shutdown and site remediation. When the Energy Commission imposes such a requirement, it is usually when previously undeveloped land will be converted to energy production, typically solar or geothermal. In this case, the Amended Project will re-use an existing, brownfield site. Furthermore, we note that the Amended Project is an ocean-front property. At such time as the location is no longer needed for this purpose, market forces will enable its reuse for higher and better purposes and provide sufficient resources for remediation. Finally, as discussed in the **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES** section of this Decision, the Amended Project site has had a variety of industrial uses. No prior owners provided clean up or remediation before conversion to power plant use.

We, therefore, decline to impose this requirement.

FINDINGS OF FACT

Based upon the evidence, the Energy Commission makes the following findings:

1. Requirements contained in the Compliance Plan and in the specific conditions of certification are intended to be implemented in conjunction with one another.
2. We adopt the revised Conditions of Certification **COM-1** through **COM-15**[19] as the Compliance Plan for the amended Huntington Beach Energy Project, along with all conditions of certification contained in this Decision.

CONCLUSIONS OF LAW

1. The compliance and monitoring provisions incorporated as a part of this Decision satisfy the requirements of Public Resources Code section 25532.
2. The Compliance Plan and the specific conditions of certification contained in this Decision ensure that the amended Huntington Beach Energy Project will be designed, constructed, operated, and closed in conformity with applicable law.

[18] TN 215259. Mr. Simpson/Helping Hand Tools were has admitted as an Intervenor only on the topics of air quality, greenhouse gases, and public health (TN 214950). As such, we treat the portions of his brief addressing topics other than those on which he was admitted as public comment.

[19] For ease of comparison, revisions to the conditions of certification for Compliance and Closure are shown in a separate document. The conditions of certification for all topics of this Decision may be found in **Appendix A** of this Decision.

VIII. PROJECT ALTERNATIVES

INTRODUCTION

The California Environmental Quality Act (CEQA) requires an evaluation of the comparative merits of a range of feasible site and facility alternatives that achieve the basic objectives of the amended Huntington Beach Energy Project (Amended Project) but would avoid or substantially lessen potentially significant environmental impacts.[1]

Evidence on the topic of Project Alternatives is contained in Exhibits 5001, 5028, 5034, 5037, 5053, 5055, 5056, 5057, and 6000.

SETTING

The Amended Project setting is essentially unchanged from the previously approved Huntington Beach Energy Project (2014 Project). The Amended Project will be built on the existing Huntington Beach Generating Station (HBGS) site, an industrial brownfield with an operating power plant. The Amended Project expands from 28.6 acres to 30 acres with the inclusion of a 1.4 acre site immediately adjacent to the HBGS site. The Amended Project also adds 22 acres at the Plains All-American Tank Farm (Plains) site for temporary construction laydown and construction worker parking.

For additional information regarding the location and setting of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision.

PROJECT DESCRIPTION

The Amended Project will have a net output of 844 MW, a reduction from the 939 MW approved for the 2014 Project. The Amended Project will replace Power Block 1 from the 2014 Project with a two-on-one, combined-cycle gas turbine (CCGT) configuration and Power Block 2 with two simple-cycle gas turbine (SCGT) units. As with the 2014 Project, the existing HBGS Units 1, 2, and 5 will be removed. HBGS Units 3 and 4 will be removed under a separate Energy Commission license and are not further analyzed in this Decision except as part of the cumulative impacts analysis.[2]

For additional information regarding the design and features of the Amended Project, please refer to the **PROJECT DESCRIPTION** section of this Decision

[1] CEQA Guidelines §15126.6.

[2] *Id*. at pp. 1-2, 3.3-3.4, 4.13-9, 6-2 – 6-3; 00-AFC-13C (removal of Units 3 and 4).

SUMMARY OF THE 2014 DECISION[3]

CEQA requires that the Energy Commission describe and analyze a range of reasonable alternatives to the Amended Project that are potentially feasible, would feasibly attain most of the basic objectives of the Amended Project, and would avoid or substantially lessen any of the Amended Project's significant effects.[4] The purpose of this analysis is to determine whether there is a feasible way to achieve the basic objectives of the project, while avoiding impacts.[5] The range of alternatives for this Amended Project must include a "No Project" alternative.[6] The Energy Commission is required to identify the environmentally superior alternative.[7]

The 2014 Decision considered several alternatives for review. Some alternatives were eliminated from further consideration. For example, because the 2014 Project was proposed to be located on the HBGS site, the Energy Commission did not perform an alternative site evaluation.[8] Similarly, alternative site configurations were also summarily dealt with because a 2014 Project reconfiguration would not avoid or substantially lessen project impacts identified as significant to noise, visual resources, and coastal impacts.[9]

The only alternative to the 2014 Project discussed in depth was the "No Project" alternative. "The purpose of describing and analyzing a 'No Project' alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project."[10] Toward that end, the "No Project" analysis considers "existing conditions" and "what would be reasonably expected to occur in the foreseeable future if the project were not approved…."[11] For the 2014 Project, the "No Project" alternative was not the traditional "no build" alternative; instead, the 2014 Decision recognized that it was unlikely that the HBGS would be permanently retired because of the need for Units 3 and 4 to continue to operate as synchronous condensers for grid stability and the necessity to serve electrical demand.[12]

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[3] Ex. 5114.

[4] CEQA Guidelines § 15126.6, subd. (a).

[5] Pub. Resources Code § 21002.1.

[6] CEQA Guidelines § 15126.6, subd. (e).

[7] CEQA Guidelines §15126.6, subd. (e)(2).

[8] Ex. 5114, pp. 8-3 – 8-4, citing California Public Resources Code section 25540.6, subdivision (b).

[9] *Id*. at 8-4 – 8-5.

[10] CEQA Guidelines, § 15126.6, subd. (i).

[11] CEQA Guidelines, § 15126.6, subd. (e)(2).

[12] Ex. 5114, p. 8-10.

Also, HBGS could continue to operate until the facility complies with the California State Water Resources Control Board's once-through-cooling (OTC) policy. At that time, HBGS would retire or find a substitute cooling system. Thus, the "No Project" alternative for the 2014 Project consisted of two options:

1. Retrofitting HBGS Units 1 and 2 to become air cooled via use of air-cooled condensers, resulting in a reduction of the power to be generated by the 2014 Project (the Retrofit Air Cooled Condenser Scenario); and

2. Continued use of OTC by HBGS Units 1 and 2 as wet cooled, but retrofit the power blocks for use of another cooling water source (other than ocean water). Under this retrofit scenario, the HBGS would continue operation as a wet-cooled facility (the Retrofit Wet Cooling Scenario).[13]

The 2014 Decision concluded that the Retrofit Wet Cooling Scenario was the environmentally superior alternative.[14] However, because this scenario was a subset of the "No Project" alternative, we ultimately concluded that the 2014 Project was the environmentally superior alternative because the Retrofit Wet Cooling Scenario would not meet the project objectives of supplying efficient, reliable, and flexible generation.[15]

The 2014 Decision also discussed the use of conservation and demand-side management to obviate the need for additional power plants, such as the 2014 Project. The Energy Commission stated that, while energy efficiency, demand response programs, renewable generation, and combined heat and power are preferred resources that are to be developed before natural-gas-fired generation, they are not sufficient to meet the state's future energy demand and maintain the electric system's reliability.[16]

The 2014 Decision thus concluded that the 2014 Project was environmentally preferable to all alternatives after having reviewed a reasonable range of alternatives.[17]

ENVRIONMENTAL ANALYSIS

As set forth in the **INTRODUCTION** section of this Decision, the Energy Commission need not repeat an environmental analysis where the conditions of the CEQA Guidelines, section 15162, are met. Energy Commission staff (Staff) witnesses (John Hope, Matthew Layton, and David Vidaver) testified that the 2014 Decision contains an

[13] *Id*.

[14] *Id*. at pp. 8- 10 - 8-17.

[15] *Id*. at p. 8-17.

[16] *Id*. at pp. 8-18 - 8-19.

[17] *Id*. at pp. 8-20 – 8-21.

acceptable analysis of a reasonable range of alternatives to the 2014 Project, as well as an adequate review of alternative project sites, alternative site configurations, alternative generation technology, and the "No Project" alternative. They further testified that this analysis and review of alternatives remains applicable to the Amended Project. Staff included an augmented discussion of preferred resources and a new analysis of clutch technology in their Final Staff Assessment.[18] Staff further found that:

1. No alternatives previously found to be infeasible are now infeasible, nor would these infeasible alternatives substantially reduce the significant effect of the Amended Project; and

2. No alternatives that are considerably different from those analyzed in the 2014 Decision would substantially reduce one or more significant effects of the Amended Project on the environment.[19]

We, nonetheless, discuss the addition of clutch/synchronous condensers, energy storage, and a "No Project" alternative.

Project Objectives

As set forth above, our analysis of any alternative is evaluated against the project objectives.[20] The identified objectives for the Amended Project are:

1. Delivery of an efficient, reliable, and predictable power supply by using combined-cycle, natural-gas-fired combustion turbines to replace the OTC generation;

2. Replacing decreased generation for southern California customers resulting from the closure of the San Onofre Nuclear Generating Station;

3. Eliminating use of ocean water for OTC;

4. Supporting local capacity requirements of Southern California's Western Los Angeles Basin;

5. Developing an 844-MW power generation plant that provides efficient operational flexibility with rapid-start and fast ramping capability to allow for efficient integration of renewable energy sources in the California electrical grid;

6. Reusing existing electrical, water, wastewater, and natural-gas infrastructures and land to minimize land resources and environmental justice impacts by developing on an existing brownfield site;

[18] Ex. 6000, pp. 1-1, 6-4 – 6-10.

[19] *Id*. at p. 6-2.

[20] CEQA Guidelines, § 15126.6, subd. (e), (f).

7. Siting the Amended Project to serve the load area without constructing new transmission facilities; and

8. Locating the Amended Project on property that has an industrial land use designation with consistent zoning.[21]

Clutches and Synchronous Condensers

Recent Energy Commission siting projects have considered whether and when clutches could be installed, and what that would mean for a project's impacts.[22] The California Independent System Operator (California ISO) has recommended that the clutch technology that allows fossil-fuel-fired generation units to operate temporarily as synchronous condensers be considered as a "default option in procurement decisions" by the California Public Utilities Commission (CPUC).[23]

Clutches allow a generator to disconnect from its prime mover (e.g., combustion or steam turbine) and synch up to the electricity grid to provide voltage and frequency support. However, they are not generally used by California utilities to provide the ancillary services they potentially offer. To date, only the Los Angeles Department of Water and Power is using clutches it has recently installed to operate the associated generators as synchronous condensers.[24]

Use of clutches occurs only when ancillary/grid support services are identified in a given location and the plant is not otherwise needed for energy or for ancillary services other than voltage support. Moreover, the energy and capacity not provided by the plant when it is being operated as a synchronous condenser is required to be replaced with energy from power plants that are more efficient or lower-emitting than the plant being replaced.[25]

For the Amended Project's Power Block 1 combined-cycle unit, the evidence shows that none of the three turbine generators would be candidates for clutches. First, combined cycles are more efficient than simple-cycle peakers and, therefore, they may already be online and operating and providing incidental ancillary services along with the contracted real power. Second, combined cycles are generally designed for optimum performance at expected or contracted operations obligations. Finally, in California, air regulations do not permit the turbine exhaust to bypass the oxidation and selective

[21] Ex. 6000, pp. 1-8 – 1-9.

[22] *Id*. at p. 6-4.

[23] *Id*.; see also, TN 206824.

[24] *Id*. at p. 6-5.

[25] *Id*. at pp. 6-5 – 6-6.

catalytic reduction catalysts located in the heat recovery steam generators (HRSGs). If the steam turbine is taken off line via clutch, the Amended Project would need to be designed to operate "dry," or the cooling tower would have to be sized large enough to take all the steam dumped from the HRSG.[26]

For the Amended Project's Power Block 2 simple-cycle unit, clutch technology could be used. The same units proposed for the Amended Project have already been ordered and are operating in California as synchronous condensers. AES has also indicated that there is sufficient space for the installation of a clutch unit.[27]

In addition to the technical feasibility, an alternatives analysis must also consider the economic, environmental, legal, and social factors associated with the given alternative.[28] For the Amended Project, AES has a Power Purchase Agreement (PPA) for the power generated by Power Block 1, but not for Power Block 2. Thus, AES and the local utility could determine the voltage and frequency regulation to be procured from Power Block 2. This procurement, however, is speculative, so the impacts of this use cannot be fully analyzed.[29] More importantly, as set forth in this Decision, the Amended Project does not have any unmitigated direct, indirect, or cumulative impacts so this alternative technology would not be an environmentally superior alternative to the Amended Project.

Storage

As California increasingly relies on wind and solar resources to meet its energy needs and environmental goals, other energy resources are increasingly called upon to "balance the system." California has recognized that storage will play a key role in integrating wind and solar resources, as output from these sources vary over the course of a day due to changing weather conditions. Energy storage is anticipated to absorb surplus generation during mid-day hours, as well as use energy generated during the day, to reduce the need for energy and capacity from natural-gas-fired generation resources during evening hours.[30]

Energy storage cannot, however, replace natural-gas-fired generation as a source of energy because it does not generate energy, but instead requires injections of energy for storage to be discharged when the stored energy is needed. If located in a transmission-constrained area, storage may replace generation capacity needed for

[26] *Id*. at 6-6.

[27] *Id*.

[28] CEQA Guidelines, § 15364.

[29] Ex. 6000 at p. 6-7.

[30] *Id*. at 6-13.

local reliability. But energy storage cannot eliminate the need for all natural-gas generation such as the Amended Project because some level of reliable energy is necessary to ensure adequate supply through a range of conditions.[31] We, therefore, find that energy storage is not a viable alternative to the generation the Amended Project would provide.

No Project Alternative

The "No Project" analysis considers the events or actions reasonably expected to occur in the foreseeable future if the Amended Project were not approved, based on current plans and consistent with available infrastructure and community services.[32] For the purposes of this analysis, the "No Project" alternative is considered to be the construction and operation of the 2014 Project.[33]

As outlined in the 2014 Decision, all potential environmental impacts from the 2014 Project were found to have been mitigated to a "less than significant" level. As such, the 2014 Project is the environmentally superior alternative. However, the 2014 Project does not meet the project objective of providing power consistent with the PPA the Amended Project has with Southern California Edison, and the Amended Project does not have or create any new or increased unmitigated environmental impacts~~,~~. The Amended Project is therefore the preferred project.[34]

AGENCY AND PUBLIC COMMENTS

No public comments on the topic of **ALTERNATIVES** were received during the Evidentiary Hearing.

Intervenor Robert Simpson/Helping Hand Tools filed an Opening Brief[35] suggesting additional alternatives for the Energy Commission's consideration. One suggested alternative was storage as a substitute for the Amended Project.[36] Mr. Simpson also proposed using synchronous condensers or clutch technology as an alternative for the

[31] *Id*.

[32] CEQA Guidelines, § 15126.6, subd. (e)(2).

[33] Ex. 6000 at p. 6-15.

[34] In fact, the Amended Project uses natural gas more efficiently to produce electricity than the 2014 Project. *Id*.

[35] TN 215259. Mr. Simpson/Helping Hand Tools was admitted as an Intervenor only on the topics of air quality, greenhouse gases, and public health (TN 214950). As such, we treat the portions of his brief addressing topics on which he was not admitted as an Intervenor, as public comment.

[36] *Id*. at pp. 6-7.

grid reliability objective of the Amended Project.[37] Finally, Mr. Simpson argued that the alternative site analysis is lacking.[38]

As set forth above, each of these contentions has been discussed.

In comments on the PMPD, the Sierra Club, California Coastal Protection Network, 350.org, Coastal Environmental Rights Foundation, Los Angeles Waterkeeper, Surfrider Foundation, Earth Law Center, Heal the Bay, and Protect Our Communities submitted a joint letter[39] stating the PMPD alternative analysis is incomplete and insufficient because it does not consider every alternative and does not address demand (need). Similarly, John in Huntington Beach[40] asks, "[B]ased on LA Times investigation, why do we even need another plant?"

In this proceeding, we did not receive objections or requests for amendments to the objectives submitted by the Applicant before the evidentiary record closed. However, the Committee, and ultimately the Commission, is not bound by the language of the objectives submitted by the Applicant. In the review process, we will look beyond a narrowly drafted objective or make edits to an objective if we find its language too restrictive. Here, the Huntington Beach's project objectives are sufficient and legally adequate to balance the intent of CEQA with the Applicant's goals in pursuing the project. The project objectives are not so "specific" or narrowly tailored as to preclude an adequate alternatives analysis.

The joint letter[41] further asserts that the California Public Utilities Commission (CPUC) decision authorizing Southern California Edison (SCE) to procure 644 MW from the Amended Project to meet SCE's local resource adequacy requirement, mandates a maximum generating capacity "for this specific facility" that can be certified by the Energy Commission. This comment misunderstands the role of the Energy Commission in reviewing proposed power plants.

The restructuring of California's electric industry in the late 1990s split California's energy planning among the Energy Commission, the CPUC, and the California Independent System Operator (California ISO).

Prior to January 1, 2000, Public Resources Code required the Energy Commission to perform an "integrated assessment of need" as a prerequisite to certifying a power

[37] *Id*. at pp. 13-14.

[38] *Id*. at pp. 29-30.

[39] TN 216544.

[40] TN 216560.

[41] TN 216544.

plant.[42] Effective January 1, 2000, Senate Bill 110 (Stats. 1999, ch. 581) repealed Sections 25523 (f) and 25524 (a) of the Public Resources Code, and amended other provisions relating to the assessment of need for new generation resources.[43] Specifically, this legislation removed the requirement that the Energy Commission make a finding of need conformance in a certification Decision.[44] The legislature explained the Energy Commission's limited role as follows:

> Before the California electricity industry was restructured, the regulated cost recovery framework for power plants justified requiring the commission to determine the need for new generation, and site only power plants for which need was established. Now that power plant owners are at risk to recover their investments, it is no longer appropriate to make this determination. It is necessary that California both protect environmental quality and site new power plants to ensure electricity reliability, improve the environmental performance of the current electricity industry and reduce consumer costs. The success of California's restructured electricity industry depends upon the willingness of private capital to invest in new power plants. Therefore, it is necessary to modify the need for determination requirements of the state's power plant siting and licensing process to reflect the economics of the restructured electricity industry and ensure the timely construction of new electricity generation it is no longer appropriate for the Energy Commission to determine the need for a specific power plant.[45]

While the existence of a power purchase agreement may be evidence of need, the changes to Public Resources Code section 25009 have removed need from the analysis the Energy Commission performs in deciding whether to approve or deny a proposed power plant. The focus of the Energy Commission's inquiry is a proposed project's potential to create environmental impacts and its consistency with laws, ordinances, regulations, and standards (LORS). Indeed, the approval of a power plant by the Energy Commission does not necessarily ensure that all or part of the approved plant will be built. While any facility must be built in conformity with the license granted, the ultimate decision to construct any generating facility is based on market forces as mediated by the CPUC procurement process. Thus, it would clearly be inappropriate for the Energy Commission to disapprove a portion of the Amended Project's proposed generating capacity on the sole basis that it lacks a power purchase agreement for this

[42] Cal. Pub. Resources Code, § 25009, added by Stats. 1999, ch. 581, § 1.

[43] Senate Bill 110 (Stats. 1999, ch. 581).

[44] Cal. Pub. Resources Code § 25009.

[45] *Id.*

capacity, absent a finding that it causes any significant adverse impacts or is inconsistent with LORS.

In comments on the PMPD, John in Huntington Beach[46] asked "Since Water is no longer needed from cooling, why can't this plant be built INLAND (if needed) where it would not negatively impact residents, beach traffic, Newland & PCH traffic?"

For a discussion of alternative locations, please see the above **ALTERNATIVES** section of this Decision.

FINDINGS OF FACT

Based on the evidence, the Energy Commission makes the following findings:

1. The 2014 Decision certifying the Huntington Beach Energy Project contained an acceptable analysis of a reasonable range of alternatives that are still applicable to the amended Huntington Beach Energy Project.
2. None of the factors that require a subsequent or supplemental environmental analysis as set forth in the California Environmental Quality Act Guidelines, section 15162, and described in the **INTRODUCTION** section of this Decision, are present
3. At this time, the generation from the amended Huntington Beach Energy Project is required in order to meet local capacity requirements to support the integration of renewable resources and to maintain system reliability.
4. Clutch technology is not appropriate for the combined-cycle generators in Power Block 1.
5. Clutch technology may be appropriate for the single-cycle generators in Power Block 2.
6. Energy storage is not a replacement for natural-gas-fired generation from the amended Huntington Beach Energy Project.
7. There is no feasible[47] alternative to the amended Huntington Beach Energy Project that is environmentally superior.

[46] TN 216560.

[47] "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. CEQA Guidelines, Cal. Code Regs., tit. 14, § 15364.

CONCLUSIONS OF LAW

1. Implementation of all conditions of certification contained in this Decision ensure that construction and operation of the Amended Project will not create any significant direct, indirect, or cumulative adverse environmental impacts**.**

2. This Decision contains a sufficient analysis of alternatives and complies with the requirements of the California Environmental Quality Act, the Warren-Alquist Act, and their respective regulations. No conditions of certification are required related to alternatives.

CONDITIONS

OF

CERTIFICATION

Appendix A

HUNTINGTON BEACH ENERGY PROJECT

DEFINITIONS

DEF-1 **DEFINITIONS**

The following terms and definitions apply to all of the Conditions of Certification in this **Appendix A** unless specifically stated otherwise.

1. Project Certification

Project certification occurs on the day the Energy Commission dockets its Decision.

2. Site Assessment and Pre-Construction Activities

Site assessment and pre-construction activities include the following, but only to the extent the activities are minimally disruptive to soil and vegetation and shall not affect listed or special-status species or other sensitive resources:

A. Installation of environmental monitoring equipment;

B. A minimally invasive soil or geological investigation;

C. A topographical survey;

D. Any other study or investigation to determine the environmental acceptability or feasibility of the use of the site for any particular facility; and

E. Any minimally invasive work to provide safe access to the site for any of the purposes specified in (a) - (d), above.

3. Site Mobilization and Construction

Site mobilization and construction activities are those necessary to provide site access for construction mobilization and facility installation, including both temporary and permanent equipment and structures, as determined by the CPM. Site mobilization and construction activities include, but are not limited to:

A. Ground disturbance activities like grading, boring, trenching, leveling, mechanical clearing, grubbing, and scraping;

B. Site preparation activities, such as access roads, temporary fencing, trailer and utility installation, construction equipment installation and storage, equipment and supply laydown areas, borrow and fill sites,

temporary parking facilities, and chemical spraying and controlled burns; and

C. Permanent installation activities for all facility and linear structures, including access roads, fencing, utilities, parking facilities, equipment storage, mitigation and landscaping activities, and other installations, as applicable.

4. System Commissioning and Decommissioning

Commissioning activities are designed to test the functionality of a facility's installed components and systems to ensure safe and reliable operation. Although decommissioning is often synonymous with facility closure, specific decommissioning activities also systematically test the removal of such systems to ensure a facility's safe closure.

For compliance monitoring purposes, commissioning activities include interface connection and utility pre-testing, "cold" and "hot" electrical testing, system pressurization and optimization tests, grid synchronization, and combustion turbine "first fire." Decommissioning activity examples include utility shut down, system depressurization and de-electrification, structure removal, and site reclamation.

5. Start of Commercial Operation

For compliance monitoring purposes, "commercial operation" or "operation" begins once commissioning activities are complete, the certificate of occupancy has been issued, and the power plant has reached reliable steady-state electrical production. Operation activities can include a steady state of electrical production.

6. Non-Operation

Non-operation is time-limited and can encompass part or all of a facility. Non-operation can be a planned event, usually for minor equipment maintenance or repair, or unplanned, usually the result of unanticipated events or emergencies.

7. Closure

Closure is a facility shutdown with no intent to restart operation. It may also be the cumulative result of unsuccessful efforts to re-start over an increasingly lengthy period of non-operation, condemned by inadequate means and/or lack of a viable plan. Facility closures can occur due to a variety of factors, including, but not limited to, irreparable damage and/or functional or economic obsolescence.

8. Measurement

Whenever distance to an external point is used in these Conditions of Certification, it shall be measured from nearest point on the project fence line.

9. HBEP and AHBEP

Whenever the terms “HBEP” or “AHBEP” are used in these conditions, they shall refer to the Amended Project, unless the context clearly requires otherwise.

FACILITY DESIGN

GEN-1 The project owner shall design, construct, and inspect the project in accordance with this Decision and the 2013 California Building Standards Code (CBSC), also known as Title 24, California Code of Regulations, which encompasses the California Building Code (CBC), California Building Standards Administrative Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Code for Building Conservation, California Reference Standards Code, and all other applicable engineering LORS in effect at the time initial design plans are submitted to the Energy Commission's delegate chief building official CBO for review and approval (the CBSC in effect is the edition that has been adopted by the California Building Standards Commission and published at least 180 days previously). The project owner shall ensure that all the provisions of the above applicable codes are enforced during the construction, addition, alteration, moving, demolition, repair, or maintenance of the completed facility. All transmission facilities (lines, switchyards, switching stations and substations) are covered in the conditions of certification in the Transmission System Engineering section of this document.

In the event that the initial engineering designs are submitted to the CBO when the successor to the 2013 CBSC is in effect, the 2013 CBSC provisions shall be replaced with the applicable successor provisions. Where, in any specific case, different sections of the code specify different materials, methods of construction, or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

The project owner shall ensure that all contracts with contractors, subcontractors, and suppliers clearly specify that all work performed and materials supplied comply with the codes listed above.

Verification: Within 30 days following receipt of the certificate of occupancy, the project owner shall submit to the CPM a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation, and inspection requirements of the applicable LORS and the Energy Commission's decision have been met in the area of facility design. The project owner shall provide the CPM a copy of the certificate of occupancy within 30 days of receipt from the CBO.

Once the certificate of occupancy has been issued, the project owner shall inform the CPM at least 30 days prior to any construction, addition, alteration, moving, demolition, repair, or maintenance to be performed on any portion(s) of the completed facility that

requires CBO approval for compliance with the above codes. The CPM will then determine if the CBO needs to approve the work.

GEN-2 Before submitting the initial engineering designs for CBO review, the project owner shall furnish the CPM and the CBO with a schedule of facility design submittals, and master drawings and master specifications list. The master drawings and master specifications list shall contain a list of proposed submittal packages of designs, calculations, and specifications for major structures, systems, and equipment including the architectural visual enhancement specified in the Visual Resources section. Major structures, systems, and equipment are structures and their associated components or equipment that are necessary for power production, costly or time consuming to repair or replace, are used for the storage, containment, or handling of hazardous or toxic materials, or could become potential health and safety hazards if not constructed according to applicable engineering LORS. The schedule shall contain the date of each submittal to the CBO. To facilitate audits by Energy Commission staff, the project owner shall provide specific packages to the CPM upon request.

Verification: At least 60 days (or a project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO and to the CPM the schedule and the master drawings and master specifications list of documents to be submitted to the CBO for review and approval. These documents shall be the pertinent design documents for the major structures, systems, equipment, and the architectural enhancement features defined above in Condition of Certification **GEN-2**. Major structures and equipment shall be added to or deleted from the list only with CPM approval. The project owner shall provide schedule updates in the monthly compliance report.

GEN-3 The project owner shall make payments to the CBO for design review, plan checks, and construction inspections, based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. These fees may be consistent with the fees listed in the 2013 CBC, adjusted for inflation and other appropriate adjustments; may be based on the value of the facilities reviewed; may be based on hourly rates; or may be otherwise agreed upon by the project owner and the CBO.

Verification: The project owner shall make the required payments to the CBO in accordance with the agreement between the project owner and the CBO. The project owner shall send a copy of the CBO's receipt of payment to the CPM in the next monthly compliance report indicating that applicable fees have been paid.

GEN-4 Prior to the start of rough grading, the project owner shall assign a California-registered architect, or a structural or civil engineer, as the resident engineer (RE) in charge of the project. All transmission facilities

(lines, switchyards, switching stations, and substations) are addressed in the conditions of certification in the Transmission System Engineering section of this document.

The RE may delegate responsibility for portions of the project to other registered engineers. Registered mechanical and electrical engineers may be delegated responsibility for mechanical and electrical portions of the project, respectively. A project may be divided into parts, provided that each part is clearly defined as a distinct unit. Separate assignments of general responsibility may be made for each designated part.

The RE shall:

1. Monitor progress of construction work requiring CBO design review and inspection to ensure compliance with LORS;

2. Ensure that construction of all facilities subject to CBO design review and inspection conforms in every material respect to applicable LORS, these conditions of certification, approved plans, and specifications;

3. Prepare documents to initiate changes in approved drawings and specifications when either directed by the project owner or as required by the conditions of the project;

4. Be responsible for providing project inspectors and testing agencies with complete and up-to-date sets of stamped drawings, plans, specifications, and any other required documents;

5. Be responsible for the timely submittal of construction progress reports to the CBO from the project inspectors, the contractor, and other engineers who have been delegated responsibility for portions of the project;

6. Be responsible for notifying the CBO of corrective action or the disposition of items noted on laboratory reports or other tests when they do not conform to approved plans and specifications; and

7. Include the results of any dewatering mitigation measures identified during the scope of the study conducted pursuant to Condition of Certification **GEO-1**.

The resident engineer (or his delegate) must be located at the project site, or be available at the project site within a reasonable period of time, during any hours in which construction takes place.

The RE shall have the authority to halt construction and to require changes or remedial work if the work does not meet requirements.

If the RE or the delegated engineers are reassigned or replaced, the project owner shall submit the name, qualifications, and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval the resume and registration number of the RE and any other delegated engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the RE and other delegated engineer(s) within five days of the approval.

If the RE or the delegated engineer(s) is subsequently reassigned or replaced, the project owner has five days to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.

GEN-5 Prior to the start of rough grading, the project owner shall assign at least one of each of the following California registered engineers to the project: a civil engineer; a soils, geotechnical, or civil engineer experienced and knowledgeable in the practice of soils engineering; and an engineering geologist. Prior to the start of construction, the project owner shall assign at least one of each of the following California registered engineers to the project: a design engineer who is either a structural engineer or a civil engineer fully competent and proficient in the design of power plant structures and equipment supports; a mechanical engineer; and an electrical engineer. (California Business and Professions Code section 6704 et seq., and sections 6730, 6731 and 6736 require state registration to practice as a civil engineer or structural engineer in California). All transmission facilities (lines, switchyards, switching stations, and substations) are handled in the conditions of certification in the Transmission System Engineering section of this document.

The tasks performed by the civil, mechanical, electrical, or design engineers may be divided between two or more engineers, as long as each engineer is responsible for a particular segment of the project (for example, proposed earthwork, civil structures, power plant structures, equipment support). No segment of the project shall have more than one responsible engineer. The transmission line may be the responsibility of a separate California registered electrical engineer.

The project owner shall submit to the CBO for review and approval the names, qualifications, and registration numbers of all responsible engineers assigned to the project.

If any one of the designated responsible engineers is subsequently reassigned or replaced, the project owner shall submit the name, qualifications, and registration number of the newly assigned responsible engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer.

A. The civil engineer shall:

1. Review the foundation investigations, geotechnical, or soils reports prepared by the soils engineer, the geotechnical engineer, or by a civil engineer experienced and knowledgeable in the practice of soils engineering;

2. Design (or be responsible for the design of), stamp and sign all plans, calculations, and specifications for proposed site work, civil works, and related facilities requiring design review and inspection by the CBO. At a minimum, these include: grading, site preparation, excavation, compaction, construction of secondary containment, foundations, erosion and sedimentation control structures, drainage facilities, underground utilities, culverts, site access roads, and sanitary sewer systems; and

3. Provide consultation to the RE during the construction phase of the project and recommend changes in the design of the civil works facilities and changes to the construction procedures.

B. The soils engineer, geotechnical engineer, or civil engineer experienced and knowledgeable in the practice of soils engineering shall:

1. Review all the engineering geology reports;

2. Prepare the foundation investigations, geotechnical or soils reports containing field exploration reports, laboratory tests, and engineering analysis detailing the nature and extent of the soils that could be susceptible to liquefaction, rapid settlement or collapse when saturated under load;

3. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with requirements set forth in the 2013 CBC (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both);

4. Recommend field changes to the civil engineer and RE; and

5. This engineer shall be authorized to halt earthwork and to require changes if site conditions are unsafe or do not conform to

the predicted conditions used as the basis for design of earthwork or foundations.

C. The engineering geologist shall:

1. Review all the engineering geology reports and prepare a final soils grading report; and

2. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in the 2013 CBC (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both).

D. The design engineer shall:

1. Be directly responsible for the design of the proposed structures and equipment supports;

2. Provide consultation to the RE during design and construction of the project;

3 Monitor construction progress to ensure compliance with engineering LORS;

4. Evaluate and recommend necessary changes in design; and

5. Prepare and sign all major building plans, specifications, and calculations.

E. The mechanical engineer shall be responsible for, and sign and stamp a statement with, each mechanical submittal to the CBO, stating that the proposed final design plans, specifications, and calculations conform to all of the mechanical engineering design requirements set forth in the Energy Commission's decision.

F. The electrical engineer shall:

1. Be responsible for the electrical design of the project; and

2. Sign and stamp electrical design drawings, plans, specifications, and calculations.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO, for review and approval, resumes and registration numbers of the responsible civil engineer, soils (geotechnical) engineer, and engineering geologist assigned to the project.

At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction, the project owner shall submit to the CBO, for review and

approval, resumes and registration numbers of the responsible design engineer, mechanical engineer, and electrical engineer assigned to the project.

The project owner shall notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.

If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five days in which to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.

GEN-6 Prior to the start of an activity requiring special inspection, including prefabricated assemblies, the project owner shall assign to the project qualified and certified special inspector(s) who shall be responsible for the special inspections required by the 2013 CBC. All transmission facilities (lines, switchyards, switching stations, and substations) are handled in conditions of certification in the Transmission System Engineering section of this document.

A certified weld inspector, certified by the American Welding Society (AWS) and/or American Society of Mechanical Engineers (ASME) as applicable, shall inspect welding performed on site requiring special inspection (including structural, piping, tanks, and pressure vessels).

The special inspector shall:

1. Be a qualified person who shall demonstrate competence, to the satisfaction of the CBO, for inspection of the particular type of construction requiring special or continuous inspection;

2. Inspect the work assigned for conformance with the approved design drawings and specifications;

3. Furnish inspection reports to the CBO and RE. All discrepancies shall be brought to the immediate attention of the RE for correction, then, if uncorrected, to the CBO and the CPM for corrective action; and

4. Submit a final signed report to the RE, CBO, and CPM, stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications, and other provisions of the applicable edition of the CBC.

Verification: At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of an activity requiring special inspection, the project owner shall submit to the CBO for review and approval, with a copy to the CPM, the name(s) and qualifications of the certified weld inspector(s) or other certified special inspector(s) assigned to the project, to perform one or more of the duties set forth above. The

project owner shall also submit to the CPM a copy of the CBO's approval of the qualifications of all special inspectors in the next monthly compliance report.

If the special inspector is subsequently reassigned or replaced, the project owner has five days in which to submit the name and qualifications of the newly assigned special inspector to the CBO for approval. The project owner shall notify the CPM of the CBO's approval of the newly assigned inspector within five days of the approval.

GEN-7 If any discrepancy in design and/or construction is discovered in any engineering work that has undergone CBO design review and approval, the project owner shall document the discrepancy and recommend required corrective actions. The discrepancy documentation shall be submitted to the CBO for review and approval. The discrepancy documentation shall reference this condition of certification and, if appropriate, applicable sections of the CBC and/or other LORS.

Verification: The project owner shall transmit a copy of the CBO's approval of any corrective action taken to resolve a discrepancy to the CPM in the next monthly compliance report. If any corrective action is disapproved, the project owner shall advise the CPM, within five days, of the reason for disapproval and the revised corrective action to obtain CBO's approval.

GEN-8 The project owner shall obtain the CBO's final approval of all completed work that has undergone CBO design review and approval. The project owner shall request the CBO to inspect the completed structure and review the submitted documents. The project owner shall notify the CPM after obtaining the CBO's final approval. The project owner shall retain one set of approved engineering plans, specifications, and calculations (including all approved changes) at the project site or at another accessible location during the operating life of the project. Electronic copies of the approved plans, specifications, calculations, and marked-up as-builts shall be provided to the CBO for retention by the CPM.

Verification: Within 15 days of the completion of any work, the project owner shall submit to the CBO, with a copy to the CPM in the next monthly compliance report, (a) a written notice that the completed work is ready for final inspection, and (b) a signed statement that the work conforms to the final approved plans. After storing the final approved engineering plans, specifications, and calculations described above, the project owner shall submit to the CPM a letter stating both that the above documents have been stored and the storage location of those documents.

Within 90 days of the completion of construction, the project owner shall provide to the CBO three sets of electronic copies of the above documents at the project owner's expense. These are to be provided in the form of "read only" (Adobe .pdf 6.0 or newer

version) files, with restricted (password-protected) printing privileges, on archive quality compact discs.

GEN-9: NO SHORELINE PROTECTIVE DEVICE

In the event that the approved development, including any future improvements, is threatened with damage or destruction from coastal hazards, or is damaged or destroyed by coastal hazards, protective structures (including, but not limited to, seawalls, revetments, groins, deep piers/caissons etc.) shall be prohibited. By acceptance of the CEC approval, the project owner waives any right to construct such protective structures, including any that may exist under Public Resources Code Section 30235.

CIVIL-1 The project owner shall submit to the CBO for review and approval the following:

1. Design of the proposed drainage structures and the grading plan;

2. An erosion and sedimentation control plan;

3. A construction storm water pollution prevention plan (SWPPP);

4. Related calculations and specifications, signed and stamped by the responsible civil engineer; and

5. Soils, geotechnical, or foundation investigations reports required by the 2013 CBC.

Verification: At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval. In the next monthly compliance report following the CBO's approval, the project owner shall submit a written statement certifying that the documents have been approved by the CBO.

CIVIL-2 The resident engineer shall, if appropriate, stop all earthwork and construction in the affected areas when the responsible soils engineer, geotechnical engineer, or the civil engineer, experienced and knowledgeable in the practice of soils engineering, identifies unforeseen adverse soil or geologic conditions. The project owner shall submit modified plans, specifications, and calculations to the CBO based on these new conditions. The project owner shall obtain approval from the CBO before resuming earthwork and construction in the affected area.

Verification: The project owner shall notify the CPM within 24 hours when earthwork and construction is stopped as a result of unforeseen adverse geologic/soil conditions. Within 24 hours of the CBO's approval to resume earthwork and construction in the

affected areas, the project owner shall provide to the CPM a copy of the CBO's approval.

CIVIL-3 The project owner shall perform inspections in accordance with the 2013 CBC. All plant site-grading operations, for which a grading permit is required, shall be subject to inspection by the CBO.

If, in the course of inspection, it is discovered that the work is not being performed in accordance with the approved plans, the discrepancies shall be reported immediately to the resident engineer, the CBO, and the CPM. The project owner shall prepare a written report, with copies to the CBO and the CPM, detailing all discrepancies, non-compliance items, and the proposed corrective action.

Verification: Within five days of the discovery of any discrepancies, the resident engineer shall transmit to the CBO and the CPM a non-conformance report (NCR) and the proposed corrective action for review and approval. Within five days of resolution of the NCR, the project owner shall submit the details of the corrective action to the CBO and the CPM. A list of NCRs for the reporting month shall also be included in the following monthly compliance report.

CIVIL-4 After completion of finished grading and erosion and sedimentation control and drainage work, the project owner shall obtain the CBO's approval of the final grading plans (including final changes) for the erosion and sedimentation control work. The civil engineer shall state that the work within his/her area of responsibility was done in accordance with the final approved plans.

Verification: Within 30 days (or project owner- and CBO-approved alternative time frame) of the completion of the erosion and sediment control mitigation and drainage work, the project owner shall submit to the CBO, for review and approval, the final grading plans (including final changes) and the responsible civil engineer's signed statement that the installation of the facilities and all erosion control measures were completed in accordance with the final approved combined grading plans, and that the facilities are adequate for their intended purposes. The project owner shall submit a copy of the CBO's approval to the CPM in the next monthly compliance report.

STRUC-1 Prior to the start of any increment of construction, the project owner shall submit plans, calculations and other supporting documentation to the CBO for design review and acceptance for all project structures and equipment identified in the CBO-approved master drawing and master specifications list. The design plans and calculations shall include the lateral force procedures and details as well as vertical calculations.

Construction of any structure or component shall not begin until the CBO has approved the lateral force procedures to be employed in designing that structure or component. The project owner shall:

1. Obtain approval from the CBO of lateral force procedures proposed for project structures;

2. Obtain approval from the CBO for the final design plans, specifications, calculations, soils reports, and applicable quality control procedures. If there are conflicting requirements, the more stringent shall govern (for example, highest loads, or lowest allowable stresses shall govern). All plans, calculations, and specifications for foundations that support structures shall be filed concurrently with the structure plans, calculations, and specifications;

3. Submit to the CBO the required number of copies of the structural plans, specifications, calculations, and other required documents of the designated major structures prior to the start of on-site fabrication and installation of each structure, equipment support, or foundation;

4. Ensure that the final plans, calculations, and specifications clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design. The final designs, plans, calculations, and specifications shall be signed and stamped by the responsible design engineer; and

5. Submit to the CBO the responsible design engineer's signed statement that the final design plans conform to applicable LORS.

Verification: At least 60 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of construction of any structure or component listed in the CBO-approved master drawing and master specifications list, the project owner shall submit to the CBO the above final design plans, specifications and calculations, with a copy of the transmittal letter to the CPM.

The project owner shall submit to the CPM, in the next monthly compliance report, a copy of a statement from the CBO that the proposed structural plans, specifications, and calculations have been approved and comply with the requirements set forth in applicable engineering LORS.

STRUC-2 The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval:

1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete

placement from which sample was taken, and mix design designation and parameters);

2. Concrete pour sign-off sheets;

3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques);

4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and

5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2013 CBC.

Verification: If a discrepancy is discovered in any of the above data, the project owner shall, within five days, prepare and submit an NCR describing the nature of the discrepancies and the proposed corrective action to the CBO, with a copy of the transmittal letter to the CPM. The NCR shall reference the condition(s) of certification and the applicable CBC chapter and section. Within five days of resolution of the NCR, the project owner shall submit a copy of the corrective action to the CBO and the CPM.

The project owner shall transmit a copy of the CBO's approval or disapproval of the corrective action to the CPM within 15 days. If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval and the revised corrective action to obtain CBO's approval.

STRUC-3 The project owner shall submit to the CBO design changes to the final plans required by the 2013 CBC, including the revised drawings, specifications, calculations, and a complete description of, and supporting rationale for, the proposed changes, and shall give to the CBO prior notice of the intended filing.

Verification: On a schedule suitable to the CBO, the project owner shall notify the CBO of the intended filing of design changes, and shall submit the required number of sets of revised drawings and the required number of copies of the other above-mentioned documents to the CBO, with a copy of the transmittal letter to the CPM. The project owner shall notify the CPM, via the monthly compliance report, when the CBO has approved the revised plans.

STRUC-4 Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in the 2013 CBC shall, at a minimum, be designed to comply with the requirements of that chapter.

Verification: At least 30 days (or project owner- and CBO-approved alternate time frame) prior to the start of installation of the tanks or vessels containing the above specified quantities of toxic or hazardous materials, the project owner shall submit to the

CBO for design review and approval final design plans, specifications, and calculations, including a copy of the signed and stamped engineer's certification.

The project owner shall send copies of the CBO approvals of plan checks to the CPM in the following monthly compliance report. The project owner shall also transmit a copy of the CBO's inspection approvals to the CPM in the monthly compliance report following completion of any inspection.

MECH-1 The project owner shall submit, for CBO design review and approval, the proposed final design, specifications, and calculations for each plant major piping and plumbing system listed in the CBO-approved master drawing and master specifications list. The submittal shall also include the applicable QA/QC procedures. Upon completion of construction of any such major piping or plumbing system, the project owner shall request the CBO's inspection approval of that construction.

The responsible mechanical engineer shall stamp and sign all plans, drawings, and calculations for the major piping and plumbing systems, subject to CBO design review and approval, and submit a signed statement to the CBO when the proposed piping and plumbing systems have been designed, fabricated, and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards, which may include, but are not limited to:

- American National Standards Institute (ANSI) B31.1 (Power Piping Code);
- ANSI B31.2 (Fuel Gas Piping Code);
- ANSI B31.3 (Chemical Plant and Petroleum Refinery Piping Code);
- ANSI B31.8 (Gas Transmission and Distribution Piping Code);
- NACE R.P. 0169-83;
- NACE R.P. 0187-87;
- NFPA 56;
- Title 24, California Code of Regulations, Part 5 (California Plumbing Code);
- Title 24, California Code of Regulations, Part 6 (California Energy Code, for building energy conservation systems and temperature control and ventilation systems);
- Title 24, California Code of Regulations, Part 2 (California Building Code); and
- City of Huntington Beach codes.

The CBO may deputize inspectors to carry out the functions of the code enforcement agency.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of major piping or plumbing construction listed in the CBO-approved master drawing and master specifications list, the project owner shall submit to the CBO for design review and approval the final plans, specifications, and calculations, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.

The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's inspection approvals.

MECH-2 For all pressure vessels installed in the plant, the project owner shall submit to the CBO and California Occupational Safety and Health Administration (Cal-OSHA), prior to operation, the code certification papers and other documents required by applicable LORS. Upon completion of the installation of any pressure vessel, the project owner shall request the appropriate CBO and/or Cal-OSHA inspection of that installation.

The project owner shall:

1. Ensure that all boilers and fired and unfired pressure vessels are designed, fabricated, and installed in accordance with the appropriate section of the ASME Boiler and Pressure Vessel Code, or other applicable code. Vendor certification, with identification of applicable code, shall be submitted for prefabricated vessels and tanks; and

2. Have the responsible design engineer submit a statement to the CBO that the proposed final design plans, specifications, and calculations conform to all of the requirements set forth in the appropriate ASME Boiler and Pressure Vessel Code or other applicable codes.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of on-site fabrication or installation of any pressure vessel, the project owner shall submit to the CBO for design review and approval the above listed documents, including a copy of the signed and stamped engineer's certification, with a copy of the transmittal letter to the CPM.

The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's and/or Cal-OSHA inspection approvals.

MECH-3 The project owner shall submit to the CBO for design review and approval the design plans, specifications, calculations, and quality control procedures for any heating, ventilating, air conditioning (HVAC), or refrigeration system. Packaged HVAC systems, where used, shall be identified with the appropriate manufacturer's data sheets.

The project owner shall design and install all HVAC and refrigeration systems within buildings and related structures in accordance with the CBC and other applicable codes. Upon completion of any increment of construction, the project owner shall request the CBO's inspection and approval of that construction. The final plans, specifications, and calculations shall include approved criteria, assumptions, and methods used to develop the design. In addition, the responsible mechanical engineer shall sign and stamp all plans, drawings, and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications, and calculations conform with the applicable LORS.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction of any HVAC or refrigeration system, the project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans, and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the CBC and other applicable codes, with a copy of the transmittal letter to the CPM.

ELEC-1 Prior to the start of any increment of electrical construction for all electrical equipment and systems 110 Volts or higher (see a representative list, below), the project owner shall submit, for CBO design review and approval, the proposed final design, specifications, and calculations. Upon approval, the above listed plans, together with design changes and design change notices, shall remain on the site or at another accessible location for the operating life of the project. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS. All transmission facilities (lines, switchyards, switching stations, and substations) are handled in conditions of certification in the Transmission System Engineering section of this document.

A. Final plant design plans shall include:

1. One-line diagram for the 13.8 kV, 4.16 kV and 480 V systems;
2. System grounding drawings;
3. Lightning protection system; and

4. Hazard area classification plan.

B. Final plant calculations must establish:

1. Short-circuit ratings of plant equipment;

2. Ampacity of feeder cables;

3. Voltage drop in feeder cables;

4. System grounding requirements;

5. Coordination study calculations for fuses, circuit breakers, and protective relay settings for the 13.8 kV, 4.16 kV and 480 V systems;

6. System grounding requirements;

7. Lighting energy calculations; and

8. 110 volt system design calculations and submittals showing feeder sizing, transformer and panel load confirmation, fixture schedules, and layout plans.

C. The following activities shall be reported to the CPM in the monthly compliance report:

1. Receipt or delay of major electrical equipment;

2. Testing or energization of major electrical equipment; and

3. A signed statement by the registered electrical engineer certifying that the proposed final design plans and specifications conform to requirements set forth in the Energy Commission decision.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of each increment of electrical construction, the project owner shall submit to the CBO for design review and approval the above listed documents. The project owner shall include in this submittal a copy of the signed and stamped statement from the responsible electrical engineer attesting compliance with the applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.

TRANSMISSION SYSTEM ENGINEERING

TSE-1 The project owner shall furnish to the CPM and to the CBO a schedule of transmission facility design submittals, a Master Drawing List, a Master Specifications List, and a Major Equipment and Structure List. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested.

Verification: Prior to the start of construction of transmission facilities, the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the CBO and to the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see list of major equipment in **Table 1: Major Equipment List** below). Additions and deletions shall be made to the table only with CPM and CBO approval. The project owner shall provide schedule updates in the monthly compliance report.

Table 1: Major Equipment List

Breakers
Step-up transformer
Switchyard
Busses
Surge arrestors
Disconnects
Take-off facilities
Electrical control building
Switchyard control building
Transmission pole/tower
Grounding system

TSE-2 For the power plant switchyard, outlet line and termination, the project owner shall not begin any construction until plans for that increment of construction have been approved by the CBO. These plans, together with design changes and design change notices, shall remain on the site for one year after completion of construction. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS. The following activities shall be reported in the monthly compliance report:

a) Receipt or delay of major electrical equipment;

b) Testing or energization of major electrical equipment; and

c) The number of electrical drawings approved, submitted for approval, and still to be submitted.

Verification: Prior to the start of each increment of construction, the project owner shall submit to the CBO for review and approval the final design plans, specifications and calculations for equipment and systems of the power plant switchyard, outlet line, and termination, including a copy of the signed and stamped statement from the responsible electrical engineer verifying compliance with all applicable LORS, and send the CPM a copy of the transmittal letter in the next monthly compliance report.

TSE-3 The project owner shall ensure that the design, construction, and operation of the proposed transmission facilities will conform to all applicable LORS, and the requirements listed below. The project owner shall submit the required number of copies of the design drawings and calculations, as determined by the CBO. Once approved, the project owner shall inform the CPM and CBO of any anticipated changes to the design, and shall submit a detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change to the CPM and CBO for review and approval.

A. The power plant outlet line shall meet or exceed the electrical, mechanical, civil, and structural requirements of CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the High Voltage Electric Safety Orders; California ISO standards; National Electric Code (NEC); and related industry standards.

B. Breakers and busses in the power plant switchyard and other switchyards, where applicable, shall be sized to comply with a short-circuit analysis.

C. Outlet line crossings and line parallels with transmission and distribution facilities shall be coordinated with the transmission line owner and comply with the owner's standards.

D. The project conductors shall be sized to accommodate the full output of the project.

E. Termination facilities shall comply with applicable SCE interconnection standards.

F. The project owner shall provide to the CPM:

a. Special Protection System (SPS) sequencing and timing if applicable;

b. A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation for which the project is responsible, are acceptable; and

c. A copy of the executed Large Generator Interconnection Agreement (LGIA) signed by the California ISO and the project owner and approved by the Federal Energy Regulatory Commission.

Verification: Prior to the start of construction or modification of transmission facilities, the project owner shall submit to the CBO for approval:

a) Design drawings, specifications, and calculations conforming with CPUC General Order 95 or National Electric Safety Code (NESC),; Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the High Voltage Electric Safety Orders; CA ISO standards; National Electric Code (NEC); and related industry standards, for the poles/towers, foundations, anchor bolts, conductors, grounding systems, and major switchyard equipment;

b) For each element of the transmission facilities identified above, the submittal package to the CBO shall contain the design criteria, a discussion of the calculation method(s), a sample calculation based on "worst case conditions,[1]" and a statement signed and sealed by the registered engineer in responsible charge, or other acceptable alternative verification, that the transmission element(s) will conform with CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the High Voltage Electric Safety Orders; California ISO standards; National Electric Code (NEC); and related industry standards;

c) Electrical one-line diagrams signed and sealed by the registered professional electrical engineer in charge, a route map, and an engineering description of the equipment and configurations covered by requirements **TSE-3** a) through f);

d) Special Protection System (SPS) sequencing and timing, if applicable, shall be provided concurrently to the CPM;

e) A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation for which the project is responsible are acceptable; and

f) A copy of the executed LGIA signed by the California ISO and the project owner and approved by the Federal Energy Regulatory Commission.

[1] Worst-case conditions for the foundations would include for instance, a dead-end or angle pole.

Prior to the start of construction or modification of transmission facilities, the project owner shall inform the CBO and the CPM of any anticipated changes to the design that are different from the design previously submitted and approved and shall submit a detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change to the CPM and CBO for review and approval.

TSE-4 The project owner shall provide the following Notice to the California ISO prior to synchronizing the facility with the California Transmission system:

1. At least one week prior to synchronizing the facility with the grid for testing, provide the California ISO a letter stating the proposed date of synchronization; and
2. At least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the California ISO Outage Coordination Department.

Verification: The project owner shall provide copies of the California ISO letter to the CPM when it is sent to the California ISO one week prior to initial synchronization with the grid. The project owner shall contact the California ISO Outage Coordination Department Monday through Friday, between the hours of 0700 and 1530 at (916) 351-2300 at least one business day prior to synchronizing the facility with the grid for testing. A report of conversation with the California ISO shall be provided electronically to the CPM one day before synchronizing the facility with the California transmission system for the first time.

TSE-5 The project owner shall be responsible for the inspection of the transmission facilities during and after project construction, and any subsequent CPM and CBO approved changes thereto, to ensure conformance with CPUC GO-95 or NESC, Title 8, CCR, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders", applicable interconnection standards, NEC and related industry standards. In case of non-conformance, the project owner shall inform the CPM and CBO in writing within 10 days of discovering such non-conformance and describe the corrective actions to be taken.

Verification: Within 60 days after first synchronization of the project, the project owner shall transmit to the CPM and CBO:

a) "As built" engineering description(s) and one-line drawings of the electrical portion of the facilities signed and sealed by the registered electrical engineer in responsible charge. A statement attesting to conformance with CPUC GO-95 or NESC, Title 8, California Code of Regulations, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders", and applicable interconnection standards, NEC, related industry standards.

b) An “as built” engineering description of the mechanical, structural, and civil portion of the transmission facilities signed and sealed by the registered engineer in responsible charge or acceptable alternative verification. “As built” drawings of the electrical, mechanical, structural, and civil portion of the transmission facilities shall be maintained at the power plant and made available, if requested, for CPM audit as set forth in the “Compliance Monitoring Plan.”

c) A summary of inspections of the completed transmission facilities, and identification of any nonconforming work and corrective actions taken, signed and sealed by the registered engineer in charge.

TRANSMISSION LINE SAFETY AND NUISANCE

TLSN-1 The project owner shall construct the proposed 230-kV transmission line according to the requirements of California Public Utility Commission's GO-95, GO-52, GO-131-D, Title 8, and Group 2, High Voltage Electrical Safety Orders, sections 2700 through 2974 of the California Code of Regulations, and Southern California Edison's EMF Reduction Guidelines for Electrical Facilities.

Verification: At least 30 days prior to start of construction of the transmission line or related structures and facilities, the project owner shall submit to the compliance project manager (CPM) a letter signed by a California registered electrical engineer affirming that the lines will be constructed according to the requirements stated in the condition.

TLSN-2 The project owner shall measure the strengths of the electric and magnetic fields from the line at the points of maximum intensity at the edge of the right-of-way to validate the estimates provided by the applicant for these fields. These measurements shall be made (a) according to the standard procedures of the American National Standard Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) and (b) before and after energization. These measurements shall be completed no later than six months after the start of operations.

Verification: The project owner shall file copies of the pre-and post-energization measurements with the CPM within 60 days after completion of the measurements. The CPM shall determine the need for further mitigation from these field measurements.

TLSN-3 The project owner shall ensure that the route of the proposed transmission line is kept free of combustible material, as required under the provisions of GO-95 and California Code of Regulations, title 14, section 1250.

Verification: During the first five (5) years of plant operation, the project owner shall provide a summary of inspection results and any fire prevention activities carried out along the proposed route and provide such summaries in the Annual Compliance Report on transmission line safety and nuisance-related requirements.

TLSN-4 The project owner shall ensure that all permanent metallic objects within the proposed route are grounded according to industry standards.

Verification: At least 30 days before the lines are energized, the project owner shall transmit to the CPM a letter confirming compliance with this condition.

AIR QUALITY

AQ-SC1 AIR QUALITY CONSTRUCTION MITIGATION MANAGER (AQCMM)

The project owner shall designate and retain an on-site AQCMM who shall be responsible for directing and documenting compliance with Conditions **AQ-SC3, AQ-SC4** and **AQ-SC5** for the entire duration of project site construction. The on-site AQCMM may delegate responsibilities to one or more AQCMM delegates. The AQCMM and AQCMM delegates shall have full access to all areas of construction on the project site, and shall have the authority to stop any or all construction activities as warranted by applicable construction mitigation conditions. The AQCMM and AQCMM delegates may have other responsibilities in addition to those described in this condition. The AQCMM–shall not be terminated without written consent of the compliance project manager (CPM).

Verification: At least 60 days prior to the start of ground disturbance, the project owner shall submit to the CPM for approval the name, resume, qualifications, and contact information for the on-site AQCMM and all AQCMM delegates. The AQCMM and all delegates must be approved by the CPM before the start of ground disturbance.

AQ-SC2 AIR QUALITY CONSTRUCTION MITIGATION PLAN (AQCMP)

The project owner shall provide, for approval, an AQCMP that details the steps to be taken and the reporting requirements necessary to ensure compliance with Conditions of Certification **AQ-SC3**, **AQ-SC4,** and **AQ-SC5**.

Verification: At least 60 days prior to the start of any ground disturbance, the project owner shall submit the AQCMP to the CPM for approval. The CPM will notify the project owner of any necessary modifications to the plan within 30 days from the date of receipt. The AQCMP must be approved by the CPM before the start of ground disturbance.

AQ-SC3 CONSTRUCTION FUGITIVE DUST CONTROL

Project owner shall implement the following control measures to mitigate for any increases in regional criteria pollutants during construction, including fugitive dust.

The AQCMM shall submit documentation to the CPM in each monthly compliance report (MCR) that demonstrates compliance with the Air Quality Construction Mitigation Plan (AQCMP) mitigation measures for purposes of minimizing fugitive dust emission creation from construction activities and preventing all fugitive dust plumes from leaving the project's boundary. The following fugitive dust mitigation measures shall be included in the AQCMP required by **AQ-SC2**, and any deviation from the

AQCMP mitigation measures shall require prior CPM notification and approval.

A. The main access roads through the facility to the power block areas will be either paved or stabilized using soil binders, or equivalent methods, to provide a stabilized surface that is similar for the purposes of dust control to paving, that may or may not include a crushed rock (gravel or similar material with fines removed) top layer, prior to initiating construction in the main power block area, and delivery areas for operations materials (chemical, replacement parts, etc.) will be paved prior to taking initial deliveries.

B. All unpaved construction roads and unpaved operation site roads, as they are being constructed, shall be stabilized with a non-toxic soil stabilizer or soil weighting agent that can be determined to be both as efficient or more efficient for fugitive dust control as ARB approved soil stabilizers, and shall not increase any other environmental impacts including loss of vegetation to areas beyond where the soil stabilizers are being applied for dust control. All other disturbed areas in the project construction site shall be watered as frequently as necessary during grading and, after active construction activities, shall be stabilized with a non-toxic soil stabilizer or soil weighting agent, or alternative approved soil stabilizing methods, in order to comply with the dust mitigation objectives of Condition of Certification **AQ-SC4**. The frequency of watering can be reduced or eliminated during periods of precipitation.

C. No vehicle shall exceed 10 miles per hour on unpaved areas within the construction site, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.

D. The construction site entrances shall be posted with visible speed limit signs.

E. Wheel washers shall be installed for all exiting trucks and equipment, or wheels shall be inspected and washed (as necessary) to remove accumulated dirt prior to leaving the site.

F. Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station.

G. All unpaved exits from the construction site shall be graveled or treated to prevent track-out to public roadways.

H. All construction vehicles shall enter the construction site through the treated entrance roadways unless an alternative route has been submitted to and approved by the CPM.

I. Sandbags or other erosion control measures shall be installed consistent with the requirements of the Storm Water Pollution Prevention Plan (SWPPP).

J. All paved roads within the construction site shall be swept daily or as needed (less during periods of precipitation) on days when construction activity occurs to prevent the accumulation of dirt and debris.

K. At least the first 500 feet of any paved public roadway exiting the construction site or exiting other unpaved roads en route from the construction site or construction staging areas shall be swept as needed (less during periods of precipitation) on days when construction activity occurs or on any other day when dirt or run-off resulting from the construction site activities is visible on the public paved roadways. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.

L. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered or treated with appropriate dust suppressant compounds.

M. When bulk materials are transported off site, all materials that have the potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least two feet of freeboard.

N. Wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) shall be used on all construction areas that may be disturbed. Any windbreaks installed to comply with this condition shall remain in place until the soil is stabilized or permanently covered with vegetation.

Verification: The AQCMM shall provide the CPM a Monthly Compliance Report to include the following to demonstrate control of fugitive dust emissions:

A. A summary of all actions taken to maintain compliance with this condition; and

B. Copies of any air quality related complaints filed with the air district or facility representatives in relation to project construction; and

C. Any other documentation deemed necessary by the CPM or AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

AQ-SC4 DUST PLUME RESPONSE REQUIREMENT

The AQCMM or an AQCMM delegate shall monitor all construction activities for visible dust plumes. Observations of visible dust plumes that have the potential to be transported off the project site and within 400 feet upwind of any regularly occupied structures not owned by the project owner indicates that existing mitigation measures are not resulting in effective mitigation. The AQCMP shall include a section detailing how the additional mitigation measures will be accomplished within the time limits specified. The AQCMM or delegate shall implement the following procedures for additional mitigation measures in the event that such visible dust plumes are observed:

Step 1: The AQCMM or delegate shall direct more intensive application of the existing mitigation methods within 15 minutes of making such a determination.

Step 2: The AQCMM or Delegate shall direct implementation of additional methods of dust suppression if Step 1 specified above fails to result in adequate mitigation within 30 minutes of the original determination.

Step 3: The AQCMM or delegate shall direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation within one hour of the original determination. The activity shall not restart until the AQCMM or delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the shutdown activity. The owner/operator may appeal to the CPM any directive from the AQCMM or delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

Verification: The AQCMM shall provide the CPM a Monthly Compliance Report to include:

A. A summary of all actions taken to maintain compliance with this condition;

B. Copies of any air-quality related complaints filed with the district or facility representatives in relation to project construction; and

C. Any other documentation deemed necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

AQ-SC5 DIESEL-FUELED ENGINE CONTROL

The AQCMM shall submit to the CPM, in the Monthly Compliance Report, a table that demonstrates compliance with the AQCMP mitigation measures for purposes of controlling diesel construction-related combustion emissions. Any deviation from the AQCMP mitigation measures requires prior CPM notification and approval.

All off-road diesel construction equipment used in the construction of this facility shall be powered by the cleanest engines available that also comply with the California Air Resources Board's (ARB's) Regulation for In-Use Off-Road Diesel Fleets and shall be included in the Air Quality Construction Mitigation Plan (AQCMP) required by **AQ-SC2**. The AQCMP measures shall include the following, with the lowest-emitting engine chosen in each case, as available:

A. All off-road vehicles with compression ignition engines shall comply with the California Air Resources Board's (ARB's) Regulation for In-Use Off-Road Diesel Fleets (California Code of Regulation Title 13, Article 4.8, Chapter 9, §2449 et seq.).

B. To meet the highest level of emissions reduction available for the engine family of the equipment, each piece of diesel-powered equipment shall be powered by a Tier 4 engine (without add-on controls) or Tier 4i engine (without ad-on controls), or a Tier 3 engine with a post-combustion retrofit device verified by the ARB or the US EPA. For PM, the retrofit device shall be a particulate filter if verified, or a flow-through filter, or at least an oxidation catalyst. For NOx, the device shall meet the latest Mark level verified to be available.

C. For diesel powered equipment where the requirements of Part "b" cannot be met, the equipment shall be equipped with a Tier 3 engine without retrofit control devices or with a Tier 2 or lower Tier engine using retrofit controls verified by ARB or US EPA as the best available control device to reduce exhaust emissions of PM and nitrogen oxides (NOx) unless certified by engine manufacturers or the on-site AQCMM that the use of such devices is not practical for specific engine types. For purposes of this condition, the use of such devices can be considered "not practical" for the following, as well as other, reasons:

    1. There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question and the highest level of available control using retrofit or Tier 1 engines is being used for the engine in question; or

2. The use of the retrofit device would unduly restrict the vision of the operator such that the vehicle would be unsafe to operate because the device would impair the operator's vision to the front, sides, or rear of the vehicle, or

3. The construction equipment is intended to be on site for 10 work days or less.

D. The CPM may grant relief from a requirement in Part "b" or "c" if the AQCMM can demonstrate a good faith effort to comply with the requirement and that compliance is not practical.

E. The use of a retrofit control device may be terminated immediately provided that the CPM is informed within 10 working days of the termination and a replacement for the equipment item in question meeting the level of control required occurs within 10 work days of termination of the use (if the equipment would be needed to continue working at this site for more than 15 work days after the use of the retrofit control device is terminated) if one of the following conditions exists:

1. The use of the retrofit control device is excessively reducing the normal availability of the construction equipment due to increased down time for maintenance, and/or reduced power output due to an excessive increase in exhaust back pressure.

2. The retrofit control device is causing or is reasonably expected to cause engine damage.

3. The retrofit control device is causing or is reasonably expected to cause a substantial risk to workers or the public.

4. Any other seriously detrimental cause which has the approval of the CPM prior to implementation of the termination.

F. All equipment with engines meeting the requirements above shall be properly maintained and the engines tuned to the engine manufacturer's specifications. Each engine shall be in its original configuration and the equipment or engine must be replaced if it exceeds the manufacturer's approved oil consumption rate.

G. Construction equipment will employ electric motors when feasible.

H. If the requirements detailed above cannot be met, the AQCMM shall certify that a good faith effort was made to meet these requirements and this determination must be approved by the CPM.

I. All off-road diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCMM showing that the engine meets the conditions set forth herein.

Verification: The AQCMM shall include in the MCR the following to demonstrate control of diesel construction-related emissions:

A. A summary of all actions taken to control diesel construction related emissions;

B. A list of all heavy equipment used on site during that month, showing the tier level of each engine and the basis for alternative compliance with this condition for each engine not meeting Part "b" or Part "c" requirements. The list shall include the owner of the equipment and a letter from each owner indicating that the equipment has been properly maintained; and

C. Any other documentation deemed necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

AQ-SC6 CONSTRUCTION PARTICULATE MATTER MITIGATION PLAN

The project owner shall prepare and implement a Construction Particulate Matter Mitigation Plan (CPMMP) that details the steps to be taken and the reporting requirements necessary to provide the equivalent of at least ~~8.26~~ 2.17 lbs/day PM10 and 0.17 lbs/day PM2.5 of emissions reductions during the construction phase of the project. Construction emission reduction measures can include: localized street sweepers or programs; local ban of leaf blowing or blowers; sodding of local parks or playfields; fireplace or woodstove replacements; offsets or emission reduction credits; or other measures that can provide local emission reductions coincident with construction emissions.

Verification: At least 90 days prior to the start of any ground disturbance, the project owner shall submit the CPMMP to the CPM for review and approval. The CPM will notify the project owner of any necessary modifications to the plan within 30 days from the date of receipt. The CPMMP must be approved by the CPM before the start of ground disturbance. During construction the project owner shall provide the records of the CPMMP in the Monthly Compliance Report.

AQ-SC7 PERMIT-TO-CONSTRUCT (PTC) AND PERMIT-TO-OPERATE (PTO)

The project owner shall provide the CPM copies of all district issued Permit-to-Construct (PTC) and Permit-to-Operate (PTO) documents for the facility. The project owner shall submit an amendment request to the CPM for review and approval any modification proposed by the project owner to any project air permit. The project owner shall submit to the CPM

any modification to any permit proposed by the district or U.S. EPA, and any revised permit issued by the district or U.S. EPA, for the project.

Verification: The project owner shall submit any PTC, PTO, and proposed air permit modifications to the CPM within five working days of its submittal either by: 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency. The project owner shall submit all modified air permits to the CPM within 15 days of receipt.

AQ-SC8 Quarterly Operation Reports

The project owner shall submit to the CPM Quarterly Operation Reports, following the end of each calendar quarter, that include operational and emissions information as necessary to demonstrate compliance with the conditions of certification herein. The Quarterly Operation Report shall specifically note or highlight incidences of noncompliance.

Verification: The project owner shall submit the Quarterly Operation Reports to the CPM and APCO no later than 30 days following the end of each calendar quarter.

AQ-SC9 The project owner shall provide emission reductions in the form of offsets or emission reduction credits (ERCs) in the quantities of at least 4 lbs/day of VOC and 5 lbs/day of PM10 emissions for the auxiliary boiler and 1 lb/day of VOC emissions for the oil/water separators. The project owner shall demonstrate that the reductions are provided in the form required by the South Coast Air Quality Management District (District).

The project owner shall provide an ERC list and surrender the ERCs as required by the District. The project owner shall request CPM approval for any substitutions, modifications, or additions to the ERCs.

The CPM, in consultation with the District, may approve any such change to the ERC list provided that the project remains in compliance with all applicable laws, ordinances, regulations, and standards, and that the requested change(s) will not cause the project to result in a significant environmental impact. The District must also confirm that each requested change is consistent with applicable federal and state laws and regulations.

Verification: The project owner shall submit to the CPM records showing that the project's offset requirements have been met prior to initiating construction. If the CPM approves a substitution or modification to the list of ERCs, the CPM shall file a statement of the approval with the project owner and Energy Commission docket. The CPM shall maintain an updated list of approved ERCs for the project.

AQ-SC10 The project owner shall comply with all staff (**AQ-SC**) and district (**AQ**) conditions of certification. The CPM, in consultation with the District, may

approve any change to a condition of certification regarding air quality, as a staff approved modification, provided that: (1) the project remains in compliance with all applicable laws, ordinances, regulations, and standards, (2) the requested change clearly will not cause the project to result in a significant environmental impact, (3) no additional mitigation or offsets will be required as a result of the change, (4) no existing daily, quarterly, or annual permit limit will be exceeded as a result of the change, and (5) no increase in any daily, quarterly, or annual permit limit will be necessary as a result of the change.

Verification: The project owner shall submit a petition to amend for any proposed change to a condition of certification pursuant to this condition and shall provide the CPM with any additional information the CPM requests to substantiate the basis for approval.

DISTRICT CONDITIONS

The following SCAQMD Conditions (**AQ-1** to **AQ-71**) apply to various units as identified where needed.

FACILITY CONDITIONS

AQ-1 The project owner shall limit emissions from this facility as follows:

CONTAMINANT	EMISSIONS LIMIT
PM2.5	Less than 100 TONS IN ANY ONE YEAR

For purposes of demonstrating compliance with the 100 tons per year limit, the project owner shall sum the PM2.5 emissions for each of the sources at this facility by calculating a 12 month rolling average as follows:

Using the calendar monthly fuel use data and following emission factors for each combined-cycle turbine PM2.5 = 3.94 lbs/mmcf., for each simple-cycle turbine PM2.5 = 7.43 lbs/mmcf, for the auxiliary boiler PM2.5 = 7.54 lbs/mmcf, for Boiler 1 PM2.5 = 1.86 lbs/mmcf, for Boiler 2 PM2.5 = 2.1 lbs/mmcf. For each emergency engine using the rated hp and the calendar monthly hourly usage data and the following emission factor PM2.5 = 0.38 gr/bhp-hr.

The project owner may apply to change the factors, via permit application, once a different value is demonstrated, subject to SCAQMD review of testing procedures and protocols.

The project owner shall submit written reports of the monthly PM2.5 compliance demonstrations required by this condition. The report submittal shall be included with the semi annual Title V report as required under Rule 3004(a)(4)(f). Records of the monthly PM2.5 compliance demonstrations shall

be maintained on site for at least five years and made available upon SCAQMD request.

Verification: The project owner shall submit to the CPM and the District the facility annual operating and emissions data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Report (**AQ-SC8**).

AQ-2 This facility is subject to the applicable requirements of the following rules or regulation(s):

The facility shall submit a detailed retirement plan for the permanent shutdown of Huntington Beach (HB) Boilers 1 and 2 and Redondo Beach (RB) Boiler 7 describing in detail the steps and schedule that will be taken to render the boilers permanently inoperable. The retirement plan shall be submitted to SCAQMD within 60 days after the Permits to Construct are issued for gas turbines CCTG 1, CCTG 2, SCTG 1, and SCTG 2.

AES shall not commence any construction of HB Boilers 1 and 2 and RB Boiler 7 repowering project equipment including gas turbines CCTG 1, CCTG 2, SCTG 1, SCTG 2, Auxiliary Boiler, ammonia storage tanks, or the oil water separators, unless the retirement plan is approved in writing by SCAQMD. If SCAQMD notifies AES that the plan is not approvable, AES shall submit a revised plan addressing SCAQMD's concerns within 30 days.

Within 30 calendar days of actual shutdown, or by no later than November 1, 2019, AES shall provide SCAQMD with a notarized statement that HB Beach Boiler 1 and RB Boiler 7 are permanently shut down and that any restart or operation of the units shall require new Permits to Construct and be subject to all requirements of non-attainment new source review and the prevention of significant deterioration program.

Within 30 calendar days of actual shutdown, or by no later than December 31, 2020, AES shall provide SCAQMD with a notarized statement that HB Beach Boiler 2 is permanently shut down and that any re start or operation of the unit shall require a new Permit to Construct and be subject to all requirements of non-attainment new source review and the prevention of significant deterioration program.

AES shall notify SCAQMD 30 days prior to the implementation of the approved retirement plan for permanent shutdown of HB Boiler 1 and RB Boiler 7, or advise SCAQMD as soon practicable should AES undertake permanent shutdown prior to November 1, 2019.

AES shall notify SCAQMD 30 days prior to the implementation of the approved retirement plan for permanent shutdown of HB Boiler 2, or

advise SCAQMD as soon practicable should AES undertake permanent shutdown prior to December 31, 2020.

AES shall cease operation of HB Boiler 1 within 90 calendar days of the first fire of either CCTG 1 or CCTG 2, whichever is earlier. AES shall cease operation of HB Boiler 2 within 90 calendar days of the first fire of either SCTG 1 or SCTG 2, whichever is earlier. AES shall cease operation of RB Boiler 7 prior to the first fire of either CCTG 1 or CCTG 2, whichever is earlier.

At least 6 months prior to November 1, 2019, AES may submit a permit modification application requesting the permission to shut down a combination of boilers other than HB Boiler 1, HB Boiler 2, and RB Boiler 7 to offset the increases for this project. The other boilers must be located at AES facilities Huntington Beach GS, Redondo Beach GS, or Alamitos GS, and approval of the application must be received prior to any changes being made to the shutdowns outlined in this condition.

Verification: The project owner shall submit the retirement plan and any modifications to the plan to the CPM within five working days of its submittal to or from the District either by: 1) sending a copy of the project owner's submittal to the District, or 2) receipt of proposed modifications from District. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-3 This facility is subject to the applicable requirements of the following rules or regulation(s):

For all circuit breakers at the facility utilizing SF6, the project owner shall install, operate, and maintain enclosed-pressure SF6 circuit breakers with a maximum annual leak rate of 0.5 percent by weight. The circuit breakers shall be equipped with a 10 percent by weight leak detection system. The leak detection system shall be calibrated in accordance with manufacturer's specifications. The manufacturer's specifications and all records of calibrations shall be maintained on site.

The total CO2e emissions from all circuit breakers shall not exceed 71.8 tons per calendar year.

The project owner shall calculate the SF6 emissions due to leakage from the circuit breakers by using the mass balance in equation DD-1 at 40 CFR Part 98, Subpart DD on an annual basis. Records of such calculations shall be maintained on site.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-4 This facility is subject to the applicable requirements of the following rules or regulation(s):

Rule 1304.1 Electric Generating Fee for Use of Offset Exemption

The owner/operator shall submit the annual payment for PM10 and VOC, calculated in accordance with the rule and approved by the Executive Officer, on or before the anniversary date of the commencement of operation. The owner or operator may elect to switch to the single payment option upon submittal of a written request to the Executive Officer.

Verification: The project owner shall demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).

DEVICE CONDITIONS

A. Emission Limits

AQ-5 The project owner shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 3,090 LBS IN ANY ONE MONTH
CO	Less than or equal to 99,076 LBS IN ANY ONE MONTH
VOC	Less than or equal to 14,109 LBS IN ANY ONE MONTH

The above limits apply during commissioning. The above limits apply to each turbine.

The project owner shall calculate compliance with the emission limit(s) by using fuel use data and the following emission factors: VOC: 8.86 lbs/mmcf, PM10: 5.11 lbs/mmcf, and CO: 61.18 lbs/mmcf.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-6 The project owner shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 6,324 LBS IN ANY ONE MONTH
CO	Less than or equal to 24,720 LBS IN ANY ONE MONTH
VOC	Less than or equal to 7,611 LBS IN ANY ONE MONTH

The above limits apply after the equipment is commissioned. The above limits apply to each turbine.

The project owner shall calculate compliance with the emission limit(s) by using fuel use data and the following emission factors: VOC: 2.66 lbs/mmcf, PM10: 3.94 lbs/mmcf.

The project owner shall calculate compliance with the emission limits for CO after the CO CEMS certification based upon readings from the SCAQMD certified CEMS.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-7 The project owner shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 4,643 LBS IN ANY ONE MONTH
CO	Less than or equal to 5,545 LBS IN ANY ONE MONTH
VOC	Less than or equal to 1,972 LBS IN ANY ONE MONTH

The above limits apply after the equipment is commissioned. The above limits apply to each turbine.

The project owner shall calculate compliance with the emission limit(s) by using fuel use data and the following emission factors: VOC: 2.74 lbs/mmcf, PM10: 7.43 lbs/mmcf.

The project owner shall calculate compliance with the emission limits for CO after the CO CEMS certification based upon readings from the SCAQMD certified CEMS.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-8 The project owner shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT

PM10	Less than or equal to 1,747 LBS IN ANY ONE MONTH
CO	Less than or equal to 25,449 LBS IN ANY ONE MONTH
VOC	Less than or equal to 836 LBS IN ANY ONE MONTH

The above limits apply during commissioning. The above limits apply to each turbine.

The project owner shall calculate compliance with the emission limit(s) by using fuel use data and the following emission factors: VOC: 3.67 lbs/mmcf, PM10: 7.67 lbs/mmcf, and CO: 111.76 lbs/mmcf.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-9 The project owner shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 120 LBS IN ANY ONE MONTH
CO	Less than or equal to 650 LBS IN ANY ONE MONTH
VOC	Less than or equal to 87 LBS IN ANY ONE MONTH

The project owner shall calculate compliance with the emission limit(s) by using fuel use data and the following emission factors: VOC: 5.47 lbs/mmcf, PM10: 7.54 lbs/mmcf, CO: 41.9 lbs/mmcf.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-10 The 16.66 LBS/MMSCF NOx emission limit(s) shall only apply during the first year of operation prior to CEMS certification for reporting NOx emissions.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-11 The 25.11 LBS/MMSCF NOx emission limit(s) shall only apply during the first year of operation prior to CEMS certification for reporting NOx emissions.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-12 The 2.0 PPMV NOx emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry. This limit shall not apply during commissioning, turbine startups and turbine shutdowns.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall submit CEMS records demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-13 The 1.5 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry. This limit shall not apply during commissioning, turbine startups and turbine shutdowns.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall submit CEMS records demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-14 The 2.0 PPMV VOC emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry. This limit shall not apply during commissioning, turbine startups and turbine shutdowns.

The combined-cycle turbines and simple-cycle turbines are subject to this condition.

Verification: The project owner shall submit records demonstrating compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC8)**.

AQ-15 The 1,000 LBS/MW-HR CO_2 emission limit(s) is averaged over a rolling 12 operating month basis. The limit shall only apply if the turbine supplies more than 1,519,500 MWh net electrical output to a utility distribution system over a rolling 12 operating month basis and a 3 year rolling average basis.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-16 The 5.0 ppmv NH_3 emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry basis. The project owner shall calculate and continuously record the NH_3 slip concentration using the following:

NH3 (ppmv) = [a–b*(c*1.2)/1E+06]*1E+06/b

Where,

a = NH3 injection rate (lbs/hr)/17(lb/lb-mol)

b = dry exhaust gas flow rate (scf/hr)/385.3 scf/lb-mol)

c = change in measured NOx across the SCR (ppmvd at 15 percent O2)

The project owner shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months. The NOx analyzer shall be installed and operated within 90 days of initial startup.

The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information without corroborative data using an approved reference method for the determination of ammonia.

The project owner shall use the above described method or another alternative method approved by the Executive Officer.

The SCRs for the combined-cycle turbines and the simple-cycle turbines are subject to this condition.

Verification: The project owner shall include computed hourly ammonia slip concentrations as part of the Quarterly Operation Reports (**AQ-SC8**). Compliance with the ammonia slip limit shall be verified by the next scheduled ammonia source tests required in **AQ-44** or **AQ-45** or District approved alternative method.

AQ-17 The 2.5 PPMV NOx emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry. This limit shall not apply during commissioning, turbine startups and turbine shutdowns.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall submit CEMS records demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-18 The 2.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry. This limit shall not apply during commissioning, turbine startups and turbine shutdowns.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall submit CEMS records demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-19 The 5.0 PPMV NOx emission limit(s) is averaged over 60 minutes at 3 percent O_2, dry. This limit shall not apply during boiler startups.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall submit CEMS records demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-20 The 50.0 PPMV CO emission limit(s) is averaged over 60 minutes at 3 percent O_2, dry. This limit shall not apply during boiler startups.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall submit CEMS records demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-21 The 5.0 ppmv NH_3 emission limit(s) is averaged over 60 minutes at 3 percent O_2, dry basis. The operator shall calculate and continuously record the NH_3 slip concentration using the following:

NH3 (ppmv) = [a–b*(c*1.2)/1E+06]*1E+06/b

Where,

a = NH3 injection rate (lbs/hr)/17(lb/lb-mol)

b = dry exhaust gas flow rate (scf/hr)/385.3 scf/lb-mol)

c = change in measured NOx across the SCR (ppmvd at 3 percent O2)

The project owner shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months. The NOx analyzer shall be installed and operated within 90 days of initial startup.

The project owner shall use the above described method or another alternative method approved by the Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information without corroborative data using an approved reference method for the determination of ammonia.

The SCR for the auxiliary boiler is subject to this condition.

Verification: The project owner shall include the computed hourly ammonia slip concentrations as part of the Quarterly Operation Reports (**AQ-SC8**). Compliance with the ammonia slip limit shall be verified by the next scheduled ammonia source tests required in **AQ-45** or **AQ-47** or District approved alternative method.

AQ-22 For the purpose of determining compliance with District Rule 475, combustion contaminants emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.

The combined-cycle turbines and the simple-cycle turbines are subject to this condition.

Verification: The project owner shall demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

B. Material/Fuel Type Limits

AQ-23 The project owner shall not use natural gas containing the following specified compounds:

Compound	grain per 100 scf
H_2S greater than	0.25

This concentration limit is an annual average based on monthly sample of natural gas composition or gas supplier documentation. Gaseous fuel samples shall be tested using District Method 307-91 for total sulfur calculated as H2S.

The combined-cycle turbines, the simple-cycle turbines, and the auxiliary boiler are subject to this condition.

Verification: The project owner shall submit fuel usage records and calculations required to demonstrate compliance with this condition as part of the Quarterly Operational Reports (**AQ-SC8**).

C. Throughput or Operating Parameter Limits

AQ-24 The project owner shall limit the number of startups to no more than 62 in any one calendar month.

The number of cold startups shall not exceed 15 per month, the number of non-cold startups shall not exceed 47 per month. Additionally, the number of cold startups shall not exceed 80 per year, and the number of non-cold startups shall not exceed 420 per year.

For the purposes of this condition: A cold startup is defined as a startup which occurs after the steam turbine has been shut down for 48 hours or more. A cold startup shall not exceed 60 minutes. Emissions during the 60 minutes that includes a cold startup shall not exceed the following: NOx - 61 lbs., CO – 325 lbs., VOC – 36 lbs.

A non-cold startup is defined as a startup which occurs after the steam turbine has been shut down for less than 48 hours. A non-cold startup shall not exceed 30 minutes. Emissions during the 30 minutes that includes a non-

cold startup shall not exceed the following: NOx - 17 lbs., CO – 137 lbs., VOC – 25 lbs.

The beginning of a startup occurs at initial fire in the combustor and the end of startup occurs when the BACT levels are achieved. If during startup the process is aborted the process will count as one startup.

The project owner shall maintain records, in a manner approved by the SCAQMD to demonstrate compliance with this condition.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall provide a table demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-25 The project owner shall limit the number of shut-downs to no more than 62 in any one calendar month.

Additionally, the number of shutdowns shall not exceed 500 per year.

Shutdown time shall not exceed 30 minutes per shutdown. Emissions during the 30 minutes that includes a shutdown shall not exceed the following: NOx – 10 lbs., CO – 133 lbs., VOC – 32 lbs.

The project owner shall maintain records, in a manner approved by the SCAQMD to demonstrate compliance with this condition.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall provide a table demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-26 The project owner shall limit the operating time to no more than 6640 hour(s) in any one calendar year.

The limit includes baseload operation as well as startups and shutdowns. The limit does not apply to the calendar year in which the units are commissioned.

Combined-Cycle Turbines No. 1 and No. 2 shall not simultaneously operate at minimum load for more than 20 consecutive hours (approximately 44 percent of full load rating).

The project owner shall maintain records, in a manner approved by the SCAQMD to demonstrate compliance with this condition.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall provide a table demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-27 The project owner shall limit the number of startups to no more than 62 in any one calendar month.

Additionally, the number of startups shall not exceed 350 per year.

A startup shall not exceed 30 minutes. Emissions during the 30 minutes that includes a startup shall not exceed the following: NOx – 16.6 lbs., CO – 15.4 lbs., VOC – 2.8 lbs.

The beginning of a startup occurs at initial fire in the combustor and the end of startup occurs when the BACT levels are achieved. If during startup the process is aborted the process will count as one startup.

The project owner shall maintain records, in a manner approved by the SCAQMD, to demonstrate compliance with this condition.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall provide a table demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-28 The project owner shall limit the number of shut-downs to no more than 62 in any one calendar month.

Additionally, the number of shutdowns shall not exceed 350 per year.

Shutdown time shall not exceed 13 minutes per shutdown. Emissions during the 13 minutes that includes a shutdown shall not exceed the following: NOx – 3.12 lbs., CO – 28.1 lbs., VOC – 3.06 lbs.

The project owner shall maintain records, in a manner approved by the SCAQMD to demonstrate compliance with this condition.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall provide a table demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-29 The project owner shall limit the operating time to no more than 2001 hour(s) in any one calendar year.

The limit includes baseload operation as well as startups and shutdowns. The limit does not apply to the calendar year in which the units are commissioned.

The project owner shall maintain records, in a manner approved by the SCAQMD to demonstrate compliance with this condition.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall provide a table demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-30 The project owner shall limit the number of startups to no more than 10 in any one calendar month.

The number of cold startups shall not exceed 2 per month, the number of warm startups shall not exceed 4 per month, and the number of hot startups shall not exceed 4 per month. Additionally, the number of cold startups shall not exceed 24 per year, the number of warm startups shall not exceed 48 per year, and the number of hot startups shall not exceed 48 per year.

For the purposes of this condition: A cold startup is defined as a startup which occurs after the boiler shutdown for 48 hours or more. A cold startup shall not exceed 170 minutes. Emissions during the170 minutes that includes a cold startup shall not exceed the following: NOx – 4.22 lbs., CO – 4.34 lbs., VOC – 1.05 lbs.

A warm startup is defined as a startup which occurs after the boiler has been shut down for 9 – 48 hours. A warm startup shall not exceed 85 minutes. Emissions during the 85 minutes that includes a warm startup shall not exceed the following: NOx – 2.11 lbs., CO – 2.17 lbs., VOC –0.52 lbs.

A hot startup is defined as a startup which occurs after the boiler has been shut down for less than 9 hours. A hot startup shall not exceed 25 minutes. Emissions during the 25 minutes that includes a hot startup shall not exceed the following: NOx – 0.62 lbs., CO – 0.64 lbs., VOC – 0.15 lbs.

The beginning of a startup occurs at initial fire in the burner and the end of startup occurs when the BACT levels are achieved. If during startup the process is aborted the process will count as one startup.

The project owner shall maintain records, in a manner approved by the SCAQMD to demonstrate compliance with this condition.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall provide a table demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project

owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-31 The project owner shall limit the heat input to no more than 189,155 MMBtu in any one calendar year.

The limit includes normal operation as well as startups and shutdowns. The heat input shall be calculated using the fuel use data and a natural gas HHV of 1,050 btu/mmcf.

The project owner shall maintain records, in a manner approved by the SCAQMD to demonstrate compliance with this condition.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall submit fuel usage records and calculations required to demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-32 The project owner shall install and maintain a pressure relief valve set at 50 psig.

The ammonia storage tanks are subject to this condition.

Verification: The project owner shall demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

D. Monitoring/Testing Requirements

AQ-33 The project owner shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The project owner shall also install and maintain a device to continuously record the ammonia flow rate. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour. The flow meter shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The injected ammonia rate shall be maintained within 44.0 lbs/hr and 242.0 lbs/hr except during startups and shutdowns.

The SCRs for the combined-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-34 The project owner shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

The project owner shall also install and maintain a device to continuously record the exhaust temperature. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour. The temperature gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The exhaust temp at the inlet of the SCR shall be maintained between 570-692 deg F except during startup and shutdowns.

The SCRs for the combined-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-35 The project owner shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The project owner shall also install and maintain a device to continuously record the differential pressure. Continuous monitoring shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month. The pressure gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The differential pressure shall not exceed 1.6 inches WC.

The SCRs for the combined-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-36 The project owner shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the CO Catalyst.

The project owner shall also install and maintain a device to continuously record the exhaust temperature. Continuously record shall be defined as recording at least once every hour and shall be calculated based on the average of the continuous monitoring for that hour. The temperature gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The exhaust temp at the CO Catalyst inlet shall be maintained at a minimum of 570 deg F except during startup and shutdowns.

The CO Catalysts for the combined-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-37 The project owner shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The project owner shall also install and maintain a device to continuously record the ammonia flow rate. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour. The flow meter shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The injected ammonia rate shall be maintained within 110 lbs/hr and 180 lbs/hr except during startups and shutdowns.

The SCRs for the simple-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-38 The project owner shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

The project owner shall also install and maintain a device to continuously record the exhaust temperature. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour. The temperature gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The exhaust temp at the inlet of the SCR shall be maintained between 500-870 deg F except during startup and shutdowns.

The SCRs for the simple-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-39 The project owner shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The project owner shall also install and maintain a device to continuously record the differential pressure. Continuous monitoring shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month. The pressure gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The differential pressure shall not exceed 3.0 inches WC.

The SCRs for the simple-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-40 The project owner shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The project owner shall also install and maintain a device to continuously record the ammonia flow rate. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour. The flow meter shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The injected ammonia rate shall be maintained within 1.0 lbs/hr and 3.9 lbs/hr except during startups and shutdowns.

The SCR for the auxiliary boiler is subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-41 The project owner shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

The project owner shall also install and maintain a device to continuously record the exhaust temperature. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour. The temperature gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The exhaust temperature shall be maintained between 406-636 deg F except during startups and shutdowns.

The SCR for the auxiliary boiler is subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-42 The project owner shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The project owner shall also install and maintain a device to continuously record the differential pressure. Continuous monitoring shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month. The pressure gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The differential pressure shall not exceed 2.0 inches WC.

The SCR for the auxiliary boiler is subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-43 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the CO Catalyst.

The operator shall also install and maintain a device to continuously record the exhaust temperature. Continuously record shall be defined as recording at least once every hour and shall be calculated based on the average of the continuous monitoring for that hour. The temperature gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months. The exhaust temp at the CO Catalyst inlet shall be maintained at a minimum of 500 deg F except during startup and shutdowns.

The CO Catalysts for the simple-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-44 The project owner shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOx emissions	District Method 100.1	1 hour	Outlet of the SCR serving this equipment
CO emissions	District Method 100.1	1 hour	Outlet of the SCR serving this equipment
SOx emissions	AQMD Laboratory Method 307-91	District-approved averaging time	Fuel Sample
VOC emissions	District Method 25.3 Modified	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	EPA Method 201A/District Method 5.1	District-approved averaging time	Outlet of the SCR serving this equipment
PM2.5 emissions	EPA Method 201A and 202	District-approved averaging time	Outlet of the SCR serving this equipment
NH_3 emissions	District Method 207.1 and 5.3 or EPA	1 hour	Outlet of the SCR serving this

	Method 17		equipment

The test shall be conducted after SCAQMD approval of the source test protocol, but no later than 180 days after initial startup. The SCAQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in MW net and MW gross.

The test shall be conducted in accordance with an SCAQMD approved test protocol. The protocol shall be submitted to the SCAQMD engineer no later than 45 days before the proposed test date and shall be approved by the SCAQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at 3 load conditions, including within 5 percent of maximum, within 5 percent of minimum, and one intermediate load.

For natural gas fired turbines only, for the purpose of demonstrating compliance with BACT as determined by SCAQMD, the project owner shall use SCAQMD Method 25.3 modified as follows:

a) Triplicate stack gas samples extracted directly into Summa canisters, maintaining a final canister pressure between 400-500 mm Hg absolute,

b) Pressurization of the Summa canisters with zero gas analyzed/certified to less than 0.05 ppmv total hydrocarbons as carbon, and

c) Analysis of Summa canisters per the canister analysis portion of AQMD Method 25.3 with a minimum detection limit of 0.3 ppmv or less and reported to two significant figures. The temperature of the Summa canisters when extracting the samples for analysis shall not be below 70 F.

The use of this modified method for VOC compliance determination does not mean that it is more accurate than unmodified AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval, except for the determination of compliance with the BACT level of 2.0 ppmv ROG calculated as carbon for natural gas fired turbines.

For purposes of this condition, an alternative test method may be allowed for any of the above pollutants upon concurrence by EPA, ARB, and SCAQMD.

The combined-cycle turbines and the simple-cycle turbines are subject to this condition.

Verification: The project owner shall submit the proposed protocol for the initial source tests no later than 45 days prior to the proposed source test date to both the District and CPM for approval. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM. The project owner shall notify the District and CPM no later than 10 days prior to the proposed initial source test date and time.

AQ-45 The project owner shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH_3 emissions	District Method 207.1 and 5.3 or EPA Method 17	1 hour	Outlet of the SCR serving this equipment

The test shall be conducted and the results submitted to the District within 60 days after the test date. The SCAQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted at least quarterly during the first twelve months of operation and at least annually thereafter. The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration limit.

The combined-cycle turbines, the simple-cycle turbines, and the auxiliary boiler are subject to this condition.

Verification: The project owner shall submit the proposed protocol for the source tests no later than 45 days prior to the proposed source test date to both the District and CPM for approval. The project owner shall notify the District and CPM no later than 10 days prior to the proposed source test date and time. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-46 The project owner shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
SOx emissions	District Laboratory Method 307-91	District-approved averaging time	Fuel Sample
VOC emissions	District Method 25.3 Modified	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	EPA Method 201A/District Method 5.1	District-approved averaging time	Outlet of the SCR serving this equipment

The test shall be conducted at least once every three years.

The test shall be conducted and the results submitted to the SCAQMD within 60 days after the test date. The SCAQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted when this equipment is operating at 100 percent of maximum heat input.

For natural gas fired turbines only, for the purpose of demonstrating compliance with BACT as determined by SCAQMD, the project owner shall use SCAQMD Method 25.3 modified as follows:

a) Triplicate stack gas samples extracted directly into Summa canisters, maintaining a final canister pressure between 400-500 mm Hg absolute,

b) Pressurization of the Summa canisters with zero gas analyzed/certified to less than 0.05 ppmv total hydrocarbons as carbon, and

c) Analysis of Summa canisters per the canister analysis portion of AQMD Method 25.3 with a minimum detection limit of 0.3 ppmv or less and reported to two significant figures. The temperature of the Summa canisters when extracting the samples for analysis shall not be below 70 F.

The use of this modified method for VOC compliance determination does not mean that it is more accurate than unmodified AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval, except for the determination of compliance with the BACT level of 2.0 ppmv ROG calculated as carbon for natural gas fired turbines.

For purposes of this condition, an alternative test method may be allowed for any of the above pollutants upon concurrence by EPA, ARB, and SCAQMD.

The combined-cycle turbines and the simple-cycle turbines are subject to this condition.

Verification: The project owner shall submit the proposed protocol for the source tests no later than 45 days prior to the proposed source test date to both the District and CPM for approval. The project owner shall notify the District and CPM no later than 10 days prior to the proposed source test date and time. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-47 The project owner shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOx emissions	District Method 100.1	1 hour	Outlet of the SCR serving this equipment
CO emissions	District Method 100.1	1 hour	Outlet of the SCR serving this equipment
VOC emissions	District Method 25.3	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	District Method 5.1	District-approved averaging time	Outlet of the SCR serving this equipment
NH_3 emissions	District Method 207.1 and 5.3 or EPA Method 17	1 hour	Outlet of the SCR serving this equipment
PM2.5 emissions	EPA Method 201A and 202	District-approved averaging time	Outlet of the SCR serving this equipment

The test shall be conducted after SCAQMD approval of the source test protocol, but no later than 180 days after initial startup. The SCAQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted when this equipment is operating at 100 percent, 50 percent, and minimum load.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), and the flue gas flow rate.

The test shall be conducted in accordance with an SCAQMD approved test protocol. The protocol shall be submitted to the SCAQMD engineer no later than 45 days before the proposed test date and shall be approved by the SCAQMD before the test commences.

The test protocol shall include the proposed operating conditions of the boiler during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall submit the proposed protocol for the source tests no later than 45 days prior to the proposed source test date to both the District and CPM for approval. The project owner shall notify the District and CPM no later than 10 days prior to the proposed source test date and time. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-48 The project owner shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
CO emissions	District Method 100.1	1 hour	Outlet of the SCR serving this equipment

The test shall be conducted at least once every three years, or in accordance with the schedule specified in Rule 1146.

The test shall be conducted and the results submitted to the SCAQMD within 60 days after the test date. The SCAQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted when this equipment is operating at 100 percent of maximum load.

In addition to the Method 100.1 test, the project owner shall also perform periodic CO emissions tests on the boiler with a portable analyzer in accordance with the schedule and specifications outlined in Rule 1146.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall submit the proposed protocol for the source tests no later than 45 days prior to the proposed source test date to both the District and CPM for approval. The project owner shall notify the District and CPM no later than 10 days prior to the proposed source test date and time. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-49 The project owner shall install and maintain a CEMS to measure the following parameters:

CO concentration in ppmv:

Concentrations shall be corrected to 15 percent oxygen on a dry basis. The CEMS shall be installed and operating no later than 90 days after initial startup of the turbine, in accordance with approved SCAQMD Rule 218 CEMS plan application. The project owner shall not install the CEMS prior to receiving initial approval from SCAQMD.

The CEMS shall be installed and operated to measure the CO concentration over a 15 minute averaging time period.

The CEMS shall convert the actual CO concentrations to mass emission rates (lbs/hr) using the equation below and record the hourly emission rates on a continuous basis.

CO Emission Rate, lbs/hr = K*Cco*Fd[20.9/(20.9%-%O2 d)]* [(Qg*HHV)/10E6], where:

1. K = 7.267*10-8 (lbs/scf)/ppm

2. Cco = Average of 4 consecutive 15 min. average CO concentrations, ppm

3. Fd = 8710 dscf/MMBTU natural gas

4. %O2, d= Hourly average % by volume O2 dry, corresponding to Cco

5. Qg = Fuel gas usage during the hour, scf/hr

6. HHV = Gross high heating value of the fuel gas, BTU/scf

The combined-cycle turbines and the simple-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-50 The project owner shall install and maintain a CEMS to measure the following parameters:

NOx concentration in ppmv:

Concentrations shall be corrected to 15 percent oxygen on a dry basis. The CEMS shall be installed and operating no later than 90 days after initial startup of the turbine, in accordance with approved SCAQMD REG XX CEMS plan application. The project owner shall not install the CEMS prior to receiving initial approval from SCAQMD.

Rule 2012 provisional RATA testing shall be completed and submitted to the SCAQMD within 90 days of the conclusion of the turbine commissioning period. During the interim period between the initial startup and the provisional certification date of the CEMS, the operator shall comply with the requirements of Rule 2012(h)(2) and 2012(h)(3).

The combined-cycle turbines and the simple-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-51 The project owner shall install and maintain a CEMS to measure the following parameters:

NOx concentration in ppmv:

Concentrations shall be corrected to 3 percent oxygen on a dry basis. The CEMS shall be installed and operating no later than 90 days after initial startup of the boiler, in accordance with approved SCAQMD REG XX CEMS plan application. The project owner shall not install the CEMS prior to receiving initial approval from SCAQMD.

Rule 2012 provisional RATA testing shall be completed and submitted to the SCAQMD within 90 days of the conclusion of the combined-cycle turbine commissioning and boiler construction period. During the interim period between the initial startup and the provisional certification date of the CEMS, the project owner shall comply with the requirements of Rule 2012(h)(2) and 2012(h)(3).

The auxiliary boiler is subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

H. Equipment Operation/Construction Requirements

AQ-52 The project owner shall vent this equipment, during filling, only to the vessel from which it is being filled.

The ammonia storage tanks are subject to this condition.

Verification: The project owner shall demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make

the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-53 The project owner shall install this equipment according to the following requirements:

The Permit to Construct listed in Section H shall expire one year from the Permit to Construct issuance date, unless a Permit to Construct extension has been granted by the Executive Officer or unless the equipment has been constructed and the operator has notified the Executive Officer prior to the operation of the equipment.

Construction of Phase 1 of the project (defined as the combined-cycle turbines and associated control equipment, the auxiliary boiler and associated control equipment, storage tank D150, and oil water separator D152) shall commence within 18 months from the date of the Permit to Construct, unless an extension is granted by the permitting authority.

Construction of Phase 2 of the project (defined as the simple-cycle turbines and associated control equipment, storage tank D151, and oil water separator D153) shall commence within 18 months of June 30, 2022, unless an extension is granted by the permitting authority.

Construction shall not be discontinued for a period of 18 months or more at any time during Phase 1 or Phase 2.

The combined-cycle turbines, the simple-cycle turbines, the auxiliary boiler and their corresponding SCRs, CO Catalysts, and ammonia storage tanks are subject to this condition.

Verification: The project owner shall submit any permit extension granted by the permitting authority to the CPM within 15 days of receipt. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-54 The project owner shall, upon completion of construction, operate and maintain this equipment according to the following specifications:

In accordance with all mitigation measures stipulated in the final California Energy Commission decision for the 12-AFC-02C project.

The combined-cycle turbines, the simple-cycle turbines, the auxiliary boiler and their corresponding SCRs, CO Catalysts, and ammonia storage tanks are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-55 The project owner shall install this equipment according to the following requirements:

Total commissioning hours shall not exceed 996 hours of operation for each turbine from the date of initial turbine startup. Total commissioning hours without control shall not exceed 216 hours of operation for each turbine.

The project owner shall vent this equipment to the CO oxidation catalyst and SCR control system whenever the turbine is in operation after commissioning.

The project owner shall provide SCAQMD with written notification of the initial startup date. Written records of commissioning, startups, and shutdowns shall be maintained and be made available upon request from SCAQMD.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall submit records to demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-56 The project owner shall, upon completion of construction, operate and maintain this equipment according to the following specifications:

The project owner shall record the total net power generated in a calendar month in megawatt-hours.

The project owner shall calculate and record greenhouse gas emissions for each calendar month using the following formula:

$CO2 = 60.009 * FF$

Where, CO2 is in tons and FF is the monthly fuel usage in millions standard cubic feet.

The project owner shall calculate and record the CO2 emissions in pounds per net megawatt-hour on a 12-month rolling average. The CO2 emissions from this equipment shall not exceed 873,035 tons per year per turbine on a 12-month rolling average basis. The calendar annual average CO2 emissions shall not exceed 967.6 pounds per net MW-hour.

The project owner shall maintain records in a manner approved by the SCAQMD to demonstrate compliance with this condition. The records shall be made available to SCAQMD upon request.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-57 The project owner shall install this equipment according to the following requirements:

Total commissioning hours shall not exceed 280 hours of operation for each turbine from the date of initial turbine startup. Total commissioning hours without control shall not exceed 4 hours of operation for each turbine.

The project owner shall vent this equipment to the CO oxidation catalyst and SCR control system whenever the turbine is in operation after commissioning.

The project owner shall provide SCAQMD with written notification of the initial startup date. Written records of commissioning, startups, and shutdowns shall be maintained and be made available upon request from SCAQMD.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall submit records to demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**).

AQ-58 The project owner shall, upon completion of construction, operate and maintain this equipment according to the following specifications:

The project owner shall record the total net power generated in a calendar month in megawatt-hours.

The project owner shall calculate and record greenhouse gas emissions for each calendar month using the following formula:

$CO2 = 60.009 * FF$

Where, CO2 is in tons and FF is the monthly fuel usage in millions standard cubic feet.

The project owner shall calculate and record the CO2 emissions in pounds per net megawatt-hour on a 12-month rolling average. The CO2 emissions from this equipment shall not exceed 103,576 tons per year per turbine on a 12-month rolling average basis. The calendar annual average CO2 emissions shall not exceed 1378.0 pounds per net MW-hour.

The project owner shall maintain records in a manner approved by the SCAQMD to demonstrate compliance with this condition. The records shall be made available to SCAQMD upon request.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-59 The project owner shall comply with the following requirements:

The total electricity output on a gross basis from combined-cycle turbines devices D115 and D124, and their common steam turbine shall not exceed 693.8 MW.

The gross electrical output shall be measured at the single generator serving each of the combined-cycle turbines, and the single generator serving the common steam turbine. The monitoring equipment shall meet ANSI Standard No. C12 or equivalent, and have an accuracy of +/- 0.2 percent. The gross

electrical output from the generators shall be recorded at the CEMS DAS over a 15 minute averaging time period.

The project owner shall record and maintain written records of the maximum amount of electricity produced from this equipment and shall make such records available to the Executive Officer upon request. The records shall be maintained for a minimum of 5 years in a manner approved by SCAQMD.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall report the maximum gross megawatts generated monthly to demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-60 The project owner shall comply with the following requirements:

The total electricity output on a gross basis from simple-cycle turbines devices D133 and D139 shall not exceed 201.6 MW.

The gross electrical output shall be measured at the single generator serving each of the simple-cycle turbines. The monitoring equipment shall meet ANSI Standard No. C12 or equivalent, and have an accuracy of +/- 0.2 percent. The gross electrical output from the generators shall be recorded at the CEMS DAS over a 15 minute averaging time period.

The project owner shall record and maintain written records of the maximum amount of electricity produced from this equipment and shall make such records available to the Executive Officer upon request. The records shall be maintained for a minimum of 5 years in a manner approved by SCAQMD.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall report the maximum gross megawatts generated monthly to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-61 The project owner shall comply with the following requirements:

This equipment shall not supply more than 43 percent of its potential electrical output or more than 376,200 MWh net electrical output to a utility distribution system on a 12 operating month rolling average and a 3 year rolling average basis

The project owner shall record and maintain written records of the amount of electricity supplied to the utility distribution system expressed as a percentage

of the total potential electrical output of the turbine and shall make the records available to the Executive Officer upon request.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC8**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

I. Administrative

AQ-62 This equipment shall not be operated unless the facility holds 147,093 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. RTCs held to satisfy this condition may be transferred only after one year from the initial start of operation. If the hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District as part of Quarterly Operation Reports (**AQ-SC8**).

AQ-63 This equipment shall not be operated unless the facility holds 26,970 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. RTCs held to satisfy this condition may be transferred only after one year from the initial start of operation. If the hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District as part of Quarterly Operation Reports (**AQ-SC8**).

AQ-64 This equipment shall not be operated unless the facility holds 1,313 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. RTCs held to satisfy this condition may be transferred only after one year from the initial start of operation. If the hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration

dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District as part of Quarterly Operation Reports (**AQ-SC8**).

AQ-65 This equipment shall not be operated unless the facility holds 14,803 pounds of SOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the project owner demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 9,960 pounds of SOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District as part of Quarterly Operation Reports (**AQ-SC8**).

AQ-66 This equipment shall not be operated unless the facility holds 1,660 pounds of SOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the project owner demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 1,201 pounds of SOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District as part of Quarterly Operation Reports (**AQ-SC8**).

AQ-67 This equipment shall not be operated unless the facility holds 382 pounds of SOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the project owner demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 382 pounds of SOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District as part of Quarterly Operation Reports (**AQ-SC8**).

J. Record Keeping/Reporting

AQ-68 The project owner shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source tests required under conditions **AQ-44**, **AQ-45**, and **AQ-46** are conducted.

Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lb/hr), and lb/MMCF. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains/DSCF.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute. All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the flue gas temperature, and the generator power output (MW) under which the test was conducted.

The combined-cycle turbines and the simple-cycle turbines are subject to this condition.

Verification: The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-69 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source tests required under conditions **AQ-45**, **AQ-47**, and **AQ-48** are conducted.

Emission data shall be expressed in terms of concentration (ppmv) corrected to 3 percent oxygen (dry basis), mass rate (lb/hr), and lb/MMCF. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains/DSCF.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute. All moisture concentration shall be expressed in terms of percent corrected to 3 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), and the flue gas temperature under which the test was conducted.

The auxiliary boiler is subject to this condition.

Verification: The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-70 The project owner shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Commissioning hours and type of control and fuel use

Date, time, and duration of each startup and shutdown, and the type of startup (cold or non-cold)

In addition to the requirements of a certified CEMS, natural-gas fuel use records shall be kept during and after the commissioning period and prior to CEMS certification

Minute by minute data (NO2 and O2 concentration and fuel flow rate at a minimum) for each turbine startup and shutdown

Total annual power output in MWh

The combined-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-71 The operator shall keep records in a manner approved by the District, for the following parameter(s) or item(s):

Commissioning hours and type of control and fuel use

Date, time, and duration of each startup and shutdown

In addition to the requirements of a certified CEMS, natural gas fuel use records shall be kept during and after the commissioning period and prior to CEMS certification

Minute by minute data (NO2 and O2 concentration and fuel flow rate at a minimum) for each turbine startup

Total annual power output in MWh

The simple-cycle turbines are subject to this condition.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

WORKER SAFETY & FIRE PROTECTION

WORKER SAFETY-1 PROJECT CONSTRUCTION SAFETY AND HEALTH PROGRAM

The project owner shall submit to the compliance project manager (CPM) a copy of the Project Construction Safety and Health Program containing the following:

- Construction Personal Protective Equipment Program;
- Construction Exposure Monitoring Program;
- Construction Injury and Illness Prevention Program;
- Construction Emergency Action Plan; and
- Construction Fire Prevention Plan.

The Personal Protective Equipment Program, the Exposure Monitoring Program, and the Injury and Illness Prevention Program shall be submitted to the CPM for review and approval concerning compliance of the program with all applicable safety orders. The Construction Emergency Action Plan and the Fire Prevention Plan shall be submitted to the Huntington Beach Fire Department for review and comment prior to submittal to the CPM for approval.

Verification: At least 30 days prior to the start of construction, the project owner shall submit to the CPM for review and approval a copy of the Project Construction Safety and Health Program. The project owner shall provide to the CPM a copy of the letter from the Huntington Beach Fire Department stating the fire department's comments, if and when any are received**,** on the Construction Fire Prevention Plan and Emergency Action Plan.

WORKER SAFETY-2 PROJECT OPERATIONS AND MAINTENANCE SAFETY AND HEALTH PROGRAM

The project owner shall submit to the CPM a copy of the Project Operations and Maintenance Safety and Health Program containing the following:

- an Operation Injury and Illness Prevention Plan;
- an Emergency Action Plan;
- Hazardous Materials Management Program;
- Fire Prevention Plan (8 Cal Code Regs. § 3221); and
- Personal Protective Equipment Program (8 Cal Code Regs, §§ 3401—3411).

The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to the CPM for review and approval concerning compliance of the programs with all applicable safety orders. The Fire Prevention Plan and the Emergency Action Plan shall also be submitted to the Huntington Beach Fire Department for review and comment.

Verification: At least 30 days prior to the start of first-fire or commissioning, the project owner shall submit to the CPM for approval a copy of the Project Operations and Maintenance Safety and Health Program. The project owner shall provide a copy of a letter to the CPM from the Huntington Beach Fire Department stating the fire department's comments, if and when any comments are received, on the Operations Fire Prevention Plan and Emergency Action Plan.

WORKER SAFETY-3 CONSTRUCTION SAFETY SUPERVISOR

The project owner shall assign a site Construction Safety Supervisor (CSS) who, by way of training and/or experience, has knowledge of power plant construction activities and relevant laws, ordinances, regulations, and standards; is capable of identifying workplace hazards relating to the construction activities; and has authority to take appropriate action to assure compliance and mitigate hazards. The CSS shall:

- have overall authority for coordination and implementation of all occupational safety and health practices, policies, and programs;
- assure that the safety program for the project complies with Cal/OSHA and federal regulations related to power plant projects;
- assure that all construction and commissioning workers and supervisors receive adequate safety training;
- complete accident and safety-related incident investigations and emergency response reports for injuries and inform the CPM of safety-related incidents; and
- assure that all the plans identified in Conditions of Certification **WORKER SAFETY-1** and **-2** are implemented.

Verification: At least 60 days prior to the start of site mobilization, the project owner shall submit the name and contact information for the CSS to the CPM for review and approval. The contact information of any replacement CSS shall be submitted to the CPM within one business day.

- The CSS shall submit, in the Monthly Compliance Report, a monthly safety inspection report to include:

- record of all employees trained for that month (all records shall be kept on site for the duration of the project);
- summary report of safety management actions and safety-related incidents that occurred during the month;
- report of any continuing or unresolved situations and incidents that may pose danger to life or health; and
- report of accidents and injuries that occurred during the month.

WORKER SAFETY- 4 SAFETY MONITOR

The project owner shall, through an agreement with the Chief Building Official (CBO), obtain and pay for the services of a Safety Monitor. The services of the Safety Monitor shall be in addition to other work performed by the CBO. The Safety Monitor shall be selected by and report directly to the CBO and will be responsible for verifying that the Construction Safety Supervisor, as required in Condition of Certification **WORKER SAFETY-3**, implements all appropriate Cal/OSHA and Energy Commission safety requirements. The Safety Monitor shall have full access to the project site to conduct on-site (including linear facilities) safety inspections at intervals necessary to fulfill those responsibilities.

Verification: At least 60 days prior to the start of construction, the project owner shall provide proof of its agreement to fund the Safety Monitor services to the CPM for review and approval.

WORKER SAFETY-5 AUTOMATIC EXTERNAL DEFIBRILLATOR

The project owner shall ensure that a portable automatic external defibrillator (AED) is located and properly maintained and functioning on site during all demolition, construction, and operations. The project owner shall prepare and implement a training program on the use of the AED. The training program shall be submitted to the CPM for review and approval. During construction and commissioning, the following persons shall be trained in its use and shall be on site whenever the workers that they supervise are on site: the Construction Project Manager or delegate, the Construction Safety Supervisor or delegate, and all shift foremen. During operations, all power plant employees shall be trained in its use.

Verification: At least 60 days prior to the start of site mobilization, the project owner shall submit the AED training program to the CPM for review and approval. The project owner shall also submit proof that a portable automatic external defibrillator (AED) exists on site in the Monthly Compliance Report and the Annual Compliance Report.

WORKER SAFETY-6 EMERGENCY ACCESS PLAN

The project owner shall prepare an Emergency Access Plan that shows all of the following: (1) a 26-foot wide fire lane that will provide a continuous loop around HBEP Block 1; (2) a 26-foot wide fire lane that will provide a continuous loop around HBEP Block 2; (3) a 26-foot wide fire lane from the HBEP main entrance to the continuous loops referenced in (1) and (2) above; and (4) a 26-foot wide fire lane from a secondary access point to the continuous loops referenced in (1) and (2) above. Both access lanes shall connect to a public street. Corners must allow for clear travel of a minimum 17-foot inner radius and 45-foot outer radius (radius must be concentric). The fire lanes shall be designed and maintained to support the imposed loads of fire apparatus (75,000 lbs. load/12,000 point load) and shall be surfaced to provide all-weather driving capabilities. Fire lane signage shall be provided as per City of Huntington Beach Specification #415. The 26-foot wide fire lanes shall meet the applicable requirements of the California Fire Code, City of Huntington Beach Municipal Code Chapter 17.56 - Huntington Beach Fire Code, and the Huntington Beach Fire Department City Specifications.

Verification: At least 60 days prior to the start of construction of any structures or components listed in the CBO-approved master drawing and master specification list, or within a timeframe approved by the CPM, the project owner shall submit the Emergency Access Plan to the Huntington Beach Fire Department for review and timely comment, and to the CPM and CBO for review and approval.

WORKER SAFETY-7 NFPA 850 FIRE PROTECTION FOR ELECTRIC GENERATING PLANTS

The project owner shall adhere to all applicable provisions of the latest version of NFPA 850: Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations as the minimum level of fire protection. All applicable NFPA 850 provisions and actions that are otherwise recommendations shall be incorporated herein as requirements. In any situations where both NFPA 850 and the state or local LORS have application, the more restrictive shall apply.

Verification: The project owner shall ensure that the project adheres to all applicable provisions of NFPA 850. At least 60 days prior to the start of construction of the fire protection system, the project owner shall provide all fire protection system specifications and drawings to the Huntington Beach Fire Department for review and comment, to the CPM for review and approval, and to the DCBO for plan check and construction inspection.

HAZARDOUS MATERIALS

HAZ-1 The project owner shall not use any hazardous materials not listed in **Appendix B**, below, or in greater quantities or strengths than those identified by chemical name in **Appendix B**, below, unless approved in advance by the Compliance Project Manager (CPM).

Verification: The project owner shall provide to the CPM, in the Annual Compliance Report, a list of hazardous materials, strengths, and quantities contained at the facility.

HAZ-2 The project owner shall concurrently provide a Business Plan and a Risk Management Plan (RMP) prepared pursuant to the California Accidental Release Program (CalARP) to the Huntington Beach Fire Department and the CPM for review. After receiving comments from the Huntington Beach Fire Department and the CPM, the project owner shall reflect all recommendations in the final documents. Copies of the final Business Plan and RMP shall then be provided to the Huntington Beach Fire Department for information and to the CPM for approval.

Verification: At least thirty (30) days prior to receiving any hazardous material on the site for commissioning or operations, the project owner shall provide a copy of a final Business Plan to the CPM for approval.

At least thirty (30) days prior to delivery of aqueous ammonia to the site, the project owner shall provide the final RMP to the Certified Unified Program Agency (the Huntington Beach Fire Department) for information and to the CPM for approval.

HAZ-3 The project owner shall develop and implement a Safety Management Plan for delivery of aqueous ammonia and other liquid hazardous materials by tanker truck. The plan shall include procedures, protective equipment requirements, training, and a checklist. It shall also include a section describing all measures to be implemented to prevent mixing of incompatible hazardous materials including provisions to maintain lockout control by a power plant employee not involved in the delivery or transfer operation. This plan shall be applicable during construction, commissioning, and operation of the power plant.

Verification: At least thirty (30) days prior to the delivery of any liquid hazardous material to the facility, the project owner shall provide a Safety Management Plan as described above to the CPM for review and approval.

HAZ-4 The aqueous ammonia storage facility shall be designed to the ASME Code for Unfired Pressure Vessels, Section VIII, Division 1. The storage tank shall be protected by a secondary containment basin capable of holding

precipitation from a 24 hour, 25-year storm event plus 100 percent capacity of the largest tank within its boundary. The containment basin shall incorporate a vented cover that allows free flow of any aqueous ammonia release into the containment, yet limits the total vent area to not more than 16 square feet. The final design drawings and specifications for the ammonia storage tank and secondary containment basins shall be submitted to the CPM.

Verification: At least sixty (60) days prior to delivery of aqueous ammonia to the facility, the project owner shall submit final design drawings and specifications for the ammonia storage tank and secondary containment basin to the CPM for review and approval.

HAZ-5 The project owner shall direct all vendors delivering aqueous ammonia to the site to use only tanker truck transport vehicles which meet or exceed the specifications of DOT Code MC-307.

Verification: At least thirty (30) days prior to receipt of aqueous ammonia on site, the project owner shall submit copies of the notification letter to supply vendors indicating the transport vehicle specifications to the CPM for review and approval.

HAZ-6 Prior to initial delivery, the project owner shall direct vendors delivering bulk quantities (>800 gallons per delivery) of hazardous material (e.g., aqueous ammonia, lubricating and insulating oils) to the site to use only the route approved by the CPM (I-405 to Beach Boulevard (State Highway 39), south onto Pacific Coast Highway (State Highway 1), and left onto Newland Street, then right into the HBEP site). The project owner shall obtain approval of the CPM if an alternate route is desired.

Verification: At least sixty (60) days prior to initial receipt of bulk quantities (>800 gallons per delivery) of hazardous materials (e.g., aqueous ammonia, lubricating or insulating oils) and at least ten (10) days prior to a new vendor delivery of bulk quantities (>800 gallons per delivery), the project owner shall submit a copy of the letter containing the route restriction directions that were provided to the hazardous materials vendor to the CPM for review and approval.

HAZ-7 Prior to commencing construction, a site-specific Construction Site Security Plan for the construction phase shall be prepared and made available to the CPM for review and approval. The Construction Site Security Plan shall include the following:

1. perimeter security consisting of fencing enclosing the construction area;

2. security guards;

3. site access control consisting of a check-in procedure or tag system for construction personnel and visitors;

4. written standard procedures for employees, contractors and vendors when encountering suspicious objects or packages on site or off site;

5. protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency; and,

6. evacuation procedures.

Verification: At least thirty (30) days prior to commencing construction, the project owner shall notify the CPM that a site-specific Construction Security Plan is available for review and approval.

HAZ-8 The project owner shall also prepare a site-specific security plan for the commissioning and operational phases that will be available to the CPM for review and approval. The project owner shall implement site security measures that address physical site security and hazardous materials storage. The level of security to be implemented shall not be less than that described below (as per NERC Security Guideline for the Electricity Sector: Physical Security v1.9).

The Operation Security Plan shall include the following:

1. Permanent full perimeter fence or wall, at least eight feet high and topped with barbed wire or the equivalent (and with slats or other methods to restrict visibility if a fence is selected;

2. Main entrance security gate, either hand operated or motorized;

3. Evacuation procedures;

4. Protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency;

5. Written standard procedures for employees, contractors, and vendors when encountering suspicious objects or packages on site or off site;

   A. A statement (refer to sample, **Attachment A**), signed by the project owner certifying that background investigations have been conducted on all project personnel. Background investigations shall be restricted to determine the accuracy of employee identity and employment history and shall be conducted in accordance with state and federal laws regarding security and privacy;

B. A statement(s) (refer to sample, **Attachment B**), signed by the contractor or authorized representative(s) for any permanent contractors or other technical contractors (as determined by the CPM after consultation with the project owner), that are present at any time on the site to repair, maintain, investigate, or conduct any other technical duties involving critical components (as determined by the CPM after consultation with the project owner) certifying that background investigations have been conducted on contractors who visit the project site;

6. Site access controls for employees, contractors, vendors, and visitors;

7. A statement(s) (refer to sample, **Attachment C**), signed by the owners or authorized representative of hazardous materials transport vendors, certifying that they have prepared and implemented security plans in compliance with 49 CFR 172.880, and that they have conducted employee background investigations in accordance with 49 CFR Part 1572, subparts A and B;

8. Closed circuit TV (CCTV) monitoring system, recordable, and viewable in the power plant control room and security station (if separate from the control room) with cameras able to pan, tilt, and zoom, have low-light capability, and are able to view 100% of the perimeter fence, the ammonia storage tank, the outside entrance to the control room, and the front gate; and,

9. Additional measures to ensure adequate perimeter security consisting of either:

   A. Security guard(s) present 24 hours per day, 7 days per week; or

   B. Power plant personnel on site 24 hours per day, 7 days per week, and perimeter breach detectors or on-site motion detectors.

The project owner shall fully implement the security plans and obtain CPM approval of any substantive modifications to those security plans. The CPM may authorize modifications to these measures, or may require additional measures such as protective barriers for critical power plant components - transformers, gas lines, and compressors - depending upon circumstances unique to the facility or in response to industry-related standards, security concerns, or additional guidance provided by the U.S. Department of Homeland Security, the U.S. Department of Energy, or the North American Electrical Reliability Council, after consultation with both appropriate law enforcement agencies and the applicant.

Verification: At least thirty (30) days prior to the initial receipt of hazardous materials on site, the project owner shall notify the CPM that a site-specific operations site security plan is available for review and approval. In the annual compliance report, the project owner shall include a statement that all current project employee and appropriate contractor background investigations have been performed, and that updated certification statements have been appended to the operations security plan. In the annual compliance report, the project owner shall include a statement that the operations security plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.

HAZ-9: The project owner shall not allow any fuel gas pipe cleaning activities on site, either before placing the pipe into service or at any time during the lifetime of the facility, that involve "flammable gas blows" where natural (or flammable) gas is used to blow out debris from piping and then vented to atmosphere. Instead, an inherently safer method involving a non-flammable gas (e.g. air, nitrogen, steam) or mechanical pigging shall be used as per NFPA 56. A written procedure shall be developed and implemented as per NFPA 56, section 4.4.1.

Verification: At least 30 days before any fuel gas pipe cleaning activities begin, the project owner shall submit a copy of the Fuel Gas Pipe Cleaning Work Plan (as described in NFPA 56, section 4.4.1) which shall indicate the method of cleaning to be used, what gas will be used, the source of pressurization, and whether a mechanical PIG will be used, to the Chief Building Official for information and to the CPM for review and approval.

SAMPLE CERTIFICATION (Attachment A)

Affidavit of Compliance for Project Owners

I,

_____

(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

_____

(Company name)

for employment at

_____

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

_____

(Signature of officer or agent)

Dated this _____ day of _____, 20 _____.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

SAMPLE CERTIFICATION (Attachment B)

Affidavit of Compliance for Contractors

I,

_____

(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

_____

(Company name)

for contract work at

_____

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

_____

(Signature of officer or agent)

Dated this _____ day of _____, 20 _____.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

SAMPLE CERTIFICATION (Attachment C)

Affidavit of Compliance for Hazardous Materials Transport Vendors

I,

_____

(Name of person signing affidavit)(Title)

do hereby certify that the below-named company has prepared and implemented security plans in conformity with 49 CFR 172.880 and has conducted employee background investigations in conformity with 49 CFR 172, subparts A and B,

_____

(Company name)

for hazardous materials delivery to

_____

(Project name and location)

as required by the California Energy Commission Decision for the above-named project.

_____

(Signature of officer or agent)

Dated this _____ day of _____, 20 _____.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

WASTE MANAGEMENT

WASTE-1 The project owner shall ensure that the HBEP project site is properly characterized and remediated as necessary pursuant to the corrective action plans reviewed by DTSC, the Huntington Beach Fire Department (HBFD), and/or the Orange County Health Care Agency. In no event shall project construction commence in areas requiring characterization and remediation until the CPM determines, with confirmation from the appropriate regulatory agency, that all necessary remediation has been accomplished.

Prior to and during grading and construction, discovery of additional soil contamination not previously identified or already included in corrective action plans, work plans, or closure plans must be reported to the CPM, DTSC, and the HBFD immediately.

Verification: At least 45 days prior to remediation the project owner shall submit to the CPM for approval copies of remediation documentation, such as, but not limited to, soil sample results, work plans, and agreements regarding the corrective action plan requirements and activities at the project site. Pertinent correspondence such as, but not limited to, soil sample results, work plans, agreements, and authorizations involving DTSC, the HBFD, and/or (if applicable) the Orange County Health Care Agency regarding the corrective action plan requirements and activities at the project site will be provided to the CPM within 10 days of receipt.

At least 15 days prior to the start of site mobilization, the project owner shall provide to the CPM written notice from the appropriate regulatory agency that the HBEP site has been investigated and remediated as necessary in accordance with the corrective action plan.

If soil contamination not previously identified or already included in corrective action plans, work plans, or closure plans is encountered prior to or during grading the project owner shall notify the CPM and DTSC, revise the approved work plan and submit it for concurrent CPM, HBFD, and DTSC review within 30 days after contamination is identified. Comments received within 30 days from all parties shall be incorporated and provided to DTSC for approval.

WASTE-2 Prior to demolition of existing structures associated with Units 1, 2, and 5, the project owner shall complete and submit a copy of a SCAQMD Asbestos Demolition Notification Form to the CPM and the SCAQMD for approval. After receiving approval, the project owner shall remove all Asbestos Containing Material (ACM) from the site prior to demolition.

Verification: No less than 60 days prior to commencement of structure demolition, the project owner shall provide the Asbestos Demolition Notification Form to the CPM for

review and approval. The project owner shall inform the CPM via the monthly compliance report, of the data when all ACM is removed from the site.

WASTE-3 The project owner shall provide the resume of an experienced and qualified professional engineer or professional geologist, who shall be available for consultation during site characterization (if needed), demolition, excavation, and grading activities, to the CPM for review and approval. The resume shall show experience in remedial investigation and feasibility studies.

The professional engineer or professional geologist shall be given full authority by the project owner to oversee any earth moving activities that have the potential to disturb contaminated soil.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit the resume of the professional engineer or professional geologist to the CPM for review and approval.

WASTE-4 If potentially contaminated soil is identified during site characterization, demolition, excavation, or grading at either the proposed site or linear facilities, as evidenced by discoloration, odor, detection by handheld instruments, or other signs, the professional engineer or professional geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and provide a written report to the project owner, representatives of Department of Toxic Substances Control, and the CPM stating the recommended course of action.

Depending on the nature and extent of contamination, the professional engineer or professional geologist shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If, in the opinion of the professional engineer or professional geologist, significant remediation may be required, the project owner shall contact the CPM and representatives of the Department of Toxic Substances Control for guidance and possible oversight.

Verification: The project owner shall submit any final reports filed by the professional engineer or professional geologist to the CPM within 5 days of their receipt. The project owner shall notify the CPM within 24 hours of any orders issued to halt construction.

WASTE-5 The project owner shall prepare a Construction and Demolition (C&D) Debris Waste Reduction and Recycling Plan for all wastes generated during demolition and construction of the facility and shall submit the plan to the CPM for review and approval. The plan shall contain, at a minimum, the following:

- a description of all construction waste streams, including projections of frequency, amounts generated, and hazard classifications;
- management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans.
- a method for collecting weigh tickets or other methods for verifying the volume of transported and or location of waste disposal; and,
- a method for reporting to demonstrate project compliance with construction waste diversion requirements of 50 percent pursuant to the CALGreen Code and Construction and Orange County Construction & Demolition Recycling and Reuse Program.

Verification: The project owner shall submit the C&D Debris Waste Reduction and Recycling Plan to the CPM and the city of Huntington Beach Department of Planning and Building for approval no less than 30 days prior to the initiation of demolition and construction activities at the site.

The project owner shall also document in each monthly compliance report (MCR) the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Construction Waste Management Plan; and update the Construction Waste Management Plan, as necessary, to address current waste generation and management practices.

WASTE-6 Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.

Verification: The project owner shall notify the CPM in writing within 10 days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the way project-related wastes are managed.

WASTE-7 The project owner shall prepare an Operation Waste Management Plan for all wastes generated during operation of the facility and shall submit the plan to the CPM for review and approval. The plan shall contain, at a minimum, the following:

- a detailed description of all operation and maintenance waste streams, including projections of amounts to be generated, frequency of generation, and waste hazard classifications;
- management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans;
- information and summary records of conversations with the local Certified Unified Program Agency and the Department of Toxic Substances Control regarding any waste management requirements necessary for project activities. Copies of all required waste management permits, notices, and/or authorizations shall be included in the plan and updated as necessary;
- a detailed description of how facility wastes will be managed and any contingency plans to be employed, in the event of an unplanned closure or planned temporary facility closure; and
- a detailed description of how facility wastes will be managed and disposed upon closure of the facility.

Verification: The project owner shall submit the Operation Waste Management Plan to the CPM for approval no less than 30 days prior to the start of project operation. The project owner shall submit any required revisions to the CPM within 20 days of notification from the CPM that revisions are necessary.

The project owner shall also document in each Annual Compliance Report the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan; and update the Operation Waste Management Plan as necessary to address current waste generation and management practices.

WASTE-8 The project owner shall ensure that all spills or releases of hazardous substances, materials, or waste are reported, cleaned up, and remediated as necessary, in accordance with all applicable federal, state, and local requirements.

Verification: The project owner shall document all unauthorized releases and spills of hazardous substances, materials, or wastes that occur on the project property or related pipeline and transmission corridors. The documentation shall include, at a minimum, the following information: location of release; date and time of release; reason for release;

volume released; amount of contaminated soil/material generated; how release was managed and material cleaned up; if the release was reported; to whom the release was reported; release corrective action and cleanup requirements placed by regulating agencies; level of cleanup achieved and actions taken to prevent a similar release or spill; and disposition of any hazardous wastes and/or contaminated soils and materials that may have been generated by the release. Copies of the unauthorized spill documentation shall be provided to the CPM within 30 days of the date the release was discovered.

BIOLOGICAL RESOURCES

BIO-1 APPOINTMENT AND QUALIFICATIONS OF DESIGNATED BIOLOGIST

The project owner shall assign at least one Designated Biologist to the project. The project owner shall submit the resume of the proposed Designated Biologist, with at least three references and contact information, to the Energy Commission Compliance Project Manager (CPM) for approval and to the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) for review and comment.

The Designated Biologist must meet the following minimum qualifications:

1. Bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field;
2. Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society; and
3. At least one year of field experience with biological resources found in or near the project area.

Current or prior possession of USFWS 10(a)(1)(A) permit and/or CDFW scientific collecting permit is preferred, but not required.

In lieu of the above requirements, the resume shall demonstrate to the satisfaction of the CPM that the proposed Designated Biologist or alternate has the appropriate training and background to effectively implement the conditions of certification.

The designated biologist may be replaced by submitting the required resume, references and contact information to the CPM for review and approval and to CDFW and USFWS for review and comment.

Verification: The project owner shall submit the specified information at least 75 days prior to the start of site mobilization or construction-related ground disturbance activities. No pre-construction site mobilization or construction-related activities shall commence until a Designated Biologist has been approved by the CPM.

The project owner may replace a Designated Biologist by submitting the required resume, references, and contact information to the CPM for review and approval and to the CDFW and USFWS for review and comment, at least ten working days prior to the termination or release of the then-current Designated Biologist. In an emergency, the project owner shall immediately notify the CPM to discuss the qualifications and approval of a short-term replacement while a permanent Designated Biologist is proposed to the CPM for consideration.

The CPM may withhold approval of a Designated Biologist based upon proof that a proposed Designated Biologist has repeatedly failed to comply with the conditions of any Energy Commission license as they pertain to biological resources. The CPM shall meet and confer with the project owner regarding the need to replace a Designated Biologist. Removal may occur if the CPM can establish that the Designated Biologist has repeatedly failed to comply with the conditions of the HBEP license that pertain to biological resources.

In the absence of comments, the CPM shall deem the Designated Biologist acceptable to USFWS and/or CDFW.

BIO-2 DUTIES OF DESIGNATED BIOLOGIST AND BIOLOGICAL MONITOR(S)

The project owner shall ensure that the Designated Biologist performs the following during any site (or related facilities) mobilization, ground disturbance, grading, demolition, and construction activities. The Designated Biologist may be assisted by the approved Biological Monitor(s) but remains the contact for the project owner and CPM. The Designated Biologist Duties shall include the following:

1. Advise the project owner's Construction and Operation Managers on the implementation of the biological resources conditions of certification;
2. Consult on the preparation of the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) (Condition of Certification **BIO-6**) to be submitted by the project owner;
3. Be available to supervise, conduct and coordinate mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as special status species or their habitat;
4. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;
5. Inspect or direct the site personnel how to inspect active construction areas where animals may have become trapped prior to construction commencing each day. Inspect or direct the site personnel how to inspect the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm’s way. Inspect soil or spoil stockpiles and dust abatement watering for compliance with Condition of Certification **BIO-7**. Inspect erosion control materials (e.g., hay bales) to confirm weed-free certification.

Inspect weed infestations and monitor eradication measures to determine success. Inspect trash receptacles, monitor site personnel compliance with trash handling, pet prohibitions, and all other Worker Environmental Awareness Program (WEAP) components (Condition of Certification **BIO-5**);

6. Notify the project owner and the CPM of any non-compliance with any biological resources condition of certification;
7. Respond directly to inquiries of the CPM regarding biological resource issues;
8. Maintain written records of the tasks specified above and those included in the BRMIMP;
9. Train the Biological Monitors as appropriate, and ensure their familiarity with the BRMIMP, WEAP training, and all permits; and
10. Maintain the ability to be in regular, direct communication with representatives of CDFW, USFWS, and CPM, including notifying these agencies of dead or injured listed species and reporting special status species observations to the California Natural Diversity Database.

Verification: The Designated Biologist shall notify the CPM of any noncompliance or special-status species injury or mortality within one (1) working day of the incident. The Designated Biologist shall submit in the monthly compliance report (MCR) to the CPM copies of all written reports and summaries that document construction activities that have the potential to affect biological resources. The Designated Biologist's written records will be made available for the CPM's inspection on request at any time during normal business hours. During project operation, the Designated Biologist(s) shall submit record summaries in the annual compliance report unless their duties cease, as approved by the CPM.

BIO-3 APPOINTMENT AND QUALIFICATIONS OF BIOLOGICAL MONITOR

The project owner shall submit the resume, at least three references, and contact information of the proposed Biological Monitor(s) to the CPM for approval. The resume shall demonstrate, to the satisfaction of the CPM, the appropriate education and experience to accomplish the assigned biological resource tasks.

The project owner may replace a Biological Monitor by submitting the required resume, references, and contact information to the CPM for review and approval and to CDFW and USFWS for review and comment, at least ten working days prior to the termination or release of the then current Biological Monitor. In an emergency, the project owner shall immediately notify the CPM to discuss the qualifications and approval of a

short-term replacement while a permanent Biological Monitor is proposed to the CPM for consideration.

Verification: The project owner shall submit the specified information to the CPM for approval at least 30 days prior to the start of any project-related site disturbance activities. Within 10 days of completion of training, the Designated Biologist shall submit a written statement to CPM confirming that individual Biological Monitor(s) have been trained, including the date when training was completed. If additional biological monitors are needed during construction, the specified information shall be submitted to the CPM for approval at least 10 days prior to their first day of monitoring activities.

BIO-4 POWERS OF DESIGNATED BIOLOGIST/BIOLOGICAL MONITOR(S)

The project owner's construction/operation manager shall act on the advice of the Designated Biologist and Biological Monitor(s) to ensure conformance with the biological resources conditions of certification.

If required by the Designated Biologist and Biological Monitor(s), the project owner's construction/operation manager shall halt all site mobilization, ground disturbance, grading, construction, and operation activities in areas specified by the Designated Biologist. The Designated Biologist shall:

1. Require a halt to all activities in any area when determined that there would be an unauthorized adverse impact to biological resources if the activities continued;
2. Inform the project owner and the construction/operation manager when to resume activities;
3. Notify the CPM if there is a halt of any activities and advise the CPM of any corrective actions that have been taken or would be instituted as a result of the work stoppage; and
4. The CPM, in coordination with CDFW or USFWS as appropriate, will determine if corrective action has been effective and will direct the project owner to take further corrective action as needed.

If the Designated Biologist is unavailable for direct consultation, the Biological Monitor shall act on behalf of the Designated Biologist.

Verification: The project owner shall ensure that the Designated Biologist or Biological Monitor notifies the CPM immediately (and no later than the morning following the incident, or Monday morning in the case of a weekend) of any non-compliance or a halt of any site mobilization, ground disturbance, grading, construction, and operation activities. The project owner shall notify the CPM of the circumstances and actions being taken to resolve the problem within one (1) working day of initiating the corrective action.

Whenever corrective action is taken by the project owner, a determination of success or failure would be made by the CPM within five working days after receipt of notice that corrective action is completed, or the project owner would be notified by the CPM that coordination with other agencies would require additional time before a determination can be made.

BIO-5 BIOLOGICAL RESOURCES WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)

The project owner shall develop and implement HBEP-specific Worker Environmental Awareness Program (WEAP) and submit the WEAP to the CPM for review and approval and to the USFWS and CDFW for review and comment. The WEAP shall be administered to all on-site personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, and subcontractors. The WEAP shall be implemented during site mobilization, ground disturbance, grading, construction, operation, and closure. The WEAP shall:

1. Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting electronic media and written material is made available to all participants;
2. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, explain the reasons for protecting these resources, and the function of flagging in designating sensitive resources and authorized work areas;
3. Discuss federal and state laws afforded to protect the sensitive species and explain penalties for violation of applicable laws, ordinances, regulations, and standards (e.g., federal, and state endangered species acts);
4. Place special emphasis on the light-footed Ridgway's rail, western snowy plover, California least tern and Belding's savannah sparrow, including information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection and status, penalties for violations, reporting requirements, and protection measures;
5. Include a discussion of fire prevention measures to be implemented by workers during project activities; request workers to dispose of cigarettes and cigars appropriately and not leave them on the ground or buried;

6. Include a discussion of the biological resources conditions of certification;
7. Identify whom to contact if there are further comments and questions about the material discussed in the program; and
8. Include a training acknowledgment form to be signed by each worker indicating that they received the WEAP training and shall abide by the guidelines.

The specific WEAP shall be administered by a competent individual(s) acceptable to the Designated Biologist.

Verification: At least 45 days prior to the start of any planned project-related site disturbance activities, the project owner shall provide to the CPM a copy of the draft WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program. The Notice to Proceed will not be issued until the WEAP has been approved by the CPM.

The project owner shall provide in the monthly compliance reports the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date.

Throughout the life of the project, WEAP training shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attend the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to the CMP upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate indicating that they have completed the required training.

Training acknowledgement forms signed during construction shall be kept on file by the project owner for at least six months after the completion of all project construction activities. During project operation, signed statements for operational personnel shall be kept on file for six months following the termination of an individual's employment.

In the absence of comments, the CPM shall deem the WEAP acceptable to USFWS and/or CDFW.

BIO-6 BIOLOGICAL RESOURCES MITIGATION IMPLEMENTATION AND MONITORING PLAN (BRMIMP)

The project owner shall develop a BRMIMP and submit two copies of the proposed BRMIMP to the CPM for review and approval and to CDFW and USFWS for review and comment and shall implement the measures identified in the approved BRMIMP. The BRMIMP shall be prepared in consultation with the Designated Biologist and shall include the following:

1. All biological resource mitigation, monitoring, and compliance measures proposed and whether the project owner has agreed to the proposed measures;
2. All biological resource conditions of certification identified in the Commission Decision as necessary to avoid or mitigate impacts;
3. All biological resource mitigation, monitoring, and compliance measures required in other state agency terms and conditions, such as those provided in the National Pollution Discharge Elimination System (NPDES) Construction Activities Storm Water General Permit;
4. A list or tabulation of all sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation, and closure;
5. All required mitigation measures for each sensitive biological resource;
6. A detailed description of measures that shall be taken to avoid or mitigate disturbances from construction and demolition activities;
7. All locations, shown on a map at an approved scale, of sensitive biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during construction;
8. Aerial photographs, at an approved scale, of all areas to be disturbed during project construction activities prior to any site or related facilities mobilization disturbance, for comparison with aerial photographs at the same scale to be provided and subsequent to completion of project construction (see Verification);
9. Duration for each type of monitoring and a description of monitoring methodologies and frequency;
10. Performance standards from each biological resource condition of certification to determine if mitigation and conditions are or are not successful;
11. Remedial measures to be implemented if performance standards are not met;

12. A discussion of biological resources-related facility closure measures including a description of funding mechanism(s);
13. A process for proposing BRMIMP modifications to the CPM and appropriate agencies for review and approval; and
14. A requirement to submit any sightings of any special-status species that are observed on or in proximity to the project site, or during project surveys, to the California Natural Diversity Database (CNDDB) per CDFW requirements.

Verification: No fewer than 45 days prior to planned start of construction, the project owner will submit a draft BRMIMP to the CPM for review and approval and to CDFW and USFWS for review and comment. The Notice to Proceed will not be issued until the BRMIMP has been approved by the CPM. In the absence of comments, the CPM shall deem the BRMIMP acceptable to USFWS and/or CDFW.

If the National Pollution Discharge Elimination System (NPDES) Construction Activities Storm Water General Permit or any other permits has not have not yet been received when the BRMIMP is first submitted, those permits shall be submitted to the CPM, the CDFW, and USFWS, within 5 days of their receipt, and the BRMIMP shall be revised or supplemented to reflect the permit conditions, if any.

Prior to implementing any changes to the approved BRMIMP, the project owner shall provide a draft of the proposed modification to the CPM for review and approval and to CDFW and USFWS for review and comment. No modification shall be implemented until approved by the CPM. In the absence of comments, the CPM shall deem the modification to the BRMIMP acceptable to USFWS and/or CDFW.

Implementation of all BRMIMP measures shall be reported in the monthly compliance reports by the Designated Biologist (i.e., survey results, construction activities that were monitored, species observed). Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction closure report identifying which items of the BRMIMP have been completed; a summary of all modifications to mitigation measures made during the project's site mobilization, ground disturbance, grading, and construction phases; and which mitigation and monitoring items are still outstanding. The Construction Closure Report will include a set of aerial photographs of the site at an approved scale for comparison with the pre-construction set (Item 8 above).

BIO-7 GENERAL IMPACT AVOIDANCE AND MINIMIZATION MEASURES

The project owner shall implement the following measures during site mobilization, construction, operation, and closure to manage their project site and related facilities in a manner to avoid or minimize impacts to biological resources:

1. The boundaries of all areas to be temporarily or permanently disturbed (including staging areas, access roads, and sites for temporary placement of spoils) shall be delineated with stakes and flagging prior to construction activities in consultation with the Designated Biologist. Spoils shall be stockpiled in disturbed areas which do not provide habitat for special-status species. Parking areas, staging and disposal site locations shall similarly be located in areas without native vegetation or special-status species habitat. All disturbances, vehicles, and equipment shall be confined to the flagged areas.
2. At the end of each work day, the Designated Biologist, Biological Monitor, and/or site personnel shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled. If site personnel are inspecting trenches, bores, and other excavations and wildlife is trapped, they will immediately notify the Designated Biologist and/or Biological Monitor. If backfilling is not feasible, all trenches, bores, and other excavations shall be sloped at a 3:1 ratio at the ends to provide wildlife escape ramps, or covered completely to prevent wildlife access. Should wildlife become trapped, the Designated Biologist or Biological Monitor shall remove and relocate the individual to a safe location. Any wildlife encountered during the course of construction shall be allowed to leave the construction area unharmed.
3. Transmission lines and all electrical components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) Suggested Practices for Avian Protection on Power Lines (APLIC 2006) and Reducing Avian Collisions with Power Lines (APLIC 2012) to reduce the likelihood of large bird electrocutions and collisions.
4. Spoils shall not be stockpiled adjacent to the southeastern fence line to minimize potential for spoils to enter into adjacent wetlands.
5. Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.
6. To the extent feasible, FAA visibility lighting shall employ only strobed, strobe-like, or blinking incandescent lights, preferably with all lights illuminating simultaneously. Minimum intensity, maximum "off-phased" duel strobes are preferred, and no steady burning lights (e.g., L-810s) shall be used.

7. Water applied to dirt roads and construction areas (trenches or spoil piles) for dust abatement shall use the minimal amount needed to meet safety and air quality standards in an effort to prevent the formation of puddles, which could attract California least tern predators to construction sites. During construction, site personnel shall patrol these areas to ensure water does not puddle and attract crows and other wildlife to the site, and shall take appropriate action to reduce water application rates where necessary.

   During construction, each employee shall report on-site deaths, including road kill, and injuries of special-status species to the Designated Biologist or Biological Monitor immediately upon discovery. The Designated Biologist or Biological Monitor shall remove the carcass or injured animal promptly. The Designated Biologist or Biological Monitor shall immediately report any dead or injured special-status species to CDFW and/or USFWS and the CPM, and the project owner shall follow instructions that are provided by CDFW or USFWS. The Designated Biologist shall maintain a record of all dead or injured special-status species, including species name, physical characteristics of the animal (sex, age class, length, and weight), disposition of the animal, and other pertinent information and shall include this information in the MCR.

8. During operations, each employee shall report all deaths, including road kill, and injuries of special-status species to the Project Environmental Compliance Monitor immediately upon discovery. shall be notified. The Project Environmental Compliance Monitor shall remove the carcass or injured animal promptly. The Project Environmental Compliance Monitor shall immediately report any dead or injured special-status species to CDFW and/or USFWS and the CPM, and the project owner shall follow instructions that are provided by CDFW or USFWS. The Project Environmental Compliance Monitor shall maintain a record of all dead or injured special-status species, including species name, physical characteristics of the animal (sex, age class, length, and weight), disposition of the animal, and other pertinent information.

9. All vehicles and equipment shall be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Designated Biologist shall be informed of any hazardous spills immediately as directed in the project Hazardous Materials Plan (see Condition of Certification **HAZ-2**). Hazardous spills shall be

immediately cleaned up and the contaminated soil will be properly disposed of at a licensed facility. Any on-site servicing of vehicles or construction equipment shall take place only at a designated area approved by the Designated Biologist. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills.

10. During construction all trash and food-related waste shall be placed in self-closing containers and removed weekly or more frequently from the site. Workers shall not feed wildlife or bring pets to the project site.
11. Except for law enforcement personnel, no workers or visitors to the site shall bring firearms or weapons.
12. The project owner shall implement the following measures during construction and operation to prevent the spread and propagation of nonnative, invasive weeds:
    A. Limit the size of any vegetation and/or ground disturbance to the minimum area needed for safe completion of project activities, and limit ingress and egress to defined routes; and
    B. Use only weed-free straw, hay bales, and seed for erosion control and sediment barrier installations. Invasive non-native species shall not be used in landscaping plans and erosion control. Monitor and rapidly implement control measures to ensure early detection and eradication of weed invasions.
13. During construction and operation, the project owner shall conduct pesticide management in accordance with standard BMPs. The BMPs shall include non-point source pollution control measures. The project owner shall use a licensed herbicide applicator and obtain recommendations for herbicide use from a licensed Pest Control Advisor. Herbicide applications must follow EPA label instructions. Minimize use of rodenticides and herbicides in the project area and prohibit the use of chemicals and pesticides known to cause harm to non-target plants and wildlife. The project owner shall only use pesticides for which a “no effect” determination has been issued by the EPA’s Endangered Species Protection Program for any species likely to occur within the project area or adjacent wetlands. If rodent control must be conducted, zinc phosphide or an equivalent product shall be used.

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported in the monthly compliance reports by the designated biologist. Within 30 days after completion of project construction, the project owner shall provide to the CPM, for

review and approval, a written construction completion report identifying how measures have been completed (see Condition of Certification **BIO-6** verification).

Monthly and annual compliance reports will include results of all regular inspections by the Designated Biologist and Biological Monitor(s), including but not limited to the requirements cited above and in Condition of Certification **BIO-2**.

The project owner must maintain written records of vehicle and equipment inspection and maintenance, and provide summaries in each monthly and annual compliance report. The complete written vehicle maintenance record will be available for the CPM's inspection during normal business hours.

The BRMIMP (Condition of Certification **BIO-6**) must include affirmation by the project owner that:

- All electrical component design conforms to applicable APLIC guidelines; and
- All soil binders conform to the requirements stated above.

BIO-8 PRE-CONSTRUCTION NEST SURVEYS AND IMPACT MINIMIZATION MEASURES FOR BREEDING BIRDS

Pre-construction nest surveys shall be conducted if construction or demolition activities will occur from February 1 through August 31. The Designated Biologist or Biological Monitor shall perform surveys in accordance with the following guidelines:

1. Surveys shall cover all potential nesting habitat and substrate within the project site and areas surrounding the project site within 300 feet of the project boundary.
2. At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. Pre-construction surveys shall be conducted no more than 14 days prior to initiation of construction activity. One survey needs to be conducted within the 3-day period preceding initiation of construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed three weeks during February 1 through August 31 in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation.
3. If active nests are detected during the survey, a no-disturbance buffer zone (protected area surrounding the nest) shall be established around each nest. Specific buffer distances are provided below for applicable avian groups (Biological Resources Table 1); these buffers may be modified with CPM's approval. For special-status species, if an active nest is identified, the size of each buffer zone shall be determined by

the Designated Biologist in consultation with the CPM (in coordination with CDFW and USFWS). Nest locations shall be mapped using GPS technology.

Biological Resources Table 1:
HBEP Construction and Demolition Buffers for Active Nests

Avian Group	**Species Potentially Nesting in the Project Vicinity**	**Buffer for Construction and Demolition Activities (feet)**
Bitterns and herons	Black-crowned night heron, great blue heron, great egret, green heron, snowy egret	250
Cormorants	Double-crested cormorant	100
Doves	Mourning dove	25
Geese and ducks	American widgeon, blue-winged teal, cinnamon teal, Canada goose, gadwall, mallard, northern pintail, ruddy duck	100
Grebes	Clark's grebe, eared grebe, horned grebe, pied-billed grebe, western grebe	100
Hummingbirds	Allen's hummingbird, Anna's hummingbird, black-chinned hummingbird	25
Plovers	Black-bellied plover, killdeer	50
Raptors (Category 1)	American kestrel, barn owl, red-tailed hawk	50
Raptors (Category 2)	Cooper's hawk, red-shouldered hawk, sharp-shinned hawk	150
Raptors (Category 3)	Northern harrier, white-tailed kite	These are special-status species; buffer determined in consultation with CPM
Stilts and Avocets	American avocet, black-necked stilt	150
Terns	Elegant tern, Forster's tern, royal tern	100
Passerines (cavity and crevice nesters)	House wren, Say's phoebe, western bluebird	25
Passerines (bridge, culvert, and building nesters)	Black phoebe, cliff swallow, house finch, Say's phoebe	25

Avian Group	Species Potentially Nesting in the Project Vicinity	Buffer for Construction and Demolition Activities (feet)
Passerines (ground nesters, open habitats)	Horned lark	100
Passerines (understory and thicket nesters)	American goldfinch, blue-gray gnatcatcher, bushtit, California towhee, common yellowthroat, red-winged blackbird, song sparrow, Swainson's thrush	25
Passerines (scrub and tree nesters)	American crow, American goldfinch, American robin, blue-gray gnatcatcher, Bullock's oriole, bushtit, Cassin's kingbird, common raven, hooded oriole, house finch, lesser goldfinch, northern mockingbird	25
Passerines (tower nesters)	Common raven, house finch	25
Passerines (marsh nesters)	Common yellowthroat, red-winged blackbird	25
Species not covered under MBTA	Domestic waterfowl, including domesticated mallards, feral (rock) pigeon, European starling, and house sparrow	N/A

4. If active nests are detected during the survey, the Designated Biologist or Biological Monitor shall monitor all nests with buffers at least once per week, to determine whether birds are being disturbed. If signs of disturbance or distress are observed, the Designated Biologist or Biological Monitor shall immediately implement adaptive measures to reduce disturbance in coordination with the CPM. These measures could include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity.

5. If active nests are detected during the survey, the Designated Biologist or Biological Monitor shall monitor the nest until he or she determines that nestlings have fledged and dispersed or the nest is no longer active. Activities that might, in the opinion of the Designated Biologist or Biological Monitor, disturb nesting activities (e.g., exposure to exhaust), shall be prohibited within the buffer zone until such a determination is made.

6. A qualified biologist shall conduct a habitat assessment for light-footed clapper Ridgway's rail shall be conducted in Magnolia and Upper Magnolia Marshes during the breeding season (March 1 to August 1) immediately preceding the commencement of construction and demolition activities. If suitable breeding habitat for the light footed clapper Ridgway's rail is identified, focused surveys will be conducted prior to any construction or demolition activities. Surveys are not required if no suitable habitat is present. If clapper Ridgway's rails are detected during the breeding season, the CPM, CDFW, and USFWS will be notified and the project owner will consult with the USFWS for incidental take authorization, if required.

Verification: The project owner shall provide notification to the CPM, CDFW, and USFWS, at least 2 weeks prior to initiating the habitat assessment and any subsequent surveys for light-footed Ridgway's rail; notification will include the name and resume of the biologist(s) conducting the habitat assessment and surveys and the timing of the surveys. Within ten (10) days of completion of the field work, the project owner shall provide the CPM, CDFW, and USFWS a report describing the findings of the preconstruction nest surveys and the light-footed Ridgway's rail habitat assessment and focused survey (if surveys were conducted), including a description and representative photographs of habitat in the marshes; the time, date, methods, and duration of the surveys; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the surveys, the reports shall include a map or aerial photo identifying the location of the nest(s) and shall depict the boundaries of the proposed no disturbance buffer zone around the nest(s). The CPM will consider any timely comments received from CDFW and USFWS in review of the report. In the absence of comments within that timeframe, the CPM shall deem the report acceptable to USFWS and/or CDFW.

Additionally, the nest monitoring plan shall be submitted to the CPM for review and approval and to USFWS and CDFW for review and comment prior to any planned demolition or construction activities in the vicinity of any active nest. No such demolition or construction activities may proceed without CPM approval of the nest monitoring plan. If light-footed Ridgway's rails are documented during the breeding season in Upper Magnolia or Magnolia Marshes, prior to any planned pile driving on the site or demolition or construction activities within 400 feet of the marsh boundary, the project owner will notify the CPM and will consult with the USFWS for incidental take authorization or a determination that no incidental take authorization is required. All impact avoidance and minimization measures related to nesting birds shall be included in the BRMIMP and implemented. In the absence of comments within that timeframe, the CPM shall deem the nest monitoring plan acceptable to USFWS and/or CDFW. Implementation of the measures shall be reported in the monthly compliance reports by the Designated Biologist.

SOIL AND WATER RESOURCES

SOIL&WATER-1 NPDES CONSTRUCTION PERMIT REQUIREMENTS

The project owner shall manage storm water pollution from HBEP construction activities by fulfilling the requirements contained in State Water Resources Control Board's *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002*) and all subsequent revisions and amendments. The project owner shall develop and implement a construction Storm Water Pollution Prevention Plan (SWPPP) for the construction of the HBEP project.

Verification: Thirty (30) days prior to site mobilization of HBEP construction activities, the project owner shall submit the construction SWPPP to the delegate chief building official (CBO) and compliance project manager (CPM) for review and the SWRCB for review and comment. A copy of the approved construction SWPPP shall be kept accessible onsite at all times. Within 10 days of its mailing or receipt, the project owner shall submit to the CPM any correspondence between the project owner and the Santa Ana Regional Water Quality Control Board about the general NPDES permit for discharge of storm water associated with construction and land disturbance activities. This information shall include a copy of the notice of intent and the notice of termination submitted by the project owner to the SWRCB.

SOIL&WATER-2 HYDROSTATIC WATER DISCHARGE PERMIT REQUIREMENTS

Prior to initiation of hydrostatic testing water discharge to surface waters, the project owner shall obtain a National Pollutant Discharge Elimination System permit for discharge to the Pacific Ocean. The project owner shall comply with the requirements of the Permit Order No. R8-2009-0003, NPDES NO. CAG998001 for hydrostatic testing water discharge. The project owner shall provide a copy of all permit documentation sent to the Santa Ana Regional Water Quality Control Board or State Water Quality Control Board to the CPM and notify the CPM in writing of any reported non-compliance.

Verification: Prior to construction mobilization, the project owner shall submit to the CPM documentation that all necessary NPDES permits were obtained from the Santa Ana Regional Water Quality Control Board or State Water Quality Control Board. Thirty (30) days prior to HBEP operation, the project owner shall submit to the CPM a copy of the relevant plans and permits received. The project owner shall submit to the CPM all copies of any relevant correspondence between the project owner and the Board regarding NPDES permits in the annual compliance report.

SOIL&WATER-3 GROUNDWATER DISCHARGE PERMIT REQUIREMENTS

Prior to any groundwater dewatering, the project owner shall submit a dewatering plan to the CPM for review and approval. The dewatering plan shall include maximum daily and average daily pumping rates, and total volume expected to be pumped during dewatering, as well as the dates expected to be used for dewatering. The plan shall also include estimates of drawdown that may occur at the adjacent marsh land, and identify potential mitigation, as needed, as well as describe under what circumstances such mitigation would be implemented.

Discharge of dewatering water shall comply with the Santa Ana Regional Water Quality Control Board (RWQCB) and State Water Resources Control Board regulatory requirements. The project owner shall submit a Report of Waste Discharge (RWD) to the CPM and RWQCB for determination of which regulatory waiver or permit applies to the proposed discharges. The project owner shall ensure compliance with the provisions of the waiver or permit applicable to the discharge. Where the regulatory requirements are not applied pursuant to a National Pollutant Discharge Elimination System permit, it is the Commission's intent that the requirements of the applicable waiver or permit be enforceable by both the Commission and the RWQCB. In furtherance of that objective, the Commission hereby delegates the enforcement of the waiver or permit requirements, and associated monitoring, inspection, and annual fee collection authority, to the RWQCB. Accordingly, the Commission and the RWQCB shall confer with each other and coordinate, as needed, in the enforcement of the requirements.

Verification: Prior to any dewatering water discharge, the project owner shall submit a ROWD to the RWQCB to obtain the appropriate waiver or permit and submit the dewatering plan to the CPM. The appropriate waiver or permit, as well as dewatering plan, must be obtained at least 30 days prior to the discharge. The project owner shall submit a copy of any correspondence between the project owner and the RWQCB regarding the waiver or permit and all related reports to the CPM within 10 days of correspondence receipt or submittal.

SOIL&WATER-4 NPDES INDUSTRIAL PERMIT REQUIREMENTS

Prior to the start of commercial operations, the project owner shall obtain a National Pollutant Discharge Elimination System permit for industrial waste and storm water discharge to the Pacific Ocean. The project owner shall discharge to the same outfall currently utilized by the Huntington Beach Generating Station under the requirements of Order No. R8-2010-0062, NPDES No. CA0001163. The project owner shall provide a copy of

all permit documentation sent to the Santa Ana or State Water Board to the CPM and notify the CPM in writing of any reported non-compliance.

Verification: Prior to the start of commercial operations, the project owner shall submit to the CPM documentation that all necessary NPDES permits were obtained from the Santa Ana or State Water Board. Thirty days prior to HBEP operation, the project owner shall submit to the CPM a copy of the Industrial SWPPP. The project owner shall submit to the CPM all copies of any relevant correspondence between the project owner and the Board regarding NPDES permits in the annual compliance report.

SOIL&WATER-5 WATER AND SEWER CONNECTIONS

The project owner shall pay the city of Huntington Beach all fees normally associated with industrial connections to the city's sanitary sewer or water supply system as defined in the city's code, Water and Sewers, title 14.

Verification: Prior to the use of the city's water or sewer system the owner shall provide the CPM documentation indicating that the city has accepted the project's connections to the water and sewer systems. Fees paid to the city shall be reported in the Annual Compliance Report (ACR) for the life of the project.

SOIL&WATER-6 WATER USE AND REPORTING

Water supply for project operation and construction shall be potable water supplied from the city of Huntington Beach. Water use for operation of the Huntington Beach Energy Project shall not exceed 120 AFY; water use for construction shall not exceed 22 AFY. A monthly summary of water use shall be submitted to the CPM.

Verification: The project owner shall record HBEP operation water use on a daily basis and shall notify the CPM within 14 days upon forecast to exceed the maximum annual use as described above. Prior to exceeding the maximum use, the owner shall provide a plan to modify operations.

The project owner shall record HBEP construction water use on a daily basis and shall notify the CPM within 14 days upon forecast to exceed the maximum annual use of 22 AFY of potable water. Prior to exceeding the maximum use, the owner shall provide a plan to modify construction practices or offset excess water use.

The project owner shall submit a water use summary report to the CPM monthly during construction and annually in the ACR during operations for the life of the project. The annual report shall include calculated monthly range, monthly average, daily maximum within each month and annual use by the project in both gallons per minute and acre-feet. After the first year and for subsequent years, this information shall also include the yearly range and yearly average potable water used by the project.

SOIL&WATER-7 WATER METERING

Prior to the use of a water source during commercial operation, the project owner shall install and maintain metering devices as part of the water supply and distribution system to monitor and record in gallons per day the total volume(s) of water supplied to the HBEP from the water source. Those metering devices shall be operational for the life of the project and must be able to record the volume from each source separately.

Verification: At least thirty (30) days prior to use of any water source for HBEP operation, the project owner shall submit to the CPM evidence that metering devices have been installed and are operational. The project owner shall provide a report on the servicing, testing, and calibration of the metering devices in the annual compliance report.

CULTURAL RESOURCES

CUL-1 APPOINTMENT AND QUALIFICATIONS OF CULTURAL RESOURCES SPECIALIST (CRS)

A. CULTURAL RESOURCE SPECIALIST

1. Appointment and Qualifications

The project owner shall assign at least one Cultural Resources Specialist (CRS) to the project. The project owner shall submit the resume of the proposed CRS, with at least three references and contact information, to the Energy Commission Compliance Project Manager (CPM) for review and approval.

The CRS and alternate CRS(s) shall have training and background that conform to the U.S. Secretary of the Interior's Professional Qualifications Standards, as published in Title 36, Code of Federal Regulations, part 61. In addition, the CRS and alternate CRS(s) shall have the following qualifications:

a. A background in anthropology, archaeology, history, architectural history, or a related field;

b. At least 10 years of archaeological or historical experience (as appropriate for the project site), with resources mitigation and fieldwork;

c. At least one year of field experience in California; and

d. At least three years of experience in a decision-making capacity on cultural resources projects in California and the appropriate training and experience to knowledgably make recommendations regarding the significance of cultural resources.

The project owner may replace the CRS by submitting the required resume, references and contact information of the proposed replacement to the CPM.

2. Duties of Cultural Resources Specialist

The CRS shall manage all cultural resource monitoring, mitigation, curation, and reporting activities, and any post-certification cultural resource activities (as defined above), unless management of these is otherwise provided for in accordance with the cultural resource conditions of certification (conditions). The CRS shall serve as the primary point of contact on all cultural resource matters for the Energy Commission. The CRS may elect to obtain the services of Cultural Resource Monitors

(CRMs), Native American Monitors (NAMs), and other technical specialists, if needed, to assist in monitoring, mitigation, and curation activities. The project owner shall ensure that the CRS makes recommendations regarding the eligibility for listing in the California Register of Historical Resources (CRHR) of any cultural resources that are newly discovered or that may be affected in an unanticipated manner.

After all ground disturbances is completed and the CRS has fulfilled all responsibilities specified in these cultural resources conditions, the project owner may discharge the CRS, after receiving approval from the CPM.

The conditions of certification described in this subsection of the FSA shall continue to apply during operation of the proposed power plant.

B. CULTURAL RESOURCES MONITORS

1. Appointment and Qualifications

The project owner may assign Cultural Resources Monitors (CRMs). CRMs shall have the following qualifications:

a. B.S. or B.A. degree in anthropology, archaeology, historical archaeology, or a related field; and one year of archaeological field experience in California; or

b. A.S. or A.A. degree in anthropology, archaeology, historical archaeology, or a related field, and four years of archaeological field experience in California; or

c. Enrollment in upper division classes pursuing a degree in the fields of anthropology, archaeology, historical archaeology, or a related field, and two years of archaeological field experience in California.

C. NATIVE AMERICAN MONITORS

1. Appointment and Qualifications:

If required pursuant to Condition of Certification **CUL-6**, the project owner shall obtain the services of qualified Native American Monitors (NAMs). Preference in selecting NAMs shall be given to Native Americans with:

a. Traditional ties to the area to be monitored, and

b. The highest qualifications as described by the Native American Heritage Commission (NAHC) document entitled: *Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites* (NAHC 2005).

Verification: The project owner shall submit the specified information at least 75 days prior to the start of (1) ground disturbance (as defined in the Compliance Conditions

section); (2) post-certification cultural resources activities (including, but not limited to, "survey", "in-field data recording," "surface collection," "testing," "data recovery" or "geoarchaeology"); or (3) site preparation or subsurface soil work during pre-construction activities or site mobilization[2], the project owner shall obtain the services of a Cultural Resources Specialist (CRS) and one or more alternate CRS.

The project owner may replace a CRS by submitting the required resume, references, and contact information to the CPM at least ten working days prior to the termination or release of the then-current CRS. In an emergency, the project owner shall immediately notify the CPM to discuss the qualifications and approval of a short-term replacement while a permanent CRS is proposed to the CPM for consideration.

At least 20 days prior to Cultural Resources Ground Disturbances, the CRS shall provide proof of qualifications for any anticipated CRMs and additional specialists for the project to the CPM.

At least 5 days prior to additional CRMs or NAMs beginning on-site duties during the project, the CRS shall review the qualifications of the proposed CRMs or NAMs and send approval letters to the CPM, identifying the monitors and attesting to their qualifications.

At least 10 days prior to any technical specialists beginning tasks, the resume(s) of the specialists shall be provided to the CPM for review and approval.

At least 10 days prior to the start of construction-related ground disturbance, the project owner shall confirm in writing to the CPM that the approved CRS will be available for on-site work and is prepared to implement the cultural resources conditions.

No Cultural Resources Ground Disturbances shall occur prior to CPM approval of the CRS and alternates, unless such activities are specifically approved by the CPM.

CUL-2 INFORMATION TO BE PROVIDED TO CRS

Prior to the start of Cultural Resources Ground Disturbances , the project owner shall provide the CRS with copies of the AFC, data responses, confidential cultural resources reports, all supplements, the Energy Commission staff's cultural resources FSA, and the cultural resources ~~C~~**c**onditions of ~~C~~**c**ertification from the Final Decision for the project if the CRS has not previously worked on the project. The project owner shall also provide the CRS and the CPM with maps and drawings showing the footprints of the power plant, all linear facility routes, all access roads, and all laydown areas. Maps shall include the appropriate USGS quadrangles and a map at an appropriate scale (e.g., 1:24,000 and 1 inch = 200 feet,

[2] For purposes of the Conditions of Certification for Cultural Resources, we will refer to these activities as "Cultural Resources Ground Disturbances."

respectively) for plotting cultural features or materials. If the CRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the CRS and CPM. The CPM shall review map submittals and, in consultation with the CRS, approve those that are appropriate for use in cultural resources planning activities. No ground disturbance shall occur prior to CPM approval of maps and drawings, unless such activities are specifically approved by the CPM.

Maps shall include any NRHP/CRHR-eligible historic built environment resources identified in the FSA's archaeological project area of analysis.

If construction of the project would proceed in phases, maps and drawings not previously provided shall be provided to the CRS and CPM prior to the start of each phase. Written notice identifying the proposed schedule of each project phase shall be provided to the CRS and CPM.

Weekly, until ground disturbance is completed, the project construction manager shall provide to the CRS and CPM a schedule of project activities for the following week, including the identification of area(s) where ground disturbance will occur during that week.

The project owner shall notify the CRS and CPM of any changes to the scheduling of the construction phases.

The project owner shall provide the documents described in the first paragraph of this condition to new CRSs in the event that the approved CRS is terminated or resigns.

Verification:

1. At least 40 days prior to the start of ground disturbance, the project owner shall provide the CPM notice that the AFC, data responses, confidential cultural resources documents, all supplements, FSA, and Final Commission Decision have been provided to the CRS, if needed, and the subject maps and drawings to the CRS and CPM. The CPM will review submittals in consultation with the CRS and approve maps and drawings suitable for cultural resources planning activities.
2. At least 15 days prior to the start of ground disturbance, if there are changes to any project-related footprint, the project owner shall provide revised maps and drawings for the changes to the CRS and CPM.
3. At least 15 days prior to the start of each phase of a phased project, the project owner shall submit the appropriate maps and drawings, if not previously provided, to the CRS and CPM.
4. Weekly, during ground disturbance, a schedule of the next week's anticipated project activity shall be provided to the CRS and CPM by letter, e-mail, or fax.

5. Within 5 days of changing the scheduling of phases of a phased project, the project owner shall provide written notice of the changes to the CRS and CPM.
6. If a new CRS is approved by the CPM as provided for in CUL-1, the project owner shall provide the CPM notice that the AFC, data responses, confidential cultural resources documents, all supplements, FSA, Final Commission Decision, and maps and drawings have been provided to the new CRS within 10 days of such approval.

CUL-3 CULTURAL RESOURCES MITIGATION AND MONITORING PLAN (CRMMP)

Prior to the start of Cultural Resources Ground Disturbances, the project owner shall submit the Cultural Resources Mitigation and Monitoring Plan (CRMMP), as prepared by or under the direction of the CRS, to the CPM for review and approval. The CRMMP shall follow the content and organization of the draft model CRMMP, provided by the CPM, and the authors' name(s) shall appear on the title page of the CRMMP. The CRMMP shall identify measures to minimize potential impacts to sensitive cultural resources. Implementation of the CRMMP shall be the responsibility of the CRS and the project owner. Copies of the CRMMP shall reside with the CRS, alternate CRS, each CRM, any NAMs involved in monitoring, and the project owner's on-site construction manager. No ground disturbance shall occur prior to CPM approval of the CRMMP, unless such activities are specifically approved by the CPM. The CRMMP shall be designated as a confidential document if the location(s) of cultural resources are described or mapped.

The CRMMP shall include, but not be limited to, the following elements and measures:

1. The following statement included in the Introduction: "Any discussion, summary, or paraphrasing of the conditions of certification in this CRMMP is intended as general guidance and as an aid to the user in understanding the conditions and their implementation. The conditions, as written in the Commission Decision, shall supersede any summarization, description, or interpretation of the conditions in the CRMMP. The Cultural Resources conditions of certification from the Commission Decision are contained in **Appendix A**.
2. A proposed general research design that includes a discussion of archaeological research questions and testable hypotheses specifically applicable to the project area, and a discussion of artifact collection, retention/disposal, and curation policies as related to the research questions formulated in the research design. The research design shall specify that the preferred treatment strategy for any buried

archaeological deposits is avoidance. A specific mitigation plan shall be prepared for any unavoidable impacts to any CRHR-eligible (as determined by the CPM) resources. A prescriptive treatment plan may be included in the CRMMP for limited data types.

3. Specification of the implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the ground-disturbance and post-ground–disturbance analysis phases of the project.
4. Identification of the person(s) expected to perform each of the tasks, their responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team.
5. A description of the manner in which Native American observers or monitors will be included, the procedures to be used to select them, and their role and responsibilities.
6. A description of all impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during ground disturbance, construction, and/or operation, and identification of areas where these measures are to be implemented. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related effects.
7. A statement that all encountered cultural resources over 50 years old shall be recorded on DPR 523 forms and mapped and photographed. In addition, all archaeological materials retained as a result of the archaeological investigations (survey, testing, data recovery) shall be curated in accordance with the California State Historical Resources Commission's (SHRC) Guidelines for the Curation of Archaeological Collections (SHRC 1993), into a retrievable storage collection in a public repository or museum.
8. A statement that the project owner will pay all curation fees for artifacts recovered and for related documentation produced during cultural resources investigations conducted for the project. The project owner shall identify three possible curation facilities that could accept cultural resources materials resulting from project activities.
9. A statement demonstrating when and how the project owner will comply with Health and Human Safety Code, section 7050.5(b) and Public Resources Code, section 5097.98(b) and (e), including the

statement that the project owner will notify the CPM and the NAHC of the discovery of human remains.

10. A statement that the CRS has access to equipment and supplies necessary for site mapping, photography, and recovery of any cultural resource materials that are encountered during ground disturbance and cannot be treated prescriptively.

11. A description of the contents, format, and review and approval process of the final cultural resources report (CRR), which shall be prepared according to Archaeological Resource Management Report (ARMR) guidelines.

Verification:

1. Upon approval of the CRS proposed by the project owner, the CPM will provide to the project owner an electronic copy of the draft model CRMMP for the CRS.
2. At least 30 days prior to the start of Cultural Resources Ground Disturbances, the project owner shall submit the CRMMP to the CPM for review and approval.
3. At least 30 days prior to the start of Cultural Resources Ground Disturbances, in a letter to the CPM, the project owner shall agree to pay curation fees for any materials generated or collected as a result of the archaeological investigations (survey, testing, and data recovery).
4. Within 90 days after completion of Cultural Resources Ground Disturbances (including landscaping), if cultural materials requiring curation were generated or collected, the project owner shall provide to the CPM a copy of an agreement with, or other written commitment from, a curation facility that meets the standards stated in SHRC (1993), to accept the cultural materials from this project. Any agreements concerning curation will be retained and available for audit for the life of the project.

CUL-4 FINAL CULTURAL RESOURCES REPORT (CRR)

The project owner shall submit the final cultural resources report (CRR) to the CPM for approval. The final CRR shall be written by, or under the direction of, the CRS and shall be provided in the ARMR format. The final CRR shall report on all field activities including dates, times and locations, results, samplings, and analyses. The final CRR shall be a confidential document if it describes or maps the location(s) of cultural resources. All survey reports, DPR 523 forms, data recovery reports, and any additional research reports not previously submitted to the California Historical Resources Information System (CHRIS) shall be included as appendices to the final CRR.

If the project owner requests a suspension of ground disturbance and/or construction activities, then a draft CRR that covers all cultural resources

activities associated with the project shall be prepared by the CRS and submitted to the CPM for review and approval. The draft CRR shall be retained at the project site in a secure facility until ground disturbance and/or construction resumes or the project is withdrawn. If the project is withdrawn, then a final CRR shall be submitted to the CPM for review and approval.

Verification:

1. Within 30 days after requesting a suspension of construction activities, the project owner shall submit a draft CRR to the CPM for review and approval.
2. Within 90 days after completion of ground disturbance (including landscaping), the project owner shall submit the final CRR to the CPM for review and approval. If any reports have previously been sent to the CHRIS, then receipt letters from the CHRIS or other verification of receipt shall be included in an appendix.
3. Within 10 days after CPM approval of the CRR, the project owner shall provide documentation to the CPM confirming that copies of the final CRR have been provided to the State Historic Preservation Officer, the CHRIS, the curating institution, if archaeological materials were collected, and to the tribal chairpersons of any Native American groups requesting copies of project-related reports.

CUL-5 CULTURAL RESOURCES WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)

Prior to and for the duration of Cultural Resources Ground Disturbances, the project owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment at the project site, along the linear facilities routes, and at laydown areas, roads, and other ancillary areas. The cultural resources part of this training shall be prepared by the CRS, may be conducted by any member of the archaeological team, and may be presented in the form of a video. The CRS is encouraged to include a Native American presenter in the training to contribute the Native American perspective on archaeological and ethnographic resources. During the training and during construction, the CRS shall be available (by telephone or in person) to answer questions posed by employees. The training may be discontinued when ground disturbance is completed or suspended, but must be resumed when ground disturbance, such as landscaping, resumes.

Verification: The training shall include:

1. A discussion of applicable laws and penalties under law;
2. Samples or visuals of artifacts that might be found in the project vicinity;

3. A discussion of what such artifacts may look like when partially buried, or wholly buried and then freshly exposed;
4. A discussion of what prehistoric and historical archaeological deposits look like at the surface and when exposed during construction, and the range of variation in the appearance of such deposits;
5. Instruction that the CRS, alternate CRS, and CRMs have the authority to halt ground disturbance in the area of a discovery to an extent sufficient to ensure that the resource is protected from further impacts, as determined by the CRS;
6. Instruction that employees, if the CRS, alternate CRS, or CRMs are not present, are to halt work on their own in the vicinity of a potential cultural resources discovery, and shall contact their supervisor and the CRS or CRM, and that redirection of work would be determined by the construction supervisor and the CRS;
7. An informational brochure that identifies reporting procedures in the event of a discovery;
8. An acknowledgement form signed by each worker indicating that they have received the training;
9. A sticker that shall be placed on hard hats indicating that environmental training has been completed;
10. No ground disturbance shall occur prior to implementation of the WEAP program, unless such activities are specifically approved by the CPM;
11. At least 30 days prior to the beginning of ground disturbance, the CRS shall provide the cultural resources WEAP training program draft text and/or training video, including Native American participation, and graphics and the informational brochure to the CPM for review and approval;
12. At least 15 days prior to the beginning of ground disturbance, the CPM will provide to the project owner a WEAP Training Acknowledgement form for each WEAP-trained worker to sign; and
13. Monthly, until ground disturbance is completed, the project owner shall provide in the Monthly Compliance Report (MCR) the WEAP Training Acknowledgement forms of workers who have completed the training in the prior month and a running total of all persons who have completed training to date.

CUL-6 UNDISCOVERED CULTURAL RESOURCES

In the event that a CRHR eligible (as determined by the CPM) cultural resource is discovered, at the direction of the CPM, the project owner shall ensure that the CRS or alternate CRS monitors full time all ground disturbances in the area where the CRHR-eligible cultural resources

discovery has been made. The level, duration, and spatial extent of monitoring shall be determined by the CPM. In the event that the CRS believes that a current level of monitoring is not appropriate, a letter or email detailing the justification for changing the level of monitoring shall be provided to the CPM for review and approval prior to any change in the level of monitoring.

Full-time archaeological monitoring for the project, if deemed necessary due to the discovery of a CRHR-eligible cultural resource, shall consist of archaeological monitoring of all earth-moving activities in the area(s) of discovery(ies), for as long as the CPM requires.

The project owner shall obtain the services of one or more NAMs to monitor construction-related ground disturbance in areas, if any, where Native American artifacts have been discovered. Contact lists of interested Native Americans and guidelines for monitoring shall be obtained from the NAHC. Preference in selecting a NAM shall be given to Native Americans with traditional ties to the area that shall be monitored. If efforts to obtain the services of a qualified NAM are unsuccessful, the project owner shall immediately inform the CPM. The CPM will either identify potential monitors or will allow construction-related ground disturbance to proceed without an NAM.

If monitoring should be needed, as determined by the CPM, due to the discovery of a CRHR-eligible cultural resource, the CRS shall keep a daily log of any monitoring and other cultural resources activities and any instances of non-compliance with the conditions and/or applicable LORS on forms provided by the CPM. Copies of the daily monitoring logs shall be provided by the CRS to the CPM, if requested by the CPM. From these logs, the CRS shall compile a monthly monitoring summary report to be included in the MCR. If there are no monitoring activities, the summary report shall specify why monitoring has been suspended.

The CRS, at his or her discretion, or at the request of the CPM, may informally discuss cultural resource monitoring and mitigation activities with Energy Commission technical staff.

Cultural resources monitoring activities are the responsibility of the CRS. Any interference with monitoring activities, removal of a monitor from duties assigned by the CRS, or direction to a monitor to relocate monitoring activities by anyone other than the CRS shall be considered non-compliance with these conditions.

Upon becoming aware of any incidents of non-compliance with the conditions and/or applicable LORS, the CRS and/or the project owner

shall notify the CPM by telephone or e-mail within 24 hours. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the conditions. When the issue is resolved, the CRS shall write a report describing the issue, the resolution of the issue, and the effectiveness of the resolution measures. This report shall be provided in the next MCR for the review of the CPM.

The research design in the CRMMP shall govern the collection, treatment, retention/disposal, and curation of any archaeological materials encountered. The daily monitoring logs shall at a minimum include the following:

- First and last name of the CRM and any accompanying NAM.
- Time in and out.
- Weather. Specify if weather conditions led to work stoppages.
- Work location (project component). Provide specifics—.e.g., power block, landscaping.
- Proximity to site location. Specify if work conducted within 1000 feet of a known cultural resource.
- Work type (machine).
- Work crew (company, operator, foreman).
- Depth of excavation.
- Description of work.
- Stratigraphy.
- Artifacts, listed with the following identifying features:
- Field artifact #: When recording artifacts in the daily monitoring logs, the CRS shall institute a field numbering system to reduce the likelihood of repeat artifact numbers. A typical numbering system could include a project abbreviation, monitor's initials, and a set of numbers given to that monitor: e.g., HBEP-MB-123.
- Description.
- Measurements.
- Universal Transverse Mercator coordinates.
- Whether artifacts are likely to be isolates or components of larger resources.
- Assessment of significance of any finds.

- Actions taken.
- Plan for the next work day.
- A cover sheet shall be submitted with each day's monitoring logs, and shall at a minimum include the following:
    - Count and list of first and last names of all CRMs and of all NAMs for that day.
    - General description (in paragraph form) of that day's overall monitoring efforts, including monitor names and locations.
    - Any reasons for halting work that day.
    - Count and list of all artifacts found that day: include artifact #, location (i.e., grading in Unit X), measurements, UTMs, and very brief description (i.e., historic can, granitic biface, quartzite flake).
    - Whether any artifacts were found out of context (i.e., in fill, caisson drilling, flood debris, spoils pile).

    If requested by the CPM, copies of the daily monitoring logs and cover sheets shall be provided by email from the CRS to the CPM, as follows:

    - Each day's monitoring logs and cover sheet shall be merged into one PDF document.
    - The PDF title and headings, and emails shall clearly indicate the date of the applicable monitoring logs.
    - PDFs for any revised or resubmitted versions shall use the word "revised" in the title.

    Daily and/or weekly maps shall be submitted along with the monitoring logs as follows:

    - The CRS shall provide daily and/or weekly maps of artifacts at the request of the CPM. A map shall also be provided if artifact locations show complexity, high density, or other unique considerations.
    - Maps shall include labeled artifacts, project boundaries, previously recorded sites and isolates, aerial imagery background, and appropriate scales.

    The Cultural Resources section of the MCR shall be prepared in coordination with the CRS, and shall include a monthly summary report of cultural resources-related monitoring. The summary shall:

- List the number of CRMs and NAMs on a daily basis, as well as provide monthly monitoring-day totals.
- Give an overview of cultural resource monitoring work for that month, and discuss any issues that arose.
- Describe fulfillment of requirements of each cultural mitigation measure.
- Summarize the confidential appendix to the MCR, without disclosing any specific confidential details.
- Include the artifact concordance table (as discussed under the next bullet point), but with removal of UTMs.
- Contain completed DPR 523A forms for all artifacts recorded or collected in that month shall be submitted as one combined PDF that includes an index and bookmarks. For any artifact without a corresponding DPR form, the CRS shall specify why the DPR form is not applicable or pending (i.e. as part of a larger site update). A concordance table that matches field artifact numbers with the artifact numbers used in the DPR forms shall be included. The sortable table shall contain each artifact's date of collection and UTM numbers, and note if an artifact has been deaccessioned or otherwise does not have a corresponding DPR form. Any post-field log recordation changes to artifact numbers shall also be noted.
- If artifacts from a given site location (in close proximity of each other or an existing site) are collected month after month, and if agreed upon with the CPM, a final updated DPR for the site may be submitted at the completion of monitoring. The monthly concordance table shall note that the DPR form for the included artifacts is pending.

Verification:

1. At least 30 days prior to the start of ground disturbance, the CPM will provide to the CRS an electronic copy of a form to be used as a daily monitoring log.
2. While monitoring is on-going and as required by the CPM, the project owner shall submit each day's monitoring logs and cover sheet merged into one PDF document by email within 24 hours.
3. The CRS and/or project owner shall notify the CPM of any incidents of noncompliance with the conditions and/or applicable LORS by telephone or email within 24 hours.

4. If resources are discovered as outlined in this condition of certification, the project owner shall notify all local Native American groups of the discovery of the resource within 48 hours of its discovery. If resources are discovered as outlined in this condition of certification, the project owner shall appoint one or more NAMs. Within 15 days of receiving from a local Native American group a request that a NAM be employed, the project owner shall submit a copy of the request and a copy of a response letter to the CPM. The project owner shall include a copy of this condition of certification in any response letter.
5. While monitoring is on-going, the project owner shall include in each MCR a copy of the monthly summary of cultural resources related monitoring prepared by the CRS and shall attach any new DPR 523A forms completed for finds treated prescriptively, as specified in the CRMMP.
6. Final updated DPRs with sites (where artifacts are collected month after month) can be submitted at the completion of monitoring, as agreed upon with the CPM.
7. At least 24 hours prior to implementing a proposed change in monitoring level, the project owner shall submit to the CPM, for review and approval, a letter or email detailing the CRS's justification for changing the monitoring level.
8. Within 15 days of receiving them, the project owner shall submit to the CPM copies of any comments or information provided by Native Americans in response to the project owner's transmittals of information.

CUL-7 POWERS OF CRS

The CRS shall have the authority to halt ground disturbance in the event of a discovery. Redirection of ground disturbance shall be accomplished under the direction of the construction supervisor in consultation with the CRS.

In the event that a cultural resource over 50 years of age is found (or if younger, determined exceptionally significant by the CRS), or impacts to such a resource can be anticipated, ground disturbance shall be halted or redirected in the immediate vicinity of the discovery sufficient to ensure that the resource is protected from further impacts. If the discovery includes human remains, the project owner shall comply with the requirements of Health and Human Safety Code, section 7050.5(b) and notify the CPM and the NAHC of the discovery of human remains. No action with respect to the disposition of human remains of Native American origin shall be initiated without direction from the CPM. Monitoring, including Native American monitoring, and daily reporting, as provided in other conditions, shall continue during the project's ground-disturbing activities on other areas of the project site, while the halting or redirection of ground disturbance in the vicinity of the discovery shall

remain in effect until the CRS has visited the discovery, and all of the following have occurred:

1. The CRS has notified the project owner, and the CPM has been notified within 24 hours of the discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday, and provided a description of the discovery (or changes in character or attributes), the action taken (i.e., work stoppage or redirection), a recommendation of CRHR/NRHP eligibility, and recommendations for data recovery from any cultural resources discoveries, whether or not a determination of CRHR/NRHP eligibility has been made.
2. If the discovery would be of interest to Native Americans, the CRS has notified all Native American groups that expressed a desire to be notified in the event of such a discovery.
3. The CRS has completed field notes, measurements, and photography for a DPR 523 "Primary Record" form. Unless the find can be treated prescriptively, as specified in the CRMMP, the "Description" entry of the DPR 523 "Primary Record" form shall include a recommendation on the CRHR/NRHP eligibility of the discovery. The project owner shall submit completed forms to the CPM.
4. The CRS, the project owner, and the CPM have conferred, and the CPM has concurred with the recommended eligibility of the discovery and approved the CRS's proposed data recovery, if any, including the curation of the artifacts, or other appropriate mitigation; and any necessary data recovery and mitigation have been completed.

   Ground disturbance may resume only with the approval of the CPM.

Verification:

1. At least 30 days prior to the start of ground disturbance, the project owner shall provide the CPM and CRS with a letter confirming that the CRS, alternate CRS, and CRMs have the authority to halt ground disturbance in the vicinity of a cultural resources discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday.
2. Unless the discovery can be treated prescriptively, as specified in the CRMMP, completed DPR 523 forms for resources newly discovered during ground disturbance shall be submitted to the CPM for review and approval no later than 24 hours following the notification of the CPM, or 48 hours following the completion of

data recordation/recovery, whichever the CRS decides is more appropriate for the subject cultural resource.

3. Within 48 hours of the discovery of a resource of interest to Native Americans, the project owner shall ensure that the CRS notifies all Native American groups that expressed a desire to be notified in the event of such a discovery, and the CRS must inform the CPM when the notifications are complete.
4. No later than 30 days following the discovery of any Native American cultural materials, the project owner shall submit to the CPM copies of the information transmittal letters sent to the chairpersons of the Native American tribes or groups who requested the information. Additionally, the project owner shall submit to the CPM copies of letters of transmittal for all subsequent responses to Native American requests for notification, consultation, and reports and records.
5. Within 15 days of receiving them, the project owner shall submit to the CPM copies of any comments or information provided by Native Americans in response to the project owner's transmittals of information.

CUL-8 FILL SOILS

If fill soils must be acquired from a non-commercial borrow site or disposed of to a non-commercial disposal site, the CRS shall survey the borrow or disposal site(s) for cultural resources and record on DPR 523 forms any that are identified. This survey shall not be required if there is a survey of the location that is less than five years old and if the site is approved by the CPM.

When any non–commercial borrow site or non-commercial disposal site survey is completed, the CRS shall convey the results and recommendations for further action to the project owner and the CPM. The CPM shall determine, in his/her sole discretion, whether significant archaeological resources that cannot be avoided are present at the borrow or disposal site. If the CPM determines that significant archaeological resources that cannot be avoided are present at the borrow or disposal site, the project owner must either select another borrow or disposal site or implement **CUL-7** prior to any use of the site. The CRS shall report on the methods and results of these surveys in the final CRR.

Verification:

1. As soon as the project owner knows that a non-commercial borrow site and/or disposal site will be used, he/she shall notify the CRS and CPM and provide documentation of previous archaeological survey, if any, dating within the past five years, for CPM approval.

2. In the absence of documentation of recent archaeological survey, at least 30 days prior to any soil borrow or disposal activities on the non-commercial borrow and/or disposal sites, the CRS shall survey the site(s) for archaeological resources. The CRS shall notify the project owner and the CPM of the results of the cultural resources survey, with recommendations, if any, for further action.

GEOLOGY AND PALEONTOLOGY

GEO-1 SOILS ENGINEERING REPORT REQUIRED

A Soils Engineering Report, as required by Section 1803 of the California Building Code (CBC 2013), shall specifically include laboratory test data, associated geotechnical engineering analyses, and a thorough discussion of seismicity; liquefaction; dynamic compaction; compressible soils; corrosive soils; and tsunami. In accordance with CBC 2013, the report should also include recommendations for ground improvement and/or foundation systems necessary to mitigate these potential geologic hazards, if present. The project owner shall conduct a geotechnical investigation that identifies expected dewatering volumes and the spatial extent of drawdown effects of that dewatering. If the investigation shows that dewatering is likely to affect nearby wetlands or environmentally sensitive habitat areas, mitigation measures shall be incorporated into the final design plans required pursuant to Condition of Certification **GEN-2**.

Verification: The project owner shall include in the application for a grading permit a copy of the Soils Engineering Report which addresses the potential for strong seismic shaking; liquefaction; dynamic compaction; settlement due to compressible soils; corrosive soils: and tsunami, and a summary of how the results of the analyses were incorporated into the project foundation and grading plan design for review and comment by the chief building official (CBO). A copy of the Soils Engineering Report, application for grading permit, and any comments by the CBO are to be provided to the CPM at least 30 days prior to grading.

GEO-2 COMPLIANCE WITH CITY OF HUNTINGTON BEACH MUNICIPAL CODE SECTION 17.04.085.

The project owner shall comply with the requirements of Huntington Beach Municipal Code Section 17.04.085 to ensure the existing and previously identified abandoned gas well on the site, and any additional wells that may be identified during grading and construction, are appropriately mitigated and made safe. The project owner shall consult with the Fire Chief to determine whether any of the following requirements of the municipal code apply, and shall submit the recommendations of the Fire Chief to the CPM for review and approval.

If required, the permit shall specifically include:

1. A site soil testing plan capable of detecting the presence of methane in the near surface soils,

2. Field testing as specified in the approved plan,

3. Laboratory test data,

4. Pre-site disturbance mitigation if high concentrations of methane are discovered during testing,

5. Site audits; and

6 Area well documentation and review.

In accordance with city Specification No, 429, the permit shall also include designs for recommended methane control systems necessary to mitigate these potential hazards, if present.

Verification: The project owner shall include in the application for a Methane District Building Permit a copy of the construction project Site Plan Review approved by the California Department of Conservation Division of Oil, Gas and Geothermal Resources (DOGGR) that is on file with the Huntington Beach Fire Department PetroChem section. A copy of the site plan review, application for the Methane District Building Permit and any comments by the Huntington Beach Fire Chief are to be provided to the CPM at least 30 days prior to initiation of grading.

GEO-3 TSUNAMI HAZARD MITIGATION PLAN

The project owner shall ensure that all staff and visitors at the project site are informed of tsunami hazards in the region and have been shown how and where to evacuate the site if there is potential for a tsunami to affect public health and safety at the site. The project owner shall ensure that the information provided to staff and visitors complies with the recommendations and procedures provided by the city of Huntington Beach or Orange County.

The project owner shall provide a Tsunami Hazard Mitigation Plan (THMP) to the compliance project manager (CPM) for review and approval.

The THMP shall include:

A. A general discussion of tsunami hazard and the public safety risk they present at the site.

B. Identification of what tsunami hazards exist specific to the project site and how the project owner proposes to ensure compliance with applicable hazard response plans.

C. A discussion of criteria for a response to ensure public safety for a tsunami event and show where on and offsite refuge can be accessed, and evacuation routes.

D. Identification of any site modifications or signage that may be needed to show how and where refuge is accessible.

E. The THMP shall also include a training program for visitors and workers, which could be incorporated with other safety training programs such as those required in **WS-1** and **WS-2**. The purpose of training is to inform workers and visitors how to respond to tsunami hazards and where they may obtain refuge in the event it is determined it is necessary to evacuate the project site. The project owner may include the training for tsunami hazard response as a part of the Worker Environmental Awareness Program required in PAL-4 below. The training shall include:

1. Information on who and how staff and visitors will be notified that there is a potential for a tsunami event to impact the site and how they should respond;

2. Graphics showing methods of seeking refuge and routes for evacuation of the site;

3. A certification of completion form signed by each worker indicating that he/she has received the training; and

4. Submittal of the training script and, if the project owner is planning to use a video for training, a copy of the training video, with the set of reporting procedures for workers to follow that will be used to present the training.

The THMP shall be updated if the city of Huntington Beach or Orange County updates their tsunami response plan. When there is an update to hazard response plans, the project owner shall submit for CPM approval an updated THMP showing how the project owner proposes to comply.

Verification: The project owner shall submit the THMP 30 days prior to construction for CPM review and approval. The project owner shall submit any subsequent updates to the THMP to the CPM within 90 days of an update to an applicable THMP.

PAL-1 APPOINTMENT AND QUALIFICATIONS OF PALEONTOLOGICAL RESOURCE SPECIALIST (PRS)

The project owner shall provide the compliance project manager (CPM) with the resume and qualifications of its paleontological resource specialist (PRS) for review and approval. If the approved PRS is replaced prior to completion of project mitigation and submittal of the paleontological resources report (PRR), the project owner shall obtain CPM approval of the replacement PRS. The project owner shall keep resumes on file for qualified paleontological

resources monitors (PRMs). If a PRM is replaced, the resume of the replacement PRM shall also be provided to the CPM for review and approval.

The PRS resume shall include the names and phone numbers of references. The resume shall also demonstrate to the satisfaction of the CPM the appropriate education and experience to accomplish the required paleontological resource tasks.

As determined by the CPM, the PRS shall meet the minimum qualifications for a Qualified Professional Paleontologist as defined in the Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources by the Society of Vertebrate Paleontology (SVP 2010). The experience of the PRS shall include the following:

1. Institutional affiliations, appropriate credentials, and college degree;

2. Ability to recognize and collect fossils in the field;

3. Local geological and biostratigraphic expertise;

4. Proficiency in identifying vertebrate and invertebrate fossils; and

5. At least three years of paleontological resource mitigation and field experience in California and at least one year of experience leading paleontological resource mitigation and field activities.

The project owner shall ensure that the PRS obtains qualified paleontological resource monitors to monitor as he or she deems necessary on the project. Paleontologic resource monitors (PRMs) shall have the equivalent or combination of the following qualifications approved by the CPM:

- BS or BA degree in geology or paleontology and one year of experience monitoring in California; or
- AS or AA in geology, paleontology, or biology and four years' experience monitoring in California; or
- Enrollment in upper division classes pursuing a degree in the fields of geology or paleontology and two years of monitoring experience in California.

The project owner shall keep resumes on file for qualified paleontological resources monitors (PRMs). If a PRM is replaced, the resume of the replacement PRM shall also be provided to the CPM for review and approval.

Verification:

1. At least 60 days prior to the start of ground disturbance, the project owner shall submit a resume and statement of availability of its designated PRS on-site work to the CPM, whose approval must be obtained.

2. At least 20 days prior to ground disturbance, the PRS or project owner shall provide a letter with resumes naming anticipated monitors for the project. The letter shall state that the identified monitors meet the minimum qualifications for paleontological resource monitoring as required by this condition of certification. If additional monitors are obtained during the project, the PRS shall provide additional letters and resumes to the CPM. The letter shall be provided to the CPM for approval no later than one week prior to the monitor's beginning on-site duties.

3. Prior to any planned change in the PRS, the project owner shall submit the resume of the proposed new PRS to the CPM for review and approval.

PAL-2 DOCUMENTS PROVIDED TO THE PRS

The project owner shall provide to the PRS and the CPM, for approval, maps and drawings showing the footprint of the power plant, construction lay down areas, and all related facilities. Maps shall identify all areas of the project where ground disturbance is anticipated. If the PRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the PRS and CPM. The site grading plan and the plan and profile drawings for the utility lines would be acceptable for this purpose. The plan drawings should show the location, depth, and extent of all ground disturbances and be at a scale between 1 inch = 40 feet and 1 inch = 100 feet. If the footprint of the project or its linear facilities change, the project owner shall provide maps and drawings reflecting those changes to the PRS and CPM.

If construction of the project proceeds in phases, maps and drawings may be submitted prior to the start of each phase. A letter identifying the proposed schedule of each project phase shall be provided to the PRS and CPM. Before work commences on affected phases, the project owner shall notify the PRS and CPM of any construction phase scheduling changes.

At a minimum, the project owner shall ensure that the PRS or PRM consults weekly with the project superintendent or construction field manager to confirm area(s) to be worked the following week, until ground disturbance is completed.

Verification:

1. At least 30 days prior to the start of ground disturbance, the project owner shall provide the maps and drawings to the PRS and CPM.

2. If there are planned changes to the footprint of the project, revised maps and drawings shall be provided to the PRS and CPM at least 15 days prior to the start of ground disturbance.

3. If there are changes to the scheduling of the construction phases, the project owner shall submit a letter to the CPM within 5 days of identifying the changes.

PAL-3 PALEONTOLOGICAL RESOURCES MONITORING AND MITIGATION PLAN (PRMMP)

The project owner shall ensure that the PRS prepares a Paleontological Resources Monitoring and Mitigation Plan (PRMMP) and submits the PRMMP to the CPM for review and approval. Approval of the PRMMP by the CPM shall occur prior to any ground disturbance. The PRMMP shall function as the formal guide for monitoring, collecting, and sampling activities, and may be modified with CPM approval. The PRMMP shall be used as the basis of discussion when on-site decisions or changes are proposed. Copies of the PRMMP shall include all updates and reside with the PRS, each monitor, the project owner's on-site manager, and the CPM.

The PRMMP shall be developed in accordance with the guidelines of the Society of Vertebrate Paleontology (SVP 2010) and shall include, but not be limited, to the following:

1. Assurance that the performance and sequence of project-related tasks, such as any literature searches, pre-construction surveys, worker environmental training, fieldwork, flagging or staking, construction monitoring, mapping and data recovery, fossil preparation and collection, identification and inventory, preparation of final reports, and transmittal of materials for curation will be performed according to PRMMP procedures;

2. Identification of the person(s) expected to assist with each of the tasks identified within the PRMMP and these conditions of certification;

3. A thorough discussion of the anticipated geologic units expected to be encountered, the location and depth of the units relative to the project when known, and the known sensitivity of those units based on the occurrence of fossils either in that unit or in correlative units;

4. An explanation of why sampling is needed, a description of the sampling methodology, and how much sampling is expected to take place in which geologic units. Include descriptions of different sampling procedures that shall be used for fine-grained and coarse-grained units;

5. A discussion of the locations of where the monitoring of project construction activities is deemed necessary, and a proposed plan for monitoring and sampling at these locations;

6. A discussion of procedures to be followed: (a) in the event of a significant fossil discovery, (b) stopping construction, (c) resuming construction, and (d) how notifications will be performed;

7. A discussion of equipment and supplies necessary for collection of fossil materials and any specialized equipment needed to prepare, remove, load, transport, and analyze large-sized fossils or extensive fossil deposits;

8. Procedures for inventory, preparation, and delivery for curation into a retrievable storage collection in a public repository or museum, which meet the Society of Vertebrate Paleontology's standards and requirements for the curation of paleontological resources;

9. Identification of the institution that has agreed to receive data and fossil materials collected, requirements or specifications for materials delivered for curation, and how they will be met, and the name and phone number of the contact person at the institution; and

10. A copy of the paleontological conditions of certification.

Verification: At least 30 days prior to ground disturbance, the project owner shall provide a copy of the PRMMP to the CPM. Approval of the PRMMP by the CPM shall occur prior to any ground disturbance. The PRMMP shall include an affidavit of authorship by the PRS, and acceptance of the PRMMP by the project owner evidenced by a signature.

PAL-4 PREPARATION OF WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)

Prior to ground disturbance the project owner and the PRS shall prepare a CPM-approved Worker Environmental Awareness Program (WEAP).

The WEAP shall address the possibility of encountering paleontological resources in the field, the sensitivity and importance of these resources, and

legal obligations to preserve and protect those resources. The purpose of the WEAP is to train project workers to recognize paleontologic resources and identify procedures they should follow to ensure there are no impacts to sensitive paleontologic resources. The WEAP shall include:

1. A discussion of applicable laws and penalties under the law;

2. Good quality photographs or physical examples of vertebrate fossils for project sites containing units of high paleontologic sensitivity;

3. Information that the PRS or PRM has the authority to stop or redirect construction in the event of a discovery or unanticipated impact to a paleontological resource;

4. Instruction that employees are to stop or redirect work in the vicinity of a find and to contact their supervisor and the PRS or PRM;

5. An informational brochure that identifies reporting procedures in the event of a discovery;

6. A WEAP certification of completion form signed by each worker indicating that he/she has received the training; and

7. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

The project owner shall also submit the training script and, if the project owner is planning to use a video for training, a copy of the training video with the set of reporting procedures for workers to follow that will be used to present the WEAP and qualify workers to conduct ground disturbing activities that could impact paleontologic resources.

Verification:

1. At least 30 days prior to ground disturbance, the project owner shall submit to the CPM for review and comment the draft WEAP, including the brochure and sticker. The submittal shall also include a draft training script and, if the project owner is planning to use a video for training, a copy of the training video with the set of reporting procedures for workers to follow.

2. At least 15 days prior to ground disturbance, the project owner shall submit to the CPM for approval the final WEAP and training script.

PAL-5 WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP) TRAINING

No worker shall excavate or perform any ground disturbance activity prior to receiving CPM-approved WEAP training by the PRS, unless specifically approved by the CPM.

Prior to project kick-off and ground disturbance, the following workers shall be WEAP trained by the PRS in-person: project managers, construction supervisors, foremen, and all general workers involved with or who operate ground-disturbing equipment or tools. Following project kick-off, a CPM-approved video or in-person training may be used for new employees. The training program may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or other areas of interest or concern. A WEAP certification of completion form shall be used to document who has received the required training.

Verification:

1. In the Monthly Compliance Report (MCR), the project owner shall provide copies of the WEAP certification of completion forms with the names of those trained and the trainer or type of training (in-person and/or video) offered that month. The MCR shall also include a running total of all persons who have completed the training to date.

2. If the project owner requests an alternate paleontological WEAP trainer, the resume and qualifications of the trainer shall be submitted to the CPM for review and approval prior to installation of an alternate trainer. Alternate trainers shall not conduct WEAP training prior to CPM authorization.

PAL-6 DUTIES OF THE PRS AND PRM

The project owner shall ensure that the PRS and PRM(s) monitor, consistent with the PRMMP, all construction-related grading, excavation, trenching, and augering in areas where potential fossil-bearing materials have been identified, both at the site and along any constructed linear facilities associated with the project. In the event that the PRS determines full-time monitoring is not necessary in locations that were identified as potentially fossil-bearing in the PRMMP, the project owner shall notify and seek the concurrence of the CPM.

The project owner shall ensure that the PRS and PRM(s) have the authority to stop or redirect construction if paleontological resources are encountered. The project owner shall ensure that there is no interference with monitoring activities unless directed by the PRS. Monitoring activities shall be conducted as follows:

1. Any change of monitoring from the accepted schedule in the PRMMP shall be proposed in a letter or email from the PRS and the project owner to the CPM prior to the change in monitoring and be included in the monthly compliance report. The letter or email shall include the justification for the change in monitoring and be submitted to the CPM for review and approval.

2. The project owner shall ensure that the PRM(s) keep a daily monitoring log of paleontological resource activities, and copies of these logs shall be submitted with the MCR. The PRS may informally discuss paleontological resource monitoring and mitigation activities with the CPM at any time.

3. The project owner shall ensure that the PRS notifies the CPM within 24 hours of the occurrence of any incidents of non-compliance with any paleontological resources conditions of certification. The PRS shall recommend corrective action to resolve the issues or achieve compliance with the conditions of certification.

4. For any significant paleontological resources encountered, either the project owner or the PRS shall notify the CPM within 24 hours, or Monday morning in the case of a weekend event, when construction has been stopped because of a paleontological find.

The project owner shall ensure that the PRS prepares a summary of monitoring and other paleontological activities that will be included in each MCR. The summary will include the name(s) of PRS or PRM(s) active during the month, general descriptions of training and monitored construction activities, and general locations of excavations, grading, and other activities. A section of the report shall include the geologic units or subunits encountered, descriptions of samplings within each unit, and a list of identified fossils. Negative findings, when no fossils are identified, shall also be reported. A final section of the report will address any issues or concerns about the project relating to paleontologic monitoring, including any incidents of non-compliance or any changes to the monitoring plan that have been approved by the CPM. If no monitoring took place during the month, the report shall include an explanation in the summary as to why monitoring was not conducted.

Verification: The project owner shall ensure that the PRS submits the summary of monitoring and paleontological activities in the MCR. When feasible, the CPM shall be notified 10 days in advance of any proposed changes in monitoring different from that identified in the PRMMP. If there is any unforeseen change in monitoring, the notice shall be given as soon as possible prior to implementation of the change.

PAL-7 PALEONTOLOGICAL RESOURCES REPORT (PRR)

The project owner shall ensure preparation of a Paleontological Resources Report (PRR) by the designated PRS. The PRR shall be prepared following completion of ground-disturbing activities. The PRR shall include an analysis of the collected fossil materials and related information, and shall be submitted to the CPM for approval.

The report shall include, but not be limited to, a description and inventory of recovered fossil materials; a map showing the location of paleontological resources encountered; and the PRS' description of sensitivity and significance of those resources.

Verification: Within 90 days after completion of ground-disturbing activities, including landscaping, the project owner shall submit the PRR under confidential cover to the CPM.

PAL-8 DISPOSITION OF FOSSIL MATERIAL

The project owner, through the designated PRS, shall ensure that all components of the PRMMP are adequately performed, including collection of fossil material, preparation of fossil material for analysis, analysis of fossils, identification and inventory of fossils, preparation of fossils for curation, and delivery for curation of all significant paleontological resource materials encountered and collected during project construction. The project owner shall pay all curation fees charged by the museum for fossil material collected and curated as a result of paleontological mitigation. The project owner shall also provide the curator with documentation showing the project owner irrevocably and unconditionally donates, gives, and assigns permanent, absolute, and unconditional ownership of the fossil material.

Verification: Within 60 days after the submittal of the PRR, the project owner shall submit documentation to the CPM identifying the entity that will be responsible for curating collected specimens. This document shall also show that fees have been paid for curation and the owner relinquishes control and ownership of all fossil material.

LAND USE

LAND-1 The project owner shall comply with Appendix B(g)(3)(c) of the Siting Regulations (Title 20, California Code of Regulations) by ensuring that the HBEP site, excluding linear and temporary lay down or staging areas, will be located on a single legal parcel.

Verification: Prior to construction of the first power block, the project owner shall submit evidence to the compliance project manager (CPM), indicating approval of a Lot Line Adjustment by the city of Huntington Beach, establishing a single parcel for the 30-acre HBEP site. The submittal to the CPM shall include evidence of compliance with all conditions and requirements associated with the approval of the Lot Line Adjustment by the city.

TRAFFIC & TRANSPORTATION

TRANS-1 ROADWAY USE PERMITS AND REGULATIONS

The project owner shall apply to each jurisdiction along the route of travel from the Port of Long Beach to the Alamitos Generating Station (AGS) and/or project site for all necessary transportation permits and shall comply with all conditions imposed by the California Department of Transportation (Caltrans) and other relevant jurisdictions, including, but not limited to, Orange County, Los Angeles County, and the cities of Huntington Beach, Long Beach, and Seal Beach, on vehicle sizes and weights, driver licensing, and truck routes.

Verification: In the Monthly Compliance Reports (MCRs), the project owner shall submit copies of all applications submitted and any permits received during that reporting period to the Compliance Project Manager (CPM) In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.

TRANS-2 RESTORATION OF ALL PUBLIC ROADS, EASEMENTS, AND RIGHTS-OF-WAY

The project owner shall restore all public rights-of-way, including, but not limited to, streets, highways, roads, easements, and intersections that have been damaged due to project-related construction and demolition activities. Restoration of significant damage which could cause hazards (such as potholes) must take place immediately after the damage has occurred. The restoration shall be completed in a timely manner to the road's original condition in compliance with the applicable jurisdiction's standards.

Verification: Prior to the start of site mobilization, the project owner shall photograph or videotape all public rights-of-way segments that may be affected by project-related traffic. The project owner shall provide the photograph or videotape to the CPM and the affected local jurisdiction(s). The project owner shall coordinate with each jurisdiction regarding planned improvement activities on affected public rights-of- way.

If damage to public roads, easements, or rights-of-way occurs, the project owner shall notify the CPM and shall enter into an agreement with each affected local jurisdiction for implementing a roadway repair/rehabilitation program, including any necessary repairs before the end of construction. At a minimum, roads damaged by construction and demolition activities shall be repaired to a structural condition equal to that which existed prior to construction and demolition activity. Following completion of any public right-of-way repairs, the project owner shall provide proof to the CPM from each affected jurisdiction of its satisfaction with the repairs.

TRANS-3 TRAFFIC CONTROL PLAN

The project owner shall prepare and implement a Traffic Control Plan (TCP) for the HBEP's construction and operations traffic. The TCP shall address the movement of workers, vehicles, and materials, including arrival and departure schedules, designated workforce and delivery routes, and the operations of shuttle(s) from offsite parking areas. The project owner shall consult with Caltrans and all applicable local jurisdictions, including, but not limited to, Orange County, Los Angeles County, and the cities of Huntington Beach, Long Beach, and Seal Beach, in the preparation and implementation of the TCP. The project owner shall submit the proposed TCP to Caltrans and applicable local jurisdictions in sufficient time for review and comment, and to the CPM for review and approval prior to the proposed start of demolition and construction and implementation of the plan.

The Traffic Control Plan shall include:

1. Provisions for redirection of construction traffic with a flag person as necessary to ensure traffic safety and minimize interruptions to non-construction related traffic flow;

2. Placement of necessary signage, lighting, and traffic control devices at the project construction site and lay-down areas;

3. A heavy-haul plan addressing the transport and delivery of heavy and oversized loads requiring permits from the California Department of Transportation (Caltrans), other state or federal agencies, and/or the affected local jurisdictions including Los Angeles county, Orange county, city of Long Beach, city of Seal Beach, and city of Huntington Beach;

4. Location and details of construction along affected roadways at night, where permitted;

5. Temporary closure of travel lanes or disruptions to street segments and intersections during construction activities;

6. Traffic diversion plans (in coordination all applicable local jurisdictions and Caltrans) to ensure access during temporary lane/road closures;

7. Access to residential and/or commercial property located near construction work and truck traffic routes;

8. Assurance of access for emergency vehicles to the project site;

9. Advance notification to residents, businesses, emergency providers, and hospitals that would be affected when roads may be partially or completely closed;

10. Identification of safety procedures for exiting and entering the site access gate;

11. Parking/Staging Plan for all phases of project construction and operation to require all project-related parking to be on-site or in designated off-site parking areas. The Parking/Staging Plan shall identify operation time(s) and route(s) for shuttle(s) from offsite parking areas. The Parking/Staging Plan shall prohibit use of the Huntington Beach City beach parking area unless the CPM determines that there are insufficient parking spaces available at the other parking facilities identified in this Decision; and

12. Timing of truck deliveries to the former Plains site shall occur between the hours of 7 a.m. and 9 p.m. on weekdays and Saturdays only.

Verification: At least 60 calendar days prior to the start of construction, the project owner shall submit the TCP to the applicable agencies for review and comment and to the CPM for review and approval. The project owner shall also provide the CPM with a copy of the transmittal letter to the agencies requesting review and comment.

At least 30 calendar days prior to the start of construction, the project owner shall provide copies of any comment letters received from the agencies, along with any changes to the proposed development plan, to the CPM for review and approval.

TRANS-4 ENCROACHMENT INTO PUBLIC RIGHTS-OF-WAY

Prior to any ground disturbance, improvements, or obstruction of traffic within any public road, easement, or right-of-way, the project owner or its contractor(s) shall coordinate with all relevant jurisdictions, including, but not limited to, Orange County, Los Angeles County, and the cities of Huntington Beach, Long Beach, and Seal Beach, and Caltrans, to obtain all required encroachment permits and comply with all applicable regulations.

Verification: At least 10 days prior to ground disturbance or interruption of traffic in or along any public road, easement, or right-of-way, the project owner shall provide copies of all permit(s) received from Caltrans or any other affected jurisdiction/s to the CPM. In addition, the project owner shall retain copies of the issued/approved permit(s) and supporting documentation in its compliance file for a minimum of 6 months after the start of commercial operation.

TRANS-5 HAZARDOUS MATERIALS

The project owner shall ensure that permits and/or licenses are secured from the California Highway Patrol, Caltrans, and all other relevant jurisdictions for the transport of hazardous materials.

Verification: The project owner shall include in the MCRs copies of all permits/ licenses acquired by the project owner and/or subcontractors concerning the transport of hazardous substances during that reporting period.

TRANS-6 OBSTRUCTION MARKING AND LIGHTING

The project owner shall install blinking obstruction marking and lighting on any construction equipment that exceeds 200 feet in height in accordance with FAA requirements, as expressed in the FAA Advisory Circular 70/7460-1L (or current circular in effect).

Lighting shall be operational 24 hours a day, 7 days a week for the duration of project construction. Upgrades to the required lighting configurations, types, location, or duration shall be implemented consistent with any changes to FAA obstruction marking and lighting requirements.

Verification: At least 60 days prior to the presence of any construction equipment which exceeds 200 feet in height, the project owner shall submit to the CPM for approval final design plans for construction equipment depicting the required air traffic obstruction marking and lighting.

TRANS-7 PILOT NOTIFICATION AND AWARENESS

The project owner shall initiate the following actions to ensure pilots are aware of the project location and potential hazards to aviation:

- Submit a letter to the FAA requesting a Notice to Airmen (NOTAM) be issued advising pilots of the location of the HBEP and recommending avoidance of overflight of the project site below 2,200 feet AGL. The letter should also request that the NOTAM be maintained in active status until all navigational charts and Airport Facility Directories (AFDs) have been updated.
- Submit a letter to the FAA requesting a power plant depiction symbol be placed at the HBEP site location on the Los Angeles Sectional Chart with a notice to “avoid overflight below 2,200 feet AGL”.
- Submit a letter requesting that Southern California Terminal Radar Approach Control (TRACON) submit aerodrome remarks describing

the location of the HBEP plant and advising against direct overflight below 2,200 feet AGL to the:

- FAA Airport/Facility Directory - Southwest U.S.;
- Jeppesen Sanderson Inc. Airway Manual Services - Western U.S. Airport Directory; and
- Pilot's Guide to California Airports.

Verification: Within 30 days following the start of construction, the project owner shall submit draft language for the letters of request to the FAA and Southern California TRACON to the CPM for review and approval.

Within 60 days after CPM approval of draft language for the letters of request to the FAA and Southern California TRACON, the project owner shall submit the required letters of request to the FAA and to Southern California TRACON to submit aerodrome remarks to the listed agencies. The project owner shall submit copies of these requests to the CPM. A copy of any resulting correspondence shall be submitted to the CPM within 10 days of receipt.

If the project owner does not receive a response from any of the above agencies within 45 days of the request (or by 15 days prior to the start of operations) the project owner shall follow up with a letter to the respective agency/ies to confirm implementation of the request. A copy of any resulting correspondence shall be submitted to the CPM within 10 days of receipt.

The project owner shall contact the CPM within 72 hours if notified that any or all of the requested notices cannot be implemented. Should this occur, the project owner shall appeal such a determination, consistent with any established appeal process and in consultation with the CPM. A final decision from the jurisdictional agency denying the request, as a result of the appeal process, shall release the project owner from any additional action related to that request and shall be deemed compliance with that portion of this condition of certification.

TRANS-8 CONSTRUCTION WORKER PARKING/CONSTRUCTION LAYDOWN ACCESS

The project owner shall provide the engineering plan/drawings for the design and reconfiguration of the Magnolia/Banning intersection (signal and street striping/signage), including the grading and civil engineering to construct a two-lane entrance road into the Plains former oil storage site to the City of Huntington Beach Public Works Department for review and comment, and to the CBO for review and approval.

The project owner shall provide the engineering plan/drawings for the design and configuration of entrances and a pedestrian crosswalk for the Newland Street construction parking area to the City of Huntington Beach

Public Works Department for review and comment, and to the CBO for review and approval.

Verification: At least three (3) months prior to construction of the intersection reconfiguration, the project owner shall provide the engineering plan/drawings for the design and reconfiguration of the Magnolia/Banning intersection and entrance road into the Plains site and the design and configuration of entrances to the City of Huntington Beach Public Works Department for review and comment. At least 30 days prior to construction of the intersection reconfiguration, the project owner shall provide the engineering plan/drawings for the design and reconfiguration of the Magnolia/Banning intersection and entrance road into the Plains site and the design and configurations of entrances to the CBO for review and approval.

At least three (3) months prior to use of the Newland Street construction parking area, the project owner shall provide the engineering plan/drawings for the design and reconfiguration of the pedestrian crossing to the City of Huntington Beach Public Works Department for review and comment. At least 30 days prior to use of the Newland Street construction parking area, the project owner shall provide the engineering plan/drawings for the design and reconfiguration of the pedestrian crossing to the CBO for review and approval.

TRANS-9 REPLACEMENT OF STREET PARKING DUE TO RECONFIGURATION OF MAGNOLIA/BANNING INTERSECTION

If existing street parking on Magnolia Street is reduced as a result of the project's reconfiguration of the Magnolia/Banning intersection and the construction of the new entrance to the Plains site, the project owner shall replace the loss of street parking on a one-for-one basis within "walking distance" of the displaced parking spaces as required by Section 231.28 of the City of Huntington Beach Zoning Code. Replacement parking shall be provided before removal of any existing parking to ensure no reduction in available parking spaces.

Verification: At least 10 days prior to reduction of existing street parking, the project owner shall submit a parking replacement plan to the City of Huntington Beach for review and comment, and submit to the CPM for review and approval. The plan shall identify the number and location of parking spaces to be removed and the number and location of parking spaces to be replaced.

SOCIOECONOMICS

SOCIO-1 The project owner shall pay the one-time statutory school facility development fees to the Huntington Beach Union High School District as required by Education Code Section 17620.

Verification: At least 30 days prior to the start of project construction, the project owner shall provide to the Compliance Project Manager (CPM) proof of payment to the Huntington Beach Union High School District of the statutory development fee.

SOCIO-2 The project owner shall pay the following one-time Development Impact Fees to the city of Huntington Beach as required by Chapter 17 of the Huntington Beach municipal code:

- Police Facilities Development Impact Fees; and
- Parkland Acquisition and Park Facilities Development Impact Fees.

Verification: At least 90 days prior to the start of commercial operation, the project owner shall confer with the CEC's assigned Chief Building Official (CBO) for HBEP to calculate the applicable one-time development impact fee(s) as set forth in Chapter 17 of the Huntington Beach Municipal Code. At least 30 days prior to commercial operation, the project owner shall provide to the CPM proof of payment to the city of Huntington Beach of the required Development Impact Fee(s).

NOISE AND VIBRATION

NOISE-1 PUBLIC NOTIFICATION PROCESS

Prior to the start of ground disturbance, the project owner shall notify all residents within one mile of the project site and one-half mile of the linear facilities, by mail or by other effective means, of the commencement of project construction. At the same time, the project owner shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction and operation of the project. If the telephone is not staffed 24 hours a day, the project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This, or a similarly effective telephone number, shall be posted at the project site during construction where it is visible to passersby. This telephone number shall be maintained until the project has been operational for at least one year.

Verification: At least 15 days prior to ground disturbance, the project owner shall transmit to the compliance project manager (CPM) a statement, signed by the project owner's project manager, stating that the above notification has been performed, and describing the method of that notification. This communication shall also verify that the telephone number has been established and posted at the site, and shall provide that telephone number.

NOISE-2 NOISE COMPLAINT PROCESS

- Throughout the construction and operation of the project, the project owner shall document, investigate, evaluate, and attempt to resolve all legitimate project-related noise complaints.[3] The project owner or authorized agent shall:
- Use the Noise Complaint Resolution Form (below), or a functionally equivalent procedure acceptable to the CPM, to document and respond to each project-related noise complaint;
- Attempt to contact the person(s) making the noise complaint within 24 hours;
- Conduct an investigation to determine the source of noise in the complaint;

[3] A legitimate complaint refers to a complaint about noise that is caused by the HBEP project as opposed to another source (as verified by the CPM). A legitimate complaint constitutes a violation by the project of any noise condition of certification (as confirmed by the CPM), which is documented by an individual or entity affected by such noise.

- If the noise is project related, take all feasible measures to reduce the source of the noise; and
- Submit a report documenting the complaint and actions taken. The report shall include: a complaint summary, including the final results of noise reduction efforts and, if obtainable, a signed statement by the complainant that states that the noise problem has been resolved to the complainant's satisfaction.

Verification: Within five days of receiving a legitimate noise complaint,[4] the project owner shall file with the CPM a Noise Complaint Resolution Form, shown below, that documents the resolution of the complaint. If mitigation is required to resolve the complaint, and the complaint is not resolved within a three business-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented.

NOISE-3 EMPLOYEE NOISE CONTROL PROGRAM

The project owner shall submit to the CPM for review and approval a noise control program. The noise control program shall be used to reduce employee exposure to high (above permissible) noise levels during construction in accordance to the applicable OSHA and Cal-OSHA standards.

Verification: At least 30 days prior to the start of ground disturbance, the project owner shall submit the noise control program to the CPM. The project owner shall make the program available to Cal-OSHA upon request.

NOISE-4 NOISE RESTRICTIONS

The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the operation of the project will not cause the noise levels due to normal steady-state plant operation alone, to exceed an hourly average of 61 dBA L_{50} measured at or near monitoring location M2.

Also, the project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the operation of the project will not cause the noise levels due to plant operation alone, during the four quietest consecutive hours of the nighttime, to exceed an average of 45 dBA L_{90} measured at or near monitoring location M3 and an average of 49 dBA L_{90} measured at or near monitoring location M4.

[4] For the definition of "legitimate complaint," see the footnote in Condition of Certification **NOISE-2**.

No new pure-tone components (as defined in **Noise Table A1**, below) shall be caused by the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints[5].

When the project first achieves a sustained output of 85 percent or greater of its rated capacity, the project owner shall conduct a 25-hour community noise survey at monitoring locations M2, M3, and M4, or at a closer location acceptable to the CPM, and include L_{50} and L_{90} readings. This survey shall also include measurement of one-third octave band sound pressure levels to ensure that no new pure-tone noise components have been caused by the project.

The measurement of power plant noise for the purposes of demonstrating compliance with this condition of certification may alternatively be made at a location, acceptable to the CPM, closer to the plant (e.g., 400 feet from the plant boundary) and this measured level then mathematically extrapolated to determine the plant noise contribution at the affected residence. The character of the plant noise shall be evaluated at the affected receptor locations to determine the presence of pure tones or other dominant sources of plant noise.

If the results from the noise survey indicate that the power plant noise at the affected receptor sites exceed the above values, mitigation measures shall be implemented to reduce noise to a level of compliance with these limits.

If the results from the noise survey indicate that pure tones are present, mitigation measures shall be implemented to reduce the pure tones to a level that complies with **Noise Table A1**, below.

Verification: The above noise survey shall be conducted in two parts. Part one shall take place within 90 days of Power Block 1 (PB-1) first achieving a sustained output of 85 percent or greater of its rated capacity. Part 2 of this survey shall be performed within 90 days of Power Block 2 (PB-2) first achieving 85 percent or greater of its rated capacity and shall include the combined operation of PB-1 and PB-2 at 85 percent or greater of the overall plant rated capacity with all turbine generators operating. The exception to the above is that for the daytime portions of the survey only (between 7:00 a.m. and 10:00 p.m.) the above rated capacity can be 80 percent or higher rather than 85 percent or higher.

Within 15 days after completing each part, the project owner shall submit a summary report to the CPM. Included in the survey report shall be a description of any additional

mitigation measures necessary to achieve compliance with the above listed noise limits, and a schedule, subject to CPM approval, for implementing these measures. When these measures are implemented and in place, the project owner shall repeat the noise survey.

Within 15 days of completion of the new survey, the project owner shall submit to the CPM a summary report of the new noise survey, performed as described above and showing compliance with this condition.

NOISE-5 OCCUPATIONAL NOISE SURVEY

Following PB-1's attainment of a sustained output of 90 percent or greater of its rated capacity, the project owner shall conduct an occupational noise survey to identify any noise hazardous areas in the facility. Following PB-2's attainment of a sustained output of 90 percent or greater of its rated capacity, the project owner shall repeat this survey.

The survey shall be conducted by a qualified person in accordance with the provisions of Title 8, California Code of Regulations, sections 5095-5099 (Article 105) and Title 29, Code of Federal Regulations, section 1910.95. The survey results shall be used to determine the magnitude of employee noise exposure.

The project owner shall prepare a report of the survey results and, if necessary, identify proposed mitigation measures to be employed in order to comply with the applicable California and federal regulations.

Verification: Within 30 days after completing each survey, the project owner shall submit the noise survey report to the CPM. The project owner shall make the report available to OSHA and Cal-OSHA upon request from OSHA and Cal-OSHA.

NOISE-6 CONSTRUCTION RESTRICTIONS

Heavy equipment operation and noisy[6] construction work relating to any project features, including noisy construction work relating to construction staging and warm-up activities at the Plains All-American Tank Farm (Plains) site and pile driving, shall be restricted to the times delineated below:

Mondays through Saturdays:	7:00 a.m. to 8:00 p.m.
Sundays and Federal Holidays:	Construction not allowed

[6] "Noisy" means noise that draws legitimate complaint (for the definition of "legitimate complaint", see the footnote in Condition of Certification **NOISE-2**).

Limited construction activities may be performed outside of the above hours, with CPM approval as set forth below.

Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers and other state-required noise attenuation devices. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use (jake braking) shall be limited to emergencies.

Verification: Prior to ground disturbance, the project owner shall transmit to the CPM a statement acknowledging that the above restrictions will be observed throughout the construction of the project.

In consultation with the CPM, construction equipment generating excessive noise[7] shall be updated or replaced if beneficial in reducing the noise and if feasible. In addition, temporary acoustic barriers shall be installed around stationary construction noise sources if beneficial in reducing the noise and if feasible. The project owner shall reorient construction equipment, and relocate construction staging areas, when possible, to minimize the noise impact at nearest noise-sensitive receptors.

At least 10 days prior to any heavy equipment operation or noisy construction activities that would occur outside of the above hours, the project owner shall submit a request to the CPM for review and approval and simultaneously send a copy to the City of Huntington Beach for review and comment. The project owner shall provide a copy of the transmittal letter to the City of Huntington Beach soliciting review and comment to the CPM.

The request submitted to the CPM shall specify the activities that need to occur outside of the restricted days and times set forth above; the need for such activities; the days, dates, and times during which these activities will occur; the approximate distance of activities to residential and sensitive receptors; the expected sound levels at these receptors; and a statement that the activities will be performed in a manner to ensure excessive noise is prohibited as much as practicable. At the same time, the project owner shall notify the residents and property owners within one-half mile of the project site of the request. In this notification, the project owner shall state that it will perform this activity in a manner to ensure excessive noise is prohibited as much as practicable.

The project owner shall not perform any heavy equipment operation or noisy construction activities outside of the timeframes set forth above until the CPM has granted the request for exemption. If the exemption is granted, the project owner shall notify the residents and property owners within one-half mile of the project site of the

[7] "Excessive noise" means noise that draws a legitimate complaint (for the definition of "legitimate complaint," see the footnote in Condition of Certification **NOISE-2**).

approval of the request. The project owner shall provide copies to the CPM of all transmittal letters to property owners and residents.

NOISE-7 STEAM BLOW RESTRICTIONS

If a traditional, high-pressure steam blow process is used the project owner shall equip steam blow piping with a temporary silencer that quiets the noise of steam blows to no greater than 89 dBA measured at a distance of 50 feet. The steam blows shall be conducted between 8:00 a.m. and 6:00 p.m. A new high-pressure steam blow shall not be initiated after 5:00 p.m. If a low-pressure, continuous steam blow process is used, the project owner shall submit to the CPM a description of the process, with expected noise levels and planned hours of steam blow operation.

Verification: At least 15 days prior to the first steam blow, the project owner shall notify all residents or business owners within one mile of the project site boundary. The notification may be in the form of letters, phone calls, fliers, or other effective means, as approved by the CPM. The notification shall include a description of the purpose and nature of the steam blow(s), the planned schedule, expected sound levels, and explanation that it is a one-time activity and not part of normal plant operation.

NOISE-8 PILE DRIVING MANAGEMENT

The project owner shall perform pile driving in a manner to reduce the potential for any legitimate noise complaints. The project owner shall notify the residents in the vicinity of pile driving prior to start of pile driving activities.

Verification: At least 15 days prior to first pile driving, the project owner shall submit to the CPM a description of the pile driving technique to be employed, including calculations showing its projected noise impacts at monitoring locations M2-M4.

At least 10 days prior to first production pile driving, the project owner shall notify the residents within one-half mile of the pile driving. In this notification, the project owner shall state that it will perform this activity in a manner to reduce the potential for any legitimate noise complaints, as much as practicable. The project owner shall submit a copy of this notification to the CPM prior to the start of pile driving.

VISUAL RESOURCES

VIS-1 VISUAL SCREENING AND ENHANCEMENT PLAN FOR PROJECT STRUCTURES – PROJECT OPERATION

Prior to the start of construction, the project owner shall prepare and submit a Preliminary Visual Screening and Enhancement Plan for Project Structures (Preliminary Plan) that includes methods and materials to visually screen and treat surfaces of publicly visible power plant structures.

The Preliminary Plan shall include:

- Revised general arrangement/site plan to scale showing locations of and corridor spaces for the architectural screens/sphere walls.
- Information on how the architectural screens will comply with City Specification No. 401 and achieve consistency with the City's adopted Resolution No. 2016-27.
- Identity of the design firm that will plan and implement the architectural screening plan.
- Information on how surfaces of the 50-foot-tall acoustical wall, air cooled condenser, and exhaust stacks will be treated to coordinate visually with the architectural screens.
- Visual simulations using key observation points (KOPs) 1, 4, and 5 to accurately represent views of the architectural screens depicted on the site plan.

Prior to the start of commissioning the combined-cycle gas turbine (CCGT) units, the project owner shall prepare and submit a Detailed Visual Screening and Enhancement Plan (Detailed Plan) that includes evidence of review by a California-licensed structural or civil engineer and an assessment of the feasibility and structural integrity of the architectural and decorative screening elements contained in the Detailed Plan. The California-licensed engineer shall review and sign the Detailed Plan. Any design changes recommended by the California-licensed engineer to ensure the structural soundness and safety of the project and the architectural design elements shall be incorporated in the Detailed Plan before its submittal to the compliance project manager (CPM).

The project owner shall not submit instructions for architectural screens and other structures and colors and finishes to manufacturers or vendors of project structures, or perform final field treatment on any structures,

until written approval of the final Detailed Plan is received from the CPM. Modifications to the final Detailed Plan shall not occur without the CPM's approval.

The Detailed Plan shall be consistent with Resolution No. 2016-27 adopted by the City of Huntington Beach City Council recommending visual enhancements for the site. Surface treatments for publicly visible power plant structures shall be included in the Detailed Plan. Proposed surface treatments shall minimize the potential visual effects of glare from project surfaces. Methods to visually screen and enhance the project site shall visually unify the project to the extent practicable while maintaining compliance with the City's adopted resolution.

The transmission structures for the on-site 230-kV transmission line shall have a surface treatment that enables them to blend with the environment to the greatest extent feasible, and the finish shall appear as a matte patina. Unpainted exposed lagging and surfaces of steel structures that are visible to the public shall be embossed or otherwise treated to reduce glare.

The Detailed Plan shall meet the following minimum content requirements:

- Inventory of major project structures, sound/acoustical walls, and buildings specifying the architectural and decorative screening structures and materials to visually screen and enhance those structures. The inventory shall specify height, length, and width or diameter for each major structure, and an accurately scaled site plans and elevation views shall be included in the Plan with architectural and project structures clearly identified.
- Color brochures, color chips, and/or physical samples for each proposed color and finish that will be applied to architectural screening structures and directly to power plant structures (e.g., paint scheme and finish types for the air cooled condenser, the exhaust stacks, and the sound wall). Proposed colors must be identified by vendor, name, and number, or according to a universal designation system. Electronic files showing proposed colors may not be submitted in place of original samples.
- Physical sample of the plastic material that will be used to fabricate the spheres for the City's recommended sphere walls.
- Electronic files and a set of print copies of 11-inch by 17-inch (or larger, if necessary) color visual simulations at life-size scale showing the architectural screening structures and surface treatments proposed

for the project. KOP–1, KOP 4, and KOP 5 shall be used to prepare images showing the completed Detailed Plan for Project Structures.

- Schedule for completing construction of architectural and decorative screening structures and the surface treatments for publicly visible power plant structures during the construction timeline.
- Procedure and maintenance schedule to ensure that surface treatments and architectural structures are well maintained and consistent with the approved Detailed Plan for the life of the project.

Verification: At least 60 calendar days prior to the start of construction, the project owner shall submit a Preliminary Visual Screening and Enhancement Plan for Project Structures (Preliminary Plan) to the CPM for review and approval. The project owner shall, simultaneously with the submission to the CPM, submit seven copies of the Preliminary Plan to the City of Huntington Beach Planning and Building Department for review and comment.

A different time frame for submitting the Preliminary Plan is allowed by agreement between the project owner and the CPM.

If the CPM determines that the Preliminary Plan requires revisions, the project owner shall provide an updated version with the specified revision(s) for review and approval by the CPM. Copies of the revised Preliminary Plan (if it is required) shall be provided to the City for review and comment. City staff requires seven copies of the revised Plan or Supplement.

The project owner shall provide the CPM with copies of the transmittal letters submitted to the City requesting timely reviews of the Preliminary Plan and any revisions. The City shall be allowed 30 calendar days following receipt of the stated plans to provide comments to the project owner and to the CPM. In the absence of comments within that timeframe, or a request from the City for an extension of time, the CPM may deem the Preliminary Plan and any revisions acceptable to the City.

At least 60 calendar days before the start of commissioning the CCGT units, the project owner shall prepare and submit the Detailed Plan to the CPM for review and approval. The review, comment, and approval process for the Detailed Plan shall be exactly the same as described above for the Preliminary Plan.

The Plan elements pertaining to screening and enhancement of the CCGT units, including the easternmost and middle screens, shall be implemented within 12 months of completing demolition of the HBGS Units 1 and 2. The Plan elements pertaining to screening and enhancement of the simple-cycle gas turbine (SCGT) units shall be implemented within 12 months of beginning commercial operation of the SCGT units.

The project owner shall verify in writing when the Detailed Plan elements pertaining to the CCGT units are implemented and the facility is ready for inspection. The project owner shall obtain separate written confirmations from the CPM that the project complies with the Detailed Visual Screening and Enhancement Plan for Project Structures following completion of Plan elements for the CCGT units and later for the SCGT units.

The project owner shall provide a status report regarding maintenance of the architectural screens and surface treatments in the Annual Compliance Report for the project. At a minimum, the report shall include:

- Descriptions of the condition of the architectural screening structures and treated surfaces of publicly visible structures at the power plant site.
- Descriptions of major maintenance and painting work required to maintain the original condition of architectural screening structures and treated surfaces during the reporting year.
- Electronic photographs showing the results of maintenance and painting work.

VIS-2 PERIMETER SCREENING AND ON-SITE LANDSCAPE AND IRRIGATION PLAN – PROJECT OPERATION

The project owner shall prepare and implement a Perimeter Screening and On-site Landscape and Irrigation Plan (Plan) to screen views of power plant structures. The Plan shall achieve a goal to screen and soften views of the power plant from Magnolia Marsh, the Huntington Beach Wetlands & Wildlife Care Center, the Huntington By-The-Sea Mobile Estates and RV Park, Newland Street, Magnolia Street, and the Pacific Coast Highway.

The Plan shall be prepared with the direct involvement of a licensed professional landscape architect familiar with local growing conditions, suitable native and non-invasive plant species for the project area, and local availability of proposed species. The licensed landscape architect shall review and sign the Plan. Any changes recommended by the licensed landscape architect shall be incorporated in the Perimeter Screening and On-site Landscape and Irrigation Plan *before* its submittal to the CPM for approval. The Perimeter Screening and On-site Landscape and Irrigation Plan shall comply with the landscape and irrigation requirements of the City of Huntington Beach General Plan and the Huntington Beach Zoning & Subdivision Ordinance.

The submitted Plan shall show evidence of participation by a wildlife biologist qualified to comment on tree species proposed for planting adjacent to Magnolia Marsh and confirm that those species will minimize new opportunities for raptors to prey on special-status birds in the marsh.

The Perimeter Screening and On-site Landscape and Irrigation Plan shall accurately show interior area constraints (e.g., paved interior site access and emergency response roads).

The Perimeter Screening and On-site Landscape and Irrigation Plan shall include construction of an 8-foot-tall decorative masonry wall to extend along the site boundary adjacent to the Huntington Beach Wetlands & Wildlife Care Center and parking lot and along Magnolia Marsh (i.e., the southwest-west and southeast-east boundaries). All existing exterior site perimeter chain-link fencing shall be replaced with an 8-foot-tall decorative masonry wall.

The project owner shall not purchase or order plants, landscape and irrigation supplies and materials, or construction materials for the masonry wall until written approval of the final Plan is received from the CPM. Modifications to the final Plan shall not occur without the CPM's approval.

The Perimeter Screening and On-site Landscape and Irrigation Plan shall meet the following minimum requirements:

- Provide a detailed landscape and irrigation plan at a scale of 1 inch to 40 feet (1:40) (or similar scale) listing proposed plant species, and installation sizes, quantities, and spacing. The plan shall include expected heights at 10 years and maturity and expected growth rates to maturity. To achieve year-round screening, the Plan shall emphasize the use of evergreen species. No new or replacement lawn areas shall be planted anywhere on the site interior.
- Proposed tree species shall be 24-inch box size unless the licensed landscape architect recommends a different size for a species. Except for areas where planting of new or replacement trees at the site periphery is infeasible (based on the final general arrangement/site plan), spacing of trees shall be sufficiently dense to ensure maximum screening by the tree canopy at maturity. Faster-growing tree species shall be included provided that those species are non-invasive and suited to the coastal environment.
- Proposed shrub species shall be selected to achieve maximum screening effectiveness. Shrubs planted inside the 8-foot-tall masonry wall along Magnolia Marsh shall be selected to achieve a mature height of 12 feet to 15 feet, with a goal to increase the effectiveness of visual screening provided by the wall. Shrubs shall be installed at 5-gallon size unless the licensed landscape architect recommends a different size for a species.
- Proposed tree species along the site boundary adjacent to Magnolia Marsh shall be selected with a goal to discourage perching by raptors and minimize predation on special-status birds. Tree species with branch and

foliage characteristics that would not be attractive to perching raptors are preferred.

- Provide electronic files and sets of print copies of 11-inch by 17-inch (or larger, if necessary) color visual simulations at life-size scale showing the landscape plantings at the time of installation and 10 years after installation. Key observation point (KOP) 1, KOP 4, and KOP 5 shall be used to prepare the visual simulations.
- Provide discussions of plans and methods to efficiently irrigate landscape plantings to ensure their survival and maintain optimal growth rates.
- Provide a plan view of the project site that clearly shows the planting plan for the site and the existing and new 8-foot-tall decorative masonry walls along the exterior site perimeter. Details on the materials and design of the masonry wall shall be included in the plan.
- Provide a detailed schedule for completing installation of landscape plantings during the project construction schedule and the masonry walls along the site perimeter.
- Provide a procedure for maintaining and monitoring the landscape and irrigation system and replacing all unsuccessful plantings for the life of the project.
- Provide a table summarizing the project's conformance with the City's landscape screening and irrigation regulations, including applicable goals, objectives, and policies in the Urban Design Element, Circulation Element, and Coastal Element of the General Plan. The table shall include applicable chapters and sections of the Huntington Beach Zoning & Subdivision Ordinance, including those identified in **Visual Resources Appendix-4** of the Final Staff Assessment for the licensed project.

Verification: At least 90 calendar days before the start of commissioning the CCGT units, the project owner shall submit the Perimeter Screening and On-site Landscape and Irrigation Plan to the CPM for review and approval. The project owner shall, simultaneously with the submission to the CPM, submit seven copies of the Perimeter Screening and On-site Landscape and Irrigation Plan to the City of Huntington Beach Planning and Building Department for review and comment.

If the CPM determines that the Plan requires revision, the project owner shall provide an updated version with the specified revision(s) for review and approval by the CPM. The project owner shall simultaneously with the submission to the CPM submit seven copies of the revised Perimeter Screening and On-site Landscape and Irrigation Plan to the City of Huntington Beach Planning and Building Department for review and comment.

The project owner shall provide the CPM with copies of the transmittal letters submitted to the City requesting review of the Plan and any revisions. The City shall be allowed 30 calendar days following receipt of the stated plans to provide comments to the project owner and to the CPM. In the absence of comments within that timeframe, or a request from the City for an extension of time, the CPM may deem the Plan and any revisions acceptable to the City.

The Plan elements that would screen and/or soften views of areas affected by construction of the CCGT units shall be implemented within 270 calendar days of beginning commercial operation of the CCGT units. Similarly, the Plan elements that would screen and/or soften views of areas affected by construction of the SCGT units shall be implemented within 180 calendar days of beginning commercial operation of the SCGT units.

The project owner shall verify in writing when the Plan elements for the area affected by construction of the CCGT units are implemented and the facility is ready for inspection. The project owner shall obtain separate written confirmations from the CPM that the project complies with the Perimeter Screening and On-site Landscape and Irrigation Plan following completion of Plan elements for the CCGT units and later for the SCGT units.

The project owner shall provide a status report describing landscape maintenance activities in the Annual Compliance Report for the project. At a minimum, the report shall describe:

- Overall condition of the landscape areas and irrigation system at the power plant site.
- Major activities that occurred during the reporting year, including replacement of dead or dying vegetation.
- Maintenance of the site periphery masonry wall and any other elements included in the plan.

VIS-3 LONG-TERM CONSTRUCTION SCREENING, LANDSCAPE PROTECTION, AND SITE RESTORATION PLAN – PROJECT DEMOLITION, CONSTRUCTION, AND COMMISSIONING

Prior to the start of site mobilization, the project owner shall prepare and implement a Construction Screening, Landscape Protection, and Site Restoration Plan (Plan) describing methods and materials that will be used during each project phase to screen project construction and parking areas and views of the project site from areas where construction activities have the potential to be visible during a phase. The Plan will describe methods and materials to identify and protect existing landscape trees and shrubs. The Plan will identify existing landscaped areas where plantings will be retained

and where they will be permanently removed. The Plan will include provisions to restore areas where ground disturbance occurred during construction.

To minimize the adverse visual impacts of project construction during each project phase, the project owner shall install and maintain construction screening fencing along the perimeters of the project site areas where there could be views from public use areas of construction activities during a phase. The project owner will consult with the CPM to determine areas where screening fencing is required during a project phase or phases. Depending on the location of on-site construction work, the areas requiring screening include the perimeter of the wetland along the southeast-east site boundary, the west side perimeter of the project site on Newland Street, and the southwest-west perimeter of the site along the Huntington Beach Wetlands Conservancy property. The screening fencing for the power plant site shall be no less than 12 feet tall.

Brightly-colored construction exclusion fencing shall be used on-site to clearly delineate areas where existing landscape plantings will be protected and retained.

Condition of Certification **VIS-2** includes construction of an 8-foot-tall decorative masonry wall to extend along the site boundary adjacent to the Huntington Beach Wetlands & Wildlife Care Center and the wetland. Upon commencement of construction of the masonry wall, the CPM shall allow the project owner to remove all construction screening fencing from those portions of the site boundary.

Screening fencing shall be installed to visually screen the open lots that will be used for parking on Newland Street across from the project site and along the Pacific Coast Highway (PCH) at Beach Boulevard. The screening fencing for the parking lots shall be approximately 6 feet tall and shall meet the City of Huntington Beach corner lot visibility requirements specified in Title 23, Chapter 230, “Site Standards,” of the Huntington Beach Municipal Code (i.e., 25-foot by 25-foot corner visibility triangle).

The Construction Screening, Landscape Protection, and Site Restoration Plan shall provide color images showing options for site perimeter screening materials. All site perimeter screening fencing and construction exclusion fencing shall be well maintained and repaired or replaced as necessary for the duration of project demolition, construction, and commissioning.

When construction is finished, all evidence of construction activities shall be removed and disturbed areas restored to their original or better condition. The Construction Screening, Landscape Protection, and Site Restoration Plan shall describe the methods and schedule for the restoration work to occur.

The project owner shall not purchase or order any materials for site perimeter screening fencing until written approval of the final Construction Screening, Landscape Protection, and Site Restoration Plan is received from the CPM. Modifications to the Construction Screening, Landscape Protection, and Site Restoration Plan shall not occur without the CPM's approval.

Verification: At least 60 calendar days before the start of site mobilization, the project owner shall submit a Construction Screening, Landscape Protection, and Site Restoration Plan to the CPM for review and approval. Simultaneously with the submission of the Plan to the CPM, the project owner shall submit seven copies of the Plan to the City of Huntington Beach Planning and Building Department for review and comment.

If the CPM determines that the Plan requires revision, the project owner shall provide an updated version with the specified revision(s) for review and approval by the CPM. Seven copies of the revised Plan shall be submitted to the City of Huntington Beach Planning and Building Department for review and comment.

The project owner shall provide the CPM with a copy of the transmittal letter submitted to the City requesting review of the Construction Screening, Landscape Protection, and Site Restoration Plan and any revisions. The City shall be allowed 30 calendar days following receipt of the stated plans to provide comments to the project owner and to the CPM. In the absence of comments within that timeframe, or a request from the City for an extension of time, the CPM may deem the Construction Screening, Landscape Protection, and Site Restoration Plan and any revisions acceptable to the City.

Before the start of ground disturbance at the project site, the project owner shall install site perimeter screening fencing and construction exclusion and parking area fencing at the locations agreed upon in consultation with the CPM. The project owner shall notify the CPM within 7 calendar days of installing the fencing that it is ready for inspection.

The project owner shall report any work required to repair or replace temporary screening and construction exclusion fencing in the Monthly Compliance Report for the project.

Within 10 calendar days of receipt of confirmation from the project owner that construction of the permanent 8-foot-tall masonry wall is ready to begin, the CPM shall notify the project owner that construction screening fencing can be removed from the portions of the site boundaries where the masonry wall will be erected.

Within 30 calendar days of beginning commercial operation of the CCGT units, the project owner shall notify the CPM in writing of the status of implementing the requirements set forth in the Construction Screening, Landscape Protection, and Site Restoration Plan. Such notification shall include a schedule for completing the Plan requirements. The Plan elements pertaining to screening and restoring areas affected by construction of the CCGT units shall be implemented within 180 calendar days of

beginning commercial operation of the CCGT units. Similarly, the Plan elements pertaining to screening and restoring areas affected by construction of the SCGT units shall be implemented within 180 calendar days of beginning commercial operation of the SCGT units.

The project owner shall verify in writing when the Plan elements pertaining to the areas affected by construction of the CCGT units are is implemented and the site and restored areas are ready for inspection. The project owner shall obtain separate written confirmations from the CPM that the project complies with the Plan following completion of Plan elements for the CCGT units and later for the SCGT units.

VIS-4 LONG-TERM LIGHTING – PROJECT DEMOLITION, CONSTRUCTION, AND COMMISSIONING

Consistent with applicable worker safety regulations, the project owner shall ensure that lighting of on-site construction areas, construction worker parking lots, and construction laydown areas minimizes potential adverse night lighting impacts by implementing the following measures:

- All fixed-position lighting shall be hooded and shielded to direct light downward and toward the construction area to be illuminated to prevent illumination of the night sky and minimize light trespass (i.e., direct light extending beyond the boundaries of the construction worker parking lots and construction sites, including any security-related boundaries).
- Lighting of any tall construction equipment (e.g., scaffolding, derrick cranes, etc.) shall be directed toward areas requiring illumination and shielded to the maximum extent practicable.
- Task-specific lighting shall be used to the maximum extent practicable.
- Wherever and whenever feasible, lighting shall be kept off when not in use and motion sensors shall be used to the maximum extent practicable.
- The Compliance Project Manager (CPM) shall be notified of any construction-related lighting complaints. Complaints shall be documented using a form in the format shown in Attachment 1, and completed forms shall record resolution of each complaint. A copy of each completed complaint form shall be provided to the CPM. Records of lighting complaints shall also be kept in the compliance file at the project site.

Verification: Within 7 calendar days after the first use of fixed-position parking area and construction-related lighting for major HBEP construction milestones, the project owner shall notify the CPM that the lighting is ready for inspection. Verification is to be repeated for these three construction milestones:

- demolition of HBGS Unit 5 and east fuel oil tank and construction of the combined-cycle gas turbine units,

- construction of the simple-cycle gas turbine units, and
- demolition of HBGS Units 1 and 2.

If the CPM determines that modifications to the lighting are needed for any construction milestone, within 14 calendar days of receiving that notification, the project owner shall correct the lighting and notify the CPM that modifications have been completed.

Within 48 hours of receiving a lighting complaint for any construction activity, the project owner shall provide a copy of the complaint report and resolution form to the CPM, including a schedule for implementing corrective measures to resolve the complaint. The project owner shall report any lighting complaints and document their resolution in the Monthly Compliance Report for the project, accompanied by copies of completed complaint report and resolution forms for that month.

VIS-5 LIGHTING MANAGEMENT PLAN – PROJECT OPERATION

Prior to purchasing lighting equipment for the HBEP CCGT units, the project owner shall prepare and implement a comprehensive Lighting Management Plan for the HBEP.

Consistent with applicable worker safety regulations, the project owner shall ensure the design, installation, and maintenance of all permanent exterior lighting such that light sources are not directly visible from areas beyond the project site, reflected glare is avoided, and night lighting impacts are minimized or avoided to the maximum extent feasible. All lighting fixtures shall be selected to achieve high energy efficiency for the HBEP facility.

The project owner shall not purchase or order any lighting fixtures or apparatus until written approval of the final plan is received from the Compliance Project Manager (CPM). Modifications to the final Lighting Management Plan shall not occur without the CPM's approval.

The project owner shall meet these requirements for permanent project lighting:

- A Lighting Management Plan shall be prepared that integrates efficient technologies and designs into lighting systems. The plan shall include evidence that a certified lighting professional participated in plan preparation.
- Exterior lights shall be hooded and shielded and directed downward or toward the area to be illuminated to prevent obtrusive spill light (i.e., light trespass) or illumination of areas beyond the project site.
- Exterior lighting shall be designed to minimize backscatter to the night sky to the maximum extent feasible.

- Energy efficient lighting products and systems shall be used for all permanent new lighting installations. Smart bi-level exterior lighting using high efficiency directional LED fixtures shall be used as appropriate for exterior installations. The lighting system shall work in conjunction with occupancy sensors, photo sensors, wireless controls, and/or other scheduling or controls technologies to provide adequate light for security and worker safety, and to maximize energy savings.
- Lighting fixtures shall be kept in good working order and continuously maintained according to the original design standards.
- The CPM shall be notified of any complaints about permanent lighting at the project site. Complaints shall be documented using a form in the format shown in **Attachment 1**, and completed forms shall record resolution of each complaint. A copy of each completed complaint form shall be provided to the CPM. Records of lighting complaints shall also be kept in the compliance file at the project site.

Verification: At least 90 calendar days before purchasing permanent lighting equipment for the CCGT units and other project structures, the project owner shall submit a comprehensive Lighting Management Plan to the CPM for review and approval. Simultaneously with the submission of the Lighting Management Plan to the CPM, the project owner shall submit seven copies to the City of Huntington Beach Planning and Building Department for review and comment.

If the CPM determines that the Plan requires revision, the project owner shall provide an updated version with the specified revision(s) for review and approval by the CPM. Seven copies of the revised Lighting Management Plan shall be provided to the City of Huntington Beach Planning and Building Department for review and comment.

The project owner shall provide the CPM with a copy of the transmittal letters to the City requesting review of the Lighting Management Plan and any plan revisions. The City shall be allowed 30 calendar days following receipt of the stated plans to provide comments to the project owner and to the CPM. In the absence of comments within that timeframe, or a request from the City for an extension of time, the CPM may deem the Lighting Management Plan and any revisions acceptable to the City.

Prior to the start of commercial operation of the CCGT units, the project owner shall notify the CPM in writing that installation of permanent lighting for those units has been completed and that the lighting is ready for inspection. If the CPM notifies the project owner that modifications to the lighting system are required, within 30 days of receiving that notification, the project owner shall implement all specified changes and notify the CPM that the modified lighting system(s) is ready for inspection. The project owner shall obtain written confirmation from the CPM that the project complies with the Plan.

Within 48 hours of receiving a complaint about permanent project lighting, the project owner shall provide a copy of the complaint report and resolution form to the CPM, including a schedule for implementing corrective measures to resolve the complaint.

The project owner shall report any complaints about permanent lighting and document their resolution in the Annual Compliance Report for the project, accompanied by copies of completed complaint report and resolution forms for that year.

VIS-6 LIGHTING MANAGEMENT PLAN, REVIEW AND LETTER REPORT – PROJECT OPERATION

Prior to purchasing lighting equipment for the HBEP SCGT units, the project owner shall conduct a full review of the approved Lighting Management Plan to determine whether updates to the Plan are needed (e.g., to implement lighting technology changes). Review of the Plan shall include preparation and submittal of a letter report summarizing conclusions and recommendations for the lighting plan. The letter report shall include evidence that a certified lighting professional participated in Plan review.

The project owner shall not purchase or order any permanent lighting for the SCGT units or new buildings (including administrative or maintenance buildings or warehouses) until written approval of the final plan is received from the CPM. Modifications to the Lighting Management Plan are prohibited without the CPM's approval. Installation of lighting must be completed by the start of commercial operation of the SCGT units.

Verification: At least 90 calendar days before purchasing permanent lighting equipment for the SCGT units and other project structures, the project owner shall submit the Plan review and letter report to the CPM for review and approval. Simultaneously with the submission of the Plan review and letter report to the CPM, the project owner shall submit seven copies to the City of Huntington Beach Planning and Building Department for review and comment.

The project owner shall provide the CPM with a copy of the transmittal letter requesting the City's review of the Plan review and letter report. The City shall be allowed 30 calendar days following receipt of the stated Plan to provide comments to the project owner and to the CPM. In the absence of comments within that timeframe, or a request from the City for an extension of time, the CPM may deem the letter report acceptable to the City.

Prior to the start of commercial operation of the SCGT units, the project owner shall notify the CPM in writing that installation of permanent lighting has been completed and that the lighting is ready for inspection. If the CPM notifies the project owner that modifications to the lighting system are required, within 30 days of receiving that notification, the project owner shall implement all specified changes and notify the CPM that the modified lighting system(s) is ready for inspection. The project owner shall

obtain written confirmation from the CPM that the project complies with the Lighting Management Plan.

COMPLIANCE AND CLOSURE

COM-1 UNRESTRICTED ACCESS

The project owner shall take all steps necessary to ensure that the CPM, responsible Energy Commission staff, and delegate agencies or consultants~~,~~ have unrestricted access to the facility site, related facilities, project-related staff, and the records maintained on-site for the purpose of conducting audits, surveys, inspections, or general or closure-related site visits. Although the CPM will normally schedule site visits on dates and times agreeable to the project owner, the CPM reserves the right to make unannounced visits at any time, whether such visits are by the CPM in person or through representatives from Energy Commission staff, delegated agencies, or consultants.

COM-2 COMPLIANCE RECORD

The project owner shall maintain electronic copies of all project files and submittals on-site, or at an alternative site approved by the CPM, for the operational life and closure of the project. The files shall also contain–at least one hard copy of:

1. The facility's Application for Certification;
2. All amendment petitions and Energy Commission orders;
3. All site-related environmental impact and survey documentation;
4. All appraisals, assessments, and studies for the project;
5. All finalized original and amended structural plans and "as-built" drawings for the entire project;
6. All citations, warnings, violations, or corrective actions applicable to the project; and
7. The most current versions of any plans, manuals, and training documentation required by the conditions of certification or applicable LORS.

Energy Commission staff and delegate agencies shall, upon request to the project owner, be given unrestricted access to the files maintained pursuant to this condition.

COM-3 COMPLIANCE VERIFICATION SUBMITTALS

Verification lead times associated with the start of construction may require the project owner to file submittals during the amendment process, particularly if construction is planned to commence shortly after

certification. The verification procedures, unlike the conditions, may be modified as necessary by the CPM after notice to the project owner.

A cover letter from the project owner or an authorized agent is required for all compliance submittals and correspondence pertaining to compliance matters. The cover letter subject line shall identify the project by AFC number, cite the appropriate condition~~(s)~~ of certification number(s), and give a brief description of the subject of the submittal. When submitting supplementary or corrected information, the project owner shall reference the date of the previous submittal and the condition(s) of certification applicable.

All reports and plans required by the project's conditions of certification shall be submitted in a searchable electronic format (.pdf, MS Word or Excel, etc.) and include standard formatting elements such as a table of contents identifying by title and page number each section, table, graphic, exhibit, or addendum. All report and/or plan graphics and maps shall be adequately scaled and shall include a key with descriptive labels, directional headings, a bar scale, and the most recent revision date.

The project owner is responsible for the content and delivery of all verification submittals to the CPM, whether the actions required by the verification were satisfied by the project owner or an agent of the project owner. All submittals shall be accompanied by an electronic copy on an electronic storage medium, or by e-mail, as agreed upon by the CPM. If hard copy submittals are required, please address as follows:

Compliance Project Manager
Huntington Beach Energy Project (12-AFC-2C)
California Energy Commission
1516 Ninth Street (MS-2000)
Sacramento, CA 95814

COM-4 PRE-CONSTRUCTION MATRIX AND TASKS PRIOR TO START OF CONSTRUCTION

Prior to construction, the project owner shall submit to the CPM a compliance matrix including only those conditions that must be fulfilled before the start of construction. The matrix shall be included with the project owner's first compliance submittal or prior to the first pre-construction meeting, whichever comes first, and shall be submitted in a format similar to the description below.

Site mobilization and construction activities shall not start until the following have occurred:

1. The project owner has submitted the pre-construction matrix and all compliance verifications pertaining to pre-construction conditions of certification; and

2. The CPM has issued an authorization-to-construct letter to the project owner.

The deadlines for submitting various compliance verifications to the CPM allow staff sufficient time to review and comment on, and, if necessary, also allow the project owner to revise the submittal in a timely manner. These procedures help ensure that project construction proceeds according to schedule. Failure to submit required compliance documents by the specified deadlines may result in delayed authorizations to commence various stages of the project.

If the project owner anticipates site mobilization immediately following project certification, it may be necessary for the project owner to file compliance submittals prior to project certification. In these instances, compliance verifications can be submitted in advance of the required deadlines and the anticipated authorizations to start construction. The project owner must understand that submitting items required in compliance verifications prior to these authorizations is at the owner's own risk. Any approval by Energy Commission staff prior to project certification is subject to change based upon the Commission Decision, or amendment thereto, and early staff compliance approvals do not imply that the Energy Commission will certify the project for actual construction and operation.

COM-5 COMPLIANCE MATRIX

The project owner shall submit a compliance matrix to the CPM with each MCR and ACR. The compliance matrix shall identify:

1. The technical area (e.g., biological resources, facility design, etc.);

2. The condition number;

3. A brief description of the verification action or submittal required by the condition;

4. The date the submittal is required (e.g., 60 days prior to construction, after final inspection, etc.);

5. The expected or actual submittal date;

6. The date a submittal or action was approved by the Delegate Chief Building Official (DCBO**),** CPM, or delegate agency, if applicable;

7. The compliance status of each condition (e.g., "not started," "in progress," or "completed" (include the date); and

8. If the condition was amended, the updated language and the date the amendment was proposed or approved.

The CPM can provide a template for the compliance matrix upon request.

COM-6 MONTHLY COMPLIANCE REPORT

The first MCR is due one (1) month following the docketing of the project's Decision unless otherwise agreed to by the CPM. The first MCR shall include the AFC number and an initial list of dates for each of the events identified on the Key Events List. (The Key Events List form is found at the end of this Compliance Plan.)

During pre-construction, construction, or closure, the project owner or authorized agent shall submit an electronic searchable version of the MCR to the CPM within ten (10) business days after the end of each reporting month. MCRs shall be submitted each month until construction is complete and the final certificate of occupancy is issued by the DCBO. MCRs shall be clearly identified for the month being reported. The MCR shall contain, at a minimum:

1. a summary of the current project construction status, a revised/updated schedule if there are significant delays, and an explanation of any significant changes to the schedule;

2. documents required by specific conditions to be submitted along with the MCR; each of these items shall be identified in the transmittal letter, as well as the conditions they satisfy, and submitted as attachments to the MCR;

3. an initial, and thereafter updated, compliance matrix showing the status of all conditions of certification;

4. a list of conditions that have been satisfied during the reporting period, and a description or reference to the actions that satisfied the condition;

5. a list of any submittal deadlines that were missed, accompanied by an explanation and an estimate of when the information will be provided;

6. a cumulative listing of any approved changes to conditions of certification;

7. a listing of any filings submitted to, and permits issued by, other governmental agencies during the month;

8. a projection of project compliance activities scheduled during the next two (2) months; the project owner shall notify the CPM as soon as any changes are made to the project construction schedule that would affect compliance with conditions of certification;

9. a listing of the month's additions to the on-site compliance file; and

10. a listing of incidents, complaints, notices of violation, official warnings, and citations received during the month; a list of any incidents that occurred during the month, a description of the actions taken to date to resolve the issues; and the status of any unresolved actions noted in the previous MCRs.

COM-7 PERIODIC AND ANNUAL COMPLIANCE REPORTS

After construction is complete, the project owner must submit searchable electronic ACRs to the CPM, as well as other periodical compliance reports (PCRs) required by the various technical disciplines. ACRs shall be completed for each year of commercial operation and are due each year on a date agreed to by the CPM. Other PCRs (e.g., quarterly reports or decommissioning reports to monitor closure compliance may be specified by the CPM. The searchable electronic copies may be filed on an electronic storage medium or by e-mail, subject to CPM approval. Each ACR must include the AFC number, identify the reporting period, and contain the following:

1. an updated compliance matrix showing the status of all conditions of certification (fully satisfied conditions do not need to be included in the matrix after they have been reported as completed);

2. a summary of the current project operating status and an explanation of any significant changes to facility operations during the year;

3. documents required by specific conditions to be submitted along with the ACR; each of these items shall be identified in the transmittal letter with the condition(s) it satisfies and submitted as attachments to the ACR;

4. a cumulative listing of all post-certification changes approved by the Energy Commission or the CPM;

5. an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided;

6. a listing of filings submitted to, or permits issued by, other governmental agencies during the year;

7. a projection of project compliance activities scheduled during the next year;

8. a listing of the year's additions to the on-site compliance file;

9. an evaluation of the Site Contingency Plan, including amendments and plan updates; and

10. a listing of complaints, notices of violation, official warnings, and citations received and a listing of incidents that occurred during the year, a description of how the issues were resolved, and the status of any unresolved matters.

COM-8 CONFIDENTIAL INFORMATION

Any information that the project owner designates as confidential shall be submitted to the Energy Commission's Executive Director with an application for confidentiality, pursuant to Title 20, California Code of Regulations, section 2505(a). Any information deemed confidential pursuant to the regulations will remain undisclosed, as provided in Title 20, California Code of Regulations, section 2501 *et seq*.

COM-9 ANNUAL ENERGY FACILITY COMPLIANCE FEE

Pursuant to the provisions of section 25806 (b) of the Public Resources Code, the project owner is required to pay an annually adjusted compliance fee. Current compliance fee information is available on the Energy Commission's website at http://www.energy.ca.gov/siting/filing_fees.html. The project owner may also contact the CPM for the current fee information. The initial payment is due on the date the Energy Commission dockets its final Decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification.

COM-10 AMENDMENTS, STAFF-APPROVED PROJECT MODIFICATIONS, OWNERSHIP CHANGES, AND VERIFICATION CHANGES

The project owner shall petition the Energy Commission, pursuant to Title 20, California Code of Regulations, section 1769, to modify the design, operation, or performance requirements of the project or linear facilities, or to transfer ownership or operational control of the facility. The CPM will determine whether staff approval will be sufficient, or whether Commission approval will be necessary. It is the project owner's responsibility to contact the CPM to determine if a proposed project change triggers the requirements of section 1769. Section 1769 details the required contents for a Petition to Amend an Energy Commission Decision. The only change that can be requested by means of a letter to the CPM is a request to change the verification method of a condition of certification.

Implementation of a project modification without first securing Energy Commission, or Energy Commission staff, approval may result in an

enforcement action, including civil penalties, in accordance with section 25534 of the Public Resources Code. If the Energy Commission's rules regarding amendments are revised, the rules in effect at the time the change is requested shall apply.

The project owner is required to submit a five thousand ($5,000) dollar fee for every petition to amend a previously certified facility, pursuant to Public Resources Code section 25806(e). If the actual amendment processing costs exceed $5,000.00, the total Petition to Amend reimbursement fees owed by a project owner will not exceed seven hundred fifty thousand dollars ($750,000), adjusted annually. Current amendment fee information is available on the Energy Commission's website at:

http://www.energy.ca.gov/siting/filing_fees.html.

COM-11 REPORTING OF COMPLAINTS, NOTICES, AND CITATIONS

Prior to the start of construction or closure, the project owner shall send a letter to property owners within one (1) mile of the project, notifying them of a telephone number to contact project representatives with questions, complaints, or concerns. If the telephone is not staffed 24 hours per day, it must include automatic answering with date and time stamp recording.

The project owner shall respond to all recorded complaints within 24 hours or the next business day. The project site shall post the telephone number on-site and make it easily visible to passersby during construction, operation, and closure. The project owner shall provide the contact information to the CPM and promptly report any disruption to the contact system or telephone number change to the CPM, who will provide it to any persons contacting him or her with a complaint.

Within five (5) business days of receipt, the project owner shall report, and provide copies to the CPM, of all complaints, (including, but not limited to, noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations). Complaints shall be logged and numbered. Noise complaints shall be recorded on the form provided in the **NOISE AND VIBRATION** conditions of certification. All other complaints shall be recorded on the complaint form (Attachment A) at the end of this Compliance Plan. Additionally, the project owner must include in the next subsequent MCR, ACR or PCR, copies of all complaints, notices, warnings, citations and fines, a description of how the issues were resolved, and the status of any unresolved or ongoing matters.

COM-12 EMERGENCY RESPONSE SITE CONTINGENCY PLAN

No less than 60 days prior to the start of construction (or other CPM-approved date), the project owner shall submit, for CPM review and approval, an Emergency Response Site Contingency Plan (Contingency Plan). Subsequently, no less than 60 days prior to the start of commercial operation, the project owner shall update (as necessary) and resubmit the Contingency Plan for CPM review and approval. The Contingency Plan shall evidence a facility's coordinated emergency response and recovery preparedness for a series of reasonably foreseeable emergency events. The CPM may require Contingency Plan updating over the life of the facility. Contingency Plan elements include, but are not limited to:

1. A site-specific list and direct contact information for persons, agencies, and responders to be notified for an unanticipated event;
2. A detailed and labeled facility map, including all fences and gates, the windsock location (if applicable), the on- and off-site assembly areas, and the main roads and highways near the site;
3. A detailed and labeled map of population centers, sensitive receptors, and the nearest emergency response facilities;
4. A description of the on-site, first response and backup emergency alert and communication systems, site-specific emergency response protocols, and procedures for maintaining the facility's contingency response capabilities, including a detailed map of interior and exterior evacuation routes, and the planned location(s) of all permanent safety equipment;
5. An organizational chart including the name, contact information, and first aid/emergency response certification(s) and renewal date(s) for all personnel regularly on-site;
6. A brief description of reasonably foreseeable, site-specific incidents and accident sequences (on- and off-site), including response procedures and protocols and site security measures to maintain twenty-four-hour site security;
7. Procedures for maintaining contingency response capabilities; and
8. The procedures and implementation sequence for the safe and secure shutdown of all non-critical equipment and removal of hazardous materials and waste (see also specific conditions of certification for the technical areas of **PUBLIC HEALTH**, **WASTE MANAGEMENT**, **HAZARDOUS MATERIALS MANAGEMENT**, and **WORKER SAFETY**).

COM-13 INCIDENT-REPORTING REQUIREMENTS

The project owner shall notify the within one (1) hour after it is safe and feasible of any incident at the *facility* that results in any of the following:

1. An event of any kind that causes a “Forced Outage,” as defined at in the CAISO tariff.

2. The activation of onsite emergency fire suppression equipment to combat a fire;

3. Any chemical, gas or hazardous materials release that could result in *p*otential health impacts to the surrounding population or create an off-site odor issue.

4. Notification to, or response by, any off-site federal, state, or local emergency response agency regarding a fire, hazardous materials release, on-site injury, or any physical or cyber security incident.

Notification shall describe the circumstances, status, and expected duration of the incident. If warranted, as soon as it is safe and feasible, the project owner shall implement the safe shutdown of any non-critical equipment and removal of any hazardous materials and waste that pose a threat to public health and safety and to environmental quality (also, see specific conditions of certification for the technical areas of **HAZARDOUS MATERIALS MANAGEMENT** and **WASTE MANAGEMENT**).

Within 6 business days of the incident, the project owner shall submit to the CPM a detailed incident report, which includes, as appropriate, the following information:

1. a brief description of the incident, including its date, time, and location;
2. a description of the cause of the incident, or likely causes if it is still under investigation;
3. the location of any off-site impacts;
4. description of any resultant impacts;
5. a description of emergency response actions associated with the incident;
6. identification of responding agencies;
7. identification of emergency notifications made to federal, state, and/or local agencies;
8. identification of any hazardous materials released and an estimate of the quantity released;

9. a description of any injuries, fatalities, or property damage that occurred as a result of the incident;
10. fines or violations assessed or being processed by other agencies;
11. name, phone number, and e-mail address of the appropriate facility contact person having knowledge of the event; and
12. corrective actions to prevent a recurrence of the incident.

The project owner shall maintain all incident report records for the life of the project, including closure. After the submittal of the initial report for any incident, the project owner shall submit to the CPM copies of incident reports within 48 hours of a request.

COM-14 NON-OPERATION AND REPAIR/RESTORATION PLANS

If the facility ceases operation temporarily (excluding planned *and unplanned* maintenance), for longer than one (1) week (or other CPM-approved date), but less than three (3) months (or other CPM-approved date), the project owner shall notify the CPM, interested agencies, and nearby property owners. Notice of planned non-operation shall be given at least two (2) weeks prior to the scheduled date. Notice of unplanned non-operation shall be provided no later than one (1) week after non-operation begins.

For any non-operation, a Repair/Restoration Plan for conducting the activities necessary to restore the facility to availability and reliable and/or improved performance shall be submitted to the CPM within one (1) week after notice of non-operation is given. If non-operation is due to an unplanned incident, temporary repairs and/or corrective actions may be undertaken before the Repair/Restoration Plan is submitted. The Repair/Restoration Plan shall include:

1. an identification of operational and non-operational components of the plant;
2. a detailed description of the repair and inspection or restoration activities;
3. a proposed schedule for completing the repair and inspection or restoration activities;
4. an assessment of whether or not the proposed activities would require changing, adding, and/or deleting any conditions of certification, and/or would cause noncompliance with any applicable LORS; and

5. planned activities during non-operation, including any measures to ensure continued compliance with all conditions of certification and LORS.

Written monthly updates (or other CPM-approved intervals) to the CPM for non-operational periods, until operation resumes, shall include:

1. Progress relative to the schedule;
2. Developments that delayed or advanced progress or that may delay or advance future progress;
3. Any public, agency, or media comments or complaints; and
4. Projected date for the resumption of operation.

During non-operation, all applicable conditions of certification and reporting requirements remain in effect. If, after one (1) year from the date of the project owner's last report of productive Repair/Restoration Plan work, the facility does not resume operation or does not provide a plan to resume operation, the Executive Director may assign suspended status to the facility and recommend commencement of permanent closure activities. Within 90 days of the Executive Director's determination, the project owner shall do one of the following:

1. If the facility has a closure plan, the project owner shall update it and submit it for Energy Commission review and approval.
2. If the facility does not have a closure plan, the project owner shall develop one consistent with the requirements in this Compliance Plan and submit it for Energy Commission review and approval.

COM-15 FACILITY CLOSURE PLANNING

To ensure that a facility's eventual permanent closure and long-term maintenance do not pose a threat to public health and safety and/or to environmental quality, the project owner shall coordinate with the Energy Commission to plan and prepare for eventual permanent closure.

A. Provisional Closure Plan

To assure satisfactory long-term site maintenance and adequate closure for "the whole of a project," the project owner shall include within the first ACR a Provisional Closure Plan for CPM review and approval. The CPM may require Provisional Closure Plan updates to reflect project modifications approved by the Energy Commission. The Provisional Closure Plan shall consider applicable final closure plan requirements, including interim and long-term maintenance costs and reflect that

qualified personnel will carry out permanent closure and long-term maintenance activities.

The Provisional Closure Plan shall reflect the most current regulatory standards, best management practices, and LORS, and provide for a phased closure process and include, but not be limited to:

1. comprehensive scope of dismantling and demolition;
2. recycling and site clean-up;
3. mitigation and monitoring direct, indirect, and cumulative impacts;
4. site remediation and/or restoration;
5. interm and long-term operation monitoring and maintenance, including long-term equipment replacement costs; and
6. contingencies.

B. Final Closure Plan and Cost Estimate

No less than one (1) year (or other CPM-approved date) prior to initiating a permanent facility closure, the project owner shall submit for Energy Commission review and approval, a Final Closure Plan and Cost Estimate, which includes any long-term site maintenance and monitoring.

Prior to submittal of the facility's Final Closure Plan to the Energy Commission, the project owner and the CPM will hold a meeting to discuss the specific contents of the plan. In the event that significant issues are associated with the plan's approval, the CPM will hold one or more workshops and/or the Energy Commission may hold public hearings as part of its approval procedure.

Final Closure Plan and Cost Estimate contents include, but are not limited to:

1. a statement of specific Final Closure Plan objectives;

2. a statement of qualifications and resumes of the technical experts proposed to conduct the closure activities with detailed descriptions of previous power plant closure experience;

3. identification of any facility-related installations or maintenance agreements not part of the Energy Commission certification, designation of who is responsible for these, and an explanation of what will be done with them after closure;

4. a comprehensive scope of work and itemized budget for permanent plant closure and long-term site maintenance activities, with a description and explanation of methods to be used, broken down by phases, including, but not limited to:

a. dismantling and demolition;

b. recycling and site clean-up;

c. impact mitigation and monitoring;

d. site remediation and/or restoration;

e. exterior maintenance, including paint, landscaping and fencing;

f. site security and lighting;

g. any contingencies.

5. a Final Cost Estimate for all closure activities, by phases, including site monitoring and maintenance costs, and long-term equipment replacement;

6. a schedule projecting all phases of closure activities for the power plant site and all appurtenances constructed as part of the Energy Commission-certified project;

7. an electronic submittal package of all relevant plans, drawings, risk assessments, and maintenance schedules and/or reports, including an above- and below-ground infrastructure inventory map and registered engineer's or DCBO's assessment of demolishing the facility; additionally, for any facility that permanently ceased operation prior to submitting a Final Closure Plan and Cost Estimate and for which only minimal or no maintenance has been done since, a comprehensive condition report focused on identifying potential hazards;

8. all information additionally required by the facility's conditions of certification applicable to plant closure;

9. an equipment disposition plan, including:

a. recycling and disposal methods for equipment and materials; and

b. identification and justification for any equipment and materials that will remain on-site after closure;

10. a site disposition plan, including but not limited to:

a. proposed rehabilitation, restoration, and/or remediation procedures, as required by the conditions of certification and applicable LORS, and

b. site maintenance activities.

11 identification and assessment of all potential direct, indirect, and cumulative impacts and proposal of mitigation measures to reduce significant adverse impacts to a less-than-significant level; potential impacts to be considered shall include, but not be limited to:

a. traffic;

b. noise and vibration;

c. soil erosion;

d. air quality degradation;

e. solid waste;

f. hazardous materials;

g. waste water discharges; and

h. contaminated soil.

12. identification of all current conditions of certification, LORS, federal, state, regional, and local planning efforts applicable to the facility, and proposed strategies for achieving and maintaining compliance during closure;

13. updated mailing list or listserv of all responsible agencies, potentially interested parties, and property owners within one (1) mile of the facility;

14. identification of alternatives to plant closure and assessment of the feasibility and environmental impacts of these; and

15. description of and schedule for security measures and safe shutdown of all non-critical equipment and removal of hazardous materials and waste (see conditions of certification for **PUBLIC HEALTH**, **WASTE MANAGEMENT**, **HAZARDOUS MATERIALS MANAGEMENT**, and **WORKER SAFETY**.

If the Energy Commission-approved Final Closure Plan and Cost Estimate procedures are not initiated within one (1) year of the plan approval date, it shall be updated and re-submitted to the Energy Commission for supplementary review and approval. If a project owner initiates but then suspends closure activities, and the suspension continues for longer than one (1) year, the Energy Commission may initiate correction actions against the project owner to complete facility closure. The project owner remains liable for all costs of contingency planning and closure.

KEY EVENTS LIST

PROJECT: _____

DOCKET #: _____

COMPLIANCE PROJECT MANAGER: _____

EVENT DESCRIPTION	DATE
Certification Date	
Obtain Site Control	
On-line Date	
POWER PLANT SITE ACTIVITIES	
Start Site Assessment/Pre-construction	
Start Site Mobilization/Construction	
Begin Pouring Major Foundation Concrete	
Begin Installation of Major Equipment	
Completion of Installation of Major Equipment	
First Combustion of Turbine	
Obtain Building Occupation Permit	
Start Commercial Operation	
Complete All Construction	
TRANSMISSION LINE ACTIVITIES	
Start ~~TL~~ **Transmission Line** Construction	
Complete Transmission Line Construction	
Synchronization with Grid and Interconnection	
~~Complete T/L Construction~~	
FUEL SUPPLY LINE ACTIVITIES	
Start Gas Pipeline Construction and Interconnection	
Complete Gas Pipeline Construction	
WATER SUPPLY LINE ACTIVITIES	

Start Water Supply Line Construction	
Complete Water Supply Line Construction	
Start Recycled Water Supply Line Construction	
Complete Recycled Water Supply Line Construction	

COMPLAINT LOG NUMBER:_____ DOCKET NUMBER:_____

PROJECT NAME:_____

COMPLAINANT INFORMATION

NAME:_____ PHONE NUMBER:_____

ADDRESS:_____

COMPLAINT

DATE COMPLAINT RECEIVED:_____ TIME COMPLAINT RECEIVED:_____

COMPLAINT RECEIVED BY: _____ ☐ TELEPHONE ☐ IN WRITING (COPY ATTACHED)

DATE OF FIRST OCCURRENCE:_____

DESCRIPTION OF COMPLAINT (INCLUDING DATES, FREQUENCY, AND DURATION):_____

_____

_____

FINDINGS OF INVESTIGATION BY PLANT PERSONNEL:_____

_____

_____

DOES COMPLAINT RELATE TO VIOLATION OF A CEC REQUIREMENT? ☐ YES ☐ NO

DATE COMPLAINANT CONTACTED TO DISCUSS FINDINGS:_____

DESCRIPTION OF CORRECTIVE MEASURES TAKEN OR OTHER COMPLAINT RESOLUTION:_____

_____

_____

DOES COMPLAINANT AGREE WITH PROPOSED RESOLUTION? ☐ YES ☐ NO

IF NOT, EXPLAIN:_____

_____

CORRECTIVE ACTION

IF CORRECTIVE ACTION NECESSARY, DATE COMPLETED:_____

DATE FIRST LETTER SENT TO COMPLAINANT (COPY ATTACHED):_____

DATE FINAL LETTER SENT TO COMPLAINANT (COPY ATTACHED):_____

OTHER RELEVANT INFORMATION:_____

_____

_____

"This information is certified to be correct."

PLANT MANAGER SIGNATURE:_____ DATE: _____

(ATTACH ADDITIONAL PAGES AND ALL SUPPORTING PHOTO/DOCUMENTATION, AS REQUIRED)

DEFINITIONS AND ACRONYMS

APPENDIX B

Definitions and Acronyms

$\mu g/m^3$	microgram per cubic meter
AAQS	Ambient Air Quality Standard
AB	Assembly Bill
AB	Assembly Bill
AERMOD	AMS/EPA Regulatory Model
AFC	Application for Certification
AFY	Acre Feet per Year
APCO	Air Pollution Control Officer
AQCMM	Air Quality Construction Mitigation Manager
AQCMP	Air Quality Construction Mitigation Plan
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BACT	Best Available Control Technology
Btu	British Thermal Unit
CA ISO	California Independent System Operator
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CCCC	California Climate Change Center
CCGT	Combined Cycle Gas Turbine
CCR	California Code of Regulations
CEC	California Energy Commission (or Energy Commission)
CEMS	Continuous Emission Monitoring System
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2E	Carbon Dioxide Equivalent
CPM	(CEC) Compliance Project Manager
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources

Degrees F	Degrees Fahrenheit
DSCFM	Dry Standard Cubic Feet per Minute
EIR	Environmental Impact Report
EPS	Emission Performance Standard
ERC	Emission Reduction Credit
FDOC	Final Determination of Compliance
FSA	Final Staff Assessment
GCC	Global Climate Change
GHG	Greenhouse Gas
gr/scf	Grains per Standard Cubic Foot (7,000 grains = 1 pound)
GWh	Gigawatt-hour
GWP	Global Warming Potential
H_2S	Hydrogen Sulfide
HBEP	Huntington Beach Energy Project
HBGS	Huntington Beach Generating Station
HFC	Hydrofluorocarbons
HSC	Health and Safety Code
IEPR	Integrated Energy Policy Report
IPCC	Intergovernmental Panel on Climate Change
lb/mmscf	Pounds per Million Standard Cubic Feet
lbs	Pounds
LCA	Local Capacity Area
LLC	Limited Liability Company
LORS	Laws, Ordinances, Regulations and Standards
LTPP	Long-term Procurement Planning
MCR	Monthly Compliance Report
mg/m^3	milligrams per cubic meter
MMBtu/hr	Million British Thermal Units per Hour
MT	Metric tones
$MTCO_2E$	Metric Tons of CO_2-Equivalent
MW	Megawatts (1,000,000 Watts)
MWh	Megawatt-hour
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission

NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NOx	Oxides of Nitrogen or Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	Oxygen
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OTC	Once-Through Cooling
PCH	Pacific Coast Highway
PDOC	Preliminary Determination of Compliance
PFC	Perfluorocarbons
PM	Particulate Matter
PM10	Particulate Matter less than 10 microns in diameter
PM2.5	Particulate Matter less than 2.5 microns in diameter
ppm	Parts Per Million
ppmv	Parts Per Million by Volume
ppmvd	Parts Per Million by Volume, Dry
PSA	Preliminary Staff Assessment
PSD	Prevention of Significant Deterioration
PTA	Petition to Amend
PTC	Permit to Construct
PTE	Potential to Emit
PTO	Permit to Operate
PVMRM	Plume Volume Molar Ratio Method
RECLAIM	Regional Clean Air Incentives Market
RPS	Renewables Portfolio Standard
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
scf	standard cubic feet
SCGT	Simple Cycle Gas Turbine
SF_6	Sulfur hexafluoride
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SO_4	Sulfate

SOx	Oxides of Sulfur
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
tpy	tons per year
U.S. EPA	United States Environmental Protection Agency
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
WCI	Western Climate Initiative

EXHIBIT LIST

APPENDIX C

Transportation

Exhibit List

Docket: 12-AFC-02C
Project Title: Huntington Beach Energy Project - Compliance
Generated On: 5/5/2017 3:07:32 PM

Exhibit Number	Document Title and Description	Disposition
5001	TN # 206087 **Petition to Amend With Appendices**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5002	TN # 206442 **Project Owner's Proposed Schedule and Request for Scheduling Order**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5003	TN # 206806 **Project Owner's Response to Staff's Issues Identification Report, Proposed Schedule, and Request for Committee Scheduling Order**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5004	TN # 206807 **Objections to Certain Data Responses Contained in CEC Staff's Data Requests Set One (#A1-A74)**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5005	TN # 206858 **Data Responses, Set 1 (Responses to Data Requests 1-74)**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5006	TN # 206859 **AES Southland Development LLC's Repeated Application for Confidential Desigation and for Response to Data Request** Confidential Cultural Information contained in Response to Staff's Data Requests, Set One	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5007	TN # 207211 **Confidential Response to Staff's Data Requests, Set One** Confidential Cultural Resources Information	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5008	TN # 206916 **Project Owner's Handout for Huntington Beach Energy Project Site Visit 12-08-2015**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.

Exhibit Number	Document Title and Description	Disposition
5009	TN # 206917 **Presentation - Environmental Scoping Meeting and Informational Hearing by AES Southland Development, LLC** Project Owner's PowerPoint Presented at the HBEP Informational Hearing on 12/08/2015	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5010	TN # 206935 **AES Southland Development, LLC's Application for Designation of Confidential Cultural Resources Records**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5011	TN # 207209 **AES Southland Development, LLC's Confidential Cultural Resources Records**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5012	TN # 207011 **Project Owner's Follow-Up to Data Request Workshop 12.14.15**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5013	TN # 207017 **Response Letter to the 10/26/15 Request for Water Supply Assessment**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5014	TN # 210109 **Project Owner's Status Report #1; Response to Committee Scheduling Order**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5015	TN # 210262 **Project Owner's Response to City of Huntington Beach Comments on PTA**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5016	TN # 210567 **Project Owner's Status Report #2**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5017	TN # 213867 **Email from Huntington Beach Fire, Visual Screening Conceptual Plans** E-mail comments from the City of Huntington Beach Fire Department on the architectural enhancements proposed at the Huntington Beach Energy Project site as shown in TN # 210763. Please note that I have inserted bracketed text in the e-mail to clarify Mr. Eros's reference to the fire access roads on the project site. I am submitting this e-mail for posting on the docket log for the amended HBEP.	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5018	TN # 210923 **Project Owner's Status Report #3**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5019	TN # 210984 **AES Huntington Beach Energy, LLC's Petition to Change Ownership**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.

Exhibit Number	Document Title and Description	Disposition
5020	TN # 211139 **CAISO Section 25 Affidavit**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5021	TN # 211292 **Status Report #4** Project Owner's Status Report #4	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5022	TN # 211411 **Letter Regarding Response to Conservancy** Project Owner's Response to Comment Letter of Huntington Beach Wetlands Conservancy	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5023	TN # 211690 **Project Owner's Status Report #5** Status Report	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5024	TN # 211756 **Applicant's Supplement to Status Report No. 5** Applicant's Supplement to Status Report #5	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5025	TN # 211856 **Order Approving Transfer of Ownership** ORDER APPROVING Transfer of Ownership to AES Huntington Beach Energy, LLC	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5026	TN # 212044 **Project Owner's Status Report #6**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5027	TN # 212311 **Project Owner's Response to the Committee's Amended Scheduling Order**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5028	TN # 212379 **Project Owner's Comments on the Preliminary Staff Assessment** Project Owner's Comments on the Preliminary Staff Assessment	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5029	TN # 212380 **City of Huntington Beach RESOLUTION NO 2016-27** City of Huntington Beach RESOLUTION NO 2016-27	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5030	TN # 212525 **Status Report #7; Request for Status Conference**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5031	TN # 212678 **Huntington Beach California ISO Repowering Study Report**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5032	TN # 212752 **Response to City of Huntington Beach Comments on the PSA**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5033		

Exhibit Number	Document Title and Description	Disposition
	TN # 212753 **AES Huntington Beach Energy LLC Response to CCC Draft Report** *** THIS DOCUMENT SUPERSEDES TN 212751 ***	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5034	TN # 212948 **Project Owner's Follow-Up to Status Conference - Additional PSA Comments (Alternatives - Clutches)** Project Owner's Follow-Up to Status Conference - Additional PSA Comments (Alternatives - Clutches)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5035	TN # 213457 **AES Status Report #8**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5036	TN # 213478 **Project Owner's Additional Response to Coastal Commission Comments** This document supersedes TN 213477.	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5037	TN # 213492 **Response to August 29, 2016 Amended Committee Scheduling Order [Clutches]**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5038	TN # 213812 **Project Owner's Motion for Order to Publish Final Staff Assessment**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5039	TN # 213865 **Project Owner's Status Report #9**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5040	TN # 213999 **Project Owner's Request for Evidentiary Hearing Date and Related Deadlines** Project Owner's Request for Evidentiary Hearing Date and Related Deadlines	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5041	TN # 214181 **Declaration of Mark Bastasch in Support of Project Owner's Opening Testimony** Declaration of Mark Bastasch in Support of Project Owner's Opening Testimony (Noise and Vibration)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5042	TN # 214183 **Declaration of Melissa Fowler in Support of Project Owner's Opening Testimony** Declaration of Melissa Fowler in Support of Project Owner's Opening Testimony (Biological Resources)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5043	TN # 214186 **Declaration of Thomas Priestley in Support of Project Owner's Opening Testimony** Declaration of Thomas Priestley in Support of Project Owner's Opening Testimony (Visual Resources)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.

Exhibit Number	Document Title and Description	Disposition
5044	TN # 214210 **Declaration of Lisa Valdez in Support of Project Owner's Opening Testimony** This document supersedes TN 214179.	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5045	TN # 214185 **Declaration of Thomas Lae in Support of Project Owner's Opening Testimony** Declaration of Thomas Lae in Support of Project Owner's Opening Testimony (Geology)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5046	TN # 214182 **Declaration of Matt Franck in Support of Project Owner's Opening Testimony** Declaration of Matt Franck in Support of Project Owner's Opening Testimony (Water Resources)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5047	TN # 214180 **Declaration of Jennifer Krenz-Ruark in Support of Project Owner's Testimony** Declaration of Jennifer Krenz-Ruark in Support of Project Owner's Testimony (Soils)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5048	TN # 214177 **Declaration of Fatuma Yusuf Ph.D. in Support of Project Owner's Opening Testimony** Declaration of Fatuma Yusuf Ph.D. in Support of Project Owner's Opening Testimony (Socioeconomics)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5049	TN # 214184 **Declaration of Natalie Lawson in Support of Project Owner's Opening Testimony** Declaration of Natalie Lawson in Support of Project Owner's Opening Testimony (Cultural Resources)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5050	TN # 214178 **Declaration of James Verhoff in Support of Project Owner's Opening Testimony** Declaration of James Verhoff in Support of Project Owner's Opening Testimony (Paleontological Resources)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5051	TN # 214187 **Declaration of Robert Sims in Support of Project Owner's Opening Testimony** Declaration of Robert Sims in Support of Project Owner's Opening Testimony (Transmission System Engineering, Transmission Line Safety & Nuisance)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5052	TN # 214192 **Declaration of Jerry Salamy**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5053		

Exhibit Number	Document Title and Description	Disposition
	TN # 214193 **Declaration of Stephen O'Kane**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5054	TN # 214194 **Declaration of Seth Richardson**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5055	TN # 214211 **Project Owner's Opening Testimony** Project Owner's Opening Testimony, Preliminary Identification of Issues, and Witness and Exhibit Lists, and Comments on the Final Staff Assessment Part 1	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5056	TN # 214361 **Project Owner's Rebuttal Testimony and Revised Preliminary Exhibit List** Project Owner's Rebuttal Testimony and Revised Preliminary Exhibit List	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5057	TN # 214929 **Memo from Hearing Officer re: Potential Revised Agenda for December 21, 2016, Prehearing Conference** Memorandum and Potential Revised Agenda for December 21, 2016, Prehearing Conference and Evidentiary Hearing	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5063	TN # 214950 **Committee Order Granting Petition to Intervene** Order granting Robert Simpson/Helping Hand Tools Petition to Intervene	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5064	TN # 206936 **AES Huntington Beach, LLC's Response to South Coast Air Quality Management District's Completeness Determination Letter**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5065	TN # 206938 **SCAQMD Emissions Response**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5066	TN # 207021 **DR Set 1 Figures A9-1 through A9-3**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5067	TN # 207239 **SCAQMD HBEP Air Permit Application Completeness Determination** *** This document is a duplicate of TN 207088 ***	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5068	TN # 208218 **SCAQMD HBEP Air Permit Application Transmittal Letters to EPA and the FLMs**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5069	TN # 210250 **Data Responses to Workshop Data Request**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5070		

Exhibit Number	Document Title and Description	Disposition
	TN # 210271 **HBEP SCAQMD Cumulative Air Quality Inventory Correspondence**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5071	TN # 210300 **Huntington Beach Energy Project Data Requests A75-A77**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5072	TN # 210360 **Huntington Beach Energy Project Petition to Amend Data Requests A75-A77 HARP Modeling Files** Petition to Amend Data Requests A75-A77 HARP Modeling Files. A Copy of the CD can be obtained through the Dockets Unit.	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5073	TN # 210361 **Huntington Beach Energy Project Data Request A14, A16-A18 Air Quality Modeling files transmittal letter** A Copy of the CD can be obtained through the Dockets Unit.	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5074	TN # 210620-1 **Resubmission of Data Responses Set 1, Updated Response to Data Requests 4-6, Part 1** [Air Quality]	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5075	TN # 210620-2 **Resubmission of Data Responses Set 1, Updated Response to Data Requests 4-6, Part 2**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5076	TN # 210620-3 **Resubmission of Data Responses Set 1, Updated Response to Data Requests 4-6, Part 3**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5077	TN # 210660 **HBEP Cumulative Air Quality Analysis Correspondace**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5078	TN # 210807 **Huntington Beach Energy Project's Revised Air Permit Application Documentation**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5079	TN # 210969 **Petition to Amend Revised Air Quality and Public Health Assessment Sections**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5080	TN # 211171 **Email Regarding Alamitos and Huntington Beach** Email: Requesting scheduling, and courtesy copies of the PDOCs for Huntington Beach and Alamitos.	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5081		

Exhibit Number	Document Title and Description	Disposition
	TN # 211425 **South Coast Air Quality Management District Correspondance 05-06-16 Part 1**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5082	TN # 211426 **South Coast Air Quality Management District Correspondance 05-06-16 Part 2**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5083	TN # 211427 **South Coast Air Quality Management District Correspondance 05-06-16 Part 3**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5084	TN # 211428 **South Coast Air Quality Management District Correspondance 05-06-16 Part 4**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5085	TN # 211429 **South Coast Air Quality Management District Correspondance 05-06-16 Part 5**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5086	TN # 211432 **South Coast Air Quality Management District Correspondance 05-06-16 Part 6**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5087	TN # 211433 **South Coast Air Quality Management District Correspondance 05-06-16 Part 7**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5088	TN # 211434 **South Coast Air Quality Management District Correspondance 05-06-16 Part 8**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5089	TN # 211437 **South Coast Air Quality Management District Correspondance 05-06-16 Part 9**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5090	TN # 211610 **HARP Files for AQ Modeling from CH2M Hill** Report of Conversation	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5092	TN # 211748 **South Coast Air Quality Management District - Facility Permit to Operate** Notice	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5093	TN # 211747 **South Coast Air Quality Management District - Preliminary Determination of Compliance (PDOC)**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5094	TN # 211746 **South Coast Air Quality Management District - Notice of Intent to Issue Permits** Notice	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5095		

Exhibit Number	Document Title and Description	Disposition
	TN # 211745 **South Coast Air Quality Management District - Preliminary Determination of Compliance**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5096	TN # 211930 **AES HBEP PDOC Public Notice Verification**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5097	TN # 212278 **AES Comments on the SCAQMD HBEP Preliminary Determination of Compliance**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5098	TN # 212880 **Correspondence with SCAQMD** Compilation of data obtained through SCAQMD's Public Records Request process since May 2016.	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5099	TN # 212942 **HBEP Data Responses Set 1-R2, Data Responses to A4-A6 (Air Quality)**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5100	TN # 213472 **Data Responses, Set 1-R3**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5101	TN # 214464 **Huntington Beach Energy Project - Re-notice of Public Notice of Intent to Issue Permits** HBEP-Re-noticing of SCAQMD PDOC Public Notice	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5102	TN # 214532 **Huntington Beach Energy Project (HBEP) Draft Facility Permit for Final Determination of Compliance (FDOC) Package** HBEP - Draft Facility Permit for FDOC	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5104	TN # 214550 **Project Owner's Proposed Schedule for the Remainder of the PTA Proceeding** Project Owner's Proposed Schedule for the Remainder of the PTA Proceeding	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5105	TN # 214555 **Project Owner's Revised Proposed Schedule, dated November 23, 2016** Project Owner's Revised Proposed Schedule, dated November 23, 2016	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5106	TN # 214577 **HBGS Units 3 and 4 Demolition Schedule**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5107	TN # 214604 **Project Owner's Motion to Advance the Evidentiary Hearing** Project Owner's Motion to Advance Schedule	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5108		

Exhibit Number	Document Title and Description	Disposition
	TN # 214709 **AES's Comments on SCAQMD's Final Determination of Compliance**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5109	TN # 214374 **Determination of Compliance Revisions** Proposed revisions based on voluntary reduction of CO emission rate for combined-cycle gas turbines	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5110	TN # 214742 **Supplemental Declaration of Jerry Salamy**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5111	TN # 214743 **Supplemental Declaration of Stephen O'Kane**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5112	TN # 214741 **Declaration of Elyse Engel** Declaration of Elyse Engel	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5113	TN # 214756 **Project Owner's Opening Testimony (Part 2)** Comments on the Final Staff Assessment Part 2, and Revised Preliminary Exhibit List	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5114	TN # 214116 **Final Decision in Original Proceeding**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5115	TN # 214520 **AES HBEP Re-Issued PDOC Public Notice Distribution Verification**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5116	TN # 214789 **December 14, 2016 Declaration of Jerry Salamy**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5117	TN # 214788 **Supplemental Declaration of Mark Bastasch**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5118	TN # 214790 **December 14, 2016 Declaration of Stephen O'Kane** December 14, 2016 Declaration of Stephen O'Kane	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5119	TN # 214796 **Project Owner's Rebuttal Testimony (Part 2)** Project Owner's Rebuttal Testimony (Part 2)	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5120	TN # 214836 **Additional Final Determination of Compliance Comments**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5121	TN # 214839 **Project Owner's Comprehensive Prehearing Conference Statement, Exhibit List and Prehearing Brief**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5122		

Exhibit Number	Document Title and Description	Disposition
	TN # 214881 **Project Owner's Opposition to Robert Simpson and Helping Hand Tools' Petition to Intervene**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
5123	TN # 214887 **Project Owner's Opposition to Simpson's and Helping Hand Tools' Motion to Continue Hearing Dates and Motion for Change of Venue**	Offered by Applicant (AES Southland Development LLC); Admitted on 12/21/2016.
6000	TN # 214025 **Final Staff Assessment - Part 1** Petition to Amend	Offered by Commission Staff (sarvey); Admitted on 12/21/2016.
6001	TN # 214358 **Energy Commission Staff's Rebuttal Testimony**	Offered by Commission Staff (sarvey); Admitted on 12/21/2016.
6002	TN # 214533 **Huntington Beach Energy Project (HBEP) Final Determination of Compliance (FDOC) Package** HBEP - Final Determination of Compliance (FDOC) Package	Offered by Commission Staff (sarvey); Admitted on 12/21/2016.
6003	TN # 214732 **Final Staff Assessment, Part 2 and Supplemental Testimony** In Response to Questions for the Petition to Amend the Huntington Beach Energy Project Decision	Offered by Commission Staff (sarvey); Admitted on 12/21/2016.
7001	TN # 214965 **Ed Murphy Comments: Need for Local Hearings**	Offered by Intervenor (Robert Simpson); Admitted on 12/21/2016.
7002	TN # 214964 **robert james simpson Comments: PETITION TO CONDUCT POWER PLANT HEARINGS IN HUNTINGTON BEACH 2**	Offered by Intervenor (Robert Simpson); Admitted on 12/21/2016.
7003	TN # 214963 **robert james simpson Comments: PETITION TO CONDUCT POWER PLANT HEARINGS IN HUNTINGTON BEACH**	Offered by Intervenor (Robert Simpson); Admitted on 12/21/2016.

PROOF OF SERVICE LIST

APPENDIX D

Transportation

Proof of Service List

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