

Memorandum

Date: October 1, 2008

Telephone: (916) 654-4996

To: Jackalyne Pfannenstiel, Chairman
 James D. Boyd, Vice Chair
 Arthur H. Rosenfeld, Ph.D., Commissioner
 Jeffrey Byron, Commissioner
 Karen Douglas, Commissioner

From: California Energy Commission – Melissa Jones
 1516 Ninth Street
 Sacramento, CA 95814-5512
 Executive Director

*Terrance J. Brien
for*

DOCKET 08-AFC-5
DATE <u>OCT 0 2 2008</u>
RECD. <u>OCT 0 2 2008</u>

Subject: **SES SOLAR TWO PROJECT, REVISED DATA ADEQUACY RECOMMENDATION (08-AFC-5)**

On June 30, 2008, Stirling Engine Systems Solar Two, LLC, (SES Solar Two, LLC) submitted an Application for Certification (AFC) to the California Energy Commission to develop the 750-MW Stirling Engine Systems Solar Two Project (SES Solar Two Project) on both privately owned land and federal land managed by the Bureau of Land Management (BLM) in Imperial County, California. Primary equipment for the renewable energy project would be 30,000 25-kilowatt solar dish Stirling systems (referred to as SunCatchers). The project would include the construction of a new 230-kV substation approximately in the center of the project site. This new substation would be connected to the existing SDG&E Imperial Valley Substation via an approximately 10.3-mile, double-circuit, 230-kV transmission line. Other than this interconnection transmission line, no new transmission lines or off-site substations would be required for the 300-MW Phase I construction. The full Phase II expansion of the project, and delivery of the additional renewable power to the San Diego regional load center, would require the construction of the 500-kV Sunrise Powerlink transmission line project proposed by SDG&E.

Staff's July 29, 2008 initial data adequacy review of the SES Solar Two Project AFC determined that it did not meet all the requirements listed in Title 20, section 1704, and Division 2, Chapter 5, Appendix B of the California Code of Regulations for the 12-month process. Specifically, the AFC was deficient in 9 of 23 areas: Air Quality, Alternatives, Biological Resources, Cultural Resources, Paleontological Resources, Socioeconomics, Transmission System Design (Engineering), Visual Resources, and Water Resources. On September 8, 2008, SES Solar Two, LLC, provided a draft AFC Supplement to staff for review. Staff has reviewed the supplemental information and believes the AFC now meets the above-listed requirements in all nine of the previously deficient technical disciplines. The applicant formally filed one hundred and twenty-five copies of the AFC Supplement on September 28, 2008. Attached is a summary table and revised data adequacy worksheets for the nine technical disciplines previously determined to be data inadequate, reflecting staff's determination that the supplemental information submitted by SES Solar Two, LLC, satisfies the data deficiencies specified by the California Energy Commission at the August 13, 2008 Business Meeting.

At the Energy Commission Business Meeting on October 8, 2008, I will recommend that the Energy Commission accept the SES Solar Two Project AFC with the supplemental information as complete, and request that a Committee be appointed. If you have any questions, please call Christopher Meyer, staff's Project Manager, at (916) 653-1639.

Attachment

Attachment A
Overview of Energy Commission Staff's
Revised Data Adequacy Determination
SES Solar Two Project
08-AFC-5

Technical Area	Attachment B Page No.	Adequate ?
AIR QUALITY	1	YES
ALTERNATIVES.....	8	YES
BIOLOGICAL RESOURCES	9	YES
CULTURAL RESOURCES.....	21	YES
PALEONTOLOGICAL RESOURCES.....	31	YES
SOCIOECONOMICS.....	34	YES
TRANSMISSION SYSTEM DESIGN	41	YES
VISUAL RESOURCES	45	YES
WATER RESOURCES	50	YES

ATTACHMENT B

**ENERGY COMMISSION STAFF'S
Revised Data Adequacy Worksheets**

**SES Solar Two Project
08-AFC-5**

October 1, 2008

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008

Technical Area: Air Quality

Project: SES Solar Two Project

Technical Staff: Joe Loyer

Project Manager: Christopher Meyer

Docket: 08-AFC-5

Technical Senior: Keith Golden

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.2	Yes	
Appendix B (g) (8) (A)	The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.	Application submitted July 10, 2008 <u>AFC Supplement, p. AQ-1</u>	No <u>Yes</u>	The Imperial County Air Pollution Control District is currently reviewing the application and expects to make a determination regarding completeness by August 25, 2008.
Appendix B (g) (8) (B)	The heating value and chemical characteristics of the proposed fuels, the stack height and diameter, the exhaust velocity and temperature, the heat rate and the expected capacity factor of the proposed facility.	Page 1-3	Yes	
Appendix B (g) (8) (C)	A description of the control technologies proposed to limit the emission of criteria pollutants.	Section 5.2.4.2	Yes	
Appendix B (g) (8) (D)	A description of the cooling system, the estimated cooling tower drift rate, the rate of water flow through the cooling tower, and the maximum concentrations of total dissolved solids.	NA	NA	

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Appendix B (g) (8) (E)	The emission rates of criteria pollutants and greenhouse gases (CO ₂ , CH ₄ , N ₂ O, and SF ₆) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.	Table 5.2-26 and -27	Yes	
Appendix B (g) (8) (F)(i)	A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.	Section 5.2.2.2 Appendix V	Yes	
Appendix B (g) (8) (F)(ii)	A description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the commercial operations date, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests.	NA	NA	
Appendix B (g) (8) (G)	The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site. The applicant may substitute an explanation as to why information from one, two, or all stations is either not available or unnecessary.	Section 5.2.1	Yes	

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Appendix B (g) (8) (H)	One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution control district.	Section 5.2.1 Modeling Files DVD	Yes	
Appendix B (g) (8) (H) (i)	If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA - 450/4-87-013 (August 1995)), which is incorporated by reference in its entirety.	NA	NA	
Appendix B (g) (8) (H) (ii)	The data shall include quarterly wind tables and wind roses, ambient temperatures, relative humidity, stability and mixing heights, upper atmospheric air data, and an analysis of whether this data is representative of conditions at the project site.	Section 5.2.1 Modeling Files DVD Appendix V-1	Yes	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:	Section 5.2.2 Section 5.2.3 Modeling Files DVD		

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Appendix B (g) (8) (I) (i)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM10) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NOx), sulfur dioxide (SO ₂), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM10) and particulate matter less than 2.5 microns in diameter (PM2.5)] from construction-related equipment;	Section 5.2.2 Modeling Files DVD	Yes	
Appendix B (g) (8) (I) (ii)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant (NOx, SO ₂ , CO, PM10, and PM2.5) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions;	Section 5.2.2 Modeling Files DVD	Yes	

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Appendix B (g) (8) (I) (iii)	A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard; and	Section 5.2.3 <u>AFC Supplement, p. AQ-2</u>	No <u>Yes</u>	Please provide the modeling protocol for the cumulative assessment, including the means by which the applicant confirmed that there were no further new sources of emissions within 6 miles of the proposed project site.
Appendix B (g) (8) (I) (iv)	An air dispersion modeling analysis of the impacts of the initial commissioning phase emissions on state and federal ambient air quality standards for NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5} .	N/A	N/A	
Appendix B (g) (8) (J)	If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide the following information:	N/A	N/A	
Appendix B (g) (8) (J) (i)	The quantity of offsets or emission reductions that are needed to satisfy air permitting requirements of local permitting agencies (such as the air district), state and federal oversight air agencies, and the California Energy Commission. Identify by criteria air pollutant, and if appropriate, greenhouse gas; and	N/A	N/A	
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions;	N/A	N/A	

Adequacy Issue: Adequate X Inadequate

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Technical Senior: Keith Golden

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (8) (K)	A detailed description of the mitigation, if any, which an applicant may propose, for all projects impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule.	Section 5.2.4	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.2.5 Table 5.2-35	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 5.2.5 Table 5.2-36	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.2.5 Table 5.2-36	Yes	

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Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.2.5 Table 5.2-37	Yes	

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Revision No. 1 Date October 1, 2008

Technical Area: Alternatives

Project: SES Solar Two Project

Technical Staff: Susan Lee

Project Manager: Christopher Meyer

Docket: 08-AFC-5

Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1) (D)	A description of how the site and related facilities were selected and the consideration given to engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant.	4-2 (Section 4.1) Site Criteria 4-6 (Section 4.2.2) Alternative Engineering Alternative 4-24 (Section 4.3) Alternative Sites 4-27 (Section 4.4) Alternative Technologies	Yes	
Appendix B (f) (1)	A discussion of the range of reasonable alternatives to the project, or to the location of the project, including the no project alternative, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and an evaluation of the comparative merits of the alternatives. In accordance with Public Resources Code section 25540.6(b), a discussion of the applicant's site selection criteria, any alternative sites considered for the project, and the reasons why the applicant chose the proposed site.	4-3 (Section 4.2.1) No Action Alternative 4-6 (Section 4.4.4.1-4.2.2.2) Alternatives 4-24 (Section 4.3.1) Alternative Sites-Screening Criteria 4-25 (Section 4.3.2.1 – 4.3.3.2) Three Alt Site Locations 4-30 (Section 4.5) Alternative Linear Routes 4-30 (Section 4.6) Water Supply	Yes	
Appendix B (f) (2)	An evaluation of the comparative engineering, economic, and environmental merits of the alternatives discussed in subsection (f)(1).	4-6 (Section 4.2.2.1-4.2.2.2) Alternative Engineering Alternatives 4-25 (Section 4.3.2.1 – 4.3.2.3) Alternative Site Locations 4-30 (Section 4.5) Alternative Linear Routes 4-30 (Section 4.6) Water Supply AFC Supplement, p. ALT-1	No <u>Yes</u>	Section 4.2.2.1 and 4.2.2.2 address the engineering, economic, and environmental merits of the Alternate Engineering Alternatives. Section 4.3.2.1-4.3.2.3 give comparative engineering and environmental merits of the alternative site locations. Please provide economic merits of the alternative site locations discussed in subsection (f) (1).

Adequacy Issue: Adequate Inadequate
 Technical Area: Biological Resources
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Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	<p>Existing site conditions: Section 5.6.1.2 pgs 5.6-8 to 5.6-13 Appendix Y Attachment A</p> <p>Direct, indirect, and cumulative impacts: Section 5.6.2 pgs 5.6-14 to 5.6-15 Section 5.6.2.1 pgs 5.6-14 to 5.6-15 Section 5.6.2.2 pg 5.6-20 Section 5.6.2.3 pg 5.6-20 Section 5.6.3 pg 21 Appendix Y Section 4.1 pgs 17 to 21</p> <p>Mitigation measures: Section 5.6.4 pg 5.6-21 Section 5.6.4.1 pgs 5.6-21 to 5.6-23</p> <p>Monitoring plans: Section 5.6.2.1 pgs 5.6-15 to 5.6-20 Section 5.6.4.2 pgs 5.6-22 To 5.6-23 Appendix Y Section 5.0 pg 23</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>	

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 Project Manager: Christopher Meyer

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Appendix B (g) (13) (A)	A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources within ten (10) miles of the project. Include a map at a scale of 1:100,000 (or other suitable scale) showing sensitive biological resource location(s) in relation to the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. Sensitive biological resources include the following:	Regional overview: Section 5.6.1 pg 5.6-1 Regional vicinity maps: Figure 5.6-1 Figure 5.6-2 Figure 5.6-3 Figure 5.6-4 Figure 5.6-5 Figure 5.6-6	Yes Yes	
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	Federal and state Endangered Species Table 5.6-1 pgs 5.6-2 to 5.6-5 Section 5.6.1.2 pg 5.6-8 to 5.6-13 Figure 5.6-2 Figure 5.6-3 Figure 5.6-4 Figure 5.6-6	Yes	
Appendix B (g) (13) (A) (ii)	resources defined in sections 1702(q) and (v) of Title 20 of the California Code of Regulations;	Areas of critical concern and species of special concern: Table 5.6-1 pgs 5.6-2 to 5.6-5 Section 5.6.1.2 pg 5.6-8 to 5.6-13	Yes	
Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	State Fully Protected Species: Table 5.6-1 pgs 5.6-2 to 5.6-5 Section 5.6.1.2 pg 5.6-8 to 5.6-13	Yes	

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Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	Migratory Bird Act Species: Table 5.6-1 pgs 5.6-2 to 5.6-5 Section 5.6.1.2 pg 5.6-8 to 5.6-13	Yes	
Appendix B (g) (13) (A) (v)	species and habitats identified by local, state, and federal agencies as needing protection, including but not limited to those identified by the California Natural Diversity Database, or where applicable, in Local Coastal Programs or in relevant decisions of the California Coastal Commission; and	Species and habitats identified in the California Natural Diversity Database: Table 5.6-1 pgs 5.6-2 to 5.6-5 Section 5.6.1.2 pg 5.6-8 to 5.6-5 Section 5.6.1.2 pg 5.6-8 to 5.6-13 Appendix Y Attachment	Yes	
Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial and/or recreational value.	Fish and wildlife of commercial or recreational value: N/A	N/A	
Appendix B (g) (13) (B)	Include a list of the species actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors. Maps or aerial photographs shall include the following:	List of species observed: Table 5.6-3 pg 5.6-8 Table 5.6-4 pg 5.6-17 Appendix Y Attachment B Appendix Y Attachment C	Yes	

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Appendix B (g) (13) (C) (iii)	<p>If cooling water is taken directly from or discharged to a surface water feature source, include a description of the intake structure, screens, water volume, intake velocity hydraulic zone field of influence, and the thermal plume dispersion area as depicted in response to B(ii) above. Describe the thermal plume size and dispersion under high and low tides, and in response to local currents and seasonal changes. Provide a discussion of the aquatic habitats, biological resources, and critical life stages found in these affected waters. For repower projects that anticipate no change in cooling water flow, this information shall be provided in the form of the most recent federal Clean Water Act 316(a) and (b) studies of entrainment and impingement impacts that has been completed within the last five (5) years. For new projects or repower projects proposing to use once-through cooling and anticipating an increase in cooling water flow, provide a complete impingement and entrainment analysis per guidance in (D)(ii), below.</p>	<p>Intake structure characteristics: N/A Thermal plume: N/A Aquatic habitat and biological resources affected: N/A Impingement and entrainment analysis: N/A</p>	<p>N/A N/A N/A N/A</p>	

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Appendix B (g) (13) (D) (ii)	If cooling water is proposed to be taken directly from or discharged to a surface water feature source, seasonal aquatic resource studies and surveys shall be conducted. Aquatic resource survey data shall include, but is not limited to, fish trawls, ichthyoplankton and benthic sampling, and related temperature and water quality samples. For new projects or repower projects anticipating a change in cooling water flows, sampling protocols shall be provided to the Energy Commission staff for review and concurrence prior to the start of sampling. For repower projects not anticipating a change in cooling water flows, this information shall be provided in the form of the most recent federal Clean Water Act 316(b) impingement and entrainment impact study completed within five (5) years of the AFC filing date; and	Aquatic resource studies and surveys: N/A Aquatic resource survey data or impingement and entrainment impact study: N/A	N/A N/A	
Appendix B (g) (13) (D) (iii)	If the project or any related facilities could impact a jurisdictional or non-jurisdictional wetland, provide completed Army Corps of Engineers wetland delineation forms and/or determination of wetland status pursuant to Coastal Act requirements, name(s) and qualifications of biologist(s) completing the delineation, the results of the delineation and a table showing wetland acreage amounts to be impacted.	Impacts to jurisdictional or non-jurisdictional wetlands: Section 5.6.1.3 pgs 5.6-13 to 5.6-14 Figure 5.6-5	Yes	
Appendix B (g) (13) (E)	Impacts discussion of the following:			

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Appendix B (g) (13) (F) (i)	All measures proposed to avoid and/or reduce adverse impacts to biological resources;	Avoidance and minimization: Section 5.6.2.1 pgs 5.6-15 to 5.6-19	Yes	
Appendix B (g) (13) (F) (ii)	All off-site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management;	Habitat Mitigation: Section 5.6.4.2 pgs 5.6-22 to 5.6-23 Contacts for compensation habitat: <u>AFC Supplement, p. BIO-2</u>	Yes No <u>Yes</u>	Please provide a list of contacts for habitat compensation and management.
Appendix B (g) (13) (F) (iii)	Design features to better disperse or eliminate a thermal discharge;	Design features to eliminate thermal discharge: N/A	N/A	
Appendix B (g) (13) (F) (iv)	All measures proposed to avoid or minimize adverse impacts of cooling water intake. This shall include a Best Technology Available (BTA) discussion. If BTA is not being proposed, the rationale for not selecting BTA must be provided; and	Measures to minimize impacts of cooling water intake: N/A	N/A	
Appendix B (g) (13) (F) (v)	Educational programs to enhance employee awareness during construction and operation to protect biological resources.	Employee biological resource awareness training: <u>AFC Supplement, p. BIO-3</u>	No <u>Yes</u>	Please provide a discussion of the educational programs to be used to enhance employee awareness during construction and operation.
Appendix B (g) (13) (G)	A discussion of compliance and monitoring programs to ensure the effectiveness of impact avoidance and mitigation measures incorporated into the project.	Monitoring compliance effectiveness: Section 5.6.2.1 pgs 5.6-15 to 5.6-20 Section 5.6.4.2 pgs 5.6-22 to 5.6-23 Appendix Y Section 5.0 pg 23	Yes	

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 Technical Area: **Biological Resources**
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Appendix B (g) (13) (H)	Submit copies of any preliminary correspondence between the project applicant and state and federal resource agencies regarding whether federal or state permits from other agencies such as the U. S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service, the U.S. Army Corps of Engineers, the California Department of Fish and Game (CDFG), and the Regional Water Quality Control Board will be required for the proposed project.	Contact with state and federal agencies regarding permits: <u>AFC Supplement, p. BIO-4</u>	No <u>Yes</u>	Please provide any preliminary correspondence between the applicant and state and federal agencies.
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table identifying applicable biological resources laws, ordinances, regulations, and standards: Section 5.6.5 pgs 5.6-23 to 5.6-25 Table 5.6-6 pgs 5.6-26 to 5.6-27	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Tables identifying agencies with jurisdiction: Table 5.6-7 pg 5.6-28	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: **Biological Resources**
 Project Manager: Christopher Meyer

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Revision No. 1 Date October 1, 2008
 Technical Staff: Joy Nishida
 Technical Senior: Rick York

Project: SES Solar Two Project
 Docket: 08-AFC-5

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Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Agency contact information: Table 5.6-7 pg 5.6-28	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Permit schedule: Table 5.6-8 pg 5.6-28 to 5.6-29	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Cultural Resources
 Project Manager: Christopher Meyer

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Revision No. 1 Date October 1, 2008
 Technical Staff: Mike McGuirt
 Technical Senior: Rick York

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Existing site conditions. P. 5.7-2, vol 1, AFC Expected project impacts Pp 5.7-32 and 5.7-33, vol. 1, AFC Proposed mitigation measures. Pp 5.7-33-5.7-36, vol. 1, AFC. Effectiveness of proposed mitigation measures. Pp. 5.7-32 and 5.7-33, vol. 1, AFC. Monitoring plans Pp 5.7-33, 5.7-34, and 5.7-36, vol. 1, AFC.	Yes Yes Yes Yes	
Appendix B (g) (2) (A)	A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location.	Pp. 5.7-2-5.7-11, vol. 1. AFC; pp 2-2-2-12, vol. 1 (Class III Cultural Resources Inventory Report), app. Z, AFC.	Yes	
Appendix B (g) (2) (B)	The results of a literature search to identify cultural resources within an area not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum. Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.	Literature search results per the regulations. Pp. 5.7-12-5.7-14, vol. 1, AFC; pp. 2-12-2-14, vol. 1 (Class III Cultural Resources Inventory Report), app. Z, AFC. <u>Attachment CUL-1, September 2008</u> <u>Supplemental Information</u>	No <u>Yes</u>	Applicant refers to survey of "Project area." Please confirm whether the "Project area" is equal to the area inside the "Project Boundary" on the maps in the Cultural Resources section of the AFC (Figure 5.5-1) and the cultural resource inventory report in appendix Z of the AFC (figure 1-1). Please clarify whether the literature search area for the proposed transmission line was 0.25 miles out from both sides of the proposed alignment, and whether the literature search area included the proposed water line and the area 0.25 miles out from both sides of that proposed alignment.

Adequacy Issue: Adequate Inadequate

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Revision No. 1 Date October 1, 2008

Technical Area: Cultural Resources
 Project Manager: Christopher Meyer

Project: SES Solar Two Project
 Docket: 08-AFC-5

Technical Staff: Mike McGuirt
 Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (B) (Cont.)	Copies of California Department of Parks and Recreation (DPR) 523 forms (Title 14 CCR §4853) shall be provided for all cultural resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36CFR60.4(g)). A copy of the USGS 7.5' quadrangle map of the literature search area delineating the areas of all past surveys and noting the California Historical Resources Information System (CHRIS) identifying number shall be provided. Copies also shall be provided of all technical reports whose survey coverage is wholly or partly within .25 mile of the area surveyed for the project under Section (g)(2)(C), or which report on any archaeological excavations or architectural surveys within the literature search area.	Cultural resources listed under a city or county ordinance.	<u>No</u> <u>Yes</u>	Please clarify whether this information was sought, and, if so, what the results were of any such inquiry.
		Cultural resources recognized by local heritage society or museum.	<u>No</u> <u>Yes</u>	Please clarify whether this information was sought, and, if so, what the results were of any such inquiry.
		DPR 523 forms. Vol 2, app. A, app. Z, AFC. Volumes 1-3, and 6, <u>Class III Confidential Cultural Resources Technical Report—Revised Draft, September 2008</u>	<u>No</u> <u>Yes</u>	AFC Table 5.7-2 does not include many sites in vol. 2, app. A (e.g., CA-IMP-114, -383, -721-723, -743-750, -753-756, 928-930, and -2032), and there is at least one site in the table (CA-IMP-112) for which there is no record. Documentation for Yuha Basin Discontiguous District appears to be absent. Please revise Table 5.7-2 and provide DPR forms for the complete inventory of previously recorded cultural resources in the literature search area.
		Map of literature search area with areas of past surveys and CHRIS Nos.	<u>No</u> <u>Yes</u>	Please revise Figure 5.7-1 to provide the boundary of the literature search area on it.
		CHRIS reports.	<u>No</u> <u>Yes</u>	Please provide all old technical reports.

Adequacy Issue: Adequate Inadequate
 Technical Area: Cultural Resources
 Project Manager: Christopher Meyer

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 Project: SES Solar Two Project Technical Staff: Mike McGuirt
 Docket: 08-AFC-5 Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C)	<p>The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.</p> <p>New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.</p>	<p>Archaeology survey coverage. Pp. 5.7-22 and 5.7-23, vol. 1, AFC, p. 4-1, Vol. 1 (<i>Class III Cultural Resources Inventory Report</i>), app. Z, AFC. <u>Attachment CUL-1, September 2008 Supplemental Information</u></p> <p>Built-environment survey coverage.</p>	<p><u>No</u> <u>Yes</u></p> <p><u>No</u> <u>Yes</u></p>	<p>Applicant refers to survey of "Project area." Please confirm either that the Imperial Valley substation is in the "Project area," or that the substation and a 200 ft. buffer was part of the new archaeological surveys. Similarly, please confirm either that the "Proposed Main Access Road" is in the "Project area," or that the proposed road and a 100 ft. buffer was part of the new archaeological surveys. Please provide archaeological survey information for an additional 50 ft. wide strip along the project's 3.4 mi. water supply line.</p> <p>Please provide the results of a built-environment survey, including Plaster City, the Westside Main Canal, and any other standing buildings or structures located within 0.5 miles of the proposed plant site and linear facilities.</p>

Adequacy Issue: Adequate Inadequate

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Technical Area: Cultural Resources

Project: SES Solar Two Project

Technical Staff: Mike McGuirt

Project Manager: Christopher Meyer

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Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) cont.	A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (CA Office of Historic Preservation Feb 1990), which is incorporated by reference, shall be separately provided and submitted (under confidential cover if archaeological site locations are included).	<p>Technical report of results of new archaeological surveys. Vol. 1 (<i>Class III Cultural Resources Inventory Report</i>), app. Z, AFC. <u>Volume 1, Class III Confidential Cultural Resources Technical Report—Revised Draft, September 2008</u></p> <p>Technical report of results of a built-environment survey.</p>	<p><u>No</u> <u>Yes</u></p> <p><u>No</u> <u>Yes</u></p>	<p>Pp. 5.7-22 and 5.7-23, vol. 1, AFC says that the list of archaeological sites in sec. 5.7 of the AFC (table 5.7-3) is preliminary. The present technical report, therefore, does not present the results of the new archaeological surveys. It presents partial results.</p> <p>Please provide a new draft technical report that includes a <i>complete</i> inventory of archaeological resources and that conforms to the ARMR format. Please prepare the report consistent with the direction in subsection VI.B.b, section VII (research designs for both historic and prehistoric archaeological resources), and section X of ARMR. To facilitate the development of appropriate mitigation measures, please incorporate the direction of subsection XI.B of ARMR.</p> <p>Please provide a report for a built-environment survey of Plaster City, the Westside Main Canal, and any other such resources.</p>
Appendix B (g) (2) (C) cont.	Information included in the technical report shall also be provided in the Application for Certification, except that confidential information (archaeological sites or areas of religious significance) shall be submitted under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq. At a minimum, the technical report shall include the following:	AFC must include non-confidential technical report data. Section 5.7, vol. 1, AFC. <u>Attachment CUL-1, September 2008 Supplemental Information</u>	<u>No</u> <u>Yes</u>	Please incorporate, into section 5.7 of the AFC, non-confidential information on the <i>complete</i> inventory of archaeological resources in the main project area, along the project laterals, on and around the Imperial Valley substation, and on and around the laydown area to the east of the main project area, and the <i>complete</i> inventory of built-environment resources that will be the result of the built-environment survey.

Adequacy Issue: Adequate Inadequate

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Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) (ii)	The survey procedures and methodology used to identify cultural resources and a discussion of the cultural resources identified by the survey;	Archaeological survey methodology. Pp. 4-1, Vol. 1 (<i>Class III Cultural Resources Inventory Report</i>), app. Z, AFC. <u>Volume 1, Class III Confidential Cultural Resources Technical Report—Revised Draft, September 2008</u>	Yes	
		Built-environment survey methodology.	No Yes	Please include a section in the technical report that describes the built-environment survey procedures and methodology.
		Discussion of archaeological resources. Pp. 5-1–5-68, Vol. 1 (<i>Class III Cultural Resources Inventory Report</i>), app. Z, AFC. <u>Volume 1, Class III Confidential Cultural Resources Technical Report—Revised Draft, September 2008</u>	No Yes	Please revise the <i>Results</i> section of the technical report to reflect the <i>complete</i> inventory of archaeological resources.
		Discussion of built-environment resources	No Yes	Please draft a report section to present the results of the built-environment survey.

Adequacy Issue: Adequate Inadequate

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Project: SES Solar Two Project

Technical Staff: Mike McGuirt

Project Manager: Christopher Meyer

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Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) (v)	The names and qualifications of the cultural resources specialists who contributed to and were responsible for literature searches, surveys, and preparation of the technical report.	<p>Personnel and qualifications to conduct archaeological research, Pp. 5.7-11 and 5.7-12, vol. 1, AFC. <u>Volume 7, Class III Confidential Cultural Resources Technical Report—Revised Draft, September 2008</u></p> <p>Personnel and qualifications to conduct built-environment research.</p>	<p>No<u>Yes</u></p> <p>No<u>Yes</u></p>	<p>While the Cultural Resources section of the AFC notes the qualifications of project personnel, the resumes that the section cites as being in appendix Z of the AFC do not appear to be present. Please provide the referenced resumes.</p> <p>Please provide the resumes for project personnel responsible for project built-environment research who meet the Secretary of the Interior's Professional Standards.</p>
Appendix B (g) (2) (D)	Provide a copy of your request to the Native American Heritage Commission (NAHC) for information on Native American sacred sites and lists of Native Americans interested in the project vicinity, and copies of any correspondence received from the NAHC. Notify the Native Americans on the NAHC list about the project, including a project description and map. Provide a copy of all correspondence sent to Native American individuals and groups listed by the NAHC and copies of all responses. Provide a written summary of any oral responses.	<p>NAHC request. P. 5.7-30, vol. 1, AFC. <u>Volume 7, Class III Confidential Cultural Resources Technical Report—Revised Draft, September 2008</u></p> <p>NAHC response(s).</p> <p>Letters sent to Native Americans.</p> <p>Response(s) from Native Americans.</p> <p>Summary of oral responses from Native Americans</p>	<p>No<u>Yes</u></p> <p>No<u>Yes</u></p> <p>No<u>Yes</u></p> <p>No<u>Yes</u></p>	<p>While p. 5.7-30, vol. 1 of the AFC describes the progress of Native American consultation, the documentation of the consultation that the section cites as being in appendix Z of the AFC does not appear to be present. Please provide the referenced documentation of consultation.</p> <p>See above.</p> <p>See above.</p> <p>See above.</p> <p>See above.</p>
Appendix B (g) (2) (E)	Include in the discussion of proposed mitigation measures required by subdivision (g)(1):			

Adequacy Issue: Adequate Inadequate
 Technical Area: Cultural Resources
 Project Manager: Christopher Meyer

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 Technical Staff: Mike McGuirt
 Technical Senior: Rick York

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (E) (i)	A discussion of measures proposed to mitigate project impacts to known cultural resources;	Proposed mitigation measures. Pp 5.7-33-36, vol. 1, AFC. <u>Attachment CUL-1, September 2008 Supplemental Information</u>	No <u>Yes</u>	Please provide provision to mitigate project impacts on any built-environment resources found as a result of the new built-environment survey.
Appendix B (g) (2) (E) (ii)	A set of contingency measures proposed to mitigate potential impacts to previously unknown cultural resources and any unanticipated impacts to known cultural resources; and	Contingency mitigation Measures, Pp. 5.7-33-36, vol.1, AFC.	Yes	
Appendix B (g) (2) (E) (iii)	Educational programs to enhance employee awareness during construction and operation to protect cultural resources.	Labor education. P. 5-7-34, vol. 1, AFC.	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Tables identifying applicable LORS. Table 5.7-4. vol. 1, AFC Discussion of LORS applicability and conformance. Table 5.7-4, vol. 1, AFC Conformance page references. Table 5.7-4, vol. 1, AFC	Yes Yes Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Jurisdictional agencies. Table 5.7-4, vol. 1, AFC.	Yes	

Adequacy Issue: Adequate Inadequate

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Technical Area: Cultural Resources

Project: SES Solar Two Project

Technical Staff: Mike McGuirt

Project Manager: Christopher Meyer

Docket: 08-AFC-5

Technical Senior: Rick York

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Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Agency contacts. Table 5.7-5, vol. 1, AFC	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Extra – agency Permits. P. 5-7-44, vol. 1, AFC	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: **Paleontological Resources**
 Project Manager: Christopher Meyer

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 Technical Staff: Dal Hunter, Ph.D., C.E.G.
 Technical Senior: Steve Baker

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.8.1.1 Section 5.8.1.2 Section 5.8.1.5 Section 5.8.2 Section 5.8.3 Section 5.8.4	Yes	
Appendix B (g) (16) (A)	Identification of the physiographic province and a brief summary of the geologic setting, formations, and stratigraphy of the project area. The size of the paleontological study area may vary depending on the depositional history of the region.	Section 5.8.1.1 Section 5.8.1.2 Section 5.8.1.5	Yes	
Appendix B (g) (16) (B)	A discussion of the sensitivity of the project area described in subsection (g)(16)(A) and the presence and significance of any known paleontologic localities or other paleontologic resources within or adjacent to the project. Include a discussion of sensitivity for each geologic unit identified on the most recent geologic map at a scale of 1:24,000. Provide rationale as to why the sensitivity was assigned.	Section 5.8.1.5 <u>AFC Supplement, PALEO-1</u>	No <u>Yes</u>	Needs discussion of sensitivity of each individual geologic unit, and why the sensitivity was assigned.
Appendix B (g) (16) (C)	A summary of all local museums, literature searches and field surveys used to provide information about paleontologic resources in the project area described in subsection (g)(16)(A). Identify the dates of the surveys, methods used in completing the surveys, and the names and qualifications of the individuals conducting the surveys.	Section 5.8 Section 5.8.1.3	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Paleontological Resources
 Project Manager: Christopher Meyer

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Revision No. 1 Date October 1, 2008
 Technical Staff: Dal Hunter, Ph.D., C.E.G.
 Technical Senior: Steve Baker

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (16) (D)	Information on the specific location of known paleontologic resources, survey reports, locality records, and maps at a scale of 1:24,000, showing occurrences of fossil finds, if known, within a one-mile radius of the project and related facilities shall be included in a separate appendix to the Application and submitted to the Commission under a request for confidentiality, pursuant to Title 20, California Code of Regulations, s 2501 et seq.	Appendix AA	Yes	
Appendix B (g) (16) (E)	A discussion of any educational programs proposed to enhance awareness of potential impacts to paleontological resources by employees, measures proposed for mitigation of impacts to known paleontologic resources, and a set of contingency measures for mitigation of potential impacts to currently unknown paleontologic resources.	Section 5.8.4	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.8.5 Table 5.8-1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Paleontological Resources
 Project Manager: Christopher Meyer

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 Technical Staff: Dal Hunter, Ph.D., C.E.G.
 Technical Senior: Steve Baker

Project: SES Solar Two Project
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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 7 16.5 Table 7 16-1 Table 7 16-2 Appendix S	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 7 16.6 Table 7 16-2 Appendix S	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 7 16.7 Appendix S	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

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Revision No. 1 Date October 1, 2008
 Technical Staff: Joseph Diamond Ph. D.
 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.10.1 Affected Environment, page 5.10-1. Section 5.10.1.1 Population, pages 5.1&2. Section 5.10.2 Environmental Consequences, pages 5.10-12 to 28. Section 5.10.3 Cumulative Effects, page 5.10-29. Section 5.18 Cumulative Impacts, pages 5.18 to 34. Section 5.10.4 Mitigation Measures, page 5.10-30. Section 10.2.7&8 Environmental Justice and Environmental Justice Screening Analysis, pages 5.10-28&29.	Yes	
Appendix B (g) (7) (A)	A description of the socioeconomic circumstances of the vicinity and region affected by construction and operation of the project. Include:			
Appendix B (g) (7) (A) (i)	The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues;	Section 5.10.1.3 Economic Base and Employment, pages 5.10-4 to 5.10-12. Section 5.10.2.4 Fiscal Effect, Property Tax Exemption, pages 5.10-25&26.	Yes	
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	Section 5.10.1.1 Population, pages 5.10-1&2. Section 5.10.2.2 Operational Workforce, pages 5.10-15&16.	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: **Socioeconomics**
 Project Manager: Christopher Meyer

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 Technical Senior: Paula David

Project: SES Solar Two Project
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Appendix B (g) (7) (A) (iii)	Existing unemployment rates;	Section 5.10.1.3 Economic Base and Employment, page 5.10-5.	Yes	
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;	Section 5.10.1.3 Economic Base and Employment, pages 5.10-4 to 12.	Yes	
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing and current vacancy rate; and	Section 5.10.1.2 Housing, pages 5.10-2 to 4.	Yes	
Appendix B (g) (7) (A) (vi)	Capacities, existing and expected use levels, and planned expansion of utilities (gas, water and waste) and public services, including fire protection, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information for each school district shall include current enrollment and yearly expected enrollment by grade level groupings, excluding project-related changes for the duration of the project schedule.	Section 3.5.8 Site Security, page 3-22. Section 3.9.2 Construction Site Security, page 3-52. Section 5.10.2.3 Schools, pages 5.10-16 to 21. Section 5.10.2.5 Utilities, page 5.10-26. Section 5.10.2.6 Emergency Services, pages 5.10-27&28. <u>SES Solar Two Supplemental Information In Response to CEC Data Adequacy Requests 08-AFC-5, Technical Area: Socioeconomics, Data Adequacy Requests 1&2, pages SOCIO-1 and SOCIO-2.</u>	No Yes	Please provide information on capacities, existing and expected use levels, and planned expansion for public services i.e., law enforcement.
Appendix B (g) (7) (B)	A discussion of the socioeconomic impacts caused by the construction and operation of the project (note year of estimate, model, if used, and appropriate sources), including:			

Adequacy Issue: Adequate Inadequate
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
 Technical Staff: Joseph Diamond Ph. D.
 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (i)	An estimate of the number of workers to be employed each month by craft during construction, and for operations, an estimate of the number of permanent operations workers during a year;	Section 5.10.2.2 Operational Workforce, pages 5.10-15&16. Table 5.10-6 Construction Trade Projections (750 MW), page 5.10-17. Table 5.10-17 Projected Operations and Maintenance Personnel Requirements, page 5.10-19.	Yes	
Appendix B (g) (7) (B) (ii)	An estimate of the percentage of non-local workers who will relocate to the project area to work on the project;	Section 5.10.2.1 Construction Workforce, page 5.10-13. Section 5.10.2.2 Operational Workforce, page 5.10-15.	Yes	
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;	Section 5.10.1.2 Housing, pages 5.10-2 to 4. Section 5.10.2.1 Construction Workforce, pages 5.10-13 to 15. Section 5.10.2.2 Operational Workforce, page 5.10-15. Section 5.10.2.5 Utilities, page 5.10-26. Section 5.10.2.6 Emergency Services, page 5.10-27.	Yes	
Appendix B (g) (7) (B) (iv)	The potential impact of population increase on housing during the construction and operations phases;	Section 5.10.1.2 Housing, pages 5.10-2 to 4. Section 5.10.2.1 Construction Workforce, page 5.10-14. Section 5.10.2.2 Operational Workforce, page 5.10-15.	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

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 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (v)	The potential impacts, including additional costs, on utilities (gas, water, and waste) and public services, including fire, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. Include response times to hospitals and for police, and emergency services. For projects outside metropolitan areas with a population of 500,000 or more, information on schools shall include project-related enrollment changes by grade level groupings and associated facility and staffing impacts by school district during the construction and operating phases;	Section 3.5.8 Site Security, page 3-22. Section 3.9.2 Construction Site Security, page 3-52. Section 5.10.2.1 Construction Workforce, page 5.10-13 to 15. Section 5.10.2.2 Operational Workforce, pages 5.10-15&16. Section 5.10.2.3 Schools, pages 5.10-16&21. Section 5.10.2.5 Utilities, page 5.10-26. Section 5.10.2.6 Emergency Services, page 5.10-27. <u>SES Solar Two Supplemental Information In Response to CEC Data Adequacy Requests, 08-AFC-5, Technical Area: Socioeconomics, Data Adequacy Request 2, SOCIO-2.</u>	No-Yes	Please provide potential impacts, including additional costs, on public services i.e., law enforcement.
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	Section 5.10.2.3 Schools, pages 5.10-16&21. <u>SES Solar Two Supplemental Information In Response to CEC Data Adequacy Request 08-AFC-5, Technical Area: Socioeconomics, Data Adequacy 3, page SOCIO-3.</u>	No-Yes	Please provide an estimate of applicable school impact fees.

Adequacy Issue: Adequate Inadequate
 Technical Area: **Socioeconomics**
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

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 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (vii)	An estimate of the total construction payroll and separate estimates of the total operation payroll for permanent and short-term (contract) operations employees;	Section 5.10.2.1 Construction Workforce, page 5.10-14. Section 5.10.2.2 Operational Workforce, page 5.10-16. <u>SES Solar Two Supplemental Information In Response to CEC Data Adequacy Requests 08-AFC-5. Technical Area: Socioeconomics, Data Adequacy Request 4, pages SOCIO-4 to 6. Hopkins, Seth. 2008. E-Mail to Joseph Diamond, Energy Commission Staff on Revision to Socioeconomic Data Adequacy Request Response 4, September 30, 2008.</u>	No-Yes	Please provide an estimate of the total construction payroll for the 40 months of construction (phases 1&2) not just for the first and second year (24 months). Also, please provide separate estimates of the total operation payroll for permanent and short-term (contract) operations employees.
Appendix B (g) (7) (B) (viii)	An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project;	Section 5.10.2.4 Fiscal Effect, Indirect and Induced Economic Effects During Project Construction, pages 5.10-22&23. Section 5.10.2.4 Fiscal Effect, Indirect and Induced Effects from Project Operation, pages 5.10-23 to 25.	Yes	
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost (plant and equipment) of the project;	Section 5.10.2.4 Fiscal Effect, page 5.10-22.	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
 Technical Staff: Joseph Diamond Ph. D.
 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (x)	An estimate of sales taxes generated during construction and separately during an operational year of the project;	Section 5.10.2.4 Fiscal Effect, page 5.10-22. <u>SES Solar Two Supplemental Information In Response to CEC Data Adequacy Requests 08-AFC-5. Technical Area: Socioeconomics, Data Adequacy Request 5, page SOCIO-7.</u>	No <u>Yes</u>	Please provide an estimate of sales tax generated during construction and separately during an operational year of the project.
Appendix B (g) (7) (B) (xi)	An estimate of property taxes generated during an operational year of the project; and	Section 5.10.2.4 Fiscal Effect, Property Tax Exemption, page 5.10-25. <u>SES Solar Two Supplemental Information In Response to CEC Data Adequacy Requests 08-AFC-5. Technical Area: Socioeconomics, Data Adequacy Request 6, page SOCIO-8.</u>	No <u>Yes</u>	Please provide an estimate of property taxes generated during an operational year of the project.
Appendix B (g) (7) (B) (xii)	The expected direct, indirect, and induced income and employment effects due to construction, operation, and maintenance of the project.	Section 5.10.2 Environmental Consequences, pages 5.10-12 to 16. Section 5.10.2.4 Fiscal Effect, pages 5.10-22 to 25.	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.10-11 summary of LORS-Socioeconomics, page 5.10-30-32.	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
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 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Same as above.	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.10.5.4 Agencies and Agency Contacts, page 5.10-34&35.	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.10.5.5 Permits Required and Permitting Schedule, page 5.10-35.	Not Applicable.	

Adequacy Issue: Adequate Inadequate
 Technical Area: Transmission System Design
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
 Technical Staff: Sudath Arachchige
 Technical Senior: Mark Hesters

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (2) (A)	A discussion of the need for the additional electric transmission lines, substations, or other equipment, the basis for selecting principal points of junction with the existing electric transmission system, and the capacity and voltage levels of the proposed lines, along with the basis for selection of the capacity and voltage levels.	Section 1 pages 1.1 to 1.4 Section 3.4 pages 3.6 to 3.17 Section 3.6 pages 3.25 to 3.30 Figure 3.1 to 3.3 Site plan Figure 3.4 Utility plan Figure 3.5 to 3.8 230kV Transmission line Figure 3.11 to 3.18 Solar Two Electrical layout plans and one line diagrams for solar module interconnection Figure 3.28 Solar two distribution component layout plan Figure 3.32 to 3.39 solar two 750MW substation one line diagram Figure 3.38 to 3.39 Transmission structures H-frame and double circuit 230kV transmission structures. Appendix H System Impact Study Appendix P Electrical Engineering Design criteria	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Transmission System Design
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
 Technical Staff: Sudath Arachchige
 Technical Senior: Mark Hesters

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (2) (B)	A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity.	Section 1 pages 1.1 to 1.4 Section 3.4 pages 3.6 to 3.17 Section 3.6 pages 3.25 to 3.30 Figure 3.32 to 3.39 solar two 750MW substation one line diagram Figure 3.38 to 3.39 Transmission structure H-frame and double circuit 230 kV transmission structures.	Yes	
Appendix B (b) (2) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.	Section 1 pages 1.1 to 1.4 Section 3.4 pages 3.6 to 3.17 Section 3.6 pages 3.25 to 3.30 Figure 3.32 to 3.39 solar two 750MW substation one line diagram Figure 3.38 to 3.39 Transmission structure H-frame and double circuit 230 kV transmission structures. Appendix H System Impact Study (Phase 1 and II of the project) <u>AFC Supplement Attachment TS-1</u>	<u>No-Yes</u>	Please provide a detailed post-project one-line diagram of the existing Imperial Valley 230/500kV switchyard showing all the equipments that would require to interconnect the project including 230kV breakers, disconnect switches (with their respective ratings) and conductor termination points of the switchyard.

Adequacy Issue: Adequate Inadequate
 Technical Area: Transmission System Design
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
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 Technical Senior: Mark Hesters

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (2) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints.	Section 1 pages 1.1 to 1.4 Section 3.4 pages 3.6 to 3.17 Section 3.6 pages 3.25 to 3.30 Figure 3.32 to 3.39 solar two 750MW substation one line diagram Figure 3.38 to 3.39 Transmission structure H-frame and double circuit 230 kV transmission structures. Appendix H System Impact Study (Phase 1 and II of the project)	Yes	
Appendix B (b) (2) (E)	A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator and proof of payment. When not connecting to the California Independent System Operator controlled grid, provide the executed System Impact Study agreement and proof of payment to the interconnecting utility. If the interconnection and operation of the proposed project will likely impact an transmission system that is not controlled by the interconnecting utility (or California Independent System Operator), provide evidence of a System Impact Study or agreement and proof of payment (when applicable) with/to the impacted transmission owner or provide evidence that there are no system impacts requiring mitigation.	Appendix P Electrical Engineering Design Criteria Table 3.3 LORS for Electrical Clearance Section 3.61 Design, Construction, and Operations of Transmission Facilities	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Transmission System Design
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
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 Technical Senior: Mark Hesters

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 3.3 page 3-30 Appendix H System Impact Study	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 3.61 Design, Construction and Operation of Transmission Facilities.	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 7.0 (List of preparers) Table 7.1	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Appendix H System Impact Study (Preliminary approval letter which has been issued by the CA ISO approving the interconnection of the 600MW solar II expansion project)	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Visual Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
 Technical Staff: James Adams
 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	PP.5.13-1 through 13-39 Section 5.13	Yes	
Appendix B (g) (6) (A)	Descriptions of the existing visual setting of the vicinity of the proposed project site and the proposed routes for any project-related linear facilities. Include:	PP.5.13-1 through 13-3 Section 5.13.1	Yes	
Appendix B (g) (6) (A) (i)	Topographic maps at a scale of 1:24,000 that depict directions from which the project would be seen, the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(C); and	PP.5.13-1 through 13-3	Yes	
Appendix B (g) (6) (A) (ii)	Description of the existing visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities, including existing water vapor plumes, above-ground electrical transmission lines, and nighttime lighting levels in the project viewshed.	PP.5.13-1 through 13-3 Section 5.13.1.1 & 1.2	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Visual Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
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 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (B)	An assessment of the visual quality of those areas that would be affected by the proposed project. For projects proposed to be located within the coastal zone, the assessment should also describe how the proposed project would be sited to protect views to and along the ocean and scenic coastal areas, would minimize the alteration of natural land forms, would be visually compatible with the character of surrounding areas.	PP.5.13-1 through 13-3 Section 5.13.1.1 & 1.5	Yes	
Appendix B (g) (6) (C)	In consultation with Energy Commission staff, identify: i) any designated scenic roadways or scenic corridors and any visually sensitive areas that would be affected by the proposed project, including recreational and residential areas; and ii) the locations of the key observation points to represent the most critical viewing locations from which to conduct detailed analyses of the visual impacts of the proposed project. Indicate the approximate number of people using each of these sensitive areas and the estimated number of residences with views of the project. Also identify any major public roadways and trails of local importance that would be visually impacted by the project and indicate the types of travelers (e.g., local residents, recreationists, workers, commuters, etc.) and the approximate number of vehicles, bicyclists, and/or hikers per day.	Pg. 5.13-5 & Section 5.13.1.3 PP.5.13-9 through 13-13 Sections 5.13.1.4 & 1.5 <u>AFC Supplement, p. VIS-1</u>	<u>No-Yes</u>	Please provide the approximate number of recreationists that use the Plaster City Open Area.

Adequacy Issue: Adequate Inadequate
 Technical Area: Visual Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
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 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (D)	A table providing the dimensions (height, length, and width, or diameter) and, proposed color(s), materials, finishes, patterns, and other proposed design characteristics of each major component visible from off the project site, including any project-related electrical transmission line and/or offsite aboveground pipelines and metering stations.	PP.5.13-19 & 20 Table 5.13-4 Section 5.13.2.2 <u>AFC Supplement, p. VIS-2</u>	<u>No-Yes</u>	Please provide proposed color(s), materials, finishes, patterns, and other proposed design characteristics of each major component visible from off the project site, including and project-related electrical transmission line and/or offsite aboveground pipelines and metering stations.
Appendix B (g) (6) (E)	Provide the cooling tower and heat recovery steam generator (HRSG) exhaust design parameters that affect visible plume formation. For the cooling tower, data shall include heat rejection rate, exhaust temperature, exhaust mass flow rate, liquid to gas mass flow ratio, and, if the tower is plume-abated, moisture content (percent by weight) or plume-abated fogging curve(s). The parameters shall account for a range of ambient conditions (temperature and relative humidity) and proposed operating scenarios, such as duct firing and shutting down individual cells. For the heat recovery steam generator exhausts, data shall include moisture content (percent by weight), exhaust mass flow rate, and exhaust temperature. The parameters must correspond to full-load operating conditions at specified ambient conditions, and shall account for proposed operating scenarios, such as power augmentation (i.e., evaporative coolers, inlet foggers, or steam injection) and duct firing, or proposed HRSG visible plume abatement, such as the use of an economizer bypass. For simple-cycle projects, provide analogous data for the exhaust stack(s).	N/A		

Adequacy Issue: Adequate Inadequate
 Technical Area: Visual Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
 Technical Staff: James Adams
 Technical Senior: Paula David

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (F)	Provide: i) full-page color photographic reproductions of the existing site, and ii) full-page color simulations of the proposed project at life-size scale when the picture is held 10 inches from the viewer's eyes, including any project-related electrical transmission lines, in the existing setting from each key observation point. If any landscaping is proposed to comply with zoning requirements or to mitigate visual impacts, include the landscaping in simulation(s) representing sensitive area views, depicting the landscaping five years after installation; and estimate the expected time until maturity is reached.	Figures 5.13-17 through 26	Yes	
Appendix B (g) (6) (G)	An assessment of the visual impacts of the project, including light, glare, and any modeling of visible plumes. Include a description of the method and identify any computer model used to assess the impacts. Provide an estimate of the expected frequency and dimensions (height, length, and width) of the visible cooling tower and/or exhaust stack plumes. Provide the supporting assumptions, meteorological data, operating parameters, and calculations used.	PP. 5.13-28 & 29 Section 15.13.2.2	Yes	
Appendix B (g) (6) (H)	If any landscaping is proposed to reduce the visual impacts of the project, provide a conceptual landscaping plan at a 1:40 scale (1"=40'). Include information on the type of plant species proposed, their size, quantity, and spacing at planting, expected heights at 5 years and maturity, and expected growth rates.	Pg. 5.13-33 Section 5.13.4.1	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008

Technical Area: Visual Resources

Project: SES Solar Two Project

Technical Staff: James Adams

Project Manager: Christopher Meyer

Docket: 08-AFC-5

Technical Senior: Paula David

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	PP. 5.13-35 through 37 Table 5.13-6 Section 5.13.5	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	PP. 5.13-37 & 38 Section 5.13.5.4	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	PP. 5.13-37 & 38 Section 5.13.5.4	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Pg. 5.13-38 Table 5.13-8 Section 5.13.5.5	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Water Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 1, 2008
 Technical Staff: Casey Weaver
 Technical Senior: Paul Marshall

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.5	Yes	
Appendix B (g) (14) (A)	All the information required to apply for the following permits, if applicable, including:			
Appendix B (g) (14) (A) (i)	Waste Discharge Requirements; National Pollutant Discharge Elimination System Permit; and/or a Section 401 Certification or Waiver from the appropriate Regional Water Quality Control Board (RWQCB);	Section 5.5.5.5 Table 5.5.7	Yes	
Appendix B (g) (14) (A) (ii)	Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;	Section 5.5.5.2	Yes	
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	Section 5.5.5.5 Table 5.5.7		
Appendix B (g) (14) (A) (iv)	Underground Injection Control Permit(s) from the U.S. Environmental Protection Agency, California Division of Oil and Gas, and RWQCB.	NA		
Appendix B (g) (14) (B)	A detailed description of the hydrologic setting of the project. The information shall include a narrative discussion and on maps at a scale of 1:24,000 (or appropriate scale approved by staff), describing the chemical and physical characteristics of the following nearby water bodies that may be affected by the proposed project:	Section 5.5.1.1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Water Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

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 Technical Senior: Paul Marshall

Project: SES Solar Two Project
 Docket: 08-AFC-5

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 5.5.1.2 Figure 5.5-2	Yes	
Appendix B (g) (14) (B) (ii)	Surface water bodies;	Section 5.5.1.3 Figure 5.5-1	Yes	
Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;	Section 5.5.1.8 Figure 5.5-3	Yes	
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section 5.5.1.7 Section 5.5.2.4	Yes	
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.	NA	NA	
Appendix B (g) (14) (C)	A description of the water to be used and discharged by the project. This information shall include:			
Appendix B (g) (14) (C) (i)	Source(s) of the primary and back-up water supplies and the rationale for their selection;	5.5.2.2	Yes	
Appendix B (g) (14) (C) (ii)	The expected physical and chemical characteristics of the source and discharge water(s) including identification of both organic and inorganic constituents before and after any project-related treatment. For source waters with seasonal variation, provide seasonal ranges of the expected physical and chemical characteristics. Provide copies of background material used to create this description (e.g., laboratory analysis);	Table 5.5-2	Yes	
Appendix B (g) (14) (C) (iii)	Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project;	Table 5.5-3	Yes	

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Appendix B (g) (14) (C) (iv)	A detailed description of all facilities to be used in water conveyance (from primary source to the power plant site), water treatment, and wastewater discharge. Include a water mass balance diagram;	Sections 5.5.2.2 and 5.5.2.3	Yes	
Appendix B (g) (14) (C) (v)	For all water supplies intended for industrial uses to be provided from public or private water purveyors, a letter of intent or will-serve letter indicating that the purveyor is willing to serve the project, has adequate supplies available for the life of the project, and any conditions or restrictions under which water will be provided. In the event that a will-serve letter or letter of intent can not be provided, identify the most likely water purveyor and discuss the necessary assurances from the water purveyor to serve the project;	Section 5.5.2.2 Appendix U <u>AFC Supplement, p. WATER-1</u>	No <u>Yes</u>	Please provide documentation that an adequate water supply for project consumption has been secured.
Appendix B (g) (14) (C) (vi)	For all water supplied which necessitates transfers and/or exchanges at any point, identify all parties and contracts/agreements involved, the primary source for the transfer and/or exchange water (e.g., surface water, groundwater), and provide the status of all appropriate agencies' approvals for the proposed use, environmental impact analysis on the specific transfers and/or exchanges required to obtain the proposed supplies, a copy of any agency regulations that govern the use of the water, and an explanation of how the project complies with the agency regulation(s);	Section 5.5.2.2 Appendix U <u>AFC Supplement, p. WATER-2</u>	No <u>Yes</u>	Please identify all parties and provide contracts/agreements for all water supplied to the project that necessitates transfer and/or exchange of water. Please provide the status of all appropriate agencies' approvals for the proposed use, environmental impact analysis on the specific transfers and/or exchanges required to obtain the proposed supplies, a copy of any agency regulations that govern the use of the water, and an explanation of how the project complies with the agency regulation(s)

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Appendix B (g) (14) (C) (vii)	Provide water mass balance and heat balance diagrams for both average and maximum flows that include all process and/or ancillary water supplies and wastewater streams. Highlight any water conservation measures on the diagram and the amount that they reduce water demand; and	Section 5.5.2.2 Appendix J	Yes	
Appendix B (g) (14) (C) (viii)	<p>For all projects which have a discharge, provide a copy of the will-serve letter, permit or contract with the public or private entity that will be accepting the wastewater and contact storm water from the project. The letter, permit or contract, if possible, shall identify the discharge volumes and the chemical or physical characteristics under which the wastewater and contact storm water will be accepted.</p> <p>In the event that a will-serve letter, permit, or contract cannot be provided, identify the most likely wastewater/storm water entity and discuss why the applicant was unable to secure the necessary assurances to serve the project's wastewater/storm water needs. Also, discuss the term of the wastewater service to the project, whether the wastewater entity has adequate permit capacity for the volume of wastewater from the project and has adequate permit levels for the chemical/physical characteristics of the project's wastewater and storm water for the life of the project, and any issues or conditions/restrictions the wastewater entity may impose on the project.</p>	NA	NA	
Appendix B (g) (14) (D)	Identify all project elements associated with stormwater drainage, including a description of the following:			

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Appendix B (g) (14) (D) (i)	Monthly and/or seasonal precipitation and stormwater runoff and drainage patterns for the proposed site and surrounding area that may be affected by the project's construction and operation;	Section 5.5.1.4 Appendix N	Yes	
Appendix B (g) (14) (D) (ii)	Drainage facilities and the design criteria used for the plant site and ancillary facilities, including but not limited to capacity of designed system, design storm, and estimated runoff;	Section 5.5.2.4 Appendix N <u>AFC Supplement, p. WATER-3</u>	<u>No</u> Yes	Please provide a description of the drainage facilities proposed and the design criteria used for design of the site drainage control system.
Appendix B (g) (14) (D) (iii)	All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction; and	Appendix E, p. 4-9 Appendix N <u>AFC Supplement, p. WATER-4</u>	<u>No</u> Yes	Please provide all assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction;
Appendix B (g) (14) (D) (iv)	A copy of applicable regional and local requirements regulating the drainage systems, and a discussion of how the project's drainage design complies with these requirements.	Section 5.5.5 Table 5.5-5	Yes	
Appendix B (g) (14) (E)	An impacts analysis of the proposed project on water resources and a discussion of conformance with water-related LORS and policy. This discussion shall include:			
Appendix B (g) (14) (E) (i)	The effects of project demand on the water supply and other users of this source, including, but not limited to, water availability for other uses during construction or after the power plant begins operation, consistency of the water use with applicable RWQCB basin plans or other applicable resource management plans, and any changes in the physical or chemical conditions of existing water supplies as a result of water use by the power plant;	Section 5.5.2.2	Yes	

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Appendix B (g) (14) (E) (ii)	If the project will pump groundwater, an estimation of aquifer drawdown based on a computer modeling study shall be conducted by a professional geologist and include the estimated drawdown on neighboring wells within 0.5 mile of the proposed well(s), any effects on the migration of groundwater contaminants, and the likelihood of any changes in existing physical or chemical conditions of groundwater resources shall be provided;	NA	NA	
Appendix B (g) (14) (iii)	The effects of construction activities and plant operation on water quality and to what extent these effects could be mitigated by best management practices;	Section 5.5.2.2 Section 5.5.5.1	Yes	
Appendix B (g) (14) (iv)	If not using a zero liquid discharge project design for cooling and process waters, include the effects of the proposed wastewater disposal method on receiving waters, the feasibility of using pre-treatment techniques to reduce impacts, and beneficial uses of the receiving waters. Include an explanation why the zero liquid discharge process is "environmentally undesirable," or "economically unsound;"	NA	NA	
Appendix B (g) (14) (v)	If using fresh water, include a discussion of the cumulative impacts, alternative water supply sources and alternative cooling technologies considered as part of the project design. Include an explanation of why alternative water supplies and alternative cooling are "environmentally undesirable," or "economically unsound;"	Section 4.6 Section 5.5.2.2 Section 5.18.3.4	Yes	

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Appendix B (g) (14) (vi)	The effects of the project on the 100-year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones; and	Section 5.5.2.4	Yes	
Appendix B (g) (14) (vii)	All assumptions, evidence, references, and calculations used in the analysis to assess these effects.	Appendix N	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.5-5	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 5.5-5 Table 5.5-7	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.5-6	Yes	

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Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Table 5.5-7	Yes	