

Memorandum

To: Karen Douglas, Chair
 James D. Boyd, Vice Chair
 Arthur H. Rosenfeld, Ph.D., Commissioner
 Jeffrey Byron, Commissioner
 Julia Levin, Commissioner

Date: October 12, 2009
Telephone: (916) 654-4996

DOCKET

09-AFC-5

DATE	OCT 12 2009
RECD	OCT 14 2009

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

Subject: ABENGOA MOJAVE SOLAR, REVISED DATA ADEQUACY RECOMMENDATION (09-AFC-5)

On August 10, 2009, Mojave Solar LLC filed an Application for Certification (AFC) to construct and operate the Abengoa Mojave Solar (AMS) project, proposed as a solar electric generating facility on approximately 1,765 acres. The project would have a combined nominal electrical output of 250 megawatts (MW) from twin, independently-operable solar fields, each feeding a 125-MW power island. The twin solar fields would be 884 acres and 800 acres, respectively, and joined at a transmission line interconnection substation to form one full-output transmission interconnection.

The proposed project site is located approximately nine miles northwest of the Town of Hinkley in unincorporated San Bernardino County, approximately halfway between the City of Barstow and Kramer Junction (Highway 395 / Highway 58 junction). The project site is comprised of private property that was historically used as the Lockhart Ranch complex.

Staff's September 8, 2009 initial review of the Mojave Solar LLC's 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 nine of 23 areas: 1) Air Quality, 2) Biological Resources, 3) Land Use, 4) Project Overview, 5) Public Health, 6) Soils, 7) Transmission System Design (Engineering), 8) Visual Resources and 9) Water Resources. At the September 23, 2009 Business Meeting, the Energy Commission accepted staff's initial data adequacy recommendation.

On September 22, 2009, Mojave Solar LLC filed their AFC Supplement. Staff has reviewed the Supplemental information and believes the AFC now meets the regulatory requirements in all nine of the previously deficient technical disciplines. Attached are summary table and data adequacy worksheets for the nine technical disciplines reflecting that the supplemental information submitted by the applicant achieves data adequacy. At the Energy Commission's business meeting on October 21, 2009, I will recommend that the Energy Commission accept the Abengoa Mojave Solar AFC with the supplemental information as complete and request that a Committee be appointed. If you have any questions, please call Craig Hoffman, Staff's Project Manager, at (916) 654-4781.

**Attachment A
 Overview of Energy Commission Staff's
 Data Adequacy Determination
 Abengoa Mojave Solar
 09-AFC-5**

Technical Area	Attachment B Page No.	Adequate ?
AIR QUALITY.....	4	YES
BIOLOGICAL RESOURCES.....	11	YES
LAND USE.....	21	YES
PROJECT OVERVIEW.....	26	YES
PUBLIC HEALTH.....	31	YES
SOILS.....	34	YES
TRANSMISSION SYSTEM DESIGN.....	38	YES
VISUAL RESOURCES	41	YES
WATER RESOURCES.....	46	YES

ATTACHMENT B

**ENERGY COMMISSION STAFF'S
List of Revised Data Adequacy Sheets**

**Abengoa Mojave Solar
09-AFC-5**

October 12, 2009

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: **Air Quality**

Project: Abengoa Mojave Solar

Technical Staff: Tao Jiang and Will Walters

Project Manager: Craig Hoffman

Docket: 09-AFC-5

Technical Senior: Matthew Layton

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 <u>Data Adequacy Supplement, pp. 1 to 2</u>	<u>No</u> <u>Yes</u>	Please provide a discussion of the proposed mitigation measures to mitigate the potentially adverse impacts from operation and maintenance emissions of NOx, VOC, PM10 and PM2.5.
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.	Section 5.2 Appendix C.5 Appendix C.9	Yes	Letter of completeness from Mojave Desert Air Quality Management District provided on September 8, 2009.
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.	Section 2.4.1, pp. 2.0-5 Section 2.4.4.2, Table 2-1 Section 5.2.1.2, pp. 5.2-2 to 4 Section 5.2.4.3, pp. 5.2-20 Section 5.2.4.8, pp. 5.2-31 to 33 Appendix C.1	Yes	
Appendix B (g) (8) (C)	A description of the control technologies proposed to limit the emission of criteria pollutants.	Section 5.2.2.6, pp. 5.2-13 to 16 Section 5.2.3 p. 5.2.16 to 18 Appendix C.5 <u>Data Adequacy Supplement, p. 2</u>	<u>No</u> <u>Yes</u>	Please provide a discussion of the proposed mitigation measures to limit the criteria pollutant emissions of NOx, VOC, PM10 and PM2.5 from operation and maintenance activities.
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.	Section 5.2.1.2, pp. 5.2-3 Section 5.2.2.4, pp. 5.2-10 Appendix C, Table C.1-5 Appendix C, Table C.1-6 Attachment C.1-4	Yes	

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Appendix B (g) (8) (E)	The emission rates of criteria pollutants and greenhouse gases (CO2, CH4, N2O, and SF6) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.	Section 5.2.2, pp. 5.2-7 to 16 Appendix C.1 Appendix C.5	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 5.2.2.4, pp. 5.2-8 to 13 Appendix C.1	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 5.2.4.6, pp.5.2-22 to 31 Appendix C.2-4	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 5.2.1.3, pp. 5.2-4 to 6 Section 5.2.4.5, pp. 5.2-21 to 22 Appendix C.2-1 to 3 On modeling CD	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 5.2.1.3, pp. 5.2-4 to 6 Section 5.2.4.5, pp. 5.2-21 to 22 Appendix C.2-1 to 3 On modeling CD	Yes	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:	See below		

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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 (PM ₁₀) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NO _x), sulfur dioxide (SO ₂), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM ₁₀) and particulate matter less than 2.5 microns in diameter (PM _{2.5})] from construction-related equipment;	Appendix C.5 On modeling CD	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 (NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5}) 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 5.2.4.9, pp. 5.2-33 to 35 On modeling CD	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	Appendix C.8	Yes	
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} .	NA	NA	
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:	NA	NA	
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	NA	NA	
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions;	NA		

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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 5.2.2.6, pp. 5.2-13 to 16 Section 5.2.3, pp. 5.2.16 to 18 Appendix C.5 <u>Data Adequacy Supplement, p. 2</u>	No <u>Yes</u>	Please provide a detailed discussion of the mitigation measures that will be proposed to mitigate operations and maintenance air emissions of pollutants that currently exceed ambient air quality standards (NOx and VOC as ozone precursors, PM10, and PM2.5), but are not subject to offset requirements under the district's new source review rule.
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 5.2-19, pp.5.2-35 to 41	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 5.2-20, pp.5.2.42	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 5.2-20, pp.5.2.42	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 5.2.7, pp. 5.2-43 Appendix C.9	Yes	

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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.	Existing site conditions: Section 5.3.3 Section 5.3.5 Direct, indirect, and cumulative impacts: Section 5.3.6 Section 5.3.7 Mitigation measures/monitoring: Section 5.3.8 Section 5.3.9	Yes Yes Yes	
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 5.3.3 Regional map: Figure 5.3-2	Yes Yes	
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	Federal and State listed species: Section 5.3.5.1.1	Yes	
Appendix B (g) (13) (A) (ii)	resources defined in sections 1702(q) and (v) of Title 20 of the California Code of Regulations;	Non-listed, special-status, and regionally sensitive animal species: Section 5.3.5.1.2	Yes	

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Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	Fully protected species: Section 5.3.2	Yes	
Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	MBTA species: Section 5.3.2	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	CDFG watch list: Section 5.3.5.1.3 Other species considered regionally sensitive: Section 5.3.5.1.4	Yes Yes	
Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial and/or recreational value.	Fish and wildlife species of commercial and/or recreational value: Section 5.3.5.1.5	Yes	
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:	Species actually observed: Table 5.3-2 Table 5.3-3 Species that have the potential to occur: Section 5.3.4.1 Table 5.3-4 Table 5.3-5	Yes Yes	

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Appendix B (g) (13) (B) (i)	Detailed maps at a scale of 1:6,000 or color aerial photographs taken at a recommended scale of 1 inch equals 500 feet (1:6,000) with a 30 percent overlap that show the proposed project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in records from the California Natural Diversity Database, and the associated areas where biological surveys were conducted. Label the biological resources and survey areas as well as the project facilities;	Biological resource maps: Figures 5.3-b and c Figures 5.3-2 through 5.3-8	Yes	
Appendix B (g) (13) (B) (ii)	A depiction of the extent of the thermal plume at the surface of the water if cooling water is proposed to be discharged to a water source. Provide the location for the intake and discharge structures on an aerial photograph(s) or detailed maps. Water sources include, but are not limited to, waterways, lakes, impoundments, oceans, bays, rivers, and estuaries; and	N/A	N/A	
Appendix B (g) (13) (B) (iii)	An aerial photo or wetlands delineation maps at a scale of (1:2,400) showing any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance if wetlands occur within 250 feet of the project site and/or related facilities that would be included with the US Army Corps of Engineers Section 404 Permit application. For projects proposed to be located within the coastal zone, also provide aerial photographs or maps as described above that identify wetlands as defined by the Coastal Act.	<u>Wetland delineation maps: Data Adequacy Supplement – Attachment D</u>	No <u>Yes</u>	Please provide aerial photos or wetland delineation maps at a scale of 1:2,400 showing any potential jurisdictional and non-jurisdictional wetlands and Waters of the U.S. and State delineated out to at least 250 feet from the edge of disturbance.

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Appendix B (g) (13) (C)	A discussion of the biological resources at the proposed project site and related facilities. Related facilities include, but are not limited to, laydown and parking areas, gas and water supply pipelines, transmission lines, and roads. The discussion shall address the distribution of vegetation community types, denning or nesting sites, population concentrations, migration corridors, breeding habitats, and other appropriate biological resources including the following:	--	--	
Appendix B (g) (13) (C) (i)	A list of all the species actually observed;	Wildlife species observed: Table 5.3-2 Plant species observed: Table 5.3-3	Yes Yes	
Appendix B (g) (13) (C) (ii)	A list of sensitive species and habitats with a potential to occur (as defined in (A) above); and	Potentially occurring wildlife: Table 5.3-4 Potentially occurring plants: Table 5.3-5	Yes Yes	

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Appendix B (g) (13) (C) (iii)	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.	N/A	N/A	
Appendix B (g) (13) (D)	A description and results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities. Include copies of the California Natural Diversity Database records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:	Survey methods & results: Section 5.3.4 (methods) Section 5.3.5 (results) <u>CNDDDB records: Data Adequacy Supplement – Attachment D</u> Resumes: Appendix F.1 (Attachment 1)	Yes No <u>Yes</u> Yes	Please provide copies of the California Natural Diversity Database records completed by the applicant's biologist(s).

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Appendix B (g) (13) (D) (i)	Current biological resources surveys conducted using appropriate field survey protocols during the appropriate season(s). State and federal agencies with jurisdiction shall be consulted for field survey protocol guidance prior to surveys if a protocol exists;	Survey protocols: Section 5.3.4 Agency consultation: Section 5.3.4.2, pg. 5.3-12	Yes Yes	
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	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 wetlands and waters: Table 5.3-8	Yes	

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Appendix B (g) (13) (E)	Impacts discussion of the following:	--	--	
Appendix B (g) (13) (E) (i)	all impacts (direct, indirect, and cumulative) to biological resources from project site preparation, construction activities, plant operation, maintenance, and closure. Discussion shall also address sensitive species habitat impacts from cooling tower drift and air emissions;	Bio resource impacts: Section 5.3.6 Section 5.3.7 Air quality impacts: Section 5.2.4.10	Yes Yes	
Appendix B (g) (13) (E) (ii)	facilities that propose to take water directly from, and/or discharge water to surface water features, daytime and nighttime impacts from the intake and discharge of water during operation, water velocity at the intake screen, the intake field of influence, impingement, entrainment, and thermal discharge. Provide a discussion of the extent of the thermal plume, effluent chemicals, oxygen saturation, intake pump operations, and the volume and rate of cooling water flow at the intake and discharge location; and	N/A	N/A	
Appendix B (g) (13) (E) (iii)	Methods to control biofouling and chemical concentrations, and temperatures that are currently being discharged or will be discharged to receiving waters.	N/A	N/A	
Appendix B (g) (13) (F)	A discussion of all feasible mitigation measures including, but not limited to 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;	Project avoidance, minimization, and mitigation: Section 5.3.8	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;	Mitigation and compensation: Section 5.3.9	Yes	
Appendix B (g) (13) (F) (iii)	Design features to better disperse or eliminate a 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	N/A	N/A	
Appendix B (g) (13) (F) (v)	Educational programs to enhance employee awareness during construction and operation to protect biological resources.	General avoidance and minimization: Section 5.3.8.1	Yes	
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 and compliance: Section 5.3.8 Section 5.3.9	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: **Biological Resources**
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-5

Technical Staff: Heather Blair
 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) (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, the National Marine Fisheries Service, the U.S. Army Corps of Engineers, the California Department of Fish and Game, and the Regional Water Quality Control Board will be required for the proposed project.	Agency correspondence: Appendix F.2	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	LORS table: Table 5.3-1	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.	Permitting agencies: Table 5.3-11	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Biological Resources
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-5

Technical Staff: Heather Blair
 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 (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 5.3-11	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.	Permitting schedule: Table 5.3-12	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Land Use
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-05

Technical Staff: Negar Vahidi
 Technical Senior: David Flores

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. 5.7-1 through 5.7-25, Section 5.7; -Figures 5.7-1 through 5.7-3A	Yes	
Appendix B (g) (3) (A)	A discussion of existing land uses and current zoning at the site, land uses and land use patterns within one mile of the proposed site and within one-quarter mile of any project-related linear facilities.	-pp. 5.7-6 through 5.7-14, Section 5.7.4.5; -pp. 5.7-15 through 5.7-17, Section 5.7.7; -Figures 5.7-2, 5.7-3, and 5.7-3A	Yes	
Appendix B (g) (3) (A) (i)	An identification of residential, commercial, industrial, recreational, scenic, agricultural, natural resource protection, natural resource extraction, educational, religious, cultural, and historic areas, and any other area of unique land uses;	-pp. 5.7-15 through 5.7-17, Section 5.7.7;	Yes	
Appendix B (g) (3) (A) (ii)	A discussion of any recent or proposed zone changes and/or general plan amendments; noticed by an elected or appointed board, commission, or similar entity at the state or local level;	-pp. 5.7-1 through 5.7-13, Sections 5.7.1 through 5.7.4	Yes	
Appendix B (g) (3) (A) (iii)	Identification of all discretionary reviews by public agencies initiated or completed within 18 months prior to filing the application for those changes or developments identified in subsection (g)(3)(A)(ii); and	-pp. 5.7-1 through 5.7-13, Sections 5.7.1 through 5.7.4	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Land Use
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-05

Technical Staff: Negar Vahidi
 Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (A) (iv)	Legible maps of the areas identified in subsection (g)(3)(A) potentially affected by the project, on which existing land uses, jurisdictional boundaries, general plan designations, specific plan designations, and zoning have been clearly delineated.	-Figures 5.7-2, 5.7-3, and 5.7-3A	Yes	
Appendix B (g) (3) (B)	A discussion of the compatibility of the proposed project with present and expected land uses, and conformity with any long-range land use plans adopted by any federal, state, regional, or local planning agencies. The discussion shall identify the need, if any, for land use decisions by another public agency or as part of the commission's decision that would be necessary to make the project conform to adopted federal, state, regional, or local coastal plans, land use plans, or zoning ordinances. Examples of land use decisions include: general plan amendments, zoning changes, lot line adjustments, parcel mergers, subdivision maps, Agricultural Land Conservation Act contracts cancellation, and Airport Land Use Plan consistency determinations.	-pp. 5.7-1 through 5.7-13, Sections 5.7.1 through 5.7.4; -pp. 5.7-18 through 5.7-19, Section 5.7.8	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Land Use
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-05

Technical Staff: Negar Vahidi
 Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (C)	A discussion of the legal status of the parcel(s) on which the project is proposed. If the proposed site consists of more than one legal parcel, describe the method and timetable for merging or otherwise combining those parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel. The merger need not occur prior to a decision on the Application but must be completed prior to the start of construction.	<u>Data Adequacy Supplement - page 4 and Attachment</u>	No <u>Yes</u>	<p>The AFC Land Use Section (5.7) provides no discussion of parcel legality for the proposed project. The AFC Executive Summary (Section 1.0) states (on pg. 1.0-3), "[s]ite control of the following parcels was established to develop the site: APN 0490-121-12; APN 0490-131-06; APN 0490-131-07; APN 0490-131-08; APN 0490-131-11; APN 0490-131-12; APN 0490-131-15; APN 0490-131-16; APN 0490-161-08; APN 0490-161-09; APN 0490-161-10; APN 0490-161-11; APN 0490-161-12; APN 0490-161-13." However, there is no discussion of the method and timetable for merging or otherwise combining these parcels so that the proposed project will be located on a single legal parcel.</p> <p>Provide a discussion and a copy of the recorded final map, lot line adjustment map, or Certificate of Compliance demonstrating that the property site was established in accordance to the procedures and the requirements set forth in the State Subdivision Map Act (Government Code section 66410 – 66499.58).</p>
Appendix B (g) (3) (D)	A map at a scale of 1:24,000 and written description of agricultural land uses found within all areas affected by the proposed project. The description shall include:	-Figure 5.7-3A -pp. 5.7-15 through 5.7-17, Section 5.7-7	Yes	
Appendix B (g) (3) (D) (i)	Crop types, irrigation systems, and any special cultivation practices;	-pg. 5.7-17, Section 5.7.7.5	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Land Use
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-05

Technical Staff: Negar Vahidi
 Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (D) (ii)	Whether farmland affected by the project is prime, of statewide importance, or unique as defined by the California Department of Conservation; and	-pg. 5.7-17, Section 5.7.7.5 -Figures 5.7-3 and 5.7-3A -pg. 5.7-21, Section 5.7.8	Yes	
Appendix B (g) (3) (D) (iii)	Direct, indirect, and cumulative effects on agricultural land uses. If the proposed site or related facilities are subject to an Agricultural Land Conservation contract, provide a written copy and a discussion of the status of the expiration or canceling of such contract.	-pp. 5.7-23 through 5.7-24, Section 5.7.8.7	Yes	The proposed project lands are not under a Williamson Act Contract. Therefore, a written copy and a discussion of the status of the expiration or canceling of such contract are not needed.
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. 5.7-2 through 5.7-3, Table 5.7-1	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.	-pg. 5.7-15, Table 5.7-5, Section 5.7-6	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Land Use
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-05

Technical Staff: Negar Vahidi
 Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
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.	-pg. 5.7-14, Table 5.7-4, Section 5.7.5	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. 5.7-15, Table 5.7-5, Section 5.7-6	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Project Overview

Project: Abengoa Mojave Solar

Technical Staff: Craig Hoffman

Project Manager: Craig Hoffman

Docket: 09-AFC-5

Technical Senior: Robert Worl

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Cal. Code Regs., tit. 20, § 1704, (a) (3) (A)	Descriptions of all significant assumptions, methodologies, and computational methods used in arriving at conclusions in the document.		N/A	Please see the individual technical areas for a determination regarding the adequacy of this item.
Cal. Code Regs., tit. 20, § 1704, (a) (3) (B)	Descriptions, including methodologies and findings, of all major studies or research efforts undertaken and relied upon to provide information for the document; and a description of ongoing research of significance to the project (including expected completion dates; and		N/A	Please see the individual technical areas for a determination regarding the adequacy of this item.
Cal. Code Regs., tit. 20, § 1704, (a) (3) (C)	A list of all literature relied upon or referenced in the documents, along with brief discussions of the relevance of each such reference		N/A	Please see the individual technical areas for a determination regarding the adequacy of this item.
Cal. Code Regs., tit. 20, § 1704, (a) (4)	Each principal subject area covered in a notice or application shall be set forth in a separate chapter or section, each of which shall identify the person or persons responsible for its preparation.	Sections 2, 3, 4, 5 and 6	Yes	
Appendix B (a) (1) (A)	A general description of the proposed site and related facilities, including the location of the site or transmission routes, the type, size and capacity of the generating or transmission facilities, fuel characteristics, fuel supply routes and facilities, water supply routes and facilities, pollution control systems, and other general characteristics.	Pages 1.0-2 to 1.0-3 Section 1.1 Pages 2.0-1 to 2.0-3, sections 2.1, 2.2 and 2.3 Pages 2.0-3 to 2.0-28, section 2.4 Pages 2.0-28 to 2.0-34, sections 2.5 and 2.6	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Project Overview

Project: Abengoa Mojave Solar

Technical Staff: Craig Hoffman

Project Manager: Craig Hoffman

Docket: 09-AFC-5

Technical Senior: Robert Worl

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (a) (1) (B)	Identification of the location of the proposed site and related facilities by section, township, range, county and assessor's parcel numbers.	Pages 1.0-2 to 1.0-3, section 1.1	Yes	
Appendix B (a) (1) (C)	A description of and maps depicting the region, the vicinity, and the site and its immediate surroundings.	Pages 1.0-1 to 1.0-2, section 1.1 Figures 1-1, 1-2, 1-3, 1-4(a), 1-4(b), 2-1, 2-2(a), 2-2(b), 2-2(c), 2-2(d), 2-2(e), 2-3(a), 2-3(b), 2-3(c) and 2-3(d)	Yes	
Appendix B (a) (1) (D)	A full-page color photographic reproduction depicting the visual appearance of the site prior to construction, and a full-page color simulation or artist's rendering of the site and all project components at the site, after construction.	Figures 1-2, 1-4(a) and 1-4(b)	Yes	
Appendix B (a) (1) (E)	In an appendix to the application, a list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of the proposed transmission line and other linear facilities, and within 1000 feet of the proposed powerplant and related facilities.	Appendix M (Volume 3)	Yes	
Appendix B (a) (2)	Project Schedule: Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation of the proposed facilities.	Page 1.0-3, section 1.2	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Project Overview

Project: Abengoa Mojave Solar

Technical Staff: Craig Hoffman

Project Manager: Craig Hoffman

Docket: 09-AFC-5

Technical Senior: Robert Worl

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (a) (3) (A)	A list of all owners and operators of the site(s), the power plant facilities, and, if applicable, thermal host, the geothermal leasehold, the geothermal resource conveyance lines, and the geothermal re-injection system, and a description of their legal interest in these facilities.	Page 1.0-3, section 1.3	Yes	
Appendix B (a) (3) (B)	A list of all owners and operators of the proposed electric transmission facilities.	Page 1.0-1, section 1.1 Page 2.0-30 to 2.0-32, section 2.6	Yes	
Appendix B (a) (3) (C)	A description of the legal relationship between the applicant and each of the persons or entities specified in subsections (a)(3)(A) and (B).	<u>Data Adequacy Supplement Page 5</u>	No <u>Yes</u>	Please provide the legal relationship between the power plant owners and the electrical transmission system owners.
Appendix B (b) (1)	In a section entitled, "Generation Facility Description, Design, and Operation" provide the following information:			
Appendix B (b) (1) (A)	Maps at a scale of 1:24,000 (1" = 2000'), (or appropriate map scale agreed to by staff) along with an identification of the dedicated leaseholds by section, township, range, county, and county assessor's parcel number, showing the proposed final locations and layout of the power plant and all related facilities;	Page 1.0-2 to 1.0-3 section 1 Figures 2-1, 2-2, 2-3(a), 2-3(b), 2-3(c), 2-3(d), 2-3(e) and 2-3(f)	Yes	
Appendix B (b) (1) (B)	Scale plan and elevation drawings depicting the relative size and location of the power plant and all related facilities to establish the accuracy of the photo simulations required in Sections (a)(1)(D) and (g)(6)(F);	Figure 1-4(a), 1-4(b), 2-3(a), 2-3(b), 2-3(c), 2-3(d), 2-3(e), 2-3(f), 2-5(a) and 2-5(b)	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Project Overview

Project: Abengoa Mojave Solar

Technical Staff: Craig Hoffman

Project Manager: Craig Hoffman

Docket: 09-AFC-5

Technical Senior: Robert Worl

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) (C)	A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	Pages 2.0-3 to 2.0-30, sections 2.4 and 2.5	Yes	
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.	Pages 4.0-1 to 4.0-3, section 4.2 Pages 4.0-7 to 4.0-19, Sections 4.5, 4.6, 4.7, 4.8 and 4.9 Figures 4-1 and 4-2	Yes	
Appendix B (b) (2)	In a section entitled, "Transmission Lines Description, Design, and Operation" provide the following information:			
Appendix B (b) (2) (A)	Maps at a scale of 1:24,000 (or appropriate map scale agreed to by staff) of each proposed transmission line route, showing the settled areas, parks, recreational areas, scenic areas, and existing transmission lines within one mile of the proposed route(s);		N/A	No off-site facilities needed
Appendix B (b) (2) (B)	A full-page color photographic reproduction depicting a representative above ground section of the transmission line route prior to construction and a full-page color photographic simulation of that section of the transmission line route after construction.		N/A	No off-site facilities needed

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Project Overview

Project: Abengoa Mojave Solar

Technical Staff: Craig Hoffman

Project Manager: Craig Hoffman

Docket: 09-AFC-5

Technical Senior: Robert Worl

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) (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.	Pages 2.0-30 to 2.0-34, section 2.6 Appendix J and N Figures 2-6, 2-7(a), 2-7(b), 2-7(c), 2-7(d), 2-7(e), 2-7(f), 2-7(g), 2-7(h), 2-7(i), 2-7(j)	Yes	
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; and		N/A	. No off-site facilities needed
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Pages 3.0-1 to 3.0-3, sections 3-1 and 3-2	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 12, 2009

Technical Area: Public Health
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-5

Technical Staff: Alvin Greenberg
 Technical Senior: Rick Tyler

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 (Note: sections within the PH section are numbered wrongly as 5.15. when they should be 5.10.) Section 5.10.2 Section 5.10.3 Section 5.10.4 Section 5.2.1 Section 5.2.2 Appendix C.4 Appendix C.5	Yes	
Appendix B (g) (9) (A)	An assessment of the potential risk to human health from the project's hazardous air emissions using the Air Resources Board Hotspots Analysis and Reporting Program (HARP) (HSC §§44360-44366) or its successor and Approved Risk Assessment Health Values. These values should include the cancer potency values and noncancer reference exposure levels approved by the Office of Environmental Health Hazard Assessment (OEHHA Guidelines, Cal-EPA 2005).	Section 5.10.2.3 Section 5.10.2.4 Section 5.10.2.5 Appendix C.4	Yes	
Appendix B (g) (9) (B)	A listing of the input data and output results, in both electronic and print formats, used to prepare the HARP health risk assessment.	Appendix C.4 Modeling CD	Yes	
Appendix B (g) (9) (C)	Identification of available health studies through the local public health department concerning the potentially affected population(s) within a six-mile radius of the proposed power plant site related to respiratory illnesses, cancers or related diseases.	Section 5.10.1	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 12, 2009

Technical Area: Public Health
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-5

Technical Staff: Alvin Greenberg
 Technical Senior: Rick Tyler

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (9) (D)	A map showing sensitive receptors within the area exposed to the substances identified in subsection (g)(9)(A).	<u>Data Adequacy Supplement Page 6</u>	<u>No</u> <u>Yes</u>	Please provide a figure showing all sensitive receptors within a 3-mile radius, including the type of receptor and its number as identified in Table C.4-4.
Appendix B (g) (9) (E)	For purposes of this section, the following definitions apply:			
Appendix B (g) (9) (E) (i)	A sensitive receptor refers to infants and children, the elderly, and the chronically ill, and any other member of the general population who is more susceptible to the effects of the exposure than the population at large;	Section 5.10.1	Yes	
Appendix B (g) (9) (E) (ii)	An acute exposure is one which occurs over a time period of less than or equal to one (1) hour; and	Section 5.10.2.1.2	Yes	
Appendix B (g) (9) (E) (iii)	A chronic exposure is one which is greater than twelve (12) percent of a lifetime of seventy (70) years.	Section 5.10.2.1.2	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 5.10-6	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 12, 2009

Technical Area: Public Health
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-5

Technical Staff: Alvin Greenberg
 Technical Senior: Rick Tyler

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.	Table 5.10-6 Table 5.10-7	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 5.10-7	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 5.10.6 Section 5.2.7	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Soils
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-05

Technical Staff: Christopher Dennis
 Technical Senior: Paul Marshall

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 5.12.1.1 p. 5.12-6 Section 5.12.1.2 p. 5.12-7 Section 5.12.3.1 p. 5.12-11 Section 5.12.3.2 p. 5.12-12 Table 5.12-4	Yes	
Appendix B (g) (15) (A)	A map at a scale of 1:24,000 and written description of soil types and all agricultural land uses that will be affected by the proposed project. The description shall include:	Figure 5.12-1 Figure 5.7-3 Figure 5.7-3A	Yes	
Appendix B (g) (15) (A) (i)	The depth, texture, permeability, drainage, erosion hazard rating, and land capability class of the soil;	Section 5.12.2.2 p. 5.12-7 Table 5.12-4	Yes	
Appendix B (g) (15) (A) (ii)	An identification of other physical and chemical characteristics of the soil necessary to allow an evaluation of soil erodibility, permeability, re-vegetation potential, and cycling of pollutants in the soil-vegetation system;	Section 5.12.2.2 P. 5.12-7 Table 5.12-4 Appendix K.1: Drainage, Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan	Yes	
Appendix B (g) (15) (A) (iii)	The location of any proposed fill disposal or fill procurement (borrow) sites; and	Section 5.12.3.1 p. 5.12-11	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Soils
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-05

Technical Staff: Christopher Dennis
 Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (15) (A) (iv)	The location of any contaminated soils that could be disturbed by project construction.	Appendix I: Phase I Site Assessment	Yes	
Appendix B (g) (15) (B)	An assessment of the effects of the proposed project on soil resources and agricultural land uses. This discussion shall include:	Section 5.12.3.1 p. 5.12-11 Section 5.12.3.2 p. 5.12-12 Section 5.7.8.5 p. 5.7-18	Yes	

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 Docket: 09-AFC-05

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 Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (15) (B) (i)	The quantification of accelerated soil loss due to wind and water erosion; and	Section 5.12.3.1 p. 5.12-11 <u>AFC Data Adequacy Supplement</u> p. 8, 9 and Attachment C	No <u>Yes</u>	<p>The AFC did not quantify and provide supporting information and calculations for all potential soil loss scenarios.</p> <ol style="list-style-type: none"> 1. Please quantify the annual soil loss due to wind erosion under a no-project scenario, during construction of the proposed project, and during operation of the proposed project. 2. Please quantify the annual soil loss due to water erosion during operation of the proposed project. 3. For all soil loss estimates (annual loss of soil due to wind and water erosion under a no-project scenario, during construction, and during operation), please provide supporting information and calculations. <p>The volume of soil loss due to accelerated wind and water erosion must be numerically quantified using the Revised Universal Soil Loss Equation (RUSLE2 model) and the Wind Erosion Prediction System (WEPS model) or similarly accepted methods.</p>
Appendix B (g) (15) (B) (ii)	The effect of power plant emissions on surrounding soil-vegetation systems.	Section 5.12.3.2 p. 5.12-12	Yes	

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 Technical Senior: Paul Marshall

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	Section 5.12.1 p. 5.12-1 Table 5.12-1	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 5.12.1 p. 5.12-1 Table 5.12-1	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 5.12.1.4 p. 5.12-4 Table 5.12-2	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 5.12.1.5 p. 5.12-5 Table 5.12-3	NA	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Transmission System Design
 Project Manager: Craig Hoffman

Project: Abengoa Mojave Solar
 Docket: 09-AFC-5

Technical Staff: Ajoy Guha, P.E.
 Technical Senior: Mark Hesters

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 2.6.2 Page 2.0-31.	Yes	
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 2.4.3.3, Page 2.0-10. Section 2.6.2, Page 2.0-31. <u>AFC Supplement pages 10 - 11</u> <u>Figures 2-3a, 2-3(c), 2-3(d) & 2-3(j).</u>	<u>No</u> <u>Yes</u>	Provide a physical layout drawing showing distinctly the routes of the proposed 230 kV overhead generator tie lines in and out of the plant site between the proposed Mojave Solar Project (MSP) Alpha and Beta Generator 230 kV switchyards and proposed new SCE Hinkley 230 kV substation including Right of Way (ROW) widths. Describe whether the ROW would be through private and/or public lands.
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 2.6.2.1, Page 2.0-32. Figure 2-11. <u>AFC Supplement, Attachment E.</u> <u>Figure 2-DA-1.</u> Section 2.4.3.3, Page 2.0-10. <u>AFC Supplement, Attachment E.</u> <u>Figures 2-7(d)-DA, 2-7(e)-DA.</u>	<u>No</u> <u>Yes</u>	Submit a Pole design diagram for dead end structures of the generator overhead 230 kV tie lines showing configuration of insulators and conductors (with sizes, type and ampere rating) with their respective position measurements on the pole. Provide lengths of the generator 230 kV tie lines and their conductor sizes & types. Resubmit Figures 2-7(d) and 2-7(e) with sizes and/or ratings of the short overhead conductors and/or cables between the Generator step-up transformer and the 230 kV switchyard

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 Technical Senior: Mark Hesters

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 4.5, Pages 4.0-7 to 4.0-9. <u>AFC Supplement.</u> <u>Figure 2-3a.</u>	No <u>Yes</u>	Submit a drawing showing the alternate routes of the proposed 230 kV Alpha and Beta generator tie lines and describe how the preferred routes are selected by comparing with alternate routes and their environmental effects.
Appendix B (b) (2) (E)	<p>A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator (CA ISO) 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.</p> <p>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.</p>	Section 2.6.3, Page 2.0-33. Appendix N, Interconnection System Impact Study.	Yes	

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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) (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 2.0, Pages 2.0-1 to 2.0-34. <u>AFC Supplement pages 10 – 13 and Attachment E.</u>	<u>No</u> <u>Yes</u>	Provide a list of federal, state, regional or local laws, ordinances, regulations and standards applicable for transmission and describe in short their applicability/purpose during planning, construction and operation of the proposed MSP.
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 2.0, Pages 2.0-1 to 2.0-34 <u>AFC Supplement pages 10 – 13 and Attachment E.</u>	<u>No</u> <u>Yes</u>	Provide a list of agencies other than the Energy Commission in a Table who will provide necessary permits, leases and approvals to enforce the identified laws, regulations, standards and for land use or other plans for transmission.
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 2.0, Pages 2.0-1 to 2.0-34 <u>AFC Supplement pages 10 – 13 and Attachment E.</u>	<u>No</u> <u>Yes</u>	Provide the names, phone number, address and email address of the official contact person of each agency.
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 2.0, Pages 2.0-1 to 2.0-34. <u>AFC Supplement pages 10 – 13 and Attachment E.</u>	<u>No</u> <u>Yes</u>	Provide a schedule when transmission related permits/study reports (The California ISO Facilities study) would be obtained.

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 12, 2009

Technical Area: Visual Resources

Project: Abengoa Mojave Solar

Technical Staff: Bill Kanemoto

Project Manager: Craig Hoffman

Docket: 09-AFC-5

Technical Senior: David Flores

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.	Ex. Site conditions: 5.15-34 Impacts of construction, operation and maintenance: 5.15-50 – 63 Mitigation measures and effectiveness: 5.15-63 –67. Monitoring: none proposed.	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:	Existing visual setting of site and linear facilities: 5.15-34 - 49	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	p. 5.15-71; 5.15-72 <u>Data Adequacy Supplement</u> p. 14 and Figures 5.15-2a and 5.15-2b	No <u>Yes</u>	Please provide labeled KOP figures 5.15-1 and 5.15-2. Figures 5.15-1 and 2 depict KOP locations, but do not identify the KOPs by name or number, making interpretation of the text difficult.
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.5.15 34 – 36 (Regional) pp. 5.15-41 – 49 (KOPs) p. 5.15-49 (Light & glare)	Yes	

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Technical Senior: David Flores

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. 5.15-41 – 49 (KOPs)	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.	pp. 5.15-41 - 50	Yes	

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Technical Senior: David Flores

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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.	p. 5.15-25: Table 5.15-5 pp. 5.15-26 – 28.	Yes	
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).	pp. 5.15-28 – 32.	Yes	

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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 (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.	pp. 5.15-73 - 88	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. 5.15-50 – 63 pp. 5.15-28 – 32 (plumes)	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.	Not applicable	Yes	

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Docket: 09-AFC-5

Technical Senior: David Flores

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. 5.15-2 - 4	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.5.15-12 - 25	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.	p. 5.15-67 - 68	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.	Not applicable		

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

Technical Area: Water Resources

Project: Abengoa Mojave Solar

Technical Staff: Christopher Dennis

Project Manager: Craig Hoffman

Docket: 09-AFC-05

Technical Senior: Paul Marshall

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 5.17.1 p. 5.17-14	Yes	
Appendix B (g) (14) (A)	All the information required to apply for the following permits, if applicable, including:	See below	----	
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 5.17.1.1 p. 5.17-14 Section 5.17.1.2 p. 5.17-15 Section 5.17.1.5 p. 5.17-11 Section 5.3.2.2.12 p. 5.3.-5 Table 5.17-3 Appendix K.2 – Hydrology Study <u>Data Adequacy Supplement</u> <u>p. 15 and Attachments A and B</u>	<u>No</u> <u>Yes</u>	Please provide an Industrial Storm Water Pollution Prevention Plan in compliance with the Lahontan Regional Water Quality Control Board requirements. The Hydrology Study included in the AFC evaluated how storm water from a 100-year storm event would impact the proposed project site, but did not provide Best Management Practices (BMPs) for the management and mitigation of that storm water. Please provide an Industrial Storm Water Pollution Prevention Plan in compliance with the Lahontan Regional Water Quality Control Board requirements.

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

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Project: Abengoa Mojave Solar
 Docket: 09-AFC-05

Technical Staff: Christopher Dennis
 Technical Senior: Paul Marshall

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) (A) (ii)	Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;	Section 5.17.1 p. 5.17-1 Section 5.3.2.2.12 p. 5.3.-5 Table 5.17-3 <u>Data Adequacy Supplement</u> <u>p. 15 - 16 and Attachment B</u>	No <u>Yes</u>	Please provide all information needed to complete a draft Report of Waste Discharge (ROWD) for the proposed evaporation ponds (surface impoundments) and bioremediation/HTF land treatment units. The draft ROWD should also be submitted to the Lahontan Regional Water Quality Control Board for review and comment. The draft ROWD should include a complete characterization of the discharge, including but not limited to design and actual flows, a list of constituents and the discharge concentration of each constituent, a list of other appropriate waste discharge characteristics, a description and schematic drawing of all treatment processes, a description of any Best Management Practices used, and a description of disposal methods.
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	Section 5.3.2.1.4 p. 5.3-3 Section 5.3.2.2.12 p. 5.3-5 Section 5.3.3.4 p. 5.3-9 Section 5.3.4.3 p. 5.3-18 Section 5.3.5.3 p. 5.3-27 Section 5.3.6.2.4 p. 5.3-39 Table 5.3-8	Yes	

Adequacy Issue: Adequate Inadequate

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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 (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 5.17.1 p. 5.17-14 Section 5.17.1.6 to 5.17.1.16 p. 5.17-15 to 5.17-33 Section 5.17.1.13 p. 5.17-26 Figure 5.17-1 to 5.17-16	Yes	
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 5.17.1 p. 5.17-14 Section 5.17.1.7 to 5.17.1.11 p. 5.17-17 to 5.17-24 Appendix A: Basin Conceptual Model Report	Yes	
Appendix B (g) (14) (B) (ii)	Surface water bodies;	Section 5.17.1 p. 5.17-14 Figure 5.17-1 Appendix A: Basin Conceptual Model Report Appendix K.2 – Hydrology Study	Yes	

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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 (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;	Section 5.17.2.2 p. 5.17-39 Appendix K.2: Hydrology Study	Yes	
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section 5.17.2.2 p. 5.17-39 Appendix K.1: Drainage, Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan Appendix K.2: Hydrology Study	Yes	
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.	Section 5.17.1.15 p. 5.17-30 Figure 5.17-18 Table 5.17-8 Appendix A: Basin Conceptual Model Appendix A, Figures Appendix A: Basin Conceptual Model Appendix A, Miscellaneous	Yes	

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Technical Staff: Christopher Dennis

Project Manager: Craig Hoffman

Docket: 09-AFC-05

Technical Senior: Paul Marshall

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) (C)	A description of the water to be used and discharged by the project. This information shall include:	Section 2.4.4.4 p. 2.0-15 Section 2.4.4.6 p. 2.0-19 Figure 2-8 Section 5.17.1.17 p.5.17-34 Section 5.17.2.1 p. 5.17-37 Section 5.17.2.2 p. 5.17-39	Yes	
Appendix B (g) (14) (C) (i)	Source(s) of the primary and back-up water supplies and the rationale for their selection;	Section 5.17.1.17 p. 5.17-34	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);	Section 5.17.1.13 p. 5.17-26 Section 5.3.6.2.2 p. 5.3-32 Table 5.17-6 Appendix A: Basin Conceptual Model Report Appendix A: Basin Conceptual Model Appendix E, Laboratory Reports	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

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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;	<p>Section 2.4.4.3 p. 2.0-13</p> <p>Table 2-2</p> <p>Section 5.17.2.1 p. 5.17-37</p> <p>Section 5.17.2.2 p. 5.17-39</p> <p><u>Data Adequacy Supplement</u> p. 16 - 17</p>	<p>No <u>Yes</u></p>	<p>The AFC did not provide all of the required water use and wastewater discharge volume estimates.</p> <p>1. Please provide a table showing the daily (average and maximum) and annual (average and maximum) water requirement and wastewater discharge volume for construction and plant operation. Include:</p> <ul style="list-style-type: none"> -Construction potable water. -Piping hydrostatic test water. -Dust suppression water. -all other construction water (specify use). -Operations potable water. -Operations process water. -Construction and operations wastewater discharge (process and sanitary wastewater). <p>2. Also specify the source of the water (e.g., source of the potable water).</p>
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;	<p>Section 2.4.4.4 p. 2.0-15</p> <p>Section 2.4.4.6 p. 2.0-16</p> <p>Figure 2-8</p> <p>Section 5.17.1.17 p. 5.17-34</p>	<p>Yes</p>	

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DATA ADEQUACY WORKSHEET

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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;	NA	----	
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 5.17.1.17 P. 5.17-34 <u>Data Adequacy Supplement</u> <u>p. 18 - 21 and Attachment G</u>	<u>No</u> <u>Yes</u>	Please provide a copy of all groundwater ownership rights (grant deeds and all deed restrictions), transfer agreements, and purchase option contracts for the 10,478 AFY of groundwater the AFC states the applicant has rights to. Information in these records of ownership rights and purchase option contracts must include documentation sufficiently describing the following: 1. Any restrictions to the access or use of the groundwater associated with the ownership right or purchase option contract; 2. Identification of groundwater well(s) and property parcel(s) associated with the ownership right or purchase option contract; and 3. The quantity of groundwater associated with the ownership right or purchase option contract

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

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Technical Area: **Water Resources**
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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	Figures 2-6 and 2-8	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	---	

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DATA ADEQUACY WORKSHEET

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Appendix B (g) (14) (D)	Identify all project elements associated with stormwater drainage, including a description of the following:	Section 2.4.5.6 p. 2.0-25 Section 2.4.5.7 p. 2.0-25 Section 2.4.5.8 p. 2.0-26 Appendix K.1: Drainage, Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan Appendix K.2: Hydrology Study	Yes	
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 5.17.1.6 p. 5.17-15 Table 5.17-4 Appendix K.2: Hydrology Study	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;	Appendix K.1: Drainage, Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan Appendix K.2: Hydrology Study	Yes	
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 K.2: Hydrology Study	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

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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.	Appendix K.1: Drainage, Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan	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:	Section 5.17.1.5 p. 5.17-11 Section 5.17.1.17 p. 5.17-34 Section 5.17.2.1 p. 5.17-37 Section 5.17.2.2 p. 5.17-39 Section 5.17.2.3 p. 5.17-42	Yes	
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 5.17.1.17 p. 5.17-34 Appendix A: Basin conceptual Model Appendix F, Numerical Model <u>Data Adequacy Supplement p. 21 -22.</u>	<u>No</u> <u>Yes</u>	Please provide a description of all potential changes in the physical or chemical condition of existing water supplies that would develop as a result of the plant's water use.

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DATA ADEQUACY WORKSHEET

Revision No. 1 Date: October 12, 2009

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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;	Section 5.17.1.17 p. 5.17-34 Table 5.17-8 Appendix A: Basin conceptual Model Appendix F, Numerical Model <u>Data Adequacy Supplement</u> <u>p. 22</u>	No <u>Yes</u>	Please provide a description of all potential changes in the physical or chemical condition of any contaminants in the groundwater that would develop as a result of the plant's groundwater use. This evaluation may require a subsurface investigation in areas of potential contamination as recommended by the Phase 1 environmental site assessment.
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 5.17.2.1 p. 5.17-37 Section 5.17.2.2 p. 5.17-39 Appendix K.1: Drainage, Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan	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;"	Section 4.7.3 p. 4.0-15	Yes	

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DATA ADEQUACY WORKSHEET

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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 4.7.2 p. 4.0-10 Section 4.8.1 p. 4.0-16 Section 5.17.2.3 p. 5.17-42	Yes	
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	Appendix K.2: Hydrology Study	Yes	
Appendix B (g) (14) (vii)	All assumptions, evidence, references, and calculations used in the analysis to assess these effects.	Appendix K.2: Hydrology Study	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 5.17.1 p. 5.17-1 Table 5.17-1	Yes	

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DATA ADEQUACY WORKSHEET

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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 5.17.1.4 p. 5.17-10 Table 5.17-2	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 5.17.1.4 p. 5.17-10 Table 5.17-2	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 5.17.1.5 p. 5.17-11 Table 5.17-3	Yes	