State Of California | The Resources Agency of California

Memorandum

Date: December 13, 2007
Telephone: (916) 654-4996

To: Jackalyne Pfannenstiel, Chairman
James D. Boyd, Vice Chair
Arthur H. Rosenfeld, Ph.D., Commissioner
John L. Geesman, Commissioner
Jeffrey Byron, Commissioner

DOCKET
07-AFC-8
DATE DEC 13 2007
RECD. DEC 14 2007

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

Subject: **CARRIZO ENERGY SOLAR FARM PROJECT, REVISED DATA ADEQUACY RECOMMENDATION (07-AFC-8)**

Staff's November 20, 2007 initial data adequacy review of the Carrizo Energy Solar Farm Application for Certification (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 10 of 23 areas: Biological Resources, Cultural Resources, Land Use, Project Overview, Socioeconomics, Soils, Traffic and Transportation, Transmission System Engineering, Visual Resources, and Water Resources. During the interval of December 5-10, 2007, Ausra CA II, LLC (applicant) submitted draft supplemental materials to address these deficiencies. Staff has reviewed the draft supplemental information received from the applicant and has determined that the AFC is now data adequate in all 23 technical disciplines. The finalized version of the supplemental material will be filed by Tuesday, December 18th, 2007.

Attached is a summary table and revised data adequacy worksheets for the ten technical disciplines previously determined to be data inadequate.

On October 25, 2007, Ausra CA II, LLC, (dba Carrizo Energy, LLC), submitted an Application for Certification (AFC) to construct and operate the Carrizo Energy Solar Farm (CESF), a nominal 177 megawatts (MW) net solar thermal power plant, in San Luis Obispo County, California. The proposed CESF project design would incorporate Ausra's proprietary Compact Linear Fresnel Reflector (CLFR) technology to concentrate solar energy on pipes in an elevated receiver approximately 56 feet tall. The concentrated solar energy would boil water within a row of specially coated stainless steel pipes in an insulated cavity to produce saturated steam. The steam is then routed to twenty steam drums located in the solar field, and then to two steam drums and two steam turbine generators in the power block. Steam used by the steam turbines would be condensed in two air-cooled condensers and returned to the solar field.

At the Energy Commission Business Meeting on December 19, 2007, I will recommend that the Energy Commission accept the CESF AFC with the supplemental information as complete and request that a Committee be appointed. If you have any questions, please call Mary Dyas, staff's Project Manager, at (916) 651-8891.

Attachment

Attachment A
Overview of Energy Commission Staff's
Revised Data Adequacy Determination
Carrizo Energy Solar Farm Project
07-AFC-8

BIOLOGICAL RESOURCES 4	YES
CULTURAL RESOURCES 13	YES
LAND USE 19	YES
PROJECT OVERVIEW 23	YES
SOCIOECONOMICS 28	YES
SOILS 34	YES
TRAFFIC AND TRANSPORTATION 36	YES
TRANSMISSION SYSTEM ENG. 40	YES
VISUAL RESOURCES 46	YES
WATER RESOURCES 52	YES

ATTACHMENT B

ENERGY COMMISSION STAFF'S
Data Adequacy Determination
Revised to Reflect Draft AFC Supplement

Carrizo Energy Solar Farm Project
07-AFC-8

December 13, 2007

Adequacy Issue: Adequate X Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Biological Resources** Project: Carrizo Energy Solar Farm Technical Staff: Brian McCollough

Project Manager: Mary Dyas Docket: 07-AFC-08 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) (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 5.6.1.2, pp. 5.6-8 through 5.6-21 Direct, indirect, and cumulative impacts: Sections 5.6.2.1.1 through 5.6.3, pp. 5.6-21 through 5.6-23 Mitigation measures: Section 5.6.4, pp. 5.6-23 through 5.6-26 Monitoring plans: Section 5.6.4.1.2.1, pp. 5.6-25 through 5.6-26	Yes 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 5.6.1, p. 5.6-1 Regional vicinity maps: Figure 5.6-3	Yes Yes	
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	Federal and state Endangered Species: Table 5.6-1, pp. 5.6-2 through 5.6-5	Yes	
Appendix B (g) (13) (A) (ii)	resources defined in sections 1702(q) and (v) of Title 20 of the California Code of Regulations;	Areas of critical concern and species of special concern: Section 5.6.1.2.3, pp. 5.6-10 through 5.6-17	Yes	

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Project Manager: Mary Dyas Docket: 07-AFC-08 Technical Senior: Rick York

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Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	State Fully Protected species: Table 5.6-1, pp. 5.6-2 through 5.6-5	Yes	
Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	Migratory Bird Act species: Section 5.6.4.1.1.2, p. 5.6-24	Yes	
Appendix B (g) (13) (A) (v)	species and habitats identified by local, state, and federal agencies as needing protection, including but not limited to those identified by the California Natural Diversity Database, or where applicable, in Local Coastal Programs or in relevant decisions of the California Coastal Commission; and	Species and habitats identified in the California Natural Diversity Database: Section 5.6.1.1, p. 5.6-2 through p. 5.6-5.	Yes	
Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial and/or recreational value.	Fish and wildlife of commercial or recreational value: Not applicable	N/A	
Appendix B (g) (13) (B)	Include a list of the species actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors. Maps or aerial photographs shall include the following:	List of species observed: Plant species, appendix L-2 Wildlife species, appendix L-3	Yes Yes	
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;	Map of proposed project site: Figure 5.6-1 Map of biological resources: Figures 5.6-2, 5.6-3 Map of survey area: Figure 5.6-2	Yes Yes Yes	

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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	Depiction of the thermal plume: Not applicable Location of intake and discharge structures: Not applicable	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.	Potential jurisdictional or non-jurisdictional wetlands map: Figures 5.6-4 Coastal zone wetlands map: Not applicable	Yes N/A	
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:	Discussion of biological resources at project site: Section 5.6.1, pp. 5.6-1 through 5.6-20 Discussion of biological resources at related facilities: Section 5.6.1, pp. 5.6-1 through 5.6-20	Yes Yes	
Appendix B (g) (13) (C) (i)	A list of all the species actually observed;	List of species observed: Plant species, appendix L-2 Wildlife species, appendix L-3	Yes Yes	

Adequacy Issue: Adequate **X** Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Biological Resources** Project: Carrizo Energy Solar Farm Technical Staff: Brian McCollough

Project Manager: Mary Dyas Docket: 07-AFC-08 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) (C) (ii)	A list of sensitive species and habitats with a potential to occur (as defined in (A) above); and	Sensitive species and habitats with potential to occur: Table 5.6-1, pp. 5.6-2 through 5.6-5	Yes	
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.	Intake structure charactieristics: Not applicable Thermal plume description: Not applicable Aquatic habitat and biological resources affected: Not applicable Impingement and entrainment analysis: Not applicable	N/A N/A N/A N/A	

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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) (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:	Description of field studies: Section 5.6.1.1, pp. 5.6-2 through 5.6-8 Copies of CNDDB records and field survey forms: Table 5.6-2, pp. 5.6-6 through 5.6-8, Appendix L-1 Qualifications of biologists: Draft Data Adequacy Responses, BIO-1, received December 5, 2007	Yes Yes ~~No~~ Yes	~~Please include the qualifications for the biologists conducting the field studies and seasonal surveys.~~
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;	Current biological surveys: Section 5.6.1.1, p. 5.6-2 through 5.6-8	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	Aquatic resource studies and surveys: Not applicable Aquatic resource survey data or impingement and entrainment impact study: Not applicable	N/A N/A	

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Appendix B (g) (13) (D) (iii)	If the project or any related facilities could impact a jurisdictional or non-jurisdictional wetland, provide completed Army Corps of Engineers wetland delineation forms and/or determination of wetland status pursuant to Coastal Act requirements, name(s) and qualifications of biologist(s) completing the delineation, the results of the delineation and a table showing wetland acreage amounts to be impacted.	Impacts to jurisdictional or non-jurisdictional wetlands: Section 5.6.2.3, p. 5.6-22, Appendix L-7 Qualifications of biologist conducting delineation: Appendix L-7	Yes Yes	
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;	Project site impacts: Section 5.6.2.1, pp. 5.6-20 through 5.6-23 Air emission impacts on sensitive species: Section 5.6.2.1.1, p 5.6-21	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	Intake impacts: Not applicable Thermal plume impacts: Not applicable	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.	Biofouling and chemical concentration controls: Not applicable Discharge temperatures: Not applicable	N/A N/A	

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Appendix B (g) (13) (F)	A discussion of all feasible mitigation measures including, but not limited to the following:			
Appendix B (g) (13) (F) (i)	All measures proposed to avoid and/or reduce adverse impacts to biological resources;	Section 5.6.4, pp. 5.6-23 through 5.6-26	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;	Sections 5.6.4.1.1.2, 5.6.4.1.1.3, pp 5.6-24 through 5.6-25 Identification of contacts: Section 5.6.5.4, pp. 5.6-29 through 5.6-30	Yes Yes	
Appendix B (g) (13) (F) (iii)	Design features to better disperse or eliminate a thermal discharge;	Design features to eliminate thermal discharge: Not applicable	N/A	
Appendix B (g) (13) (F) (iv)	All measures proposed to avoid or minimize adverse impacts of cooling water intake. This shall include a Best Technology Available (BTA) discussion. If BTA is not being proposed, the rationale for not selecting BTA must be provided; and	Measures to minimize impacts of cooling water intake: Not applicable	N/A	
Appendix B (g) (13) (F) (v)	Educational programs to enhance employee awareness during construction and operation to protect biological resources.	Employee biological resource awareness training: Section 5.6.4.1.2.1, pp. 5.6-25 through 5.6-26	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 compliance effectiveness: Section 5.6.4.1.1, pp. 5.6-24 through 7.2-25	Yes	

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Project Manager: Mary Dyas Docket: 07-AFC-08 Technical Senior: Rick York

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Appendix B (g) (13) (H)	Submit copies of any preliminary correspondence between the project applicant and state and federal resource agencies regarding whether federal or state permits from other agencies such as the U. S. Fish and Wildlife Service, 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.	Contact with state and federal agencies regarding permits: Section 5.6.5.4, pp. 5.6-29 through 5.6-30 USACE Section 404 permit application: Appendix L-5 RWQCB Section 401 certification application: Appendix L-6 Biological Assessment and Wetland Delineation for USACE 404 Permit Application, Appendix L-7	Yes Yes Yes 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 identifiying applicable biological resouces laws, ordinances, regulations, and standards: Table 5.6-3 pp. 5.6-28 through 5.6-29	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Tables identifiying agencies with jurisdiction: Section 5.6.5.5, pp. 5.6-30 through 5.6-31	Yes	

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Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Agency contact information: Section .5.6.5.4, p. 5.6-30	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Permit schedule: Section 5.6.5.5, pp. 5.6-30 through 5.6-31	Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Cultural Resources** Project: Carrizo Energy Solar Farm Technical Staff: Beverly E. Bastian

Project Manager: Mary Dyas Docket: 07-AFC-8 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) (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.	Discussion of existing site conditions: AFC Vol 1, Sec. 1.2, p.1-2. Sec. 5.7.1.6, p. 5.7-3, and Confidential Technical Report, p. 3-2.	Yes	
		Direct, indirect, and cumulative impacts due to Project: AFC Vol. 1, Sec. 5.7.2.2, p. 5.7-28 and Sec. 5.7.3, p. 5.7-28.	Yes	
		Mitigation measures for known impacts, effectiveness, and monitoring plans: AFC Vol 1, Sec. 5.7.4, p. 5.7-29 and Sec. 5.7.4.4, p. 5.7-30.	Yes	
Appendix B (g) (2) (A)	A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location.	Summary of the ethnology, prehistory, and history of the region with emphasis on a 5-mile radius: AFC Vol. 1, Sec. 5.7.1.8, p. 5.7-4 to Sec. 5.7.1.10.3.8, p. 5.7-17.	Yes	

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Appendix B (g) (2) (B)	The results of a literature search to identify cultural resources within an area not less than a 1-mile radius around the project site and not less that than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum. Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed. Copies of California Department of Parks and Recreation (DPR) 523 forms (Title 14 CCR §4853) shall be provided for all cultural resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36CFR60.4(g)). A copy of the USGS 7.5' quadrangle map of the literature search area delineating the areas of all past surveys and noting the California Historical Resources Information System (CHRIS) identifying number shall be provided. Copies also shall be provided of all technical reports whose survey coverage is wholly or partly within .25 mile of the area surveyed for the project under Section (g)(2)(C), or which report on any archaeological excavations or architectural surveys within the literature search area.	Results of literature search: AFC Vol.1, Sec. 5.7.1.12, p. 5.7-18 and Confidential Filing, p. 5-1 to 5-2. Draft Data Adequacy Response, CUL-2 Attachment A, received December 10, 2007 Draft Data Adequacy Response, CUL-2 Attachment A, received December 10, 2007 Person who meets Secretary of Interior's Standards for technical area: Confidential Technical Report, Appendix A. DPR 523s for known archaeological resources: Confidential Technical Report, Appendix C. Copy of USGS 7.5 quadrangle map of literature search area, and delineating the areas of all past survey and noting CHRIS' survey identifying numbers: Confidential Technical Report, Fig. No. 5-1. Copies of previous survey technical reports: Confidential Technical Report, Appendix C.	Yes ~~No~~ Yes ~~No~~ Yes Yes Yes Yes Yes	~~Please contact San Luis Obispo County to determine whether they have listed any cultural resources pursuant to ordinance for the project area. Please identify any properties that are listed within 1-mile radius around the project site or 0.25 mile on each side of the linear facilities~~ ~~Please contact local historical or archaeological societies and museums to determine whether they have identified any cultural resources within 1-mile radius around the project site or 0.25 mile on each side of the linear facilities.~~

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Appendix B (g) (2) (C)	The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.	Results of new surveys: AFC Vol. 1, Sec. 5.7.1.13, p. 5.7-19 and Sec. 5.7.1.14, p. 5.7-20. Confidential Technical Report Secs. 6.1.1, 6.1.2, 6.2.1 and 6.2.2, pp. 6-1 to 6-7.	Yes	
	New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.	Qualifications of surveyor and author of survey technical report: Confidential Technical Report, Appendix A.	Yes	
		New survey coverage archaeology: Confidential Technical Report, Sec. 6.1.1, p. 6-1.	Yes	
		New survey coverage architecture: AFC Vol. 1 Sec. 5.7.1.14, p. 5.7-20 to p. 5.7-22. Confidential Technical Report, Section 6.1.2, p. 6-1.	Yes	
	A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (CA Office of Historic Preservation Feb 1990), which is incorporated by reference, shall be separately provided and submitted (under confidential cover if archaeological site locations are included).	Technical report of new archaeology survey: Confidential Technical Report, Appendix M.	Yes	

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Appendix B (g) (2) (C) cont.	Information included in the technical report shall also be provided in the Application for Certification, except that confidential information (archaeological sites or areas of religious significance) shall be submitted under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq. At a minimum, the technical report shall include the following:	Information included in the technical report shall also be provided in the AFC: AFC Vol. 1, Section 5, Cultural Resources, includes technical report information, and omits confidential information. Information that may include the location of archaeological sites or areas of religious significance: Confidential Technical Report, Appendix M.	Yes Yes	
Appendix B (g) (2) (C) (i)	The summary from Appendix B (g)(2)(A) and the literature search results from Appendix B (g)(2)(B);	Summary from Appendix B (g)(2)(A): Confidential Technical Report, Sec. 4, pp. 4-1 to 4-14. Summary from Appendix B (g)(2)(B): Confidential Technical Report, Sec. 6.2, p. 6-1 to Sec. 6.2.2.2.4, p. 6-7.	Yes Yes	
Appendix B (g) (2) (C) (ii)	The survey procedures and methodology used to identify cultural resources and a discussion of the cultural resources identified by the survey;	Survey procedures and methodology: Confidential Filing, Secs. 6.1.1 and 6.1.2, p.6-1.	Yes	
Appendix B (g) (2) (C) (iii)	Copies of all new and updated DPR 523(A) forms. If a cultural resource may be impacted by the project, also include the appropriate DPR 523 detail form for each such resource;	Copies of new and updated DPR and detail forms: Confidential Technical Report, Appendix D.	Yes	

Adequacy Issue: Adequate **X** Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Cultural Resources** Project: Carrizo Energy Solar Farm Technical Staff: Beverly E. Bastian

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) (iv)	A map at a scale of 1:24,000 U.S. Geological Survey quadrangle depicting the locations of all previously known and newly identified cultural resources compiled through the research required by Appendix B (g)(2)(B) and Appendix B (g)(2)(C) (ii); and	A map at a scale of 1:24,000 US Geo quad depicting the location of cultural resources: Confidential Technical Report, Fig. Nos., 5-2, 6-1 and 6-2.	Yes	
Appendix B (g) (2) (C) (v)	The names and qualifications of the cultural resources specialists who contributed to and were responsible for literature searches, surveys, and preparation of the technical report.	Confidential Technical Report, Appendix A.	Yes	
Appendix B (g) (2) (D)	Provide a copy of your request to the Native American Heritage Commission (NAHC) for information on Native American sacred sites and lists of Native Americans interested in the project vicinity, and copies of any correspondence received from the NAHC. Notify the Native Americans on the NAHC list about the project, including a project description and map. Provide a copy of all correspondence sent to Native American individuals and groups listed by the NAHC and copies of all responses. Provide a written summary of any oral responses.	NAHC request: Confidential Technical Report, Appendix B. NAHC response: Confidential Technical Report, Appendix B. Letters sent to Native Americans and responses: Confidential Technical Report, Appendix B.	Yes Yes Yes	
Appendix B (g) (2) (E)	Include in the discussion of proposed mitigation measures required by subdivision (g)(1):	Proposed mitigation measures: AFC Vol. 1, Sec. 5.7.4, p. 5.7-29 to Sec. 5.7.4.8, p. 5.7-31.	Yes	
Appendix B (g) (2) (E) (i)	A discussion of measures proposed to mitigate project impacts to known cultural resources;	Proposed mitigation measures for impacts to known cultural resources: AFC Vol. 1, Sec. 5.7.4.1 and Sec. 5.7.4.2, p. 5.7-29.	Yes	
Appendix B (g) (2) (E) (ii)	A set of contingency measures proposed to mitigate potential impacts to previously unknown cultural resources and any unanticipated impacts to known cultural resources; and	Contingency mitigation measures: AFC Vol. 1, Sec. 5.7.4, p. 5.7-29 to Sec. 5.7.4.8, p. 5.7-32.	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Cultural Resources** Project: Carrizo Energy Solar Farm Technical Staff: Beverly E. Bastian

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (E) (iii)	Educational programs to enhance employee awareness during construction and operation to protect cultural resources.	Worker education program: AFC Vol.1, Sec. 5.7.4.3, p. 5.7-30.	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Tables identifying applicable LORS: AFC Vol. 1, Table 5.7-5, p. 5.7-33. Conformance with law discussed: AFC Vol. 1, Sec. 5.7.5, p. 5.7-32.	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Tables identifying each agency with jurisdiction to issue applicable permits: AFC Vol. 1, Table 5.7-7, p. 5.7-38. Permit authority: AFC Vol. 1, Sec. 5.7.5.5, p. 5.7-38.	Yes 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.	Name, title and phone number of agency representatives: AFC Vol. 1, Table 5.7-6, p. 5.7-38.	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.	Schedule indicating when permits outside the authority of the commission will be obtained: AFC Vol. 1, Sec. 5.7.5.5 and Table 5.7-7, p. 5.7-38.	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Land Use** Project: Carrizo Energy Solar Farm Technical Staff: Amanda Stennick

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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 5.9	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. Include:	Sections 5.9.1 through 5.9.1.2 Figures 5.9-1 through-3	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;	Sections 5.9.1.2 and 5.9.2.2 Table5.9-1	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;	Section 5.9.2.2.3 Draft Data Adequacy Responses, LAND-1, received December 5, 2007.	~~No~~ Yes	~~Please discuss 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 (i.e. San Luis Obispo County) within one mile of the proposed site and within one-quarter mile of any project-related linear facilities.~~
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	~~Not stated~~ Draft Data Adequacy Responses, LAND-2, received December 5, 2007.	~~No~~ Yes	~~Please identify 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).~~

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Land Use** Project: Carrizo Energy Solar Farm Technical Staff: Amanda Stennick

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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 5.5-1, 5.9-1 and -2 Sections 5.5.1.7 and 5.9.3.1	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.	Section 5.9.5 Tables 5.9-2	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Land Use** Project: Carrizo Energy Solar Farm Technical Staff: Amanda Stennick

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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.	Sections 1.1 and 5.9.1.2.1 Figure 1.1-3 Draft Data Adequacy Responses, LAND-5, received December 7, 2007.	~~No~~ Yes	~~For staff to determine whether Assessor Parcel Number 072-091-001 (the parcel identified in the Application for Certification as the 640-acre parcel where the Carrizo Energy Solar Farm is proposed to be constructed) is a legal parcel as defined in the California Subdivision Map Act, please provide one of the following bulleted items:~~ • ~~a Certificate of Compliance from San Luis Obispo County;~~ • ~~a Final Parcel Map as recorded by the San Luis Obispo County;~~ • ~~a Tentative Parcel Map with a recorded legal description from the San Luis Obispo County; or~~ • ~~a current grant deed AND a grant deed that was recorded closest to but preceding the date of March 4, 1972.~~
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:	Section 5.9.2.2 Table 5.9-1 Figure 5.9-3	Yes	
Appendix B (g) (3) (D) (i)	Crop types, irrigation systems, and any special cultivation practices;	Section 5.9.2.2	Yes	
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	Section 5.9.2.2	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.	Section 5.9.2.2	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Land Use** Project: Carrizo Energy Solar Farm Technical Staff: Amanda Stennick

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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 5.9-2 and -5 Draft Data Adequacy Responses, LAND-6, received December 7, 2007.	~~No~~ Yes	~~The AFC identifies the bulleted items as being applicable to the project but does not discuss conformance. Please discuss how the project would conform with the following:~~ ~~• Agricultural Policy 24 (Conversion of Agricultural Land) of the Agriculture and Open Space Element of the San Luis Obispo County General Plan;~~ ~~• Section 22.32.060 (Standards for Photovoltaic Generating Facilities) of the Land Use Ordinance Title 22 of the San Luis Obispo County Code; and~~ ~~• The applicable standards of Chapter 19.20 of the Building and Construction Ordinance Title 19 of the San Luis Obispo County Code.~~
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 5.9-3	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 5.6-6	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.	NA	NA	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Project Overview** Project: Carrizo Energy Solar Farm Technical Staff: Mary Dyas

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eileen Allen

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.	Throughout AFC.	Yes	
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	Throughout AFC.	Yes	
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	Throughout AFC.	Yes	
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.	Throughout AFC; Chapter 7.0 – List of Preparers.	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.	Chapter 1.0 – Executive Summary; Chapter 3.0 – Facility Description and Location; Figures 1.1-1 thru 1.1-4, 3.1-1, 3.2-1, 3.3-1, and 3.4-1 thru 3.4-17.	Yes	
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.	Chapter 3.0 – Facility Description and Location; Section 1.2, Section 5.9.1, Figure 1.1-2, 1.1-3, and Figure 5.9-2.	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Project Overview** Project: Carrizo Energy Solar Farm Technical Staff: Mary Dyas

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eileen Allen

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) (C)	A description of and maps depicting the region, the vicinity, and the site and its immediate surroundings.	Chapter 1.0 – Executive Summary; Section 3.2, Section 3.3, Figures 1.1-1 to 3.4-9, and 5.13-2.	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.	Figure 3.4-1 to 3.4-9. Draft Data Adequacy Responses, PO-7 received December 7, 2007	~~No~~ Yes	~~Please provide 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.~~
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 A – Property Owners.	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.	Chapter 3.0 – Facility Description and Location, Section 3.4.13.1; and Table 3.4-10.	Yes	
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.	Chapter 1.0 – Executive Summary - Section 1.0 and Section 1.4.	Yes	
Appendix B (a) (3) (B)	A list of all owners and operators of the proposed electric transmission facilities.	Sections 1.4, 1.2.4, 2.0, and 3.4-12.	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).	Chapter 2.0 - Project Objectives, Section 2.0 and Chapter 5.9 – Land Use, Section 5.9.1.2.1	Yes	

Adequacy Issue: Adequate **X** Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Project Overview** Project: Carrizo Energy Solar Farm Technical Staff: Mary Dyas

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eileen Allen

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)	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;	Figures 1.1-1 thru 4.2-1, 3.1-1, 3.2-1, and 5.9-2.	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);	Figures 1.1-1 thru 4.2-1, 3.1-1, 3.4-4 thru 3.4-6, and 3.5-10.	Yes	
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	Chapter 3.0 – Project Description and Location.	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.	Section 4.0 – Alternatives.	Yes	
Appendix B (b) (2)	In a section entitled, "Transmission Lines Description, Design, and Operation" provide the following information:			

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Project Overview** Project: Carrizo Energy Solar Farm Technical Staff: Mary Dyas

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eileen Allen

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) (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);	Draft Data Adequacy Responses, PO-8, received December 7, 2007.	~~No~~ Yes	~~Please provide a map 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). Please differentiate between the on-site and off-site portions and include the existing line to the Midway substation.~~
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.	Draft Data Adequacy Responses, PO-9, received December 7, 2007.	~~No~~ Yes	~~Please provide 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. Please differentiate between the on-site and off-site portions and include the existing line to the Midway substation.~~
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.	Sections 3.4.4, 3.4.12, 3.6, Appendix G. A System Impact Study Agreement has been signed with Cal ISO and proof of payment submitted.	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 transmissjon constraints; and	Sections 3.6 and 4.0.	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Project Overview** Project: Carrizo Energy Solar Farm Technical Staff: Mary Dyas

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eileen Allen

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Section 3.8	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Socioeconomics** Project: Carrizo Energy Solar Farm (CESF) Technical Staff: Joseph Diamond Ph. D.

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.10.1 Affected Environment, pages 5.10-1 to 5.10-11. Section 5.10.2 Environmental Consequences, pages 5.10-11 to 5.10-16. Section 5.10.3 Cumulative Impacts, page 5.10-17. Section 5.10.4 Mitigation Measures, page 5.10-17. Section 5.10.2.5.1 Environmental Justice Screening Analysis, page 5.10-16.	Yes	
Appendix B (g) (7) (A)	A description of the socioeconomic circumstances of the vicinity and region affected by construction and operation of the project. Include:			
Appendix B (g) (7) (A) (i)	The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues;	Section 5.10.1.3 Economic Base and Employment, page 5.10-3 to 5.10-6. Section 5.10.2.2 Fiscal Impact, page 5.10-14. Draft Data Adequacy Responses, SOCIO-1&2, received December 7, 2007.	~~No~~ Yes	~~Please provide fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues~~.
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	Section 5.10.1.1 Population, page 5.10-2. Section 5.10.2 Environmental Consequences, pages 5.10-11 & 12.	Yes	
Appendix B (g) (7) (A) (iii)	Existing unemployment rates;	Section 5.10.3 Economic Base and Employment, pages 5.10-3&4.	Yes	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;	Section 5.10.1.4 Construction Workforce, pages 5.10-6&7. Table 5.10-4 San Luis Obispo Employment by Industry Annual, By Percentage, pages 5.10-4 to 6. Section 5.10.1.5 Operational Workforce, page 5.10-11.	Yes	
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing and current vacancy rate; and	Section 5.10.1.2 Housing, pages 5.10-2&3.	Yes	
Appendix B (g) (7) (A) (vi)	Capacities, existing and expected use levels, and planned expansion of utilities (gas, water and waste) and public services, including fire protection, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information for each school district shall include current enrollment and yearly expected enrollment by grade level groupings, excluding project-related changes for the duration of the project schedule.	Section 5.10.2.1 Schools, pages 5.10-12&13. Section 5.10.2.3 Utilities, pages 5.10-14&15. Section 5.10.2.4 Emergency Services, page 5.10-15.	Yes	
Appendix B (g) (7) (B)	A discussion of the socioeconomic impacts caused by the construction and operation of the project (note year of estimate, model, if used, and appropriate sources), including:			
Appendix B (g) (7) (B) (i)	An estimate of the number of workers to be employed each month by craft during construction, and for operations, an estimate of the number of permanent operations workers during a year;	Table 5.10-5 Labor Personnel Requirement, page 5.10-9. Section 5.10.1.5 Operational Workforce, page 5.10-11.	Yes	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (ii)	An estimate of the percentage of non-local workers who will relocate to the project area to work on the project;	Section 5.10.1.4 Construction Workforce, pages 5.10-6&7. Section 5.10.5 Operational Workforce, page 5.10-11. Section 5.10.2 Environmental Consequences, pages 5.10-11&12. Draft Data Adequacy Responses, SOCIO-3, received December 7, 2007.	~~No~~ Yes	~~Please provide an estimate of non-local workers who will relocate to the project area to work on the project during the operations phase~~.
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;	Section 5.10.2 Environmental Consequences, pages 5.10-11&12. Draft Data Adequacy Responses, SOCIO-4, received December 7, 2007.	~~No~~ Yes	~~Please provide an estimate of the potential population increase caused indirectly by the project~~.
Appendix B (g) (7) (B) (iv)	The potential impact of population increase on housing during the construction and operations phases;	Section 5.10.1.2 Housing, pages 5.10-2&3.	Yes	
Appendix B (g) (7) (B) (v)	The potential impacts, including additional costs, on utilities (gas, water, and waste) and public services, including fire, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. Include response times to hospitals and for police, and emergency services. For projects outside metropolitan areas with a population of 500,000 or more, information on schools shall include project-related enrollment changes by grade level groupings and associated facility and staffing impacts by school district during the construction and operating phases;	Section 5.10.2.1 Schools, pages 5.10-12&13. Section 5.10.2.3 Utilities, pages 5.10-14&15. Section 5.10.2.4 Emergency Services, page 5.10-15.	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Socioeconomics** Project: Carrizo Energy Solar Farm (CESF) Technical Staff: Joseph Diamond Ph. D.

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	~~No information provided.~~ Draft Data Adequacy Responses, SOCIO-5, received December 7, 2007.	~~No~~ Yes	~~Please provide an estimate of applicable school impact fees.~~
Appendix B (g) (7) (B) (vii)	An estimate of the total construction payroll and separate estimates of the total operation payroll for permanent and short-term (contract) operations employees;	Section 5.10.1.4 Construction Workforce, page 5.10-7. Section 5.10.1.5 Operational Workforce, page 5.10-11. Draft Data Adequacy Responses, SOCIO-5&6, received December 7, 2007.	~~No~~ Yes	~~Please provide separate estimates of the total operation payroll for permanent and short-term (contract) operation employees.~~
Appendix B (g) (7) (B) (viii)	An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project;	Section 5.10.2.2 Fiscal Impact, page 5.10-14. Draft Data Adequacy Responses, SOCIO-7, received December 7, 2007.	~~No~~ Yes	~~Please provide an estimate of the expenditures for locally purchased materials for the construction and operation phases of the~~ project.
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost (plant and equipment) of the project;	Section 5.10.2.2 Fiscal Impact, page 5.10-14.	Yes	
Appendix B (g) (7) (B) (x)	An estimate of sales taxes generated during construction and separately during an operational year of the project;	Section 5.10.2.2 Fiscal Impact, page 5.10-14. Draft Data Adequacy Responses, SOCIO-8, received December 7, 2007.	~~No~~ Yes	~~Please provide an estimate of sales taxes generated during construction and separately during an operational year of the project~~.
Appendix B (g) (7) (B) (xi)	An estimate of property taxes generated during an operational year of the project; and	Section 5.10.2.2.1 Property Tax Exemption, page 5.10-14.	Yes	

Adequacy Issue: Adequate **X** Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Socioeconomics** Project: Carrizo Energy Solar Farm (CESF) Technical Staff: Joseph Diamond Ph. D.

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (xii)	The expected direct, indirect, and induced income and employment effects due to construction, operation, and maintenance of the project.	Section 5.10.1.4 Construction Workforce, pages 5.10-6 to 9. Section 5.10.1.5 Operational Workforce, page 5.10-11. Section 5.10.2 Environmental Consequences, pages 5.10-11&12. Draft Data Adequacy Responses, SOCIO-10 to 12, received December 7-10, 2007.	~~No~~ Yes	~~1. Please indicate what year the economic estimates are for.~~ ~~2. Please estimate the expected income and employment secondary impacts (indirect and induced) due to the construction, operation, and maintenance of the project.~~ ~~3. Please show the employment and income multipliers, Type II or Type III, and identify the economic model used e.g., IMPLAN or other.~~
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 5.10-8 Summary of LORS, pages 5.10-18 to 20.	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 5.10.5.4 Agency and Agency Contacts, page 5.10-20.	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Socioeconomics**
Project Manager: Mary Dyas
Project: Carrizo Energy Solar Farm (CESF)
Docket: 07-AFC-8
Technical Staff: Joseph Diamond Ph. D.
Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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.	Same as above.	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.10.5.5 Permits Required and Permitting Schedule, page 5.10-21.	Not Applicable	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Soils** Project: Carrizo Energy Solar Farm Technical Staff: Ellie Townsend-Hough

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Paul Richins

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 5.4.1 Section 5.4.3 Section 5.4.4	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 5.4-1	Yes	
Appendix B (g) (15) (A) (i)	The depth, texture, permeability, drainage, erosion hazard rating, and land capability class of the soil;	Table 5.4-1 Table 5.4-2	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 5.4 Table 5.4-1 Table 5.4-2	Yes	
Appendix B (g) (15) (A) (iii)	The location of any proposed fill disposal or fill procurement (borrow) sites; and	Section 5.4.2.1	Yes	
Appendix B (g) (15) (A) (iv)	The location of any contaminated soils that could be disturbed by project construction.	Section 5.4.2.1	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 5.4.1 Section 5.9.2.2 Section 5.9.4 Figure 5.9-3	Yes	
Appendix B (g) (15) (B) (i)	The quantification of accelerated soil loss due to wind and water erosion; and	Data Adequacy Responses; SOIL-18, received December 7, 2007.	~~No~~ Yes	~~Project owner should provide an estimate of soil loss by water erosion using Revised Universal Soil Loss Equation (RUSLE2).~~

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Soils** Project: Carrizo Energy Solar Farm Technical Staff: Ellie Townsend-Hough

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Paul Richins

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) (ii)	The effect of power plant emissions on surrounding soil-vegetation systems.	Section 5.4.2.1 Section 5.2	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	Section 5.4.5 Table 5.4-3 Table 5.9-2	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 5.4.5.4 Table 5.4-4 Table 5.9-3	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 5.4.5.4 Table 5.4.5.4 Table 5.9-3	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 5.4.5.5 Table 5.4-5 Table 5.9-4	Yes	

Adequacy Issue: Adequate X Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Traffic and Transportation** Project: Carrizo Energy Solar Farm Technical Staff: David Flores

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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.	AFC pg. 5-11-1 & 2 Sec. 5.11 AFC pg. 5.11-11 & 12 Sec. 5.11.3 & 4	Yes	
Appendix B (g) (5) (A)	A regional transportation setting, on topographic maps (scale of 1:250,000), identifying the project location and major transportation facilities. Include a reference to the transportation element of any applicable local or regional plan.	Figure 5.11-1	Yes	
Appendix B (g) (5) (B)	If the proposed project including any linear facility is to be located within 20,000 feet of an airport runway that is at least 3,200 feet in actual length, or 5,000 feet of a heliport (or planned or proposed airport runway or an airport runway under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration), discuss the project's compliance with the applicable sections of the current Federal Aviation Regulation Part 77 – Objects Affecting Navigable Airspace, specifically any potential to obstruct or impede air navigation generated by the project at operation; such as, a thermal plume, a visible water vapor plume, glare, electrical interference, or surface structure height. The discussion should include a map at a scale of 1:24,000 that displays the airport or airstrip runway configuration, the proposed power plant site and related facilities.	AFC pg. 5.11-3 Sec. 5.11.1.4.4 AFC pg. 5.11-12 & 13 Sec. 5.11.5.1.2	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Traffic and Transportation** Project: Carrizo Energy Solar Farm Technical Staff: David Flores

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (5) (C)	An identification, on topographic maps at a scale of 1:24,000, and a description of existing and planned roads, rail lines, (including light rail), bike trails, airports, bus routes serving the project vicinity, pipelines, and canals in the project area affected by or serving the proposed facility. For each road identified, include the following information, where applicable:	AFC pg. 5.11-1 Sec. 5.11.1 Figure 5.11-2	Yes	
Appendix B (g) (5) (C) (i)	Road classification and design capacity;	AFC pg. 5.11-5 Sec. 5.11.2.2.1 Draft Data Adequacy Responses, TRAFFIC-19, received December 7, 2007.	~~No~~ Yes	~~Please provide roadway design capacities for State Route 58.~~
Appendix B (g) (5) (C) (ii)	Current daily average and peak traffic counts;	AFC pg. 5.11-2 Sec. 5.11.1.3.1 Table 5.11-1	Yes	
Appendix B (g) (5) (C) (iii)	Current and projected levels of service before project development, during construction, and during project operation;	AFC pg. 5.11-2 & 3 Sec. 5.11.1.3.1 Table 5.11-1 AFC pg. 5.11-8 through 11 Table 5.11-7 through 10	Yes	
Appendix B (g) (5) (C) (iv)	Weight and load limitations;	AFC pg. 5.11-16 & 17 Sec. 5.11.5.2.16	Yes	
Appendix B (g) (5) (C) (v)	Estimated percentage of current traffic flows for passenger vehicles and trucks; and	AFC pg. 5.11-1 Sec.5.11.1.1.1 Figure 5.11-2	Yes	
Appendix B (g) (5) (C) (vi)	An identification of any road features affecting public safety.	AFC pg. 5.11-1 Sec. 5.11.1.1.1	Yes	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (5) (D)	An assessment of the construction and operation impacts of the proposed project on the transportation facilities identified in subsection (g)(5)(C). Also include anticipated project-specific traffic, estimated changes to daily average and peak traffic counts, levels of service, and traffic/truck mix, and the impact of construction of any facilities identified in subsection (g)(5)(C).	AFC pg. 5.11-5 through 5.11-11 Sec. 5.11.2.4 through 5.11.2.9.3	Yes	
Appendix B (g) (5) (E)	A discussion of project-related hazardous materials to be transported to or from the project during construction and operation of the project, including the types, estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.	AFC pg. 5.11-6 Sec. 5.11.2.4 & 5 AFC pg. 5.14-2 through 6 Sec. 5.14 AFC pg. 5.15-1 through 5 Sec. 5.15 Draft Data Adequacy Responses, TRAFFIC-20, received December 7, 2007.	~~No~~ Yes	~~As to project-related hazardous materials, please provide a discussion of the estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.~~
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	AFC pg. 5.11-12 through 21 Sec. 5.11.5 through 5.11.5.4.1 Table 5.11-11	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Traffic and Transportation** Project: Carrizo Energy Solar Farm Technical Staff: David Flores

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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.	AFC pg. 5.11-21 through 23 Sec. 5.11.5.5 Table 5.11-12 & 13	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.	AFC pg. 5.11-21 Table 5.11-12	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.	AFC pg. 5.11-22 & 23 Sec. 5.11.5.6 Table 5.11-13	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December, 13 2007

Technical Area: **Transmission System Eng.** Project: Carrizo Energy Solar Farm Technical Staff: Sudath Arachchige

Project Manager: Mary Dyas Docket: 07-AFC-8 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 1.2.3 (Transmission Facilities) Pages 1-3 to 1-4 Section 3.4.4 (Electrical System Description) Pages 3-8 to 3-10 Section 3.4.12 (Interconnection to Electrical Grid) Pages 3-26 to 3-27 Figure 3.4-4 (Power block general arrangement) proposed 230kV transmission line routing. Figure 3.4-14 (Single Line Diagram Carrizo Energy Solar Farm) Figure 3.4-15 (480V Distribution) Figure 3.4-16 (Switchyard Plan) Appendix B and G	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December, 13 2007

Technical Area: **Transmission System Eng.**
Project: Carrizo Energy Solar Farm
Technical Staff: Sudath Arachchige
Project Manager: Mary Dyas
Docket: 07-AFC-8
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) (B)	A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity.	Section 1.2.3 (Transmission Facilities) Pages 1-3 to 1-4 Section 3.4.4 (Electrical System Description) Pages 3-8 to 3-10 Section 3.4.12 (Interconnection to Electrical Grid) Pages 3-26 to 3-27 Figure 3.4-4 (Power block general arrangement) proposed 230kV transmission line routing.	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December, 13 2007

Technical Area: **Transmission System Eng.** Project: Carrizo Energy Solar Farm Technical Staff: Sudath Arachchige

Project Manager: Mary Dyas Docket: 07-AFC-8 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) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.	Section 1.2.3 (Transmission Facilities) Pages 1-3 to 1-4 Section 3.4.4 (Electrical System Description) Pages 3-8 to 3-10 Section 3.4.12 (Interconnection to Electrical Grid) Pages 3-26 to 3-27 Figure 3.4-4 (Power block general arrangement) proposed 230kV transmission line routing. Figure 3.4-14 (Single Line Diagram Carrizo Energy Solar Farm) Figure 3.4-15 (480V Distribution) Figure 3.4-16 (Switchyard Plan) Appendix B and G Draft Data Adequacy Responses, TSE-21, received December 7, 2007.	~~No~~ Yes	1. ~~Provide a complete electrical one line diagram (or resubmit Figure 3.4-14) of Carrizo Energy Solar Farm (CESF) switchyard showing all the equipment required for the generator interconnection with the switchyard including any bus duct connectors or cables, 4.16 kV switchgear & breakers on the low side (13.8kV), generator step-up transformers, short overhead line or conductors with its configuration, buses, breakers and disconnect switches on the 230 kV side and their respective ratings.~~ 2. ~~Project interconnection point to the California ISO grid has not adequately described in the Facility Description section of the AFC. Please provide a detailed description, and an electrical one line diagram of the interconnection point to the power plant to the Morro Bay-Midway (PG&E) transmission line.~~ 3. ~~Provide conductor size, type and the 230 kV steel pole configuration of the proposed 850 feet long 230kV single circuit which interconnects Morro Bay - Midway transmission line.~~

Adequacy Issue: Adequate **X** Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December, 13 2007

Technical Area: **Transmission System Eng.** Project: Carrizo Energy Solar Farm Technical Staff: Sudath Arachchige

Project Manager: Mary Dyas Docket: 07-AFC-8 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 1.2.3 (Transmission Facilities) Pages 1-3 to 1-4 Section 3.4.4 (Electrical System Description) Pages 3-8 to 3-10 Section 3.4.12 (Interconnection to Electrical Grid) Pages 3-26 to 3-27 Figure 3.4-4 (Power block general arrangement) proposed 230kV transmission line routing. Figure 3.4-14 (Single Line Diagram Carrizo Energy Solar Farm)	Yes	

Adequacy Issue: Adequate **X** Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December, 13 2007

Technical Area: **Transmission System Eng.** Project: Carrizo Energy Solar Farm Technical Staff: Sudath Arachchige

Project Manager: Mary Dyas Docket: 07-AFC-8 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) (E)	A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator and proof of payment. When not connecting to the California Independent System Operator controlled grid, provide the executed System Impact Study agreement and proof of payment to the interconnecting utility. If the interconnection and operation of the proposed project will likely impact an transmission system that is not controlled by the interconnecting utility (or California Independent System Operator), provide evidence of a System Impact Study or agreement and proof of payment (when applicable) with/to the impacted transmission owner or provide evidence that there are no system impacts requiring mitigation.	Appendix B (System Impact Study agreement with California ISO and proof of payment to the interconnection utility)	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of 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;	Section 3.6.3 (Electrical Clearances) Appendix G (Electrical Engineering design criteria) Draft Data Adequacy Responses, TSE-22, received December 7, 2007.	~~No~~ Yes	~~Provide a detailed discussion of the CPUC G.O. 95 and G.O. 98, in relative to propose overhead (230 kV single phase circuit) and underground (switchyard interconnection) transmission facilities.~~
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits 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.	Appendix G (Electrical Engineering design criteria)	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December, 13 2007

Technical Area: **Transmission System Eng.** Project: Carrizo Energy Solar Farm Technical Staff: Sudath Arachchige

Project Manager: Mary Dyas Docket: 07-AFC-8 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 (i) (2)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.2 to Section 5.18	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 5.2 to Section 5.18 Draft Data Adequacy Responses, TSE-23, received December 7, 2007.	~~No~~ Yes	~~Indicate when a copy of updated System Impact Study (SIS) will be provided to the California Energy Commission~~.

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Visual Resources** Project: Carrizo Energy Solar Farm Technical Staff: Eric Knight

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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.	Pages 5.13-1 through 5.13-28; Section 5.13 Draft Data Adequacy Responses VISUAL-24 and VISUAL-26, received December 7, 2007.	~~No~~ Yes	~~The AFC does not discuss the effectiveness of the proposed landscape screening to mitigate, to a less than significant level, visual impacts to Key Observation Point 2.~~
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:	Pages 5.13-1 through 5.13-3; Section 5.13.1.1 Figures 5.13-4 through 5.13-7	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	Figure 5-13-1	Yes	
Appendix B (g) (6) (A) (ii)	Description of the existing visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities, including existing water vapor plumes, above-ground electrical transmission lines, and nighttime lighting levels in the project viewshed.	Pages 5.13-1 through 5.13-3; Section 5.13.1.1 Pages 5.13-8 through 5.13-9; Section 5.13.1.4.1 Page 5.13-25; Section 5.13.2.2.2	Yes	
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.	Page 5.13-9; Section 5.13.1.4.2 Page 5.13-10; Section 5.13.1.4.3 Figures 5.13-8 through 5.13-11	Yes	

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) (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.	Pages 5.13-3 through 5.13-5; Section 5.13.1.2 Pages 5.13-9 through 5.13-10; Section 5.13.1.4.3	Yes	
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.	Table 3.4-1; Pages 3-6 – 3-7 Table 5.13-4; Page 5.13-8	Yes	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Visual Resources** Project: Carrizo Energy Solar Farm Technical Staff: Eric Knight

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (E)	Provide the cooling tower and heat recovery steam generator (HRSG) exhaust design parameters that affect visible plume formation. For the cooling tower, data shall include heat rejection rate, exhaust temperature, exhaust mass flow rate, liquid to gas mass flow ratio, and, if the tower is plume-abated, moisture content (percent by weight) or plume-abated fogging curve(s). The parameters shall account for a range of ambient conditions (temperature and relative humidity) and proposed operating scenarios, such as duct firing and shutting down individual cells. For the heat recovery steam generator exhausts, data shall include moisture content (percent by weight), exhaust mass flow rate, and exhaust temperature. The parameters must correspond to full-load operating conditions at specified ambient conditions, and shall account for proposed operating scenarios, such as power augmentation (i.e., evaporative coolers, inlet foggers, or steam injection) and duct firing, or proposed HRSG visible plume abatement, such as the use of an economizer bypass. For simple-cycle projects, provide analogous data for the exhaust stack(s).		N/A	

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Appendix B (g) (6) (F)	Provide: i) full-page color photographic reproductions of the existing site, and ii) full-page color simulations of the proposed project at life-size scale when the picture is held 10 inches from the viewer's eyes, including any project-related electrical transmission lines, in the existing setting from each key observation point. If any landscaping is proposed to comply with zoning requirements or to mitigate visual impacts, include the landscaping in simulation(s) representing sensitive area views, depicting the landscaping five years after installation; and estimate the expected time until maturity is reached.	Figures 5.13-12 through 5.13-21 Draft Data Adequacy Responses, VISUAL- 25, received December 7, 2007.	~~No~~ Yes	~~The existing conditions photographs and simulations of the proposed project are not full page. In addition, the simulations are not presented at life-size scale when held 10 inches from the eye. The presentation of images at a reduced scale understates the prominence of visible landscape features as well as potential visual impacts. For comparison purposes, please refer to the life-size scaled images provided in the San Gabriel Generating Station Application for Certification (also prepared by URS).~~ ~~Please provide new Figures 5.13-12 through 5.13-21 that are full page and present the proposed project at life-size scale when held 10 inches from the eye.~~ ~~Please include in the revised simulation(s) proposed landscaping (five years after installation) to mitigate potentially significant impacts (see Appendix B (g) (6) (H) below). Please provide the estimated time until landscaping maturity is reached.~~
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.	Pages 5.13-18 through 5.13-27; Section 5.13.2.2 Table 5.13-5 Pages 5.13-27 through 5.13-28; Section 5.13.3	Yes	

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Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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.	Page 5.13-26; Section 5.13.2.2.4 Page 5.13-28; Section 5.13.4 Draft Data Adequacy Response VISUAL-26, received December 7, 2007.	~~No~~ Yes	~~The AFC identifies potentially significant impacts to Key Observation Point 2 caused by project structures. Landscaping has been proposed to mitigate these impacts but no plan was included in the AFC. Please provide a conceptual landscaping plan at a 1:40 scale (or other legible scale pre-approved by staff).~~
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 5.13-6; Pages 5.13-30 through 5.13-36 Draft Data Adequacy Response VISUAL-27, received December 7, 2007.	~~No~~ Yes	~~The AFC indicates that residents, particularly those to the north, could experience brief, glare impacts each day as the mirrors are rotated out of the stow position. Given this potential, please explicitly discuss how the project would conform to San Luis Obispo County General Plan Energy Element Policy Guideline 39.3 and County Code Title 22, Land Use Ordinance (22.32.060.A.1 and 22.10.060.C).~~ ~~Given that a number of project structures, including the solar receivers (56-feet tall), would exceed the maximum allowable height (35 feet; 40 feet for solar collectors) in the Agricultural District, please explicitly discuss how the project would be brought into conformance with the San Luis Obispo County Code, Title 22, Land Use Ordinance, 22.10.090.C.1(8).~~
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 5.13-6; Pages 5.13-30 through 5.13-36	Yes	

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Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Eric Knight

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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 5.13-7; Page 5.13-37	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.		N/A	

Adequacy Issue: Adequate **X** Inadequate ___

DATA ADEQUACY WORKSHEET

Revision No. 1 Date December 13, 2007

Technical Area: **Water Resources** Project: Carrizo Energy Solar Farm (CESF) Technical Staff: Ellen Townsend-Hough

Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Paul Richins

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.5.1 through Section 5.5.3	Yes	
Appendix B (g) (14) (A)	All the information required to apply for the following permits, if applicable, including:			
Appendix B (g) (14) (A) (i)	Waste Discharge Requirements; National Pollutant Discharge Elimination System Permit; and/or a Section 401 Certification or Waiver from the appropriate Regional Water Quality Control Board (RWQCB);	Not applicable Section 5.5.5.2.9 Table 5.5-5	Yes	
Appendix B (g) (14) (A) (ii)	Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;	Not applicable. 5.5.5.1.1	Yes	
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	Section 5.5.2.4 Section 5.5.5.1.2 Section 5.6.1	Yes	
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.	Not applicable.		
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:	Figure 5.5-1 Figure 5.5-2 Section 5.5.1 Figure 5.6-4	Yes	

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Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Paul Richins

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 5.5.1.1	Yes	
Appendix B (g) (14) (B) (ii)	Surface water bodies;	Section 5.5.1.2	Yes	
Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;	Section 5.5.1.7 Section 5.3.1.2.7	Yes	
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section5.5.1.7 Section5.5.2.3	Yes	
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.	Figure 5.5-1 Section 5.5.1.1 Section 5.5.2.1	Yes	
Appendix B (g) (14) (C)	A description of the water to be used and discharged by the project. This information shall include:	Section 5.5.1.1 Table 5.5-1 Section 5.5.2.2 Table 5.5-4	Yes	
Appendix B (g) (14) (C) (i)	Source(s) of the primary and back-up water supplies and the rationale for their selection;	Section 5.5.2.1	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 5.5.1.1 Table 5.5-1 Section 5.5.2.2 Table 5.5-4	Yes	
Appendix B (g) (14) (C) (iii)	Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project;	Table 5.5-3	Yes	

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) (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;	Figure 3.4-17 Section 5.5.2.1.1	Yes	
Appendix B (g) (14) (C) (v)	For all water supplies intended for industrial uses to be provided from public or private water purveyors, a letter of intent or will-serve letter indicating that the purveyor is willing to serve the project, has adequate supplies available for the life of the project, and any conditions or restrictions under which water will be provided. In the event that a will-serve letter or letter of intent can not be provided, identify the most likely water purveyor and discuss the necessary assurances from the water purveyor to serve the project;	Not applicable. Section 5.5.2.1	Yes	
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);	Not applicable. Section 5.5.2.1	Yes	
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	Figure 3.4-7 Figure 3.4-17	Yes	

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Appendix B (g) (14) (C) (viii)	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. 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.	Not applicable. Section 5.5.2.2	Yes	
Appendix B (g) (14) (D)	Identify all project elements associated with stormwater drainage, including a description of the following:	Section 5.5.1.2 Section 5.5.1.3 Section 5.5.1.7 Section 5.5.2.2 Section 5.5.2.3	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 5.5.1.3 Table 5.5-2 Section 5.5.1.7 Section 5.5.2.3	Yes	
Appendix B (g) (14) (D) (ii)	Drainage facilities and the design criteria used for the plant site and ancillary facilities, including but not limited to capacity of designed system, design storm, and estimated runoff;	Section 5.5.2.3	Yes	

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Project Manager: Mary Dyas Docket: 07-AFC-8 Technical Senior: Paul Richins

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) (D) (iii)	All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction; and	Data Adequacy Responses, WATER-28, received December 7, 2007.	~~No~~ Yes	~~Please provide calculation used to calculate runoff and to estimate changes in flow rates between pre- and post construction. Please take into account that the soil treatment of the solar field will not have the same reduction permeability resulting from the soil bonding agent (non-road) or weighting agent (road).~~
Appendix B (g) (14) (D) (iv)	A copy of applicable regional and local requirements regulating the drainage systems, and a discussion of how the project's drainage design complies with these requirements.	Section 5.5.5.3 Table 5.5-5	Yes	
Appendix B (g) (14) (E)	An impacts analysis of the proposed project on water resources and a discussion of conformance with water-related LORS and policy. This discussion shall include:	Section 5.5.2 Section 5.5.5	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 5.5.2.1 Section 5.5.2.2	Yes	
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 5.5.1.1 Section 5.5.2.1	Yes	

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Appendix B (g) (14) (iii)	The effects of construction activities and plant operation on water quality and to what extent these effects could be mitigated by best management practices;	Section 5.5.2.2 Section 3.4.5.2	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;"	Not applicable.	N/A	
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; "	Not applicable. Section 5.5.3	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	Section 5.5.2.3	Yes	
Appendix B (g) (14) (vii)	All assumptions, evidence, references, and calculations used in the analysis to assess these effects.	Data Adequacy Responses, WATER-29, received December 7, 2007.	~~No~~ Yes	~~There are no calculations included in Section 5.5.~~

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Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.5-5	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 5.5-5	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 5.5.5.4 Table 5.5-6	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.	Table 5.5-7	Yes	