

Memorandum

Date: December 6, 2011
Telephone: (916) 654-4996

To: Robert B. Weisenmiller, Ph.D., Chairman
 James D. Boyd, Vice Chair
 Karen Douglas, J.D., Commissioner
 Carla Peterman, Commissioner

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

Subject: **RIO MESA SOLAR ELECTRIC GENERATING FACILITY, STAFF'S REVISED DATA ADEQUACY RECOMMENDATION (11-AFC-4)**

DOCKET	
11-AFC-4	
DATE	Dec. 06 2011
RECD.	Dec. 07 2011

On October 14, 2011, BrightSource Energy, Inc., submitted an Application for Certification (AFC) to construct and operate the Rio Mesa Solar Electric Generating Facility (Rio Mesa SEGF). The Rio Mesa SEGF site is located on the Palo Verde Mesa in Riverside County, California, approximately 13 miles southwest of the City of Blythe.

The proposed Rio Mesa SEGF (Project) would comprise three solar fields and a common area with shared facilities encompassing a total of approximately 5,750 acres. The southern solar field would be located on privately owned land on approximately 1,800 acres and the middle solar field would be located on mostly privately owned land on approximately 1,940 acres, with a small portion located on Federal land administered by the Bureau of Land Management (BLM). The third solar field, approximately 1,800 acres in size and located in the northern portion of the project, is mostly on BLM land, with a small portion on private lands. A separate Right of Way grant must be approved by the BLM for that portion of the project located on BLM land. Each solar plant would generate approximately 250 megawatts (MW), for a total net output of 750 MW and would use heliostats – elevated mirrors guided by a tracking system mounted on a pylon – to focus the sun's rays on a receiver steam generator located atop a 750-foot tall solar power tower near the center of each solar field. Each solar plant would utilize approximately 85,000 heliostats.

The shared facilities located in the common area located east of the plant sites would include administration, control, maintenance, and warehouse buildings; a heliostat assembly building, evaporation ponds, groundwater wells, a water treatment plant, construction laydown and parking areas, mobile equipment maintenance facilities and a natural gas tap and meter station.

The Rio Mesa SEGF will be interconnected to the Southern California Edison (SCE) grid through upgrades to SCE's 220 kilovolt (kV) line passing north of the site known as the Palo Verde-Devers Line. The upgrades will include construction by SCE of a new 220/ 500 kV substation adjacent to the Palo Verde-Devers line to be designated as the Colorado River Substation. This new substation and the 220 kV upgrades will be for the benefit of the Rio Mesa SEGF project and other interconnection customers in the region.

At the November 16, 2011 Business Meeting, the Energy Commission found the AFC to be incomplete in five technical areas: Air Quality, Biological Resources, Cultural

Resources, Water Resources, and Project Overview. On November 18, 2011, the applicant filed a Supplement to the AFC. Staff has completed its data adequacy review of the supplemental information together with the original AFC and has determined that it does not meet all the requirements listed in Title 20 California Code of Regulations, section 1704, Appendix B (2007) for the 12-month process. Of the five remaining technical disciplines reviewed in the Supplement to the AFC, we believe the information provided to address Water Resources is still deficient. Therefore, we recommend that the Energy Commission find the AFC incomplete and adopt the attached list of deficiencies.

Attached is a summary table and data adequacy worksheets for each technical discipline that was previously found to be incomplete. The worksheets for each technical area identify the location of the supplemental information that was provided to fulfill the AFC data adequacy requirements. At the Energy Commission's business meeting on December 14, 2011, I will recommend that the Energy Commission not accept the AFC as complete until the additional information specified in the data adequacy worksheets is supplied. If you have any questions, please call Pierre Martinez, staff's Project Manager, at (916) 651-3765.

Attachments: Attachment A, Overview of Staff's Revised Data Adequacy Determination
Attachment B, Staff's Revised Data Adequacy Worksheets

Attachment A
Overview of Energy Commission Staff's
Revised Data Adequacy Determination
Rio Mesa Solar Electric Generating Facility
11-AFC-4

Technical Area	Attachment B Page No.	Adequate?
AIR QUALITY	1	YES
BIOLOGICAL RESOURCES.....	8	YES
CULTURAL RESOURCES.....	20	YES
PROJECT OVERVIEW.....	31	YES
WATER RESOURCES	35	NO

ATTACHMENT B

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

**Rio Mesa Solar Electric Generating Facility
11-AFC-4**

December 6, 2011

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 10 Date 11/17/2011
10/26/2011

Technical Area: Air Quality

Project: Rio Mesa Solar Electric Generating Facility

Technical Staff: Wenjun Qian

Project Manager: Pierre Martinez

Docket: 2011-AFC-04

Technical Senior: Gerry Bemis

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 5.1.3 (pages 5.1-19 to 5.1-29) Section 5.1.4 (pages 5.1-29 to 5.1-65) Section 5.1.5 (pages 5.1-65 to 5.1-68) Section 5.1.7 (pages 5.1-75 to 5.1-76)	Yes	
Appendix B (g) (8) (A)	The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.	Section 5.1.3 (pages 5.1-19 to 5.1-29) Section 5.1.5 (pages 5.1-65 to 5.1-68) Section 5.1.7 (pages 5.1-75 to 5.1-76) Section 5.1.8 (pages 5.1-76 to 5.1-78) Appendix 5.1 Enclosed modeling CD <u>MDAQMD Permit Application Completeness Letter Received 11/15/11</u>	No <u>Yes</u>	Please provide a copy of the letter of completeness from Mojave Desert Air Quality Management District.

Adequacy Issue: Adequate Inadequate

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10/26/2011

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Docket: 2011-AFC-04

Technical Staff: Wenjun Qian
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Appendix B (g) (8) (B)	The heating value and chemical characteristics of the proposed fuels, the stack height and diameter, the exhaust velocity and temperature, the heat rate and the expected capacity factor of the proposed facility.	Tables 5.1-14 to 5.1-17 Appendix 5.1B (Tables 5.1B-1 to 5.1B-7, Tables 5.1B-8, 5.1B-11) Appendix 5.1D (Tables 5.1D-2 to 5.1D-4)	Yes	
Appendix B (g) (8) (C)	A description of the control technologies proposed to limit the emission of criteria pollutants.	Section 5.1.6.2 (pages 5.1-71 to 5.1-72) Appendix 5.1C	Yes	
Appendix B (g) (8) (D)	A description of the cooling system, the estimated cooling tower drift rate, the rate of water flow through the cooling tower, and the maximum concentrations of total dissolved solids.	Section 5.1.4.1 (page 5.1-34) Section 5.1.4.3 (page 5.1-41) Appendix 5.1B (Table 5.1B-9)	Yes	
Appendix B (g) (8) (E)	The emission rates of criteria pollutants and greenhouse gases (CO ₂ , CH ₄ , N ₂ O, and SF ₆) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.	Section 5.1.4.3 (pages 5.1-37 to 5.1-49) Section 5.1.5.3 (pages 5.1-66 to 5.1-68) Appendix 5.1B	Yes	
Appendix B (g) (8) (F)(i)	A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.	Section 5.1.4.2 (pages 5.1-34 to 5.1-37) Section 5.1.5.3 (pages 5.1-66 to 5.1-68) Appendix 5.1B	Yes	

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Appendix B (g) (8) (F)(ii)	A description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the commercial operations date, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests.	Section 5.1.4.3 (page 5.1-41) Appendix 5.1B (Table 5.1B-17)	Yes	
Appendix B (g) (8) (G)	The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site. The applicant may substitute an explanation as to why information from one, two, or all stations is either not available or unnecessary.	Section 5.1.4.5 (pages 5.1-55 to 5.1-56)	Yes	
Appendix B (g) (8) (H)	One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution control district.	Section 5.1.4.5 (pages 5.1-53 to 5.1-55)	Yes	
Appendix B (g) (8) (H) (i)	If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA - 450/4-87-013 (August 1995)), which is incorporated by reference in its entirety.	Not Applicable	Yes	

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Appendix B (g) (8) (H) (ii)	The data shall include quarterly wind tables and wind roses, ambient temperatures, relative humidity, stability and mixing heights, upper atmospheric air data, and an analysis of whether this data is representative of conditions at the project site.	Section 5.1.4.5 (pages 5.1-53 to 5.1-55) Appendix 5.1A Enclosed modeling CD	Yes	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:	Section 5.1.4.5 (pages 5.1-50 to 5.1-65) Sections 5.1.5 (pages 5.1-65 to 5.1-68) Section 5.1.7 (pages 5.1-75 to 5.1-76)	Yes	
Appendix B (g) (8) (I) (i)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM ₁₀) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NO _x), sulfur dioxide (SO ₂), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM ₁₀) and particulate matter less than 2.5 microns in diameter (PM _{2.5})] from construction-related equipment;	Section 5.1.4.5 (pages 5.1-57 to 5.1-58) Appendix 5.1F	Yes	

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Appendix B (g) (8) (I) (ii)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant (NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5}) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions;	Section 5.1.4.5 (pages 5.1-58 to 5.1-61) Appendix 5.1D	Yes	
Appendix B (g) (8) (I) (iii)	A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard; and	Section 5.1.5 (pages 5.1-65 to 5.1-68) Appendix 5.1G	Yes	
Appendix B (g) (8) (I) (iv)	An air dispersion modeling analysis of the impacts of the initial commissioning phase emissions on state and federal ambient air quality standards for NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5} .	Section 5.1.4.5 (page 5.1-63)	Yes	
Appendix B (g) (8) (J)	If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide the following information:	Not applicable	Yes	

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Appendix B (g) (8) (J) (i)	The quantity of offsets or emission reductions that are needed to satisfy air permitting requirements of local permitting agencies (such as the air district), state and federal oversight air agencies, and the California Energy Commission. Identify by criteria air pollutant, and if appropriate, greenhouse gas; and	Not applicable	Yes	
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions;	Not applicable	Yes	
Appendix B (g) (8) (K)	A detailed description of the mitigation, if any, which an applicant may propose, for all projects impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule.	Section 5.1.7 (pages 5.1-75 to 5.1-76)	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.1-1 (pages 5.1-3 to 5.1-5)	Yes	

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Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 5.1-45 (pages 5.1-77 to 5.1-78)	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 5.1-45 (pages 5.1-77 to 5.1-78)	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 5.1.9 (pages 5.1-78 to 5.1-79)	Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 01 Date 11/29/11
11/08/11

Technical Area: Biological Resources
Project Manager: Pierre Martinez

Project: Rio Mesa Solar
Docket: 11-AFC-4

Technical Staff: Heather Blair
Technical Senior: Rick York

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Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Existing site conditions: Section 5.2.3 (pp 5.2-10-12) Section 5.2.5 (pp 5.2-44-60) Section 5.2.6 (pp 5.2-60-64) Direct, indirect, and cumulative impacts: Section 5.2.7.2 (pp 5.2-65-84) Section 5.2.8 (pp 5.2-84-85) Mitigation measures/ monitoring: Section 5.2.9 (pp 5.2-85-91)	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 5.2.3.1 (pp 5.2-11-12) Regional map: Figure 5.2-1	Yes Yes	
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	Section 5.2.5.5 (pp 5.2-50-51) Tables 5.2-2 and 4	Yes	

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Appendix B (g) (13) (A) (ii)	resources defined in sections 1702(q) and (v) of Title 20 of the California Code of Regulations;	Section 5.2.3.1 (pp 5.2-11-12) Tables 5.2-2, 3, and 4	Yes	
Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	Table 5.2-4	Yes	
Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	Section 5.2.5.4 (p 5.2-50) Section 5.2.5.5 (pp 5.2-55-59) Appendix 5.2A (BTR App I)	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	Section 5.2.3.1 (pp 5.2-11-12) Section 5.2.5 (pp 5.2-44-60) Section 5.2.6 (pp 5.2-60-64)	Yes	
Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial and/or recreational value.	N/A	Yes	
Appendix B (g) (13) (B)	Include a list of the species actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors. Maps or aerial photographs shall include the following:	Species actually observed: Appendix 5.2A (BTR App I, H) Species that have the potential to occur: Tables 5.2-2, 3, and 4	Yes Yes	

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Appendix B (g) (13) (B) (i)	Detailed maps at a scale of 1:6,000 or color aerial photographs taken at a recommended scale of 1 inch equals 500 feet (1:6,000) with a 30 percent overlap that show the proposed project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in records from the California Natural Diversity Database, and the associated areas where biological surveys were conducted. Label the biological resources and survey areas as well as the project facilities;	Figures 5.2-2 through 5.2-6b	Yes	
Appendix B (g) (13) (B) (ii)	A depiction of the extent of the thermal plume at the surface of the water if cooling water is proposed to be discharged to a water source. Provide the location for the intake and discharge structures on an aerial photograph(s) or detailed maps. Water sources include, but are not limited to, waterways, lakes, impoundments, oceans, bays, rivers, and estuaries; and	N/A	N/A	
Appendix B (g) (13) (B) (iii)	An aerial photo or wetlands delineation maps at a scale of (1:2,400) showing any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance if wetlands occur within 250 feet of the project site and/or related facilities that would be included with the US Army Corps of Engineers Section 404 Permit application. For projects proposed to be located within the coastal zone, also provide aerial photographs or maps as described above that identify wetlands as defined by the Coastal Act.	Figures 5.2-5a and b (Federal) Figures 5.2-6a and b (State)	Yes	

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Appendix B (g) (13) (C)	A discussion of the biological resources at the proposed project site and related facilities. Related facilities include, but are not limited to, laydown and parking areas, gas and water supply pipelines, transmission lines, and roads. The discussion shall address the distribution of vegetation community types, denning or nesting sites, population concentrations, migration corridors, breeding habitats, and other appropriate biological resources including the following:	Vegetation community types: Section 5.2.5.1 (pp. 5.2-44-48) Denning or nesting sites and breeding habitats: Sections 5.2.5.4 and 5.2.5.5 (pp 5.2-49-60) Population concentrations: Figures 5.2-3, 4, 7 Migration corridors: Section 5.2.3.1 (pp. 5.2-12)	Yes Yes Yes Yes	
Appendix B (g) (13) (C) (i)	A list of all the species actually observed;	Appendix 5.2A (BTR App I, H)	Yes	
Appendix B (g) (13) (C) (ii)	A list of sensitive species and habitats with a potential to occur (as defined in (A) above); and	Tables 5.2-2, 3, and 4	Yes	

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

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Appendix B (g) (13) (D)	A description and results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities. Include copies of the California Natural Diversity Database records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:	Survey methods: Section 5.2.4 (pp 5.2-12-44) Survey results: Section 5.2.5 (pp 5.2-44-60) Section 5.2.6 (pp 5.2-60-64) Names and survey dates: App 5.2A (BTR App B) CNDDDB records: App 5.2A (BTR App D) Resumes: App 5.2A (BTR App C)	Yes Yes Yes Yes Yes	

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Appendix B (g) (13) (D) (i)	Current biological resources surveys conducted using appropriate field survey protocols during the appropriate season(s). State and federal agencies with jurisdiction shall be consulted for field survey protocol guidance prior to surveys if a protocol exists;	Section 5.2.4 (pp 5.2-12 through 5.2-43) <u>AFC Supplement Section 5.2 (pp. 6 and 7)</u>	No <u>Yes</u>	Applicant states that surveys were conducted of only those portions of the project for which right of entry had been granted at the time of survey. Some portions of the project area (229 acres) remain unsurveyed; therefore, the current survey coverage is not inclusive of the entire project site and project linear facilities, as required. Applicant needs to complete biological resources surveys, so that they are inclusive of the project site and project linear facilities, and submit a supplemental biological resources technical report documenting the findings. It is understood that it may not yet be possible to conduct some surveys within the appropriate spring/summer survey window (e.g., desert tortoise, rare plants, breeding burrowing owl, spring avian point counts). For such surveys, please submit a plan detailing how and when the outstanding surveys will be conducted according to protocol in those areas that are currently unsurveyed. In the meantime, please conduct any surveys possible (e.g., wetland/waters delineation, winter avian point counts) once right of entry is granted and submit findings in a supplemental biological resources technical report.

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Project Manager: Pierre Martinez

Docket: 11-AFC-4

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) (D) (ii)	If cooling water is proposed to be taken directly from or discharged to a surface water feature source, seasonal aquatic resource studies and surveys shall be conducted. Aquatic resource survey data shall include, but is not limited to, fish trawls, ichthyoplankton and benthic sampling, and related temperature and water quality samples. For new projects or repower projects anticipating a change in cooling water flows, sampling protocols shall be provided to the Energy Commission staff for review and concurrence prior to the start of sampling. For repower projects not anticipating a change in cooling water flows, this information shall be provided in the form of the most recent federal Clean Water Act 316(b) impingement and entrainment impact study completed within five (5) years of the AFC filing date; and	N/A	N/A	
Appendix B (g) (13) (D) (iii)	If the project or any related facilities could impact a jurisdictional or non-jurisdictional wetland, provide completed Army Corps of Engineers wetland delineation forms and/or determination of wetland status pursuant to Coastal Act requirements, name(s) and qualifications of biologist(s) completing the delineation, the results of the delineation and a table showing wetland acreage amounts to be impacted.	Qualifications: App 5.2A (BTR App C) Results: Section 5.2.6 (pp 5.2-60-64) Tables 5.2-8, 9, and 10 Acreage Impacted: Table 5.2-14	Yes Yes Yes	
Appendix B (g) (13) (E)	Impacts discussion of the following:	--	--	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date 11/29/11
11/08/11

Technical Area: Biological Resources
Project Manager: Pierre Martinez

Project: Rio Mesa Solar
Docket: 11-AFC-4

Technical Staff: Heather Blair
Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (E) (i)	<p>all impacts (direct, indirect, and cumulative) to biological resources from project site preparation, construction activities, plant operation, maintenance, and closure.</p> <p>Discussion shall also address sensitive species habitat impacts from cooling tower drift and air emissions;</p>	<p>Bio resource impacts: Section 5.2.7.2 (pp 5.2-65-84) Section 5.2.8 (pp 5.2-84-85)</p> <p><u>AFC Supplement Section 5.2 (pp. 8-10)</u></p> <p>Air quality impacts: <u>AFC Supplement Section 5.2 (p. 10)</u></p>	<p>No <u>Yes</u></p> <p>No <u>Yes</u></p>	<p>Please provide a discussion of the following: impacts resulting from operation of the evaporation pond, including measures proposed to minimize its impacts to wildlife; impacts to groundwater dependent vegetation resulting from groundwater withdrawal for power plant operations; impacts to hydrology and vegetation of downstream desert washes from upstream fill/diversion attributable to the project.</p> <p>Please provide a discussion of impacts to sensitive species and vegetation from air emissions (e.g., due to operation of auxiliary boilers).</p>
Appendix B (g) (13) (E) (ii)	<p>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</p>	N/A	N/A	
Appendix B (g) (13) (E) (iii)	<p>Methods to control biofouling and chemical concentrations, and temperatures that are currently being discharged or will be discharged to receiving waters.</p>	N/A	N/A	
Appendix B (g) (13) (F)	<p>A discussion of all feasible mitigation measures including, but not limited to the following:</p>	----		

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date 11/29/11
11/08/11

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Project: Rio Mesa Solar

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Docket: 11-AFC-4

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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) (F) (i)	All measures proposed to avoid and/or reduce adverse impacts to biological resources;	Section 5.2.9 (pp 5.2-87-91)	Yes	
Appendix B (g) (13) (F) (ii)	All off-site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management;	Mitigation measures: Section 5.2.9. (pp 5.2-88 and 90; BIO-5 and BIO-12) Contacts: <u>AFC Supplement Section 5.2 (p. 11) and Attachment 5.2-1</u>	Yes <u>No</u> <u>Yes</u>	Please identify those contacts the Applicant has been working with to identify and secure off-site habitat compensation and include any pertinent records of correspondence.
Appendix B (g) (13) (F) (iii)	Design features to better disperse or eliminate a thermal discharge;	N/A	N/A	
Appendix B (g) (13) (F) (iv)	All measures proposed to avoid or minimize adverse impacts of cooling water intake. This shall include a Best Technology Available (BTA) discussion. If BTA is not being proposed, the rationale for not selecting BTA must be provided; and	N/A	N/A	
Appendix B (g) (13) (F) (v)	Educational programs to enhance employee awareness during construction and operation to protect biological resources.	Section 5.2.9 (pp 5.2-86; BIO-2)	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.	Section 5.2.9 (pp 5.2-86-87; BIO-3)	Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 01 Date 11/29/11
11/08/11

Technical Area: Biological Resources
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Docket: 11-AFC-4

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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) (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.	Appendix 5.2A (BTR App K) <u>AFC Supplement Section 5.2 (p. 11) and Attachment 5.2-2</u>	No <u>Yes</u>	Please submit copies of any correspondence between the applicant and USFWS (related to migratory birds, golden eagles, desert tortoise, habitat compensation, Section 7 consultation, etc.), CDFG (related to state jurisdictional washes, incidental take, etc.), and USACE (related to wetlands and waters of the U.S.) as it pertains to federal permits that will be required for the proposed project, and state permits that would be required but for the Energy Commission's exclusive jurisdiction.
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.2.2 (pp 5.2-5-10) Table 5.2-1	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 5.2.10 (p 5.2-92) Table 5.2-15	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date 11/29/11
11/08/11

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Docket: 11-AFC-4

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.2.10 (p 5.2-92) Table 5.2-15	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 5.2-16 <u>AFC Supplement Section 5.2 (pp. 12-13)</u>	No <u>Yes</u>	Please provide a schedule of when permits outside the authority of the Commission will be obtained (i.e., Biological Opinion and CWA-Section 404 permit) and the actual or anticipated timing of any application submittals related to the acquisition of these permits.

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

Technical Area: Cultural Resources
Project Manager: Pierre Martinez

Project: Rio Mesa Solar Electric Generating Facility
Docket: 11-AFC-04

Technical Staff: S. Allred/A. Grady
Technical Senior: S. Strattan

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.	<p>Existing site conditions: Vol. I, Sec. 5.3.3, pp. 5.3-13 to 5.3-105; and Confidential Cultural Resources Technical Report – Sec. 2, pp. 2-1 to 2-109.</p> <p>Impacts due to project: Vol. I, Sec. 5.3.4, pp. 5.3-105 to 5.3 -108; and Confidential Cultural Resources Technical Report – Sec. 7, pp. 7-1 to 7-3.</p> <p>Measures to mitigate known impacts: Vol. I, Sec. 5.3.6, pp. 5.3-108 to 5.3-112; and Confidential Cultural Resources Technical Report – Sec. 7.2, pp. 7-3 to 7-10.</p> <p>Effectiveness of the proposed measures</p> <p>Any monitoring plans proposed to verify the effectiveness of the mitigation</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	

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DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

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Project Manager: Pierre Martinez

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Docket: 11-AFC-04

Technical Staff: S. Allred/A. Grady
Technical Senior: S. Strattan

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) (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.	<p>Summary of the ethnology, prehistory, and history: Vol. I, Sec. 5.3, pp.5.3-45 to 5.3-46; and Confidential Cultural Resources Technical Report – Sec. 2.5 – 2.8, pp. 2-48 to 2-49.</p> <p><u>AFC Supplement Section 5.3 (pp. 14-24)</u></p>	<p>No</p> <p><u>Yes</u></p>	<p>The synthesis of the regional prehistory and history of the Colorado Desert as a whole is sufficient as a broad introduction to the archaeology of the project area, but is insufficient as a useful context to facilitate in the interpretation of the survey results. Using the Colorado Desert prehistory and history as a springboard, and using the cultural resources technical reports and site forms that were gathered for the appendices of the AFC, the applicant needs to develop a discussion of the prehistoric and historic-era archaeology within no more than a 5-mile radius of the project location. Explain what the archaeology looks like on the ground within that radius.</p>

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

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Project Manager: Pierre Martinez

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Docket: 11-AFC-04

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Technical Senior: S. Strattan

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (B)	<p>The results of a literature search to identify cultural resources within an area not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum. Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.</p> <p>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.</p>	<p>Literature searches: Vol. I, Sec. 5.3.3.6, pp. 5.3-47 to 5.3-98; and Confidential Cultural Resources Technical Report – Sec. 2.9, pp. 2-57 to 2-104 and pp. 108 to 109; and Appendix F, Part I.</p> <p>Cultural resources listed under a city or county ordinance: Vol. I, Sec. 5.3.3.1, pp. 5.3-103 to 5.3-105; and Confidential Cultural Resources Technical Report – Sec. 2.9.4, pp. 2-107 to 2-108.</p> <p>Cultural resources recognized by local societies: Vol. I, Sec. 5.3.3.1, pp. 5.3-104 to 5.3-105; and Confidential Cultural Resources Technical Report – Sec. 2.9.4, p. 2-10 to 2-107 to 2-108, and Appendix D.</p> <p>Names/quals for lit searchers/directors: Confidential Cultural Resources Technical Report – Appendix A; and Appendix F, Part I.</p> <p>DPR523 forms for known</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

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Project: Rio Mesa Solar Electric Generating Facility
Docket: 11-AFC-04

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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
		<p>resources: Confidential Cultural Resources Technical Report – Appendix F and Appendix G.</p> <p>Map of lit search area with past surveys and CHRIS nos.: Confidential Cultural Resources Technical Report – Appendix E (Confidential Figures).</p> <p>CHRIS reports: Confidential Cultural Resources Technical Report, Appendix F.</p>	<p>Yes</p> <p>Yes</p>	
<p>Appendix B (g) (2) (C)</p>	<p>The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior’s Professional Standards for the technical area addressed.</p> <p>New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200’</p>	<p>Names/quals for archaeo’l surveyors or directors: Confidential Cultural Resources Technical Report, Appendix A.</p> <p>Names/quals for historical architecture surveyors or directors: Confidential Cultural</p>	<p>Yes</p> <p>Yes</p>	

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DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

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Project: Rio Mesa Solar Electric Generating Facility
Docket: 11-AFC-04

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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
	<p>around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.</p> <p>A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (CA Office of Historic Preservation Feb 1990), which is incorporated by reference, shall be separately provided and submitted (under confidential cover if archaeological site locations are included).</p>	<p>Resources Technical Report, Appendix A.</p> <p>Survey coverage, archaeology: Vol. I, Sec. 5.5.5.6, p. 5.3-47; and Confidential Cultural Resources Technical Report, Sec. 7, p. 7-1.</p> <p><u>AFC Supplement Section 5.3 (p. 25)</u></p> <p>Survey coverage, architecture: Vol. I, Sec. 5.3.3.8, pp. 5.3-102 to 5.3-103. Confidential Cultural Resources Technical Report, Sec. 5.2, p. 1327.</p> <p>Tech report for new archaeological survey: Confidential Cultural Resources Technical Report for the Rio Mesa Solar Generating Facility, Riverside County, California.</p> <p>Technical report for new historical architecture survey: Confidential Cultural Resources Technical Report for the Rio Mesa Solar Generating</p>	<p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>Applicant states that surveys were conducted of only those portions of the project for which right of entry had been granted at the time of survey. Some portions of the project area (229 acres) remain unsurveyed; therefore, the current survey coverage is not inclusive of the project site and project linear facilities, as required. Applicant needs to complete the cultural resources survey, so that it is inclusive of the project site and project linear facilities, and submit a supplemental cultural resources technical report documenting the findings.</p>

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DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

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Docket: 11-AFC-04

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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
		Facility, Riverside County, California.		
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:	Vol. I, Sec. 5.3, pp. 5.3-1 to 5.3-134.	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);	<p>Summary: Vol. 1, Sec. 5.3.3.5, pp. 5.3-45 to 5.3-46; and Confidential Cultural Resources Technical Report, Sec. 2.7, pp. 2-48 to 2-49.</p> <p>Literature search results: Vol. I, Sec. 5.3.3.6, pp. 5.3-47 to 5.3-98.</p>	<p>Yes</p> <p>Yes</p>	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

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Docket: 11-AFC-04

Technical Staff: S. Allred/A. Grady
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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) (2) (C) (ii)	The survey procedures and methodology used to identify cultural resources and a discussion of the cultural resources identified by the survey;	<p>Archaeological methodology: Vol. I, Sec. 5.3.3.7, pp. 5.3-99 to 5.3-101; and Confidential Cultural Resources Technical Report, Sec. 4.0, pp. 4-1 to 4-3.</p> <p>Historical architecture methodology: Vol. 1, Sec. 5.3.3.8, pp. 5.3-102 to 5.3-103; and Confidential Cultural Resources Technical Report, Sec. 4.3, pp. 4-3 to 4-4.</p>	<p>Yes</p> <p>Yes</p>	
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;	<p>Archaeological forms: Confidential Cultural Resources Technical Report, Appendix F and Appendix G.</p> <p>Architecture forms: Confidential Cultural Resources Technical Report, Appendix G, Vol. 4.</p>	<p>Yes</p> <p>Yes</p>	
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	<p>Archaeology and architecture map: Confidential Cultural Resources Technical Report, Appendix E, Fig. 5-4.</p>	<p>Yes</p>	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 10

Date 12/2/11

~~10/31/11~~

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Project: Rio Mesa Solar Electric Generating Facility

Technical Staff: S. Allred/A. Grady

Project Manager: Pierre Martinez

Docket: 11-AFC-04

Technical Senior: S. Strattan

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) (v)	The names and qualifications of the cultural resources specialists who contributed to and were responsible for literature searches, surveys, and preparation of the technical report.	Names/quals for archaeologists: Confidential Cultural Resources Technical Report, Appendix A. Names/quals for architectural historians: Confidential Cultural Resources Technical Report, Appendix A.	Yes Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

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Docket: 11-AFC-04

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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) (2) (D)	Provide a copy of your request to the Native American Heritage Commission (NAHC) for information on Native American sacred sites and lists of Native Americans interested in the project vicinity, and copies of any correspondence received from the NAHC. Notify the Native Americans on the NAHC list about the project, including a project description and map. Provide a copy of all correspondence sent to Native American individuals and groups listed by the NAHC and copies of all responses. Provide a written summary of any oral responses.	<p>NAHC request: Confidential Cultural Resources Technical Report, Appendix B.</p> <p>NAHC response: Confidential Cultural Resources Technical Report, Appendix B.</p> <p>Letters sent to Native Americans: Confidential Cultural Resources Technical Report, Appendix B.</p> <p>Letters received from Native Americans: Confidential Cultural Resources Technical Report, Appendix B.</p> <p>Summary of oral responses from Native Americans: Confidential Cultural Resources Technical Report, Appendix B.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	
Appendix B (g) (2) (E)	Include in the discussion of proposed mitigation measures required by subdivision (g)(1):	See Below	Yes	--
Appendix B (g) (2) (E) (i)	A discussion of measures proposed to mitigate project impacts to known cultural resources;	<p>Mitigation measures for known impacts: Vol. I, Sec. 5.3.6, pp. 5.3-108 to 5.3-112; and Confidential Cultural Resources Technical Report, Sec. 7.</p>	Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

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Project: Rio Mesa Solar Electric Generating Facility

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Docket: 11-AFC-04

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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) (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: Vol. I, Sec. 5.3.6, CUL-3 pp. 5.3-110 to 111; and CUL-5, p. 5.3-112.	Yes	
Appendix B (g) (2) (E) (iii)	Educational programs to enhance employee awareness during construction and operation to protect cultural resources.	Worker education programs: Vol. I, Sec. 5.3.6, CUL-4, p. 5.3-111.	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: Vol. I, Sec. 5.3.2, Table 5.3-1, pp. 5.3-3 to 5.3-5. Explicitly referenced pages: Vol. I, Sec. 5.3.2, pp. 5.3 -3 to 5.3-5. Discussion of applicability of LORS: Vol. I, Sec. 5.3.2, pp. 5.3 -5 to 5.3-13.	Yes Yes Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Tables identifying agencies: Vol. I, Sec. 5.3.7, Table 5.3-6, pp. 5.3-113 to 5.3-114.	Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 10 Date 12/2/11
10/31/11

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Technical Senior: S. Strattan

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.	Official within each agency who will serve as a contact person for the agency: Vol. I, Sec. 5.3.7, Table 5.3-6, pp. 5.3-113 to 5.3-114.	Yes*	*Please note that Energy Commission staff's phone number is listed incorrectly in the table. Correct phone number is: 916-654-5008.
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 outside permits will be obtained: Vol. I, Sec. 5.3.8, p. 5.3-114.	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 10 Date 11/29/11
10/25/11

Technical Area: Project Overview
Project Manager: Pierre Martinez

Project: Rio Mesa Solar Electric Generating Facility
Docket: 11-AFC-4

Technical Staff: Pierre Martinez
Technical Senior: Chris Davis

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) (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.	Section 2.1, pages 2-1 to 2-6; Sections 2.3 and 2.4, pages 2-7 to 2-33 Figures 2-1 to 2-8 <u>Supplement to AFC pp. 2 and 3 and Figures 2-1 through 2-4.</u>	No <u>Yes</u>	Please provide a description of the length and location of the proposed gas lines from each power block to the proposed metering station as well as map showing the proposed locations of the gas lines.
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.	Section 2.1.2 Figures 2-1, 2-2; Appendix 1A	Yes	
Appendix B (a) (1) (C)	A description of and maps depicting the region, the vicinity, and the site and its immediate surroundings.	Sections 1.1; 1.3; 2.1.2 Figures 1.1-1; 1.2-1; 2-1	Yes	
Appendix B (a) (1) (D)	A full-page color photographic reproduction depicting the visual appearance of the site prior to construction, and a full-page color simulation or artist's rendering of the site and all project components at the site, after construction.	Figures 1.3-1 through 1.3-4 <u>Supplement to AFC p. 3 and Figures 2-5 through 2-8.</u>	No <u>Yes</u>	Provide an artist's rendering representative of one of the power blocks and the surrounding facilities/components.
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 1A	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.	Section 2.3.15, pages 2-21 to 2-22	Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 10 Date 11/29/11
10/25/11

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Docket: 11-AFC-4

Technical Staff: Pierre Martinez
Technical Senior: Chris Davis

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (a) (3) (A)	A list of all owners and operators of the site(s), the power plant facilities, and, if applicable, thermal host, the geothermal leasehold, the geothermal resource conveyance lines, and the geothermal re-injection system, and a description of their legal interest in these facilities.	Section 2.1.1, page 2-1	Yes	
Appendix B (a) (3) (B)	A list of all owners and operators of the proposed electric transmission facilities.	Section 2.2.13, page 2-20; Section 3.3, pages 3-5 to 3-8	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).	Section 2.1.1, page 2-1; Section 2.2.13; page 2-20 Section 3.3, pages 3-5 to 3-8	Yes	
Appendix B (b) (1)	In a section entitled, "Generation Facility Description, Design, and Operation" provide the following information:	Section 2.3, pages 2-7 to 2-22	N/A	
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;	Section 2.1.2, Page 20; Appendix 1A; Figure 2-1 and Figure 5.6-5	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);	<u>Supplement to AFC p. 4 and Figures 2-9 through 2-16.</u>	No Yes	Provide scaled plans and elevation drawings (all four sides) of the power plant and all related facilities (e.g. power block area with associated buildings and facilities, common area with associated buildings and facilities, a heliostat, etc.).

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 10 Date 11/29/11
10/25/11

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Technical Senior: Chris Davis

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1) (C)	A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	Section 2.3 pages 2-7 to 2-22, 5.16.1.4	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 1.2.2, pages 1-4 to 1-5	Yes	
Appendix B (b) (2)	In a section entitled, "Transmission Lines Description, Design, and Operation" provide the following information:	Section 2.3.13, page 2-20 Section 3.0	N/A	
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);	Figures 2-1, 5.13-1A, and 5.6-2	Yes	
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.	Figures 2-1, 2-2, 5.13-1a, 5.13-ab, and 5.13-14a through 5.13-19b	Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 10 Date 11/29/11
10/25/11

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Technical Senior: Chris Davis

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 2.3.13, page 2-20; Section 3.0	Yes	
Appendix B (b) (2) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints; and	Section 2.3.13, page 2-20; Section 3.0	Yes	
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Section 2.5, pages 2-33 to 2-34	Yes	

DATA ADEQUACY WORKSHEET

Adequacy Issue: Adequate Inadequate

Technical Area: **Water Resources**

Project: Rio Mesa SEGF

Revision No. 10 Date 12/6/11
~~11/7/2011~~

Technical Staff: A. Abulaban & C. Dennis

Project Manager: Pierre Martinez

Docket: 2011-AFC-4

Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.15.3, page 5.15-10 Section 5.15.5, page 5.15-36 Section 5.15.6, page 5.15-37 <u>Supplement to AFC Section 5.15</u>	No <u>Yes</u>	Submit a discussion of the effectiveness of the proposed mitigation and monitoring plans proposed to verify the mitigation effectiveness.
Appendix B (g) (14) (A)	All the information required to apply for the following permits, if applicable, including:	—		

DATA ADEQUACY WORKSHEET

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: **Water Resources**

Project: Rio Mesa SEGF

Revision No. 10 Date 12/6/11
 Technical Staff: 4/7/2011
 A. Abulaban &
 C. Dennis
 Technical Senior: Paul Marshall

Project Manager: Pierre Martinez

Docket: 2011-AFC-4

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (A) (i)	Waste Discharge Requirements; National Pollutant Discharge Elimination System Permit; and/or a Section 401 Certification or Waiver from the appropriate Regional Water Quality Control Board (RWQCB);	Section 5.15.2.1, page 5.15-4 <u>Supplement to AFC Section 5.15</u>	No	<p>In support of the development of Waste Discharge Requirements for discharge of industrial wastewater to the proposed evaporation ponds, provide a complete characterization of the discharge including but not limited to:</p> <ul style="list-style-type: none"> • Design and actual flows; (In the Supplement to the AFC, the applicant submitted a one sentence description of the evaporation design stating it would be double-lined with leachate monitoring. At a minimum, a detailed description of the evaporation pond's design and installation sequence is required as well as a detailed Monitoring and Reporting Program Plan for the evaporation ponds. Pond design diagrams may be used to supplement the detailed description. Please refer to California Code of Regulation Title 27, Chapter 3 for evaporation pond design requirements.) • A list of constituents and the discharge concentration of each constituent; • A list of other appropriate waste discharge characteristics; • A description and schematic drawing of all treatment processes; • A description of any Best Management Practices used; and • A description of disposal methods. <p>To facilitate a more timely review and agency coordination, this information may be presented using the Regional Water Quality Control Board Application/Report of Waste Discharge General Information Form for Waste Discharge Requirements or NPDES Permit (Form 200).</p>

DATA ADEQUACY WORKSHEET

Adequacy Issue: Adequate Inadequate
 Technical Area: **Water Resources**

Project: Rio Mesa SEGF

Revision No. 10 Date 12/6/11
~~11/7/2011~~

Technical Staff: A. Abulaban & C. Dennis

Project Manager: Pierre Martinez

Docket: 2011-AFC-4

Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (A) (ii)	Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;	Not applicable	N/A	
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	Section 5.2.6, page 5.2-60	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	N/A	
Appendix B (g) (14) (B)	A detailed description of the hydrologic setting of the project. The information shall include a narrative discussion and on maps at a scale of 1:24,000 (or appropriate scale approved by staff), describing the chemical and physical characteristics of the following nearby water bodies that may be affected by the proposed project:	Section 5.15.3.1, page 5.15-11 Figure 5.15-1 Figure 5.15-3 Figure 5.15-4 Figure 5.14-6	Yes	
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 5.15.3.1, page 5.15-11	Yes	
Appendix B (g) (14) (B) (ii)	Surface water bodies;	Section 5.15.3.1, page 5.15-11	Yes	
Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;	Section 5.15.3.1, page 5.15-11	Yes	
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section 5.11.4.8, page 5.11-18 Section 5.15.3.2, page 5.15-21	Yes	
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.	Table 5.15-3 Figure 5.15-4	Yes	

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: **Water Resources**
 Project Manager: Pierre Martinez

DATA ADEQUACY WORKSHEET

Project: Rio Mesa SEGF
 Docket: 2011-AFC-4

Revision No. 10 Date 12/6/11
 Technical Staff: A. Abulaban & C. Dennis
 Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (C)	A description of the water to be used and discharged by the project. This information shall include:	Section 5.15.3.3, page 5.15-27	Yes	
Appendix B (g) (14) (C) (i)	Source(s) of the primary and back-up water supplies and the rationale for their selection;	Section 5.15.3.3, page 5.15-27	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 5.15.3.1, page 5.15-11 Section 5.15.3.3, page 5.15-27 <u>Supplement to AFC Section 5.15</u>	No Yes	Provide information about the expected physical and chemical characteristics of the wastewater to be discharged to the proposed evaporation pond consistent with the information required under Appendix B(g)(14)(A)(i) above.
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;	Section 5.15.3.3, page 5.15-27	Yes	
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;	Section 5.15.3.3, page 5.15-27 Figure 5.15-9 Figure 5.15-10	Yes	

DATA ADEQUACY WORKSHEET

Adequacy Issue: Adequate Inadequate

Technical Area: **Water Resources**

Project: Rio Mesa SEGF

Revision No. 10 Date 12/6/11
11/7/2011

Technical Staff: A. Abulaban & C. Dennis

Project Manager: Pierre Martinez

Docket: 2011-AFC-4

Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (C) (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	N/A	
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);	Appendix 5.15B	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 2-4-1 Figure 2-4-2 Figure 2-4-3 Figure 2-4-4	Yes	

DATA ADEQUACY WORKSHEET

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: **Water Resources**

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Docket: 2011-AFC-4

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (C) (viii)	<p>For all projects which have a discharge, provide a copy of the will-serve letter, permit or contract with the public or private entity that will be accepting the wastewater and contact storm water from the project. The letter, permit or contract, if possible, shall identify the discharge volumes and the chemical or physical characteristics under which the wastewater and contact storm water will be accepted.</p> <p>In the event that a will-serve letter, permit, or contract cannot be provided, identify the most likely wastewater/storm water entity and discuss why the applicant was unable to secure the necessary assurances to serve the project's wastewater/storm water needs. Also, discuss the term of the wastewater service to the project, whether the wastewater entity has adequate permit capacity for the volume of wastewater from the project and has adequate permit levels for the chemical/physical characteristics of the project's wastewater and storm water for the life of the project, and any issues or conditions/restrictions the wastewater entity may impose on the project.</p>	N/A	N/A	
Appendix B (g) (14) (D)	Identify all project elements associated with stormwater drainage, including a description of the following:	Section 5.15.3.1, page 5.15-11 Section 5.15.3.2, page 5.15-21	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 5.15.3.1, page 5.15-11 Section 5.15.3.2, page 5.15-21	Yes	

DATA ADEQUACY WORKSHEET

Adequacy Issue: Adequate Inadequate Revision No. 10 Date 12/6/11
 Technical Area: **Water Resources** Project: Rio Mesa SEGF Technical Staff: A. Abulaban & C. Dennis
 Project Manager: Pierre Martinez Docket: 2011-AFC-4 Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (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 5.15.3.2, page 5.15-21 Appendix 5.11B	Yes	
Appendix B (g) (14) (D) (iii)	All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction; and	Section 5.15.3.2, page 5.15-21 Appendix 5.11B	Yes	
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 5.15.2, page 5.15-2 <u>Supplement to AFC Section 5.15</u>	No <u>Yes</u>	Provide a discussion of how elements of the project design comply with each of the applicable LORS identified in Table 5.15-1 of the AFC.
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 5.15.4, page 5.15-29 Appendix 5.15B Appendix 5.15G	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 5.15.3.3, page 5.15-27 Section 5.15.5, page 5.15-36 Appendix 5.15B Appendix 5.15G	Yes	

DATA ADEQUACY WORKSHEET

Adequacy Issue: Adequate Inadequate
 Technical Area: **Water Resources**

Project: Rio Mesa SEGF

Revision No. 10 Date 12/6/11
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Docket: 2011-AFC-4

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (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 5.15.4.1, page 5.15-30 Section 5.15.4.2, page 5.15-31 Appendix 5.15G	Yes	
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 5.15.3.2, page 5.15-21 Section 5.15.4.1, page 5.15-30 Section 5.15.4.2, page 5.15-31	Yes	
Appendix B (g) (14) (iv)	If not using a zero liquid discharge project design for cooling and process waters, include the effects of the proposed wastewater disposal method on receiving waters, the feasibility of using pre-treatment techniques to reduce impacts, and beneficial uses of the receiving waters. Include an explanation why the zero liquid discharge process is “environmentally undesirable,” or “economically unsound;”	Section 5.15.3.3, page 5.15-27	Yes	

DATA ADEQUACY WORKSHEET

Adequacy Issue: Adequate Inadequate
 Technical Area: **Water Resources**

Project: Rio Mesa SEGF

Revision No. 10 Date 12/6/11
~~11/7/2011~~

Technical Staff: A. Abulaban & C. Dennis

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Docket: 2011-AFC-4

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (v)	If using fresh water, include a discussion of the cumulative impacts, alternative water supply sources and alternative cooling technologies considered as part of the project design. Include an explanation of why alternative water supplies and alternative cooling are "environmentally undesirable," or "economically unsound,"	Section 5.15.4.3, page 5.15-35 Section 5.15.5, page 5.15-36	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 5.15.3.2, page 5.15-21 Appendix 5.11B	Yes	
Appendix B (g) (14) (vii)	All assumptions, evidence, references, and calculations used in the analysis to assess these effects.	Section 5.15.3.2, page 5.15-21 Appendix 5.11B	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 5.15.2, page 5.15-2	Yes	

DATA ADEQUACY WORKSHEET

Adequacy Issue: Adequate Inadequate
 Technical Area: **Water Resources**

Project: Rio Mesa SEGF

Revision No. 10 Date 12/6/11
 Technical Staff: A. Abulaban & C. Dennis
 Technical Senior: Paul Marshall

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Docket: 2011-AFC-4

Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (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 5.15.7, page 5.15-37	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 5.15.7, page 5.15-37	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.	Section 5.15.8, page 5.15-39	Yes	