

Memorandum

Date: November 11, 2009

Telephone: (916) 654-4996

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

| | |
|-----------------|-------------|
| DOCKET | |
| 09-AFC-9 | |
| DATE | NOV 11 2009 |
| RECD | NOV 12 2009 |

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

**Subject: RIDGECREST SOLAR POWER PROJECT, DATA ADEQUACY
RECOMMENDATION (09-AFC-9)**

On September 1, 2009, the California Energy Commission received an Application for Certification (AFC) from Solar Millennium LLC for the Ridgecrest Solar Power Project. The proposed project is a concentrated solar powered, electric generating facility. The process for electric power generation would be to utilize parabolic trough, solar collectors to concentrate solar energy onto heat collection elements that contain a fluid, known as "heat transfer fluid" (HTF). After being heated in the solar troughs, the HTF is run through a heat exchanger where it converts water into steam. In the next stage, the steam is converted into electricity utilizing a Rankine-cycle reheat, steam turbine, electric generator. The project would have a nominal electrical output of 250 megawatts (MW).

The project is proposed to be developed on a 3,920-acre site, administered by the Bureau of Land Management (BLM). The project site is located in northeastern Kern County, along U.S Highway 395, just west of the China Lake Boulevard exit. The site is approximately four miles southwest of Ridgecrest, California. The community of Ridgecrest is at the southwestern boundary of the China Lake Naval Air Weapons Station (NAWS).

During the October 7, 2009 Business Meeting, the Commission adopted staff's recommendation and found the AFC to be data inadequate in ten areas: Air Quality, Biological Resources, Cultural Resources, Land Use, Project Overview, Socioeconomics, Soils, Transmission System Design, Water Resources and Worker Safety. The applicant subsequently filed a supplemental AFC. Staff has completed its data adequacy review of the supplemental AFC and has determined that it does 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. Therefore, staff recommends that the Energy Commission accept the AFC as data adequate.

Attached is a summary table and data adequacy worksheets for all technical disciplines. At the Energy Commission's November 18, 2009 Business Meeting, I will recommend that the Commission accept the AFC as data adequate. If you have any questions, please contact Eric Solorio, staff's Project Manager, at (916) 651-0966.

Attachments:

- 1.) Summary Table and
- 2.) Staff's Data Adequacy Worksheets

**Attachment #1
 Summary Table of Energy Commission Staff's
 Data Adequacy Determination
 Ridgecrest Solar Power Project
 09-AFC-9**

| Technical Area | Attachment #2 Page No. | Data Adequate |
|---|-----------------------------------|--------------------------|
| AIR QUALITY | 4 | YES |
| BIOLOGICAL RESOURCES | 23 | YES |
| CULTURAL RESOURCES | 24 | YES |
| LAND USE | 33 | YES |
| PROJECT OVERVIEW | 38 | YES |
| SOCIOECONOMICS..... | 43 | YES |
| SOILS | 51 | YES |
| TRANSMISSION SYSTEM DESIGN | 54 | YES |
| WATER RESOURCES | 59 | YES |
| WORKER SAFETY..... | 70 | YES |

ATTACHMENT #2

**ENERGY COMMISSION STAFF'S
List of Data Inadequacies**

**Ridgecrest Solar Power Project
09-AFC-9**

November 11, 2009

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date Sept 28, 2009
October 29, 2009

Technical Area: **Air Quality**
Project Manager: Eric K. Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Tao Jiang and Will Walters
Technical Senior: Matthew Layton
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 5.2 | Yes | |
| Appendix B (g) (8) (A) | The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance. | Section 5.2 Appendix E <u>Letter of completeness from Kern City Air Pollution Control District provided on October 7, 2009.</u> | <u>Yes</u> No | Please provide a copy of the letter of completeness from Kern County Air Pollution Control District. This letter is expected by October 9th, 2009. |
| Appendix B (g) (8) (B) | The heating value and chemical characteristics of the proposed fuels, the stack height and diameter, the exhaust velocity and temperature, the heat rate and the expected capacity factor of the proposed facility. | Section 2.2.1, p. 2-2 Section 2.5.5.1, p. 2-12 Figure 2-7 Section 5.2.4.2, Table 5.2-34 | Yes | |
| Appendix B (g) (8) (C) | A description of the control technologies proposed to limit the emission of criteria pollutants. | Section 5.2.3, pp. 5.2-20 to 5.2-27 Section 5.2.5, pp.5.2-53 to 5.2-57 | 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 5.2.3.3, p. 5.2-25 Section 5.2.4.1 p 5.2-31 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date Sept 28, 2009
October 29, 2009

Technical Area: **Air Quality**
Project Manager: Eric K. Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Tao Jiang and Will Walters
Technical Senior: ~~Matthew Layton~~ 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) (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 5.2.4.1, pp. 5.2-27 to 5.2-36 Tables 5.2-17 to 5.2-29 Appendix E | Yes | |
| Appendix B (g) (8) (F)(i) | A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode. | Section 5.2.4.1, pp. 5.2-28 to 5.2-36 Tables 5.2-19 to 5.2-28 Appendix E-2 | Yes | |
| Appendix B (g) (8) (F)(ii) | A description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the commercial operations date, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests. | NA | NA | |
| Appendix B (g) (8) (G) | The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site. The applicant may substitute an explanation as to why information from one, two, or all stations is either not available or unnecessary. | Section 5.2.2.3, pp. 5.2-16 to 5.2-20 Tables 5.2-8 to 5.2-14 and Table 5.2-31 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date Sept 28, 2009
October 29, 2009

Technical Area: **Air Quality**
Project Manager: Eric K. Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Tao Jiang and Will Walters
Technical Senior: ~~Matthew Layton~~ 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) (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. | Air Quality Modeling CD | Yes | |
| Appendix B (g) (8) (H) (i) | If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA - 450/4-87-013 (August 1995)), which is incorporated by reference in its entirety. | NA | NA | |
| Appendix B (g) (8) (H) (ii) | The data shall include quarterly wind tables and wind roses, ambient temperatures, relative humidity, stability and mixing heights, upper atmospheric air data, and an analysis of whether this data is representative of conditions at the project site. | 5.2.4.2 pp. 5.2-37 to 5.2-40 Air Quality Modeling CD <u>AFC Supplement Wind Rose Plots</u> | <u>Yes</u> No | Please provide quarterly wind roses. These can be obtained from the meteorological data used in the air dispersion modeling impacts analysis. |
| Appendix B (g) (8) (I) | An evaluation of the project's direct and cumulative air quality impacts, consisting of the following: | See below | | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date Sept 28, 2009
October 29, 2009

Technical Area: **Air Quality**
Project Manager: Eric K. Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Tao Jiang and Will Walters
Technical Senior: ~~Matthew Layton~~ 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) (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 5.2.4.2, pp. 5.2-41 to 5.2-45 Table 5.2-32 Air Quality Modeling CD | Yes | |
| Appendix B (g) (8) (I) (ii) | A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant (NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5}) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions; | Section 5.2.4.2, pp. 5.2-45 to 5.2-51 Tables 5.2-33 to 5.2-39 Air Quality Modeling CD | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date Sept 28, 2009
October 29, 2009

Technical Area: **Air Quality**
Project Manager: Eric K. Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Tao Jiang and Will Walters
Technical Senior: ~~Matthew Layton~~ 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) (8) (I) (iii) | A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard; and | Section 5.2.4.3, p. 5.2-53 | Yes | |
| Appendix B (g) (8) (I) (iv) | An air dispersion modeling analysis of the impacts of the initial commissioning phase emissions on state and federal ambient air quality standards for NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5} . | NA | NA | |
| Appendix B (g) (8) (J) | If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide the following information: | NA | NA | |
| Appendix B (g) (8) (J) (i) | The quantity of offsets or emission reductions that are needed to satisfy air permitting requirements of local permitting agencies (such as the air district), state and federal oversight air agencies, and the California Energy Commission. Identify by criteria air pollutant, and if appropriate, greenhouse gas; and | NA | NA | |
| Appendix B (g) (8) (J) (ii) | Potential offset sources, including location, and quantity of emission reductions; | NA | NA | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date Sept 28, 2009
October 29, 2009

Technical Area: **Air Quality**
Project Manager: Eric K. Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Tao Jiang and Will Walters
Technical Senior: ~~Matthew Layton~~ 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) (8) (K) | A detailed description of the mitigation, if any, which an applicant may propose, for all projects impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule. | Section 5.2.5, pp. 5.2-53 to 5.2-57 | Yes | |
| Appendix B (i) (1) (A) | Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and | Section 5.2.1.1 to Section 5.2.1.3, pp. 5.2-2 to 5.2-13 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 5.2.1.4, p. 5.2-13 Table 5.2-3 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 01 Date ~~Sept 28, 2009~~
October 29, 2009

Technical Area: **Air Quality**

Project: Ridgecrest Solar Power Project

Technical Staff: Tao Jiang and Will Walters

Project Manager: Eric K. Solorio

Docket: 09-AFC-9

Technical Senior: ~~Matthew Layton~~
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 (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 5.2.1.4, p. 5.2-13 Table 5.2-3 | 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 5.2.1.5, p. 5.2-13 Table 5.2-4 | Yes | |

Adequacy Issue: Adequate X Inadequate X
 Technical Area: **Biological Resources**
 Project Manager: Eric Solorio

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Project: Ridgecrest Solar Power Project
 Docket: Docket Number 09-AFC-9

Technical Staff: Dick Anderson
 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: Sect. 5.3.2.5, p. 5.3-16 — 5.3-39 Direct, indirect, and cumulative impacts: Sect. 5.3.3, p. 5.3-39 — 5.3-53 Mitigation measures: Sect. 5.3.4, p. 5.3-53 — 5.3-63 Monitoring plans: Sect. 5.3.4.1, p. 5.3-53 | Yes Yes Yes Yes | |

Adequacy Issue:

Adequate X Inadequate

X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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) (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: | <p>Regional overview: Sect. 5.3.2.1, p. 5.3-10—5.3-12</p> <p>Map of sensitive resources: Fig. 5.3-2</p> <p>Map of HCP boundaries or designated open space Fig. 5.3-10</p> | <p>Yes</p> <p><u>Yes</u> No</p> <p>Yes</p> | <p>Please provide a map at a scale of 1 inch = 500 feet showing the location of sensitive biological resources on the project site and a one-mile buffer. Specifically Figures 5.3-4, -6, -7, -8, and -9. The maps submitted look like postage stamps. Also include any linear facilities such as transmission lines and water lines plus a mile buffer. Please provide maps at 1 inch = 500 feet for the project site and a one-mile buffer for Figures 5.3-5 and 5.3-11.</p> |
| Appendix B (g) (13) (A) (i) | species listed under state or federal Endangered Species Acts; | <p>Federal and state Endangered Species: Sect. 5.3.2.3, p. 5.3109 — 5.3-12; Table 5.3-6, p. 5.3-22 — 5.3-28, Table 5.3-7, p. 5.3-30—5.3-32</p> | Yes | |
| Appendix B (g) (13) (A) (ii) | resources defined in sections 1702(q) and (v) of Title 20 of the California Code of Regulations; | <p>Areas of critical concern and species of special concern: Sect. 5.3.2.3, p. 5.3-10 — 5.3-12; Table 5.3-6 and Table 5.3-7, p. 5.3-22 — 5.3-32</p> | Yes | |

Adequacy Issue:

Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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) (A) (iii) | species identified as state Fully Protected; | State Fully Protected species: Sect. 5.3.2.3, p. 5.3-10 – 5.3-12; Table 5.3-6 and Table 5.3-7, p. 5.3-22 – 5.3-32 | Yes | |
| Appendix B (g) (13) (A) (iv) | species covered by Migratory Bird Treaty Act; | Migratory Bird Act species: Sect. 5.3.2.3, p. 5.3-10 – 5.3-12, Table 5.3-7, p. 5.3-27 – 5.3-30 | 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: Sect. 5.3.2.3, p. 5.3-10 – 5.3-12; Table 5.3-6 and Table 5.3-7, p. 5.3-22– 5.3-32 | 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: | <u>Yes</u> No | Please provide information regarding wildlife of commercial and recreational value include discussion of impacts and mitigation. |
| 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: Appendix F, Attachment D, E, G, H, I, J, K, and L. (| Yes | |

Adequacy Issue:

Adequate X Inadequate

X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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) (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; | <p>Map of proposed project site: Figure 5.3-1</p> <p>Map of biological resources:</p> <p>Map of survey area: Figure 5.3-1</p> | <p>Yes</p> <p><u>Yes</u> No</p> <p>Yes</p> | <p>The maps provided look like postage stamps. Please provide maps at 1 inch = 500 feet (1:6000) for the following figures (only the project site and linear facilities plus a one-mile buffer),</p> <p>Fig.5.3-4 Vegetation Communities Fig.5.3-5 State Waters Fig.5.3-6 Desert Tortoise Observations Fig.5.3-7 Mohave Ground Squirrel Fig.5.3-8 Burrowing Owl Observations Fig.5.3-9 Kit Fox, Shrike, thrasher Fig.5.3-11 Water Flow And Proposed channels</p> |
| 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 | <p>Depiction of the thermal plume: Not applicable</p> <p>Location of intake and discharge structures: Not Applicable</p> | <p>N/A</p> <p>N/A</p> | |

Adequacy Issue:

Adequate X Inadequate

X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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) (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 (USACE) 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: Coastal zone wetlands map: Not applicable | <u>Yes</u> No N/A | The figures are at too coarse a scale. Please provide maps of state jurisdictional waters at a scale of 1 inch = 500 feet, for the figures below: Fig. 5.3-5 and Fig. 5.3-11. |
| 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: Sect. 5.3.2.5, p 5.3-16 — 5.3-39 Discussion of biological resources at related facilities: | Yes <u>Yes</u> No | Please provide survey results and information about the vegetation and wildlife resources along the Project's linear facilities. (water pipeline route) |
| Appendix B (g) (13) (C) (i) | A list of all the species actually observed; | List of species observed: Appendix F, Attachment D (plants), Attachment H (wildlife) | Yes | |

Adequacy Issue:

Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~4~~5, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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: Sect. 5.3.2.3, p. 5.3-10 — 5.3-12; Table 5.3-6 and Table 5.3-7, p. 5.3-22 — 5.3-32 | 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. | <p>Intake structure characteristics: Not applicable</p> <p>Thermal plume description: Not applicable</p> <p>Aquatic habitat and biological resources affected: Not applicable</p> <p>Impingement and entrainment analysis: Not applicable</p> | <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> | |

Adequacy Issue:

Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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) | 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: | <p>Description and results of field studies: Section 5.3.2.5, p. 5.3-16—5.3-39</p> <p>Copies of CNDDDB records and field survey forms:</p> <p>Qualifications of biologists: Appendix F, Attachment B</p> | <p>Yes</p> <p>Yes No</p> <p>Yes</p> | <p>Please provide CNDDDB records and field survey forms. Want to make sure they have been completed and sent to CDFG CNDDDB. I don't really want copies. The info on a map is good for me.</p> |
| 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; | <p>Current biological surveys: Section 5.3.2.5, p. 5.3-16 — 5.3-52; Appendix F: Attachments MN</p> | Yes | |

Adequacy Issue:

Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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 | <p>Aquatic resource studies and surveys: Not applicable</p> <p>Aquatic resource survey data or impingement and entrainment impact study: Not applicable</p> | <p>N/A</p> <p>N/A</p> | |

Adequacy Issue:

Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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) (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. | <p>Completed USACE wetland delineation forms: Appendix F: Attachment C (Approved Jurisdictional Determination Forms)</p> <p>Determination of jurisdictional status:</p> <p>Delineation results, table showing impacts Table 5.3-5, p. 5.3-19; Table 5.3-8, p. 5.3-42; Appendix F, Attachment C</p> | <p>Yes</p> <p>Yes No</p> <p>Yes</p> | <p>Please provide correspondence indicating that the Jurisdictional Determination has been submitted for review to the USACE. No surprises.</p> |
| 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; | <p>Project site impacts: Section 5.3.3, p. 5.3-39 – 5.3-53</p> <p>Air emission impacts on sensitive species: Not applicable</p> | <p>Yes</p> <p>N/A</p> | |

Adequacy Issue:

Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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) (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 | |
| 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; | Avoidance and minimization: Sect. 5.3.4, p. 5.3-53 — 5.3-63 | Yes | |

Adequacy Issue:

Adequate X Inadequate

X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

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) (F) (ii) | All off-site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management; | Habitat mitigation: Sect 5.3.4.1, BIO-37, p. 5.3-59 Contacts for compensation habitat: | Yes <u>Yes</u> No | Please identify contacts that have been made regarding desert tortoise habitat compensation, relocation and management Brought up because it is important to get started early on comp and relocation sites—these can delay the project. Need to do DT surveys on any relocation lands. |
| 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: Sect. 5.3.4.1, BIO-1 p.5.3-53-54. | 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: Sect. 5.3.4.1. BIO-1p.5.3-53—5.3-54, | Yes | |

Adequacy Issue:

Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project: Ridgecrest Solar Power Project

Technical Staff: Dick Anderson

Project Manager:

Eric Solorio

Docket: Docket Number 09-AFC-9

Technical Senior: Rick York

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|-------------------------|---|--|--------------------|--|
| Appendix B (g) (13) (H) | Submit copies of any preliminary correspondence between the project applicant and state and federal resource agencies regarding whether federal or state permits from other agencies such as the U. S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Game (CDFG), and the Regional Water Quality Control Board (RWCB) will be required for the proposed project. | Contact with state and federal agencies regarding permits: Appendix F, Attachment M | <u>Yes</u> No | Please provide preliminary correspondence with CDFG, USFWS, USACE and any other appropriate agencies regarding permits that might be required for this project. Appendix F, Attachment M "Regulatory Agency Correspondence" includes only a species list request and an e-mail exchange about proposed survey protocol. Please include correspondence indicating that the Jurisdictional Determination has been submitted to the USACE for review. Need to move on a biological assessment for the FESA and submit info to CDFG for CESA take and SBAA for stream channel work—CEC works closely with CDFG to include all requirements that CDFG would include in a ITP and SBAA. |
| Appendix B (i) (1) (A) | Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and | Table identifying applicable biological resources laws, ordinances, regulations and standards: Sect. 5.3.1, Table 5.3-1, p. 5.3-2 — 5.3-4, and p.5.3-3—5.3-8. | Yes | |

Adequacy Issue:

Adequate X Inadequate

X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date Sept 30~~45~~, 2009

Technical Area:

Biological Resources

Project:

Ridgecrest Solar Power Project

Technical Staff:

Dick Anderson

Project Manager:

Eric Solorio

Docket:

Docket Number 09-AFC-9

Technical Senior:

Rick York

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------|---|--|--------------------|---|
| Appendix B (i) (1) (B) | Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities. | Tables identifying agencies with jurisdiction: Sect. 5.3.1.4, Table 5.3-2, p.5.3-8—5.3-9 | 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. | Agency contact information: Sect. 5.3.1.4, Table 5.3-2, p.5.3-8—5.3-9 | 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: Sect. 5.3.1.5, Table 5.3-3, p. 5.3-9 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ~~November 11, 2009~~
September 15, 2009

Technical Area: Cultural Resources
Project Manager: Eric Solorio

Project: Ridgecrest
Docket: 09-AFC-9

Technical Staff: Amanda Blosser
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: Vol. 1, pp. 2-1–2-2 Impacts due to project: <u>Cultural Resources Supplement Report</u> Mitigation measures for known impacts: Vol. 1, pp. 5.4-1–5.4-2 Effectiveness of the proposed measures Any monitoring plans proposed to verify the effectiveness of the mitigation | Yes No <u>Yes</u> Yes N/A N/A | Applicant needs to provide a description of the route of the proposed water line and an assessment of the potential impacts of the construction of this line to cultural resources |
| 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: Vol. 1, pp. 5.4-10–5.4-13 | Yes | |

Adequacy Issue: Adequate Inadequate **DATA ADEQUACY WORKSHEET**

Revision No. 1 Date ~~November 11, 2009~~
September 15, 2009

Technical Area: **Cultural Resources**
Project Manager: Eric Solorio

Project: Ridgecrest
Docket: 09-AFC-9

Technical Staff: Amanda Blosser
Technical Senior: Rick York

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------|---|--|---|---|
| Appendix B (g) (2) (B) | <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. 1, pp.5.4-19–5.4-25</p> <p>Cultural resources listed under a city and county ordinance: Vol. 1, p. 5.4-20</p> <p>Cultural resources recognized by local societies: Vol. 1, p. 5.4-20</p> <p>Names/quals for lit searchers/directors: Vol. 2, App. G, Attachment 3</p> <p>DPR523s for known resources: <u>Cultural Resources Supplement Report</u></p> | <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>NoYes</p> <p>NoYes</p> | <p>Please provide copies of DPR523s for known cultural resources including those along the proposed water line.</p> <p>Please provide a map of the literature search area with past survey coverage and associated CHRIS report #s displayed including those along the proposed water line.</p> |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ~~November 11, 2009~~
September 15, 2009

Technical Area: **Cultural Resources**
Project Manager: Eric Solorio

Project: Ridgecrest
Docket: 09-AFC-9

Technical Staff: Amanda Blosser
Technical Senior: Rick York

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|--------------------------------|-------------|--|--------------------|--|
| Appendix B (g) (2) (B) (cont.) | | Map of lit search area with past surveys and CHRIS #s: <u>Cultural Resources Supplement Report</u> CHRIS reports: Vol. 2, Appendix D, Attachment 2. <u>Cultural Resources Supplement Report</u> | No Yes | Please provide copies of the CHRIS reports that fall within the project area or overlap the project area. |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ~~November 11, 2009~~
September 15, 2009

Technical Area: **Cultural Resources**
Project Manager: Eric Solorio

Project: Ridgecrest
Docket: 09-AFC-9

Technical Staff: Amanda Blosser
Technical Senior: Rick York

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------|---|--|---|--|
| Appendix B (g) (2) (C) | <p>The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.</p> <p>New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.</p> | <p>Names/quals for archaeological surveyors or directors: Vol. 2, App. G, Attachment 3</p> <p>Names/quals for historical architecture surveyors or directors: Vol. 2, App. G, Attachment 3</p> <p>Survey coverage, archaeology: <u>Cultural Resources Supplement Report</u></p> <p>Survey coverage, architecture: Vol. 2, App. G, Attachment 8, Fig. 3</p> | <p>Yes</p> <p>Yes</p> <p>No<u>Yes</u></p> <p>Yes</p> | <p>Please provide a survey coverage map for the new archaeology survey including the coverage for the water line route.</p> <p>Cultural Resources</p> |

Adequacy Issue: Adequate X Inadequate X

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ~~November 11, 2009~~
September 15, 2009

Technical Area: **Cultural Resources**
Project Manager: Eric Solorio

Project: Ridgecrest
Docket: 09-AFC-9

Technical Staff: Amanda Blosser
Technical Senior: Rick York

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------------|---|---|---|--|
| Appendix B (g) (2) (C) cont. | <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>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:</p> | <p>Tech report for new archaeological survey: <u>Cultural Resources Supplement Report</u></p> <p>: Technical report for new architectural survey: Vol. 2, App. G, Attachment 8</p> <p>AFC includes tech report data, unless confidential; Vol.1, sec. 5.4</p> | <p>NoYes</p> <p>Yes</p> <p>Yes</p> | <p>Please provide under confidential cover a technical report for the new archaeological survey including the coverage for the water line route</p> |
| 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. 2, App. G, pp. 5.4-v-5.4-vi</p> <p>Literature search results: Vol. 2, App. G, pp. 25-29</p> | <p>Yes</p> <p>Yes</p> | |
| 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. 2, App. G, pp. 33-40</p> <p>Historical architecture methodology: Vol. 2, Section 5.4, p. 5.4-26</p> | <p>Yes</p> <p>Yes</p> | |

Adequacy Issue: Adequate X Inadequate X

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ~~November 11, 2009~~
September 15, 2009

Technical Area: Cultural Resources
Project Manager: Eric Solorio

Project: Ridgecrest
Docket: 09-AFC-9

Technical Staff: Amanda Blosser
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) (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; | Archaeological forms: <u>Cultural Resources Supplement Report</u> Architecture forms: Vol. 2, Appendix G, Attachment 8, Attachment 2 | No <u>Yes</u> Yes | Please provide copies in the technical report of all new and updated DPR523(A) forms and detailed DPR523 forms for all archaeological resources that could be potentially impacted. |
| 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 | Archaeology and architecture map: <u>Cultural Resources Supplement Report</u> | No <u>Yes</u> | Please provide a map at the scale of 1:24,000 U.S. Geological Survey quadrangle depicting the locations of all previously known and newly identified cultural resources. |
| 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: Vol. 2, App. G, Attachment 3 Names/quals for architectural historians: Vol. 2, App. G, Attachment 8, Attachment 1 | Yes Yes | |

Adequacy Issue: Adequate X Inadequate X

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ~~November 11, 2009~~
September 15, 2009

Technical Area: Cultural Resources
Project Manager: Eric Solorio

Project: Ridgecrest
Docket: 09-AFC-9

Technical Staff: Amanda Blosser
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) (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: | No <u>Yes</u> | Please provide a copy of the request to the NAHC for information on Native American sacred sites and lists of Native Americans interested in the project vicinity. |
| | | NAHC response: | No <u>Yes</u> | Please provide a copy of the response from the NAHC. |
| | | Letters sent to Native Americans: | No <u>Yes</u> | Please provide copies of letters sent to Native Americans individuals or groups listed by the NAHC. |
| | | Letters received from Native Americans: | No <u>Yes</u> | Please provide copies of letters received from Native Americans in response to applicant's requests for input. |
| | | Summary of oral responses from Native Americans: | No <u>Yes</u> | Please provide summaries of any oral responses received from Native Americans regarding the proposed project. |
| Appendix B (g) (2) (E) | Include in the discussion of proposed mitigation measures required by subdivision (g)(1): | | | |
| Appendix B (g) (2) (E) (i) | A discussion of measures proposed to mitigate project impacts to known cultural resources; | Mitigation measures for known impacts: Vol. 1, Section 5.4, pp. 5.4-35–5.4-42 | 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: Vol. 1, Section 5.4, pp. 5.4-28–5.4-29 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ~~November 11, 2009~~
September 15, 2009

Technical Area: **Cultural Resources**
Project: Eric Solorio
Manager: _____

Project: Ridgecrest
Docket: 09-AFC-9

Technical Staff: Amanda Blosser
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 programs: Vol. 1, p.5.4-29 | 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. 1, pp. 5.4-2–5.4-3, Table 5.4-1 Explicitly referenced pages: Vol. 1, pp. 5.4-2–5.4-3, Table 5.4-1 Discussion of applicability of LORS: Vol. 1, pp. 5.4-2–5.4-3, Table 5.4-1 | 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. 1, pp. 5.4-8, Table 5.4-2 | Yes | |
| Appendix B (i) (2) | The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff. | Official within each agency who will serve as a contact person for the agency: Vol. 1, pp. 5.4-8, Table 5.4-2 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ~~November 11, 2009~~
September 15, 2009

Technical Area: **Cultural Resources**
Project: Eric Solorio
Manager: _____

Project: Ridgecrest
Docket: 09-AFC-9

Technical Staff: Amanda Blosser
Technical Senior: Rick York

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|--------------------|--|---|--------------------|---|
| Appendix B (i) (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. 1, p. 5.4-8 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date September 15, 2009
1 October 29, 2009

Technical Area: Land Use
 Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
 Docket: 09-AFC-9

Technical Staff: Mark R. Hamblin
 Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|-----------------------------|---|--|--------------------|---|
| Appendix B (g) (1) | ...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation. | Pg. 5.7-1, sec. 5.7 Pg. 5.7-4 through 10, sec. 5.7.1.1 through 5.7.1.2. Pg. 5.7-15 through 22, sec. 5.7.2.1 through 5.7.3.3. | 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: | Pg. 5.7-15 through 16, sec. 5.7.2.2. Pg. 5.7-9 through 12, sec. 5.7.1.3. | 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; | Pg. 5.7-4 through 11, sec. 5.7.1.1 through 5.7.1.3. | 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; | No recent or proposed zone changes or general plan amendments are discussed in the land use section in AFC. BLM Land | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date September 15, 2009
1 October 29, 2009

Technical Area: Land Use
 Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
 Docket: 09-AFC-9

Technical Staff: Mark R. Hamblin
 Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------------|--|--|--------------------|---|
| Appendix B (g) (3) (A) (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 | No discretionary reviews by public agencies initiated or completed within 18 months prior to the filling of the AFC have been identified in the AFC. BLM Land. | yes | |
| 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. | Figure 5.7-2 Figure 5.7-8 Figure 5.7-6 Figure 5.7-7 | 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. | Pg. 5.7-3 through 6, sec. 5.7.1.1. Pg. 5.7-9, sec. 5.7.1.2. | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date September 15, 2009
1 October 29, 2009

Technical Area: Land Use
 Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
 Docket: 09-AFC-9

Technical Staff: Mark R. Hamblin
 Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------------|---|---|--------------------|--|
| Appendix B (g) (3) (C) | A discussion of the legal status of the parcel(s) on which the project is proposed. If the proposed site consists of more than one legal parcel, describe the method and timetable for merging or otherwise combining those parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel. The merger need not occur prior to a decision on the Application but must be completed prior to the start of construction. | | No Yes | AFC section does not provide a written discussion of the legal status of the property to be used for the project site. The BLM uses Master Title Plats (MTPs) as the basis for land records. The MTPs illustrate current federal ownership, agency jurisdiction, and rights reserved to the federal government on private land within a township. Please provide a copy of the applicable MTPs covering the project site. |
| 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: | No agricultural land uses within areas affected by the proposed project. Pg. 5.7-8, sec. 5.7.1.1 | Yes | |
| Appendix B (g) (3) (D) (i) | Crop types, irrigation systems, and any special cultivation practices; | NA | 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 | Pg. 5.7-8, sec. 5.7.1.1 | 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. | Pg. 5.7-8, sec. 5.7.1.1 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date September 15, 2009
1 October 29, 2009

Technical Area: Land Use
 Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
 Docket: 09-AFC-9

Technical Staff: Mark R. Hamblin
 Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------|--|------------------------------------|--------------------|---|
| Appendix B (i) (1) (A) | Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and | Table 5.7-1 | Yes | |
| Appendix B (i) (1) (B) | Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities. | Table 5.7-4 Table 5.7-5 | 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. | Table 5.7-4 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date September 15, 2009
1 October 29, 2009

Technical Area: Land Use
 Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
 Docket: 09-AFC-9

Technical Staff: Mark R. Hamblin
 Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|--------------------|--|---|--------------------|---|
| Appendix B (i) (3) | A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits. | Pg. 5.7-14, sec. 5.7.1.5. Pg. 5.7-3 through 6, sec. 5.7.1.1. | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date November 5, 2009
~~September 18, 2009~~

Technical Area: Project Overview
Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Eric Solorio
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. | Section 2, pages 2-1 through 2-27 Section 5.1 through 5.18, pages 5.1-1 through 5.18-23 | 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 | Section 5.1 through 5.18, pages 5.1-1 through 5.18-23 Appendices B, E, F, G, H, I and J <u>AFC Volume 3, Project Overview, page 1 and Cultural Resources, Confidential filings</u> | <u>Yes</u> No | Please provide copies of DPR523s for known cultural resources including those along the proposed water line. Please provide copies of the CHRIS reports that fall within the project area or overlap the project area. Please provide under confidential cover a technical report for the new archaeological survey including the coverage for the water line route |
| 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 | AFC contains reference lists at the end of each technical section 5.1 through 5.18 | 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. | <u>AFC Volume 3, Project Overview, page 1</u> | <u>Yes</u> No | Please identify the person or persons responsible for preparing the Transmission System Engineering section. |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date November 5, 2009
~~September 18, 2009~~

Technical Area: Project Overview
Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Eric Solorio
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) (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. | AFC Volume 3, Project Overview, pages 2 and 3 | 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. | Section 2.3, page 2-3 | Yes | |
| Appendix B (a) (1) (C) | A description of and maps depicting the region, the vicinity, and the site and its immediate surroundings. | AFC Volume 3, Project Overview, pages 4 and 5 Section 2.4 | Yes No | Please provide a description of the region, the vicinity, and the site and its immediate surroundings. |
| 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. | AFC Volume 3, Project Overview, Revised Figure 2-3a and Figure 2-3b Figure 2-3a and Figure 2-3b | Yes No | Figure 2-3b is not of a scale that reflects the various project components. Please provide a new image that illustrates the various project components to the observer. |
| 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. | AFC Volume 3, Project Overview, page 6 Appendix A | Yes No | Please provide a list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of the downstream transmission system improvements that will be required as a result of this project. |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date November 5, 2009
~~September 18, 2009~~

Technical Area: Project Overview
Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Eric Solorio
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) (2) | Project Schedule: Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation of the proposed facilities. | <u>AFC Volume 3, Project Overview, page 7</u> Section 1.1, page 1-2 | <u>Yes</u> No | Please provide proposed dates of 1.) initiation and completion of construction, 2.) initial start-up, and 3.) full-scale operation of the proposed facilities. |
| 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 1.0, page 1-1 | Yes | |
| Appendix B (a) (3) (B) | A list of all owners and operators of the proposed electric transmission facilities. | <u>AFC Volume 3, Project Overview, page 7</u> Section 1.1, page 1-2 | <u>Yes</u> No | Please list of all owners and operators of the proposed electric transmission facilities. |
| Appendix B (a) (3) (C) | A description of the legal relationship between the applicant and each of the persons or entities specified in subsections (a)(3)(A) and (B). | <u>AFC Volume 3, Project Overview, page 7</u> Section 1.1, page 1-2 | <u>Yes</u> No | A description of the legal relationship between the applicant and each of the persons or entities specified in subsections (a)(3)(A) and (B). |
| Appendix B (b) (1) | In a section entitled, "Generation Facility Description, Design, and Operation" provide the following information: | | 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; | <u>AFC Volume 3, Project Overview, Figure A-1</u> Section 2.5, page 2-4 and Figure 2-4 | <u>Yes</u> No | Please provide 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; |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date November 5, 2009
~~September 18, 2009~~

Technical Area: Project Overview
Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Eric Solorio
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) (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); | AFC Volume 3, Project Overview, page 8; revised Figure 2-4 Figure 2-6a and Figure 2-6b | <u>Yes</u> No | Please provide 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); |
| 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, Pages 2-1 through 2-27 | 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, pages 4-1 through 4-13 | Yes | |
| Appendix B (b) (2) | In a section entitled, "Transmission Lines Description, Design, and Operation" provide the following information: | | 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); | AFC Volume 3, Project Overview, Figure 2-11 Section 2.6, pages 2-25 through 2-27 and Figure 2-4 | <u>Yes</u> No | Please provide 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); |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date November 5, 2009
~~September 18, 2009~~

Technical Area: Project Overview
Project Manager: Eric Solorio

Project: Ridgecrest Solar Power Project
Docket: 09-AFC-9

Technical Staff: Eric Solorio
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) (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. | <u>AFC Volume 3, Project Overview, page 8; revised Figure 2-12a and 12b</u> Section 2.6, pages 2-25 through 2-27 | <u>Yes</u> No | 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. |
| 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. | <u>AFC Volume 3, Transmission System Design, Pages 1 and 2</u> Section 2.6, pages 2-25 through 2-27 and Confidential Cluster Study | <u>Yes</u> No | Responding to this item in Transmission System Design will address the inadequacy here. |
| 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 | <u>AFC Volume 3, Transmission System, page 1; revised Figure 2-12</u> | <u>Yes</u> No | Responding to this item in Transmission System Design will address the inadequacy here. |
| 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, pages 3-1 and 3-2 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009
9/17/09

Technical Area: Socioeconomics

Project: Ridgecrest Solar Power Project

Technical Staff: Sue Walker

Project Manager: Eric Solorio

Docket: 09-AFC-9

Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------------|---|---|--------------------|---|
| Appendix B (g) (1) | ...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation. | AFC Section 5.11, pages 5.11-1 through 5.11-27 | 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: | AFC pages 5.11-4 though 5.11-17, Section 5.11.2. | Yes | |
| 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; | AFC pages 5.11-7 though 5.11-10, Section 5.11.2.4. AFC pages 5.11-16 through 5.11-17, Section 5.11.2.8. AFC pages 5.11-3 though 5.11-4, Section 5.11.1.3. | Yes | |
| Appendix B (g) (7) (A) (ii) | The social characteristics, including population and demographic and community trends; | AFC pages 5.11-4 though 5.11-6, Section 5.11.2.2. AFC pages 5.11-23 through 5.11-26, Section 5.11.3.4. | Yes | |
| Appendix B (g) (7) (A) (iii) | Existing unemployment rates; | AFC page 5.11-14, Section 5.11.2.5. | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009
9/17/09

Technical Area: Socioeconomics

Project: Ridgecrest Solar Power Project

Technical Staff: Sue Walker

Project Manager: Eric Solorio

Docket: 09-AFC-9

Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|-----------------------------|---|--|--------------------|---|
| Appendix B (g) (7) (A) (iv) | Availability of skilled workers by craft required for construction and operation of the project; | AFC pages 5.11-7 though 5.11-10, Section 5.11.2.4. AFC pages 5.11-10 through 5.11-14, Section 5.11.2.5, and AFC pages 5.11-18 through 5.11-19, Section 5.11.3.2. | Yes | |
| Appendix B (g) (7) (A) (v) | Availability of temporary and permanent housing and current vacancy rate; and | AFC pages 5.11-6 though 5.11-7, Section 5.11.2.3. | 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. | AFC pages 5.11-15 through 5.11-16, Section 5.11.2.6, and AFC pages 5.16-1 through 5.16-23, Section 5.16 AFC pages 5.11-16 though 5.11-17, Section 5.11.2.7. | 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: | AFC pages 5.11-17 though 5.11-26, Section 5.11.3. "IMPLAN Professional" (2009 dollars). | Yes | |
| 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; | AFC pages 5.11-18 through 5.11-19, including Table 5.11-15 Section 5.11.3.2. AFC page 5.11-22, Section 5.11.3.3. | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009
9/17/09

Technical Area: Socioeconomics

Project: Ridgecrest Solar Power Project

Technical Staff: Sue Walker

Project Manager: Eric Solorio

Docket: 09-AFC-9

Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|-----------------------------|--|---|--------------------|--|
| Appendix B (g) (7) (B) (ii) | An estimate of the percentage of non-local workers who will relocate to the project area to work on the project; | <u>The Data Adequacy Supplement DA-SOC-1. Appendix B (g) (7) (B) (ii), dated October 26, 2009, provides an estimate (in both percent of total workforce and gross maximum number of workforce) for: (a) construction personnel that would be expected to temporarily relocate to the project area; and, (b) operational personnel that would be expected to permanently relocate to the project area.</u> | Yes No | Please provide an estimate (either percent of total workforce, or gross maximum number of workforce) for: (a) construction personnel that would be expected to temporarily relocate to the project area; and, (b) operational personnel that would be expected to permanently relocate to the project area. |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009
9/17/09

Technical Area: Socioeconomics

Project: Ridgecrest Solar Power Project

Technical Staff: Sue Walker

Project Manager: Eric Solorio

Docket: 09-AFC-9

Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------------|---|---|--------------------|--|
| Appendix B (g) (7) (B) (iii) | An estimate of the potential population increase caused directly and indirectly by the project; | <p>The Data Adequacy Supplement DA-SOC-2. Appendix B (g) (7) (B) (iii), in conjunction with DA-SOC-1. Appendix B (g) (7) (B) (ii), dated October 26, 2009, provides estimates for potential population increases that may be caused, directly or indirectly by the project. AFC Section 5.11.3.2—No specific estimate for permanent or short-term employee relocation provided. Operation: None provided. AFC Section 2.5.8 (Project Operation) notes that a breakdown of the 84 operational staff is provided in Section 5.11 (Socioeconomics), but no such breakdown in AFC Section 5.11.3.3 (Operation) could be found.</p> | Yes No | <p>Responding to item Appendix B (g) (7) (B) (ii), above, will be sufficient for this item as well.</p> |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009
9/17/09

Technical Area: Socioeconomics

Project: Ridgecrest Solar Power Project

Technical Staff: Sue Walker

Project Manager: Eric Solorio

Docket: 09-AFC-9

Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|-----------------------------|---|--|--------------------|---|
| Appendix B (g) (7) (B) (iv) | The potential impact of population increase on housing during the construction and operations phases; | <p><u>The Data Adequacy Supplement DA-SOC-3. Appendix B (g) (7) (B) (iii), in conjunction with DA-SOC-1. Appendix B (g) (7) (B) (ii) and DA-SOC-2. Appendix B (g) (7) (B) (iii) and DA-SOC-1. Appendix B (g) (7) (B) (ii), dated October 26, 2009, provides estimates for potential population increases that may be caused by the project during construction and operation.</u></p> <p><u>Construction: None specifically provided (quantified) other than noting existing housing vacancy rate.</u></p> <p><u>Operation: None specifically provided (quantified) other than noting existing housing vacancy rate.</u></p> | Yes No | <p>Responding to item Appendix B (g) (7) (B) (ii), above, with the addition of an analysis of the potential impacts that temporary and permanent population increases would have on local and regional housing will be sufficient for this item.</p> |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009
9/17/09

Technical Area: Socioeconomics

Project: Ridgecrest Solar Power Project

Technical Staff: Sue Walker

Project Manager: Eric Solorio

Docket: 09-AFC-9

Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|-------------------------------|--|---|--------------------|---|
| Appendix B (g) (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; | AFC pages 5.11-18 through 5.11-22, Section 5.11.3.2. AFC page 5.11-23, Section 5.11.3.2. | Yes | |
| Appendix B (g) (7) (B) (vi) | An estimate of applicable school impact fees; | AFC page 5.11-23, Section 5.11.3.3. | Yes | |
| 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; | AFC page 5.11-20, Section 5.11.3.2 (Construction), | Yes | |
| Appendix B (g) (7) (B) (viii) | An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project; | AFC pages 5.11-20 through 5.11.21, Section 5.11.3.2 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009
9/17/09

Technical Area: Socioeconomics

Project: Ridgecrest Solar Power Project

Technical Staff: Sue Walker

Project Manager: Eric Solorio

Docket: 09-AFC-9

Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------------|--|---|--------------------|--|
| Appendix B (g) (7) (B) (ix) | An estimate of the capital cost (plant and equipment) of the project; | The Data Adequacy Supplement DA-SOC-4, Appendix B (g) (7) (B) (ix), dated October 26, 2009, provides an estimate for the project's total capital cost, including a break-down of expenditures/costs that would and would not be purchased/procured locally. AFC pages 5.11-20 through 5.11-21, Section 5.11.3.2. AFC page 5.11-23, Section 5.11.3.3. | Yes No | It is assumed that some materials required for construction and operation of the facility would be imported from outside of the project area (e.g., the solar panel arrays and additional operational equipment needs). Please provide an estimate for the project's total capital cost, including a break-down of: (a) expenditures/costs that would not be purchased/procured locally; and (b) expenditures/costs that would be purchased/procured locally. |
| Appendix B (g) (7) (B) (x) | An estimate of sales taxes generated during construction and separately during an operational year of the project; | AFC pages 5.11-21 through 5.11-22, Section 5.11.3.2. AFC page 5.11-23, Section 5.11.3.3. | Yes | |
| Appendix B (g) (7) (B) (xi) | An estimate of property taxes generated during an operational year of the project; and | AFC page 5.11-23, Section 5.11.3.3. | Yes | |
| 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. | AFC page 5.11-21, Section 5.11.3.2 and AFC page 5.11-22, Section 5.11.3.3. | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009
9/17/09

Technical Area: Socioeconomics

Project: Ridgecrest Solar Power Project

Technical Staff: Sue Walker

Project Manager: Eric Solorio

Docket: 09-AFC-9

Technical Senior: David Flores

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------|--|---|--------------------|---|
| Appendix B (i) (1) (A) | Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and | AFC PAGE 5.11-2, TABLE 5.11-1, SECTION 5.11.1. | 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. | AFC PAGE 5.11-4., SECTION 5.11.1.4. | Yes | |
| Appendix B (i) (2) | The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff. | AFC PAGE 5.11-4, SECTION 5.11.1.4; AFC SECTION 6 (LIST OF CONTRIBUTORS) | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: Soils

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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. | Environmental Information, Affected Environment Section 5.12 – Soils, pgs 5.12-5 Environmental Impacts Section 5.12.3,pg 5.12-7; Cumulative Impacts Section 5.12.3.3, pg 5.12-9; Mitigation Measures Section 5.12.4, pg 5.12-9; | 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: | Environmental Information, Section 5.12 – Soils, Affected Environment, pgs 5.12-5 | Yes | |
| Appendix B (g) (15) (A) (i) | The depth, texture, permeability, drainage, erosion hazard rating, and land capability class of the soil; | Environmental Information, Section 5.12 – Soils, Affected Environment, pgs 5.12-5 | 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; | Environmental Information, Section 5.12 – Soils, Affected Environment, pgs 5.12-5 | Yes | |
| Appendix B (g) (15) (A) (iii) | The location of any proposed fill disposal or fill procurement (borrow) sites; and | Environmental Information, Section 5.12 – Soils, Environmental Impacts – Construction, Section 5.12.3.1,pg 5.12-10; Vol. 3 Supplement, Soils, pg. 1 | No <u>Yes</u> | Please provide the location of any proposed fill disposal or fill procurement (borrow) sites. |

Adequacy Issue: Adequate Inadequate
 Technical Area: Soils
 Project Manager: Paul Marshall

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009
 Project: Ridgecrest Solar Power Project Technical Staff: M. Donovan, J. Thornton
 Docket: 09-AFC-9 Technical Senior: Paul Marshall

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------------|---|--|-----------------------------|---|
| Appendix B (g) (15) (A) (iv) | The location of any contaminated soils that could be disturbed by project construction. | Hazards related to Soil Conditions Section 5.12.2.3, pg. 5.12-7 | 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: | | | |
| Appendix B (g) (15) (B) (i) | The quantification of accelerated soil loss due to wind and water erosion; and | Environmental Information, Section 5.12 – Soils, Affected Environment, pgs 5.12-5 & Environmental Impacts Section 5.12.3,pg 5.12-7; <u>Vol. 3 Supplement, Soils, pg. 2</u> | No <u>Yes</u> | The AFC did not provide supporting information and calculations for all potential soil loss scenarios. For all soil loss estimates (annual loss of soil due to wind and water erosion under a no project scenario, during construction, and during operation), please provide supporting information and calculations. The volume of soil loss due to accelerated wind and water erosion must be numerically quantified using the Revised Universal Soil Loss Equation (RUSLE2 model) and the Wind Erosion Prediction System (WEPS model) or similarly accepted methods. |
| Appendix B (g) (15) (B) (ii) | The effect of power plant emissions on surrounding soil-vegetation systems. | Environmental Impacts - Operations Section 5.12.3.2, pg 5.12-9; | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: Soils

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

Technical Senior: Paul Marshall

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------|--|--|--------------------|---|
| Appendix B (i) (1) (A) | Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and | Environmental Information, Section 5.12 – Soils – LORS Compliance Section 5.12-1, pg 5.12-1 | Yes | |
| Appendix B (i) (1) (B) | Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities. | Environmental Information, Section 5.12 – Soils – LORS Compliance Section 5.12-1, pg 5.12-1 | Yes | |
| Appendix B (i) (2) | The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff. | Environmental Information, Section 5.12 – Soils Involved Agencies Section 5.12.1.4, pg 5.12-4 | Yes | |
| Appendix B (i) (3) | A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits. | Environmental Information, Section 5.12 – Soils Required Permits and Permit Schedule Section 5.12.1.5, pg 5.12-4 | Yes | |

Adequacy Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 27, 2009

Issue: _____
 Technical Area: **Transmission System Design**

Project: Ridgecrest Solar Power Project

Technical Staff: Ajoy Guha, P.E.

Project Manager: Eric Solorio

Docket: 09-AFC-9

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 1.1, Page 1-2. Section 2.6, Pages 2-25 to 2-27 | Yes | |
| Appendix B (h) (2) (B) | A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity. | Section 2.6, Page 2-25 to 2-27. Figures 2-1. <u>AFC Supplement, Transmission System, Page 1, Figure 2-12.</u> | No Yes | Provide a physical layout drawing showing distinctly the route of the proposed 0.5-mile 230 kV overhead generator tie line in and out of the plant site between the proposed Ridgecrest Solar Power Project (RSPP) 230 kV switchyard and proposed new SCE 230 kV substation including Right of Way (ROW) widths. Describe whether the ROW would be through private and/or public lands. Also include in the diagram the existing and relocated routes of 1.4 mile transmission lines in the project site. |

Adequacy Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision 1 Date October 27, 2009

Issue: _____
 Technical Area: Transmission System Design Project: Ridgecrest Solar Power Project

No. _____
 Technical Staff: Ajoy Guha, P.E.

Project Manager: Eric Solorio Docket: 09-AFC-9

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. | <p>Section 2.6.1.2, Page 2-26. Figure 5.14-1. AFC Supplement, Transmission System, Page 2, Figure 2-13.</p> <p><u>AFC Supplement, Transmission System, Page 2, Figures 2-9 & 2-14.</u></p> | <p>No</p> <p>Yes</p> | <p>Submit a Pole design diagram for dead-end structures of the generator overhead 230 kV tie lines showing configuration of insulators and conductors (with sizes, type and ampere rating) with their respective position measurements on the pole.</p> <p>Submit a complete electrical one-line diagram (or resubmit Figure 2.8 with missing elements or sizes/ratings) of the proposed RSPP 230 kV switchyard showing all equipment for all new generators' interconnection with the switchyard along with their respective sizes and/or ratings as follows: i) Any bus duct connectors or overhead conductors or cables, 18 kV switchgear, buses, breakers & disconnect switches on the low side of each Generator step-up transformer (GSU). ii) The GSU and short overhead conductors and/or cables from the GSU to the switchyard with the configuration for the switchyard buses, breakers, disconnect switches on the 230 kV side, along with the proposed tie line transmission outlet from the switchyard.</p> <p>Provide a one-line electrical diagram (or resubmit Figure 2.9 with missing elements) showing the proposed new SCE 230 kV substation with the proposed 230 kV generator tie line interconnection facilities for buses, breakers and disconnect switches and their respective sizes and/or ratings.</p> <p>Provide a physical layout drawing of the proposed new SCE substation showing all major equipment and transmission outlets.</p> |

Adequacy Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision 1 Date October 27, 2009
 No. _____
 Technical Staff: Ajoy Guha, P.E.
 Technical Senior: Mark Hesters

Issue: _____
 Technical Area: **Transmission System Design** Project: Ridgecrest Solar Power Project

Project Manager: Eric Solorio Docket: 09-AFC-9

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------|--|---|--------------------|--|
| Appendix B (b) (2) (D) | A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints. | Section 4.7, Pages 4-1 to 4-11. AFC Supplement, Transmission System, Page 3, Figure 2-15. | No Yes | Submit a drawing showing the alternate routes of the proposed 230 kV generator tie lines and describe how the preferred route is selected by comparing to alternate routes and their environmental effects. |
| Appendix B (b) (2) (E) | <p>A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator (CA ISO) and proof of payment. When not connecting to the California Independent System Operator controlled grid, provide the executed System Impact Study agreement and proof of payment to the interconnecting utility.</p> <p>If the interconnection and operation of the proposed project will likely impact an transmission system that is not controlled by the interconnecting utility (or California Independent System Operator), provide evidence of a System Impact Study or agreement and proof of payment (when applicable) with/to the impacted transmission owner or provide evidence that there are no system impacts requiring mitigation.</p> | Section 2.6.3, Page 2-27. | Yes | |

Adequacy Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision 1 Date October 27, 2009
 No. _____
 Technical Staff: Ajoy Guha, P.E.
 Technical Senior: Mark Hesters

Issue: _____
 Technical Area: **Transmission System Design** Project: Ridgecrest Solar Power Project

Project Manager: Eric Solorio Docket: 09-AFC-9

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------|--|--|--------------------|---|
| Appendix B (i) (1) (A) | Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and | Section 2.0, Pages 2-1 to 2-27. <u>AFC Supplement, Transmission System, Table TSD-4.</u> | No Yes | Provide a list of federal, state, regional or local laws, ordinances, regulations and standards applicable for transmission and describe in short their applicability/purpose during planning, construction and operation of the proposed RSPP. |
| Appendix B (i) (1) (B) | Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities. | Section 2.0, Pages 2-1 to 2-27. <u>AFC Supplement, Transmission System, Page 5.</u> | No Yes | Provide a list of agencies, other than the Energy Commission, in a Table who will provide necessary permits, leases and approvals to enforce the identified laws, regulations, standards and for land use or other plans for transmission. |
| Appendix B (i) (2) | The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff. | Section 2.0, Pages 2-1 to 2-27. <u>AFC Supplement, Transmission System, Page 5.</u> | No Yes | Provide the names, phone number, address and email address of the official contact person for each agency. |

Adequacy Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date October 27, 2009
 Technical Staff: Ajoy Guha, P.E.
 Technical Senior: Mark Hesters

Issue: _____
 Technical Area: **Transmission System Design** Project: Ridgecrest Solar Power Project

Project Manager: Eric Solorio Docket: 09-AFC-9

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|--------------------|--|---|--------------------|---|
| 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. | <u>Section 2.0, Pages 2-1 to 2-27. AFC Supplement, Transmission System, Page 5.</u> | No Yes | Provide a schedule when transmission related permits/study reports will be obtained. |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly,
J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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. | Environmental Information, Section 5.17 – Water Resources – Affected Environment Section 5.17.2, pgs 5.17-18 Environmental Impacts Section 5.17.3, pg 5.17-27; Cumulative Impacts Section 5.17.3.3, pg 5.17-37; Mitigation Measures Section 5.17.4, pg 5.17-38; | 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); | Environmental Information, Section 5.17 – Water Resources – LORS Compliance Section 5.17.1, pg 5.17-2. <u>Vol. 3 Supplement, Water Resources pg 1</u> | No <u>Yes</u> | Please provide the information necessary for the USACE to make a determination indicating whether the drainages on the project site are “waters of the United States.” |
| Appendix B (g) (14) (A) (ii) | Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies; | Not Applicable (NA) | NA | |
| Appendix B (g) (14) (A) (iii) | Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and | Environmental Information, Section 5.17 – Water Resources – Federal LORS Section 5.17.1.1, pg 5.17-5. <u>Vol. 3 Supplement, Water Resources pg 1</u> | No <u>Yes</u> | Please provide the information necessary for the USACE to make a determination indicating whether the drainages on the project site are “waters of the United States.” |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (iv) | Underground Injection Control Permit(s) from the U.S. Environmental Protection Agency, California Division of Oil and Gas, and RWQCB. | NA | NA | |
| Appendix B (g) (14) (B) | A detailed description of the hydrologic setting of the project. The information shall include a narrative discussion and on maps at a scale of 1:24,000 (or appropriate scale approved by staff), describing the chemical and physical characteristics of the following nearby water bodies that may be affected by the proposed project: | Environmental Information, – Water Resources – Affected Environment – Section 5.17.2, pgs 5.17-18 | Yes | |
| Appendix B (g) (14) (B) (i) | Ground water bodies and related geologic structures; | Environmental Information, – Water Resources – Affected Environment – Groundwater Section 5.17.2.2, pgs 5.17-19 | Yes | |
| Appendix B (g) (14) (B) (ii) | Surface water bodies; | Environmental Information, – Water Resources – Affected Environment – Surface Water Section 5.17.2.8, pgs 5.17-27 | Yes | |
| Appendix B (g) (14) (B) (iii) | Water inundation zones, such as the 100-year flood plain and tsunami run-up zones; | Environmental Information, – Water Resources – Affected Environment – Surface Water Section 5.17.2.8, pgs 5.17-27 | Yes | |
| Appendix B (g) (14) (B) (iv) | Flood control facilities (existing and proposed); and | Environmental Impacts Section, 5.17.3, pg 5.17-30 Operation Section 5.17.3.2, pg 5.17-36 Appendix L – Drainage Plans; Drainage Report | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (B) (v) | Groundwater wells within ½ mile if the project will include pumping. | Environmental Information, – Water Resources – Affected Environment – Groundwater Section 5.17.2.2, pgs 5.17-19 & Figure 5.17-6b | Yes | |
| Appendix B (g) (14) (C) | A description of the water to be used and discharged by the project. This information shall include: | | | |
| Appendix B (g) (14) (C) (i) | Source(s) of the primary and back-up water supplies and the rationale for their selection; | Project Alternatives, Water Supply Alternatives, Section 4.9, pgs 4-11; Project Description – Water Supply and Use, Section 2.5.5.2, pg. 2-12 & Figure 2-10 | 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); | Environmental Information, – Water Resources – Affected Environment – Groundwater Geochemistry Section 5.17.2.7, pgs 5.17-25. <u>Vol. 3 Supplement, Water Resources pg 1, Tables 5.17-6 and Water-3</u> | No <u>Yes</u> | Please provide detailed water quality characteristics associated with water supply source water and RO reject water. |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (iii) | Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project; | Project Description – Water Supply and Use, Section 2.5.5.2, pg. 2-12 & Figure 2-10; Water Generation and Management - Wastewater Section 2.5.5.5, pg. 2-16 | 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; | Project Description – Water Supply and Use, Section 2.5.5.2, pg. 2-12 & Figure 2-10; Water Generation and Management - Wastewater Section 2.5.5.5, pg. 2-16 | 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; | Environmental Information, Section 5.17 – Water Resources – Indian Wells Valley Water District Section 5.17.2.6, pg. 5.17-24. | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (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); | Environmental Information, Section 5.17 – Water Resources – Indian Wells Valley Water District Section 5.17.2.6, pg. 5.17-24. | NA | |
| 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 | Project Description – Water Supply and Use, Section 2.5.5.2, pg. 2-12 & Figure 2-10; Water Generation and Management - Wastewater Section 2.5.5.5, pg. 2-16 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (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> | Environmental Information, Section 5.17 – Water Resources – Local LORS Section 5.17.1.3 – Kern County Ordinance Code Title 14, Chapter 14.12 – Sewer Systems, pg 5.17-16 | Yes | |
| Appendix B (g) (14) (D) | Identify all project elements associated with stormwater drainage, including a description of the following: | | | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly,
J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (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; | Seasonal Precipitation: Environmental Information, – Water Resources – Affected Environment – Climate and Precipitation Section 5.17.2.1, pg 5.17-18 Drainage Patterns: Environmental Information, – Water Resources – Affected Environment – Surface Water Section 5.17.2.8, pg 5.17-27 Environmental Impacts Section, 5.17.3, pg 5.17-27 Operation Section 5.17.3.2, pg 5.17-30 Appendix L – Drainage Plans; Drainage Report. <u>Vol. 3 Supplement, Water Resources pgs. 4-6</u> | No <u>Yes</u> | Please provide mapping showing the pre- and post-development 100-year floodplains. |
| 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; | Environmental Information, Section 5.17 – Water Resources – Local LORS Section 5.17.1.3, pg 5.17-15 | Yes | |
| Appendix B (g) (14) (D) (iii) | All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction; and | Appendix L – Drainage Plans; Drainage Report | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (iv) | A copy of applicable regional and local requirements regulating the drainage systems, and a discussion of how the project's drainage design complies with these requirements. | Appendix J – Water Resources Supporting Documentation | Yes | |
| Appendix B (g) (14) (E) | An impacts analysis of the proposed project on water resources and a discussion of conformance with water-related LORS and policy. This discussion shall include: | | | |
| Appendix B (g) (14) (E) (i) | The effects of project demand on the water supply and other users of this source, including, but not limited to, water availability for other uses during construction or after the power plant begins operation, consistency of the water use with applicable RWQCB basin plans or other applicable resource management plans, and any changes in the physical or chemical conditions of existing water supplies as a result of water use by the power plant; | Environmental Information, Section 5.17 – Water Resources – Affected Environment Section 5.17.2, pgs 5.17-18 Environmental Impacts Section 5.17.3,pg 5.17-27. <u>Vol. 3 Supplement, Water Resources pgs. 7-10</u> | No Yes | Please provide information on water quality impacts associated with discharge of RO reject water for dust control. |
| 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; | Environmental Information, Section 5.17 – Water Resources – Affected Environment Section 5.17.2, pgs 5.17-18 Environmental Impacts Section 5.17.3,pg 5.17-27 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (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; | Environmental Information, Section 5.17 – Water Resources – Affected Environment Section 5.17.2, pgs 5.17-18 Environmental Impacts – Construction Section 5.17.3.1, pg 5.17-32 and Operation Section 5.17.3.2 pg. 5.17-34 | 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;” | Environmental Information, Section 5.17 – Water Resources – Affected Environment Section - Environmental Impacts – Operation Section 5.17.3.2 Process and Sanitary Waste Water Management pg. 5.17-36 | NA | |
| Appendix B (g) (14) (v) | If using fresh water, include a discussion of the cumulative impacts, alternative water supply sources and alternative cooling technologies considered as part of the project design. Include an explanation of why alternative water supplies and alternative cooling are “environmentally undesirable,” or “economically unsound;” | Project Alternatives, Water Supply Alternatives, Section 4.9, pgs 4-11 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly, J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (vi) | The effects of the project on the 100-year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones; and | Appendix L – Drainage Plans; Drainage Report. Vol. 3 Supplement, Water Resources pg. 10. | No Yes | Please provide mapping showing the pre- and post-development 100-year floodplains. Please provide the HEC-RAS input files along with a copy of the drainage report. |
| Appendix B (g) (14) (vii) | All assumptions, evidence, references, and calculations used in the analysis to assess these effects. | Appendix L – Drainage Plans; Drainage Report. Vol. 3 Supplement, Water Resources pg. 10. | No Yes | Please provide all assumptions, evidence, references, and calculations used in the analysis to assess the effects of the project on the 100-year floodplain. |
| 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 | Environmental Information, Section 5.17 – Water Resources – LORS Compliance Section 5.17.1, pg 5.17-2 | 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. | Environmental Information, – Water Resources – Involved Agencies and Local Contacts Section 5.17.1.4, pg 5.17-16 | Yes | |

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date November 2, 2009

Technical Area: **Water Resources**

Project: Ridgecrest Solar Power Project

Technical Staff: M. Donovan, M. Daly,
J. Thornton

Project Manager: Paul Marshall

Docket: 09-AFC-9

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) (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. | Environmental Information, – Water Resources – Involved Agencies and Local Contacts Section 5.17.1.4, pg 5.17-16 & Table 5.17-2 | Yes | |
| Appendix B (i) (3) | A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits. | Environmental Information, – Water Resources – Required Permits and Permit Schedule Section 5.17.1.5, pg 5.17-17 & Table 5.17-3 | Yes | |

Adequacy Issue: Adequate Inadequate
 Technical Area: Worker Safety
 Project Manager: Eric Solorio

DATA ADEQUACY WORKSHEET

Revision No. 0 Date 9/22/09

Project: Ridgecrest Solar Power Project
 Docket: 09-AFC-9

Technical Staff: Rick Tyler
 Technical Senior: Rick Tyler

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|-------------------------|---|------------------------------------|--------------------|---|
| Appendix B (g) (1) | ...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation. | Section 5.18 | Yes | |
| Appendix B (g) (11) (A) | A description of the safety training programs which will be required for construction and operation personnel. | Section 5.18.3, Table 5.18-8 | Yes | |
| Appendix B (g) (11) (B) | A complete description of the fuel handling system and the fire suppression system. | Section 5.18.3.2 | Yes | |
| Appendix B (g) (11) (C) | Provide draft outlines of the Construction Health and Safety Program and the Operation Health and Safety Program, as follows: | | | |
| | Construction Health and Safety Program: * Injury and Illness Prevention Plan (8 Cal. Code Regs., § 1509); | Section 5.18.3 | Yes | |
| | * Fire Protection and Prevention Plan (8 Cal. Code Regs., § 1920); | Section 5.18.3 | Yes | |
| | * Personal Protective Equipment Program (8 Cal. Code Regs., §§ 1514-1522) | Section 5.18.3 | Yes | |
| | Operation Health and Safety Program: * Injury and Illness Prevention Program (8 Cal. Code Regs., § 3203); | Section 5.18.3 | Yes | |
| | * Fire Prevention Plan (8 Cal. Code Regs., § 3221); | Section 5.18.3 | Yes | |
| | * Emergency Action Plan (8 Cal. Code Regs., § 3220); | Section 5.18.3 | Yes | |

Adequacy Issue: Adequate Inadequate
 Technical Area: Worker Safety
 Project Manager: Eric Solorio

DATA ADEQUACY WORKSHEET

Revision No. 0 Date 9/22/09

Project: Ridgecrest Solar Power Project
 Docket: 09-AFC-9

Technical Staff: Rick Tyler
 Technical Senior: Rick Tyler

| SITING REGULATIONS | INFORMATION | AFC PAGE NUMBER AND SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS |
|------------------------|--|---|-----------------------------|---|
| | Personal Protective Equipment Program (8 Cal. Code Regs., §§ 3401-3411). | Section 5.18.3 | 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 5.18-1 | 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. | TABLE 5.18-5 <u>AFC SUPPLEMENT, WORKER SAFETY, PAGES 1 AND 2</u> | NO <u>Yes</u> | ADD DISCUSSION OF PERMITS REQUIRED BY BLM |
| 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 5.18-4 <u>AFC SUPPLEMENT, WORKER SAFETY, PAGES 1 AND 2</u> | NO <u>Yes</u> | ADD BLM CONTACT TO TABLE 5.18-4, ADD SALT WELL FIRE STATION CONTACT TO TABLE 5.18-4. |
| 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 5.18-5 | Yes | |