

# Memorandum

**Date:** November 13, 2008  
**Telephone:** (916) 654-4996

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

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

**Subject:** **LODI ENERGY CENTER COMBINED CYCLE POWER PLANT PROJECT, DATA ADEQUACY RECOMMENDATION (08-AFC-10)**

<b>DOCKET</b>	
<b>08-AFC-10</b>	
<b>DATE</b>	<u>NOV 13 2008</u>
<b>RECD.</b>	<u>NOV 13 2008</u>

On September 10, 2008, Northern California Power Agency (NCPA) submitted an Application for Certification (AFC) to the California Energy Commission to construct and operate an electrical generating plant in the City of Lodi, San Joaquin County, California. The proposed Lodi Energy Center (LEC) is a natural gas-fired, combined-cycle nominal 255-megawatt (MW) power generation facility proposed on approximately 4.4 acres of land owned and incorporated by the City of Lodi. The site is 6 miles west of the Lodi city center, located near Interstate-5 (I-5) approximately 1.7 miles south of State Route 12.

On October 22, 2008, the Energy Commission determined that the Lodi Energy Center project did not meet all the requirements listed in Title 20, section 1704, and Division 2, Chapter 5, Appendix B of the California Code of Regulations for the 12-month process. Specifically, the AFC was deficient in eight of the 23 areas: Air Quality, Biological Resources, Cultural Resources, Socioeconomics, Transmission System Design (Engineering), Soils, Visual Resources and Water Resources.

On October 24, 2008, NCPA filed an AFC Data Adequacy Supplement B for review. Staff has reviewed the supplemental information and believes the AFC now meets the listed requirements in all eight of the previously deficient technical disciplines, and believes the project is data adequate with the filing of the AFC Supplement. Attached is a summary table and revised data adequacy worksheets for the eight technical disciplines previously determined to be data inadequate, reflecting that the supplemental information submitted by NCPA achieves data adequacy.

At the Energy Commission Business Meeting on November 20, 2008, I will recommend that the Commission accept the Lodi Energy Center Project AFC with the supplemental information as complete and appoint a Siting Committee to preside over the data discovery and analysis phase of the project during the licensing process. If you have any questions, please call Rod Jones, staff's Project Manager, at (916) 654-5191.

Attachments

**Attachment A  
 Overview of Energy Commission Staff's  
 Revised Data Adequacy Determination  
 Lodi Energy Center  
 08-AFC-10**

Technical Area	Attachment B Page No.	Adequate
AIR QUALITY .....	4	YES
BIOLOGICAL RESOURCES.....	11	YES
CULTURAL RESOURCES.....	23	YES
SOCIOECONOMICS .....	29	YES
SOILS .....	33	YES
TRANSMISSION SYSTEM DESIGN .....	35	YES
VISUAL RESOURCES .....	38	YES
WATER RESOURCES .....	43	YES

**ATTACHMENT B**

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

**Lodi Energy Center  
08-AFC-10**

**November 13, 2008**

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Air Quality

Project: Lodi Energy Center

Technical Staff: Tuan Nge Keith Golden

Project Manager: Rod Jones

Docket: 08-AFC-10

Technical Senior: Mathew Layton Keith Golden

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.1.1, pp. 5.1-1 to 20 Appendix 5.1E and 5.1G Section 5.1.5.7, pp. 5.1-38 to 42 Section 5.1.7.3, pp. 5.1-66 to 69	Yes	
Appendix B (g) (8) (A)	The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.	Application for Authority to Construct and Permit to Operate submitted to the San Joaquin Valley Air Quality Management District on 9/4/2008 <u>Letter provided in Oct. 24, 2008 Data Adequacy Supplement B, Sect. 5.1, Attach. DA 5.1-1</u>	No <u>Yes</u>	<del>Please provide a copy of the District's Notice of Completeness.</del>
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.	Table 5.1-13, p 5.122 Appendix 5.1B, Table 5.1B-4 Section 5.1.2.2, p. 5.1-21	Yes	
Appendix B (g) (8) (C)	A description of the control technologies proposed to limit the emission of criteria pollutants.	Section 5.1.7.3, pp. 5.1-66 to 68	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.	Appendix 5.1A, Table 5.1A-5	Yes	

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Appendix B (g) (8) (E)	The emission rates of criteria pollutants and greenhouse gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, and SF <sub>6</sub> ) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.	Section 5.1.3 pp. 5.1-22 to 29	Yes	
Appendix B (g) (8) (F)(i)	A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.	Section 5.1.3.2, pp. 5.1-22 to 27	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.	Section 5.1.5.9, p. 5.1-42 Appendix 5.1B, Table 5.1B-7 <u>Information provided in Oct. 24, 2008 Data Adequacy Supplement B, Sect. 5.1, Attach. DA 5.1-2</u>	No <u>Yes</u>	<del>Please provide description, duration and quantification of emissions for each commissioning activities.</del>  <del>Please provide method(s) to monitor the emissions of each commissioning activities.</del>
Appendix B (g) (8) (G)	The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site. The applicant may substitute an explanation as to why information from one, two, or all stations is either not available or unnecessary.	Section 5.1.1.3.2 to 9, pp. 5.1-7 to 20	Yes	

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Appendix B (g) (8) (H)	One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution control district.	Appendix 5.1B Electronic modeling files on supplement compact disk	Yes	
Appendix B (g) (8) (H) (i)	If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA - 450/4-87-013 (August 1995)), which is incorporated by reference in its entirety.	Not applicable	Yes	
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.	Appendix 5.1B Electronic modeling files on supplement compact disk	Yes	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:			

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Appendix B (g) (8) (I) (i)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM <sub>10</sub> ) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NO <sub>x</sub> ), sulfur dioxide (SO <sub>2</sub> ), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM <sub>10</sub> ) and particulate matter less than 2.5 microns in diameter (PM <sub>2.5</sub> )] from construction-related equipment;	Section 5.1.5, pp. 5.1-32 to 41 Appendix 5.1B Appendix 5.1G Electronic modeling files on supplement compact disk	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 <sub>x</sub> , SO <sub>2</sub> , CO, PM <sub>10</sub> , and PM <sub>2.5</sub> ) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions;	Section 5.1.5, p. 5.1-32 to 41 Appendix 5.1B Electronic modeling files on supplement compact disk	Yes	

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Appendix B (g) (8) (I) (iii)	A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard; and	Appendix 5.1G	Yes	
Appendix B (g) (8) (I) (iv)	An air dispersion modeling analysis of the impacts of the initial commissioning phase emissions on state and federal ambient air quality standards for NO <sub>x</sub> , SO <sub>2</sub> , CO, PM <sub>10</sub> , and PM <sub>2.5</sub> .	Appendix 5.1B Electronic modeling files on supplement compact disk	Yes	
Appendix B (g) (8) (J)	If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide the following information:			
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	Appendix 5.1F	Yes	
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions;	Appendix 5.1F	Yes	

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Appendix B (g) (8) (K)	A detailed description of the mitigation, if any, which an applicant may propose, for all projects impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule.	Appendix 5.1F	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.1-45, p. 5.1-71 to 74	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 5.1-47, p. 5.1-76	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.1-47, p. 5.1-76	Yes	

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Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.1.11, p. 5.1-76	Yes	

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Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	<p><b>Existing site conditions:</b> Section 5.2.1 pgs 5.2-1 to 5.2-23</p> <p><b>Direct, indirect, and cumulative impacts:</b> Section 5.2.2 pgs 5.2-23 to 5.2-26 Section 5.2.3 pg 5.2-27</p> <p><b>Mitigation measures:</b> Section 5.2.4 pg 5.2-27 to 5.2-28</p> <p><b>Monitoring plans:</b> Section 5.2.4 pgs 5.2-27 to 5.2-28 Section 5.2.5.3 pgs 5.2-29 to 5.2-30</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	

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Appendix B (g) (13) (A)	A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources within ten (10) miles of the project. Include a map at a scale of 1:100,000 (or other suitable scale) showing sensitive biological resource location(s) in relation to the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. Sensitive biological resources include the following:	<b>Regional overview:</b> Section 5.2.1.1 pgs 5.2-1 to 5.2-23  <b>Regional vicinity maps:</b> Figure 5.2-1 Figure 5.2-2 Figure 5.2-3	          Yes          Yes	
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	<b>Federal and state Endangered Species:</b> Table 5.2-1 pgs 5.2-11 to 5.2-14 Section 5.2.1.3 pgs 5.2-8 to 5.2-14 Figure 5.2-3 Appendix 5.2A Appendix 5.2B Appendix 5.2C	Yes	
Appendix B (g) (13) (A) (ii)	resources defined in sections 1702(q) and (v) of Title 20 of the California Code of Regulations;	<b>Areas of critical concern and species of special concern:</b> Table 5.2-1 pgs 5.2-11 to 5.2-14 Section 5.2.1.3 pgs 5.2-8 to 5.2-16 Appendix 5.2B	Yes	
Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	<b>State Fully Protected species:</b> Table 5.2-1 pgs 5.2-11 to 5.2-14	Yes	

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Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	<b>Migratory Bird Act species:</b> Table 5.2-1 pgs 5.2-11 to 5.2-14 Table 5.2-2 pg 5.2-17	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	<b>Species and habitats identified in the California Natural Diversity Database:</b> Appendix 5.2B	Yes	
Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial and/or recreational value.	<b>Fish and wildlife of commercial or recreational value:</b> Not applicable	N/A	
Appendix B (g) (13) (B)	Include a list of the species actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors. Maps or aerial photographs shall include the following:	<b>List of species observed:</b> Table 5.2-1 pgs 5.2-11 to 5.2-14 Table 5.2-2 pg 5.2-17 Table 5.2-3 pgs 5.2-18 to 5.2-20	Yes	

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Appendix B (g) (13) (B) (i)	Detailed maps at a scale of 1:6,000 or color aerial photographs taken at a recommended scale of 1 inch equals 500 feet (1:6,000) with a 30 percent overlap that show the proposed project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in records from the California Natural Diversity Database, and the associated areas where biological surveys were conducted. Label the biological resources and survey areas as well as the project facilities;	<b>Map of proposed project site:</b> Figure 5.2-4  <b>Map of biological resources:</b> Figure 5.2-1 Figure 5.2-2 Figure 5.2-3 Figure 5.2-4  <b>Map of survey area:</b> Figure 5.2-2 Figure 5.2-4	Yes   Yes   Yes	
Appendix B (g) (13) (B) (ii)	A depiction of the extent of the thermal plume at the surface of the water if cooling water is proposed to be discharged to a water source. Provide the location for the intake and discharge structures on an aerial photograph(s) or detailed maps. Water sources include, but are not limited to, waterways, lakes, impoundments, oceans, bays, rivers, and estuaries; and	<b>Depiction of the thermal plume:</b> Not applicable  <b>Location of intake and discharge structures:</b> Not applicable	N/A  N/A	
Appendix B (g) (13) (B) (iii)	An aerial photo or wetlands delineation maps at a scale of (1:2,400) showing any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance if wetlands occur within 250 feet of the project site and/or related facilities that would be included with the US Army Corps of Engineers (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.	<b>Potential jurisdictional or non-jurisdictional wetlands map:</b> <u>Map provided in Oct. 24, 2008 Data Adequacy Supplement B, Sect. 5.2, Figures DA 5.2-1a and b</u>  <b>Coastal zone wetlands map:</b> Not applicable	<u>Yes</u> No  N/A	<del>Please provide a map at a scale of 1 inch equals 200 feet (1:2,400) showing potential jurisdictional and non-jurisdictional wetlands and waters of the state for the project area.</del>

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Appendix B (g) (13) (C)	A discussion of the biological resources at the proposed project site and related facilities. Related facilities include, but are not limited to, laydown and parking areas, gas and water supply pipelines, transmission lines, and roads. The discussion shall address the distribution of vegetation community types, denning or nesting sites, population concentrations, migration corridors, breeding habitats, and other appropriate biological resources including the following:	<p><b>Discussion of biological resources at project site:</b>            Section 5.2.1.2 pgs 5.2-2 to 5.2-7            Section 5.2.1.3 pgs 5.2-8 to 5.2-16            Section 5.2.1.4 pgs 5.2-16 to 5.2-23            Table 5.2-4 pg 5.2-24</p> <p><b>Discussion of biological resources at related facilities:</b>            Section 5.2.1.2 pgs 5.2-2 to 5.2-7            Section 5.2.1.3 pgs 5.2-8 to 5.2-16            Section 5.2.1.4 pgs 5.2-16 to 5.2-23            Table 5.2-4 pg 5.2-24</p>	Yes	
Appendix B (g) (13) (C) (i)	A list of all the species actually observed;	<p><b>List of species observed:</b>            Table 5.2-2 pg 5.2-17            Table 5.3-3 pgs 5.2-18 to 5.2-20</p>	Yes	
Appendix B (g) (13) (C) (ii)	A list of sensitive species and habitats with a potential to occur (as defined in (A) above); and	<p><b>Sensitive species and habitats with potential to occur:</b>            Table 5.2-1 pgs 5.2-11 to 5.2-14</p>	Yes	

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Appendix B (g) (13) (C) (iii)	<p>If cooling water is taken directly from or discharged to a surface water feature source, include a description of the intake structure, screens, water volume, intake velocity hydraulic zone field of influence, and the thermal plume dispersion area as depicted in response to B(ii) above. Describe the thermal plume size and dispersion under high and low tides, and in response to local currents and seasonal changes. Provide a discussion of the aquatic habitats, biological resources, and critical life stages found in these affected waters. For repower projects that anticipate no change in cooling water flow, this information shall be provided in the form of the most recent federal Clean Water Act 316(a) and (b) studies of entrainment and impingement impacts that has been completed within the last five (5) years. For new projects or repower projects proposing to use once-through cooling and anticipating an increase in cooling water flow, provide a complete impingement and entrainment analysis per guidance in (D)(ii), below.</p>	<p><b>Intake structure characteristics:</b> Not applicable</p> <p><b>Thermal plume description:</b> Not applicable</p> <p><b>Aquatic habitat and biological resources affected:</b> Not applicable</p> <p><b>Impingement and entrainment analysis:</b> Not applicable</p>	<p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>	

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Appendix B (g) (13) (D)	A description and results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities. Include copies of the California Natural Diversity Database records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:	<b>Description of field studies:</b> Section 5.2.1.4 pgs 5.2-16 to 5.2-23  <b>Copies of CNDDDB records and field survey forms:</b> Appendix 5.2D  <b>Qualifications of biologists:</b> Appendix 5.2E	<p>Yes</p> <p>Yes</p> <p>Yes</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;	<b>Current biological surveys:</b> <u>Oct. 24, 2008 Data Adequacy Supplement B, Sect. 5.2, Attach. DA 5.2-1</u>	<p><u>Yes No</u></p>	<p><del>Please provide a discussion on survey protocols for burrowing owl, giant garter snake, and Swaison's hawk.</del></p> <p><del>Please contact the appropriate state or federal agency for field survey protocol guidance.</del></p>

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 Technical Area: **Biological Resources**  
 Project Manager: Rod Jones

**DATA ADEQUACY WORKSHEET**  
 Project: Lodi Energy Center  
 Docket: 08-AFC-10

Revision No. 1 Date November 13, 2008  
 Technical Staff: Joy Nishida  
 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><b>Aquatic resource studies and surveys:</b> Not applicable</p> <p><b>Aquatic resource survey data or impingement and entrainment impact study:</b> Not applicable</p>	<p>N/A</p> <p>N/A</p>	
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><b>Impacts to jurisdictional or non-jurisdictional wetlands:</b> Section 5.2.1.4.4 pgs 5.2-20 to 5.2-23</p>	Yes	
Appendix B (g) (13) (E)	Impacts discussion of the following:			



Adequacy Issue: Adequate X Inadequate \_\_\_\_\_  
 Technical Area: Biological Resources  
 Project Manager: Rod Jones

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (F) (ii)	All off-site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management;	<b>Habitat mitigation:</b> Section 5.2.4 pgs 5.2-27 to 5.2-28 Section 5.2.5.3 pgs 5.2-29 to 5.2-30	Yes	
		<b>Contacts for compensation habitat:</b> Section 5.2.6 pg 5.2-30 Table 5.2-6 pg 5.2-30	Yes	
Appendix B (g) (13) (F) (iii)	Design features to better disperse or eliminate a thermal discharge;	<b>Design features to eliminate thermal discharge:</b> 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	<b>Measures to minimize impacts of cooling water intake:</b> Not applicable	N/A	
Appendix B (g) (13) (F) (v)	Educational programs to enhance employee awareness during construction and operation to protect biological resources.	<b>Employee biological resource awareness training:</b>	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.	<b>Monitoring compliance effectiveness:</b> Table 5.2-5 pgs 5.2-32 to 5.2-34	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Biological Resources  
 Project Manager: Rod Jones

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (H)	Submit copies of any preliminary correspondence between the project applicant and state and federal resource agencies regarding whether federal or state permits from other agencies such as the U. S. Fish and Wildlife Service (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 (RWQCB) will be required for the proposed project.	<b>Contact with state and federal agencies regarding permits:</b>  <u>Oct. 24, 2008 Data Adequacy Supplement B, Sect. 5.2, Table DA 5.2-1</u>	Yes <del>No</del>	<del>Please provide any preliminary correspondence with state and federal agency personnel.</del>  Please contact the USACE regarding the presence or absence of jurisdictional waters of the U.S. on the project site.
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	<b>Table identifying applicable biological resources laws, ordinances, regulations, and standards:</b> Table 5.2-5 pgs 5.2-32 to 5.2-34	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.	<b>Tables identifying agencies with jurisdiction:</b> Table 5.2-5 pgs 5.2-32 to 5.2-34 Table 5.2-6 pg 5.2-30	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.	<b>Agency contact information:</b> <b>Table 5.2.6 on pg 5.2-30</b>	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Biological Resources  
 Project Manager: Rod Jones

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Project: Lodi Energy Center  
 Docket: 08-AFC-10

Revision No. 1 Date November 13, 2008  
 Technical Staff: Joy Nishida  
 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.	<b>Permit schedule:</b> Section 5.2.7 pg 5.2-30	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Cultural Resources  
 Project Manager: Rod Jones

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Revision No. 1 Date November 13, 2008  
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 Technical Senior: Rick York

Project: Lodi Energy Center  
 Docket: 08-AFC-10

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, p. 5.3-2  Impacts due to the project: Vol. 1, p. 5.3-13—5.3-15  Mitigation measures for known impacts: N/A  Effectiveness if the proposed measures: N/A  Any monitoring plans proposed to verify the effectiveness of the mitigation: N/A	Yes  Yes  Yes  Yes	
Appendix B (g) (2) (A)	A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location.	Summary of the ethnology, prehistory, and history: Vol. 1, pp.5.3-2—5.3-7, App. 5.3B	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Cultural Resources  
 Project Manager: Rod Jones

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 Technical Senior: Rick York

Project: Lodi Energy Center  
 Docket: 08-AFC-10

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. 2, App. 5.3C.</p> <p>Cultural resources listed under a city and county ordinance: Vol. 1, p. 5.3-12.</p> <p>Cultural resources recognized by local societies: Vol. 1, p. 5.3-12.</p> <p>Names/quals for literature searchers/directors: Vol. 2, App. 5.3D</p> <p>DPR 523s for known resources: Vol. 2, App. 5.3D</p> <p>Map of lit search area with past surveys and CHRIS #s: Vol. 2, 5.3E</p> <p>CHRIS reports: Vol. 2, 5.3C</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	



Adequacy Issue: Adequate  Inadequate

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Revision No. 1 Date November 13, 2008

Technical Area: Cultural Resources

Project: Lodi Energy Center

Technical Staff: Bright Eastman

Project Manager: Rod Jones

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Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) cont.	Information included in the technical report shall also be provided in the Application for Certification, except that confidential information (archaeological sites or areas of religious significance) shall be submitted under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq. At a minimum, the technical report shall include the following:	AFC includes tech report data, unless confidential; Vol.1, Sec 5.3	Yes	
Appendix B (g) (2) (C) (i)	The summary from Appendix B (g)(2)(A) and the literature search results from Appendix B (g)(2)(B);	Tech report includes background summary: Vol. 2, App. 5.3B  Tech report includes lit-search results: Vol. 2, App. 5.3B	Yes  Yes	
Appendix B (g) (2) (C) (ii)	The survey procedures and methodology used to identify cultural resources and a discussion of the cultural resources identified by the survey;	Archaeological methodology: Vol. 2, App. 5.3B  Historical architectural methodology: <u>Oct. 24, 2008 Data Adequacy Supplement B, Sect. 5.3</u>	Yes  <u>Yes No</u>	<del>See comment above.</del>
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: N/A  Architecture forms: <u>Oct. 24, 2008 Data Adequacy Supplement B, Section 5.3</u>	Yes  <u>Yes No</u>	<del>If new resources are found, then DPR523A need to be submitted.</del>
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 map: Vol. 2, App. 5.3B  Architecture map: Vol. 2, App. 5.3B	Yes  Yes	

Adequacy Issue: Adequate  Inadequate

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Project Manager: Rod Jones

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) (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.	Archaeology Qualifications: Vol. 2, App. 5.3D  Architecture Qualifications: Oct. 24, 2008 Data Adequacy Supplement B, Sect. 5.3	Yes  <u>Yes</u> No	Applicant needs to provide the qualifications for the architectural historian responsible for the survey and preparation of the technical report.
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: Vol. 2, 5.3A  NAHC response: Vol. 2 App. 5.3A  Letters sent to Native Americans; Vol. 2. App. 5.3A  Native American Consultation: Vol. 1, p. 5.3-13  Summary of oral responses from Native Americans: Vol. 1, p. 5.3-13	Yes  Yes  Yes  Yes	
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 for known cultural resources: N/A	N/A	
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 measures for known impacts; Vol. 1, p. 5.3-15—5.3-17; Vol. 2, App. 5.3B	Yes	
Appendix B (g) (2) (E) (iii)	Educational programs to enhance employee awareness during construction and operation to protect cultural resources.	Worker education; Vol. 1, p 7.3-16, Vol. 2 App. 5.3B	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Cultural Resources  
 Project Manager: Rod Jones

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Tables identifying applicable LORS: Vol. 1, Table 5.3-2  Explicitly referenced pages: Vol. 1, Table 5.3-2  Discussion of applicability of LORS: Vol. 1, Table 5.3-2	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.	Table identifying agencies: Vol. 1, Table 5.3-2	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, Table 5.3-3	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.	Schedule indicating when outside permits will be obtained: Vol .1, p. 5.3-21	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Socioeconomics  
 Project Manager: Rod Jones

**DATA ADEQUACY WORKSHEET**

Project: Lodi Energy Center  
 Docket: 08-AFC-10

Revision No. 1 Date November 13, 2008  
 Technical Staff: Bob Fiore  
 Technical Senior: Paula David

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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.	Page 2-1 through 2-44, Project Description Page 5.10-1 through 5.10-26, Socioeconomics	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:	Page 5.10-1 through 5.10-12, Sections: 5.10.2.1, 5.10.2.2, 5.10.2.3, 5.10.2.4, 5.10.2.5, 5.10.2.6, 5.10.2.6.1-4, 5.10.2.7.1-3	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;	Page 5.10-1 through 5.10-9, Sections: 5.10.2.1, 5.10.2.2, 5.10.2.3, 5.10.2.4,	Yes	
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	Page 5.10-1 through 5.10-2, Section: 5.10.2.1	Yes	
Appendix B (g) (7) (A) (iii)	Existing unemployment rates;	Page 5.10-8, Section: 5.10.2.3	Yes	
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;	Page 5.10-13, Section: 5.10.3.3.1	Yes	
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing and current vacancy rate; and	Page 5.10-13, Section: 5.10.3.3.1	Yes	

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Socioeconomics

Project: Lodi Energy Center

Technical Staff: Bob Fiore

Project Manager: Rod Jones

Docket: 08-AFC-10

Technical Senior: Paula David

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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.	<u>Oct. 24, 2008 Data Adequacy Supplement B, Sect. 5.10</u>	<u>Yes No</u>	<del>The AFC/ROC for Police Protection does not indicate if response times are within standard acceptable practices or policies. Please provide standard acceptable practices and policies for police protection response times. Please provide present available capacity information and anticipated number of bed and staffing needs in case of project related medical emergency.</del> <del>The AFC/ROC for emergency response does not indicate if response times are within standard acceptable practices or policies. Please provide standard acceptable practices and policies for emergency response times.</del>
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:	Page 5.10-13 through 5.10-20 Section 5.10.3.3	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;	Page 5.10-14, Section 5.10.3.3.1	Yes	
Appendix B (g) (7) (B) (ii)	An estimate of the percentage of non-local workers who will relocate to the project area to work on the project;	Page 5.10-15 through 5.10-16, Section 5.10.3.3.2	Yes	
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;	Page 5.10-15 through 5.10-16, Section 5.10.3.3.2	Yes	
Appendix B (g) (7) (B) (iv)	The potential impact of population increase on housing during the construction and operations phases;	Page 5.10-15, Section 5.10.3.3.3	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Socioeconomics  
 Project Manager: Rod Jones

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 Technical Senior: Paula David

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (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;	<u>Oct. 24, 2008 Data Adequacy Supplement B, Sect. 5.10</u>	<u>Yes No</u>	<del>Please provide the potential impacts, including additional costs on public services, including law enforcement, emergency response, medical facilities, other assessment districts, and school districts. Include response times for emergency medical services and for police.</del>
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	Page 5.10-20, Section 5.10.3.4.6	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;	Page 5.10-16 and 5.10-18, Section 5.10.3.3.4 and 5.10.3.4.1	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;	Page 5.10-16 and 5.10-17, Section 5.10.3.3.4	Yes	
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost (plant and equipment) of the project;	Page 5.10-17 Section 5.10.3.3.5	Yes	
Appendix B (g) (7) (B) (x)	An estimate of sales taxes generated during construction and separately during an operational year of the project;	Page 5.10-19 Section 5.10.3.4.5	Yes	
Appendix B (g) (7) (B) (xi)	An estimate of property taxes generated during an operational year of the project; and	Page 5.10-19 Section 5.10.3.4.5	Yes	

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Socioeconomics

Project: Lodi Energy Center

Technical Staff: Bob Fiore

Project Manager: Rod Jones

Docket: 08-AFC-10

Technical Senior: Paula David

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (xii)	The expected direct, indirect, and induced income and employment effects due to construction, operation, and maintenance of the project.	Page 5.10-16 through 5.10-17 and Page 5.10-19 Sections 5.10.3.3.4, 5.10.3.4.5	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	Page 5.10-22 <b>Section 5.10.7</b>	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.	Page 5.10-23 through 5.10-24 Section 5.10.8	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.	Page 5.10-23 through 5.10-24 Section 5.10.8	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.	Page 5.10-23 through 5.10-24 Section 5.10.9	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Soils  
 Project Manager: Rod Jones

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008  
 Technical Staff: Richard Latteri  
 Technical Senior: Paul Marshall

Project: Lodi Energy Center  
 Docket: 08-AFC-10

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.	—	—	
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:	—	—	
Appendix B (g) (15) (A) (i)	The depth, texture, permeability, drainage, erosion hazard rating, and land capability class of the soil;	Section 5.11.1 Table 5.11-1	Yes	
Appendix B (g) (15) (A) (ii)	An identification of other physical and chemical characteristics of the soil necessary to allow an evaluation of soil erodibility, permeability, re-vegetation potential, and cycling of pollutants in the soil-vegetation system;	Section 5.11.1.2 & .4 Table 5.11-1	Yes	
Appendix B (g) (15) (A) (iii)	The location of any proposed fill disposal or fill procurement (borrow) sites; and	Appendix 2C, Section 4.9 <u>Oct. 24, 2008 Data Adequacy Supplement B, Res-15</u>	<u>Yes</u> No	<del>Please identify the location of the fill disposal site and the engineered fill borrow site.</del>
Appendix B (g) (15) (A) (iv)	The location of any contaminated soils that could be disturbed by project construction.	Appendix 5.14A Sections 6 & 8.3	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:	—	—	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Soils  
 Project Manager: Rod Jones

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008  
 Technical Staff: Richard Latteri  
 Technical Senior: Paul Marshall

Project: Lodi Energy Center  
 Docket: 08-AFC-10

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (15) (B) (i)	The quantification of accelerated soil loss due to wind and water erosion; and	Section 5.11.1.3 & .2.4 Tables 5.11-2 & -3	Yes	
Appendix B (g) (15) (B) (ii)	The effect of power plant emissions on surrounding soil-vegetation systems.	Section 5.11.2.7	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 5.11.5 Table 5.11-5	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 5.11-5	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.11.6 Table 5.11-6	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.11.7	Yes	

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Transmission System Design

Project: Lodi Energy Center (LEC)

Technical Staff: Laiping Ng

Project Manager: Rod Jones

Docket: 08-AFC-10

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 1-1 to 1-2  Section 3.2 Page 3-1	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 2.1 Page 2-1 to 2-2	Yes	
Appendix B (b) (2) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.	Section 2.1.7 Page 2-17  Section 3.2 Page 3-1  Figure 3.2-1  Figure 3.2-2  <u>Oct. 24, 2008 Data Adequacy Supplement B</u> <u>Figure DA 3.0-1</u> <u>Figure DA 3.0-2</u>	<u>Yes No</u>	<ol style="list-style-type: none"> <li><del>1. Please provide detail drawings for the take-off structures which required in interconnecting the 230 kV transmission lines from the proposed power plant to the existing STIG power plant switching station.</del></li> <li><del>2. Provide a one-line diagram for the existing STIG power plant switching station before the interconnection of the project.</del></li> <li><del>3. Provide a one-line diagram for the existing STIG power plant switching station after the addition of the project. Show all equipment ratings including bay arrangement of the breakers, disconnect switches, buses, and etc. which are required for the addition of the project.</del></li> </ol>

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Transmission System Design

Project: Lodi Energy Center (LEC)

Technical Staff: Laiping Ng

Project Manager: Rod Jones

Docket: 08-AFC-10

Technical Senior: Mark Hesters

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (2) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints.	Section 3.1 to 3.2 Page 3-1	Yes	
Appendix B (b) (2) (E)	<p>A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator and proof of payment. When not connecting to the California Independent System Operator controlled grid, provide the executed System Impact Study agreement and proof of payment to the interconnecting utility.</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 3.3 Page 3-1 to 3-2  Appendix 3A	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 3.5 Page 3-10 to 3-11	Yes	

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Transmission System Design

Project: Lodi Energy Center (LEC)

Technical Staff: Laiping Ng

Project Manager: Rod Jones

Docket: 08-AFC-10

Technical Senior: Mark Hesters

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 3.5.7 Page 3-13	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	NA		
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Appendix 3A	Yes	

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Visual Resources

Project: Lodi Energy Center

Technical Staff: Marie McLean

Project Manager: Rod Jones

Docket: 08-AFC-10

Technical Senior: Paula David

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Pages 1-1 through 1-13; Section 1.0  Pages 5.13 through 5.19; Sections 5.13.2.1 through 5.13.2.5  Pages 5.13-27 through 5.13-28; Sections 5.13.3 through 5.13.4	Yes	
Appendix B (g) (6) (A)	Descriptions of the existing visual setting of the vicinity of the proposed project site and the proposed routes for any project-related linear facilities. Include:	Pages 5.13-1 through 5.13.1.4; Sections 5.13.1.1 through 5.13.14	Yes	
Appendix B (g) (6) (A) (i)	Topographic maps at a scale of 1:24,000 that depict directions from which the project would be seen, the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(C); and	Figure 5.13-1	Yes	
Appendix B (g) (6) (A) (ii)	Description of the existing visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities, including existing water vapor plumes, above-ground electrical transmission lines, and nighttime lighting levels in the project viewshed.	Page 1.13-14 through 1.13-19; Section 5.13.1.5	Yes	

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Visual Resources

Project: Lodi Energy Center

Technical Staff: Marie McLean

Project Manager: Rod Jones

Docket: 08-AFC-10

Technical Senior: Paula David

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (B)	An assessment of the visual quality of those areas that would be affected by the proposed project. For projects proposed to be located within the coastal zone, the assessment should also describe how the proposed project would be sited to protect views to and along the ocean and scenic coastal areas, would minimize the alteration of natural land forms, would be visually compatible with the character of surrounding areas.	Page 5.13-16 through 5.13-19; Section 5.13.15 through 5.13.1.5.5	Yes	
Appendix B (g) (6) (C)	In consultation with Energy Commission staff, identify: i) any designated scenic roadways or scenic corridors and any visually sensitive areas that would be affected by the proposed project, including recreational and residential areas; and ii) the locations of the key observation points to represent the most critical viewing locations from which to conduct detailed analyses of the visual impacts of the proposed project. Indicate the approximate number of people using each of these sensitive areas and the estimated number of residences with views of the project. Also identify any major public roadways and trails of local importance that would be visually impacted by the project and indicate the types of travelers (e.g., local residents, recreationists, workers, commuters, etc.) and the approximate number of vehicles, bicyclists, and/or hikers per day.	Page 5.13.26; Section 5.13.2.5  Pages 5.13-15 through 5.13-19; Sections 5.13.1.5 through 5.13.1.5.5  Page 5.13-1; Section 5.13.1.1	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Visual Resources  
 Project Manager: Rod Jones

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008  
 Technical Staff: Marie McLean  
 Technical Senior: Paula David

Project: Lodi Energy Center  
 Docket: 08-AFC-10

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (D)	A table providing the dimensions (height, length, and width, or diameter) and, proposed color(s), materials, finishes, patterns, and other proposed design characteristics of each major component visible from off the project site, including any project-related electrical transmission line and/or offsite aboveground pipelines and metering stations.	Table 5.13-2; Page 5.13-22	Yes	
Appendix B (g) (6) (E)	Provide the cooling tower and heat recovery steam generator (HRSG) exhaust design parameters that affect visible plume formation. For the cooling tower, data shall include heat rejection rate, exhaust temperature, exhaust mass flow rate, liquid to gas mass flow ratio, and, if the tower is plume-abated, moisture content (percent by weight) or plume-abated fogging curve(s). The parameters shall account for a range of ambient conditions (temperature and relative humidity) and proposed operating scenarios, such as duct firing and shutting down individual cells. For the heat recovery steam generator exhausts, data shall include moisture content (percent by weight), exhaust mass flow rate, and exhaust temperature. The parameters must correspond to full-load operating conditions at specified ambient conditions, and shall account for proposed operating scenarios, such as power augmentation (i.e., evaporative coolers, inlet foggers, or steam injection) and duct firing, or proposed HRSG visible plume abatement, such as the use of an economizer bypass. For simple-cycle projects, provide analogous data for the exhaust stack(s).	Volume II: Table 5.1A-3 Volume II: Table 5.1A-5	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Visual Resources  
 Project Manager: Rod Jones

**DATA ADEQUACY WORKSHEET**

Project: Lodi Energy Center  
 Docket: 08-AFC-10

Revision No. 1 Date November 13, 2008  
 Technical Staff: Marie McLean  
 Technical Senior: Paula David

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (F)	Provide: i) full-page color photographic reproductions of the existing site, and ii) full-page color simulations of the proposed project at life-size scale when the picture is held 10 inches from the viewer's eyes, including any project-related electrical transmission lines, in the existing setting from each key observation point. If any landscaping is proposed to comply with zoning requirements or to mitigate visual impacts, include the landscaping in simulation(s) representing sensitive area views, depicting the landscaping five years after installation; and estimate the expected time until maturity is reached.	Not Provided  <u>Provided October 24, 2008 Supplement B, Sect. 5.2, Figure DA 5.14-1 thru DA 5.14-5</u>	No  Yes  Yes	<del>Full-page color photographic reproductions of existing site</del>
Appendix B (g) (6) (G)	An assessment of the visual impacts of the project, including light, glare, and any modeling of visible plumes. Include a description of the method and identify any computer model used to assess the impacts. Provide an estimate of the expected frequency and dimensions (height, length, and width) of the visible cooling tower and/or exhaust stack plumes. Provide the supporting assumptions, meteorological data, operating parameters, and calculations used.	Page 5.13-22; Section 5.13.2.3.6  Page 5.13.-23; Section 5.13.2.3.7  Page 5.13-25; Section 5.13.2.4.4.  Page 5.13-25; Table 5.13-3 Page 5.13-26; Table 5.13-4	Yes  Yes  Yes Yes	
Appendix B (g) (6) (H)	If any landscaping is proposed to reduce the visual impacts of the project, provide a conceptual landscaping plan at a 1:40 scale (1"=40'). Include information on the type of plant species proposed, their size, quantity, and spacing at planting, expected heights at 5 years and maturity, and expected growth rates.	Page 5.13-22; Section 5.13.2.3.5)	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Visual Resources  
 Project Manager: Rod Jones

**DATA ADEQUACY WORKSHEET**

Project: Lodi Energy Center  
 Docket: 08-AFC-10

Revision No. 1 Date November 13, 2008  
 Technical Staff: Marie McLean  
 Technical Senior: Paula David

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Page 5.13-29; Table 5.13-5	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Page 5.13-31; Table 5.13-9 Page 5.13-32; Table 5.13-10	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.	Page 5.13-31; Table 5.13-9 Page 5.13-32; Table 5.13-10	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	N/A		

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Water Resources

Project: Lodi Energy Center

Technical Staff: Richard Latteri

Project Manager: Rod Jones

Docket: 08-AFC-10

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)	...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.	---	---	
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);	Sections 5.15.2.1.1 Section 5.15.2.2.2 Section 5.15.4.1 Sections 5.15.2.3 & .4 <u>Oct. 24, 2008 Data Adequacy Supplement B, Attach. 5.15-1</u>	<u>Yes</u> No	<del>Please provide a draft construction and a draft industrial Storm Water Pollution Prevention Plan, or all the information required to apply for these NPDES permits.</del>
Appendix B (g) (14) (A) (ii)	Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;	Section 2.1.12.1 Section 5.15.2.2.1 Section 5.15.3 <u>Oct. 24, 2008 Data Adequacy Supplement B, Attach. 5.15-3</u>	<u>Yes</u> No	<del>Please provide a draft permit, or all the information required to apply for the permit, for the discharge of contact and non-contact storm water to the City of Lodi's White Slough Water Pollution Control Facility and identify any pretreatment requirements.</del>
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	N/A	---	
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.	Section 5.15.1.5 Section 5.15.2.2.3 <u>Supplement A (filed 10/10/08)</u>	<u>Yes</u> No	<del>Please provide a copy of the Class I Underground Injection Control permit, or all the information required to apply for the UIC permit, for the proposed wastewater injection well.</del>

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Water Resources  
 Project Manager: Rod Jones

Project: Lodi Energy Center  
 Docket: 08-AFC-10

Technical Staff: Richard Latteri  
 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)	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:	—	—	
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 5.15.1.2 Figure 5.15-2 <u>Supplement A (filed 10/10/08)</u>	<u>Yes</u> <del>No</del>	<del>Please provide a description of the deep well injection aquifer that includes the overlying stratigraphy, geologic analysis, and the chemical and physical characteristics of the aquifer.</del>
Appendix B (g) (14) (B) (ii)	Surface water bodies;	Section 5.15.1.1 Figure 5.15-1	Yes	
Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;	Section 5.15.1.3 Figure 5.15-4	Yes	
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section 5.15.1.3 <u>Oct. 24, 2008 Data Adequacy Supplement B, Res-21</u>	<u>Yes</u> <del>No</del>	<del>Please provide a description and construction schedule for those facilities that will provide 100-year flood protection or method to elevate the site above the 100-year floodplain.</del>
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.	Section 5.15.1.4.2 Figure 5.15-3	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;	Sections 5.15.1.4.1 & .2	Yes	

Adequacy Issue: Adequate  Inadequate

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008

Technical Area: Water Resources  
 Project Manager: Rod Jones

Project: Lodi Energy Center  
 Docket: 08-AFC-10

Technical Staff: Richard Latteri  
 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) (ii)	The expected physical and chemical characteristics of the source and discharge water(s) including identification of both organic and inorganic constituents before and after any project-related treatment. For source waters with seasonal variation, provide seasonal ranges of the expected physical and chemical characteristics. Provide copies of background material used to create this description (e.g., laboratory analysis);	Section 2.1.12.1 Section 5.15.1.4 Tables 5.15-5, -6, & -8 <u>Oct. 24, 2008 Data Adequacy Supplement B, Res-22</u>	<u>Yes</u> <del>No</del>	<del>Please provide the expected physical and chemical characteristics of the groundwater proposed for domestic use, including the identification of both organic and inorganic constituents, before and after any project-related treatment.</del>
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;	Sections 5.15.1.4 & .5 Table 2.1-2	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;	Sections 5.15.1.4 & .5 Figure 2.1-5A	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 cannot be provided, identify the most likely water purveyor and discuss the necessary assurances from the water purveyor to serve the project;	Sections 5.15.1.4.1 Appendix 2D <u>Oct. 24, 2008 Data Adequacy Supplement B, Attach. 5.15-5</u>	<u>Yes</u> <del>No</del>	<del>Please provide a letter of intent or will-serve letter from the City of Lodi indicating that the city is willing to serve the project, has adequate supplies available for the life of the project, and any conditions or restrictions under which tertiary treated recycled water will be provided or provide a discussion of the necessary assurances from the city to serve the project.</del>

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Water Resources  
 Project Manager: Rod Jones

**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date November 13, 2008  
 Technical Staff: Richard Latteri  
 Technical Senior: Paul Marshall

Project: Lodi Energy Center  
 Docket: 08-AFC-10

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);	N/A	—	
Appendix B (g) (14) (C) (vii)	Provide water mass balance and heat balance diagrams for both average and maximum flows that include all process and/or ancillary water supplies and wastewater streams. Highlight any water conservation measures on the diagram and the amount that they reduce water demand; and	Figures 2.1-3A – 3F Figures 2.1-5A & 5B	Yes	

Adequacy Issue: Adequate  Inadequate   
 Technical Area: Water Resources  
 Project Manager: Rod Jones

**DATA ADEQUACY WORKSHEET**

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 Technical Senior: Paul Marshall

Project: Lodi Energy Center  
 Docket: 08-AFC-10

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>	<p>Sections .2.1.12.1 &amp; .3            Sections 5.15.2.2.1 &amp; .2            Appendix 2D  <u>Oct. 24, 2008 Data Adequacy Supplement B, Attach. 5.15-3</u></p>	<p><u>Yes</u> <u>No</u></p>	<p><del>Please provide a copy of the will-serve letter, permit or contract from the City of Lodi accepting the contact and non-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 storm water will be accepted.</del></p> <p><del>In the event this information cannot be provided, please identify the most likely entity that will accept the project's contact and non-contact storm water and a discussion of why the necessary assurances to serve the project's storm water discharge needs were not secured.</del></p>
Appendix B (g) (14) (D)	<p>Identify all project elements associated with stormwater drainage, including a description of the following:</p>	<p>—</p>	<p>—</p>	
Appendix B (g) (14) (D) (i)	<p>Monthly and/or seasonal precipitation and storm water runoff and drainage patterns for the proposed site and surrounding area that may be affected by the project's construction and operation;</p>	<p>Section 5.15.1.1            Table 5.15-3  <u>Oct. 24, 2008 Data Adequacy Supplement B, Attach. 5.15-6</u></p>	<p><u>Yes</u> <u>No</u></p>	<p><del>Please provide the storm water runoff and drainage patterns for the proposed site and surrounding area that may be affected by the project's construction and operation.</del></p>

Adequacy Issue: Adequate  Inadequate   
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 Project Manager: Rod Jones

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Project: Lodi Energy Center  
 Docket: 08-AFC-10

Revision No. 1 Date November 13, 2008  
 Technical Staff: Richard Latteri  
 Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (D) (ii)	Drainage facilities and the design criteria used for the plant site and ancillary facilities, including but not limited to capacity of designed system, design storm, and estimated runoff;	Section 5.15.1.6 Tables 5-15-9 & -10 Oct. 24, 2008 Data Adequacy Supplement B, Attach. 5.15-7	<u>Yes</u> No	<del>Please provide a description of the drainage facilities and the design criteria used for the plant site, laydown areas and ancillary facilities including but not limited to capacity of designed system, design storm, and estimated runoff.</del>
Appendix B (g) (14) (D) (iii)	All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction; and	Section 5.15.1.6 Tables 5-15-9 & -10 Oct. 24, 2008 Data Adequacy Supplement B, Attach. 5.15-7	<u>Yes</u> No	<del>Please provide the calculations used to determine the runoff and flow rates for the pre- and post construction values presented in Tables 5-15-9 &amp; -10.</del>
Appendix B (g) (14) (D) (iv)	A copy of applicable regional and local requirements regulating the drainage systems, and a discussion of how the project's drainage design complies with these requirements.	Section 5.15.4.1.2 Section 5.15.5.2.2 Oct. 24, 2008 Data Adequacy Supplement B, Res-28 Supplement B, Attach. 5.15-8	<u>Yes</u> No	<del>Please provide a copy of Sections 15.60.070 and 16.60.140 of the Lodi Municipal Code and a copy of the city's Stormwater Management Plan.</del>
Appendix B (g) (14) (E)	An impacts analysis of the proposed project on water resources and a discussion of conformance with water-related LORS and policy. This discussion shall include:	—	—	
Appendix B (g) (14) (E) (i)	The effects of project demand on the water supply and other users of this source, including, but not limited to, water availability for other uses during construction or after the power plant begins operation, consistency of the water use with applicable RWQCB basin plans or other applicable resource management plans, and any changes in the physical or chemical conditions of existing water supplies as a result of water use by the power plant;	Section 5.15.1.4.1 Oct. 24, 2008 Data Adequacy Supplement B, Attach. 5.15-8	<u>Yes</u> No	<del>Please provide a discussion of the effects of project demand on the City of Lodi's recycled water supply on other users of recycled water, including, but not limited to, recycled water availability for other uses during construction and operation of the facility.</del>

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Appendix B (g) (14) (E) (ii)	If the project will pump groundwater, an estimation of aquifer drawdown based on a computer modeling study shall be conducted by a professional geologist and include the estimated drawdown on neighboring wells within 0.5 mile of the proposed well(s), any effects on the migration of groundwater contaminants, and the likelihood of any changes in existing physical or chemical conditions of groundwater resources shall be provided;	N/A	—	
Appendix B (g) (14) (iii)	The effects of construction activities and plant operation on water quality and to what extent these effects could be mitigated by best management practices;	Section 5.15.5	Yes	
Appendix B (g) (14) (iv)	If not using a zero liquid discharge project design for cooling and process waters, include the effects of the proposed wastewater disposal method on receiving waters, the feasibility of using pre-treatment techniques to reduce impacts, and beneficial uses of the receiving waters. Include an explanation why the zero liquid discharge process is “environmentally undesirable,” or “economically unsound;”	Section 5.15.1.5 Oct. 24, 2008 Data Adequacy Supplement B, Res-30	<u>Yes</u> <del>No</del>	<del>Please include a discussion of the effects of deep well injection on the groundwater basin, the feasibility of using pre-treatment techniques to reduce impacts, and beneficial uses of the injection aquifer.</del>
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;”	N/A	—	

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (vi)	The effects of the project on the 100-year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones; and	Section 5.15.1.3 Section 5.15.2.2.5 Oct. 24, 2008 Data <u>Adequacy Supplement B, Res-31</u>	<u>Yes</u> <u>No</u>	<del>Please provide a discussion of the effects of the project on the 100-year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones.</del>
Appendix B (g) (14) (vii)	All assumptions, evidence, references, and calculations used in the analysis to assess these effects.	Section 5.15.1.3 Section 5.15.2.2.5 Figure 5.15-4 Oct. 24, 2008 Data <u>Adequacy Supplement B, Res-32</u>	<u>Yes</u> <u>No</u>	<del>Please provide the assumptions, evidence, references, and calculations used in the analysis to assess the effects identified in (g) (14) (vi).</del>
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.15.5 Table 5.15-13	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 5.15.5 Table 5.15-13	Yes	

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Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.15.6 Table 5.15-14	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.15.6 Table 5.15-14	Yes	