CALIFORNIA ENERGY COMMISSION
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SACRAMENTO, CA 95814-5512
www.energy.ca.gov

October 4, 2007

DOCKET
07-AFC-3
DATE OCT 0 4 2007
RECD. OCT 0 4 2007

Mr. Mark Turner
Project Manager
CPV Sentinel, LLC
55 Second Street, Suite 525
San Francisco, CA 94105

Dear Mr. Turner:

RE: CPV SENTINEL ENERGY PROJECT DATA REQUESTS (1-61)

Pursuant to Title 20, California Code of Regulations, Section 1716, the California Energy Commission staff seeks the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

This set of data requests (#1-61) is being made in the areas of Air Quality, Cultural Resources, Land Use, Socioeconomics, Soil and Water Resources, Transmission System Engineering, Visual Resources and Waste Management. Written responses to the enclosed data requests are due to the Energy Commission staff on or before November 5, 2006, or at such later date as may be mutually agreeable.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, please send a written notice to both the Committee and me within 20 days of receipt of this notice. The notification must contain the reasons for not providing the information, the need for additional time and the grounds for any objections (see Title 20, California Code of Regulations, section 1716 (f)).

If you have any questions, please call me at (916) 654-4206 or email me at bpfanner@energy.state.ca.us.

Sincerely,

Bill Pfanner

Bill Pfanner
Project Manager

Enclosure

cc: Docket (07-AFC-3)
Proof of Service List

PROOF OF SERVICE (REVISED 8/29/07) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 10/4/07 TP

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

Technical Area: Air Quality
Author: Joe Loyer

BACKGROUND: EMISSION REDUCTION CREDITS

The applicant proposes to rely on the District's nitrogen oxides (NOx) RECLAIM program to acquire emission reduction credits to offset the project's NOx emission impacts. The applicant also proposes to purchase volatile organic compounds (VOC) emission reduction credits (ERC) from the District's ERC banks. Finally, the applicant proposes to purchase PM10 and sulfur dioxide (SO_2) ERCs as part of the due diligence requirements in District Rule 1309.1 (Priority Reserve). However, the applicant has not provided any information on how they intend to meet their RECLAIM and ERC obligations.

DATA REQUEST

1. Please provide a list of NOx RECLAIM trading credits (RTCs) that the applicant owns or has under option contract.

2. Please update staff as to the status of securing the NOx RTCs, VOC, PM10 and SO_2 ERCs as part of the monthly status reports that are filed with the CEC.

BACKGROUND: NATURAL GAS SULFUR CONTENT

The Application For Certification (AFC) indicates that the facility would use natural gas with a maximum sulfur content of 0.25 grains per 100 standard cubic feet (gr/100scf). Staff has seen in previous siting cases that the delivered natural gas can contain as much as 1gr sulfur/100scf. If higher sulfur content natural gas fuel is used at the facility, SOx and PM emissions may be underestimated, the project impacts may be underestimated and insufficient offsets may be provided. Thus staff needs additional information to assure that the sulfur content of the fuel does not exceed the levels stated in the AFC.

DATA REQUEST

3. Please provide specific documentation from Southern California Gas Company that the sulfur content of supplied natural gas would not exceed 0.25 gr/100scf.

4. Please provide documentation from Southern California Gas Company of the up-stream supply points for the natural gas that is proposed to be delivered to the project site.

5. Please provide the steps the applicant would take to ensure that the natural gas that has higher than 0.25 gr/100scf of sulfur would not be used at the facility.

6. Please provide the method for ensuring continuous compliance with the sulfur content limits specified for the supplied natural gas fuel.

BACKGROUND: CUMULATIVE ASSESSMENT

The applicant indicates on page 7.1-25 in the AFC that the required cumulative assessment will be completed and submitted after further information from the District is received and evaluated.

DATA REQUEST

7. Please provide the documentation of new sources within six miles of the proposed CPV Sentinel Energy Project site.

8. Please provide the completed cumulative assessment or the date it will be provided.

BACKGROUND: GREENHOUSE GAS EMISSIONS

The AFC does not discuss the potential sulfur hexafluoride (SF_6) emissions from proposed electricity transmission systems that may exist at the proposed CPV Sentinel Energy Project site. Such systems are referred to on page 4-1 ("CPVS Switchyard") and figure 2.4-1 and appear to be part of the proposed project.

DATA REQUEST

9. Please provide the estimated SF_6 emissions (in units of equivalent tons of CO_2) from any equipment on the proposed CPV Sentinel Energy Project site.

BACKGROUND: ADDITIONAL LORS COMPLIANCE

The South Coast Air Quality Management District (AQMD) has amended their Rule 1309.1 (Priority Reserve) which grants the applicant access to the priority reserve credits for PM10 and SOx. The applicant has been asked by the AQMD to submit further information regarding project compliance with the new requirements of Rule 1309.1. The Rule may require that the applicant perform new modeling analysis, revise emission calculations, or in some way modify the project operations.

DATA REQUEST

10. Please provide any additional information submitted to the AQMD regarding the project's compliance with Rule 1309.1, including new modeling analyses.

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

Technical Area: Alternatives
Author: Suzanne Phinney

BACKGROUND

AFC page 8-4 discusses land to the north, west, south and east of Southern California Edison's (SCE) Devers substation. With the exception of land to the east of the substation, the discussion is vague as to exact locations of the areas that were considered. The area north of the substation is identified as consisting of multiple 5-10 acres lots owned by multiple private land owners. The area west is described as being undeveloped with wind farm development further west. The area south of the substation is identified as the location of the previously-proposed Ocotillo Power Plant (01-AFC-8), now rezoned and the location of wind turbines. Staff is not able to determine if the analysis of alternatives encompasses all possible sites.

DATA REQUEST

11.

a) Please provide a map showing the aerial extent of the land evaluated as potential site alternatives to the Sentinel project.

b) Identify the location of the multiple 5- to 10- acre lots, showing the individual parcels.

c) Identify the geographic boundaries of existing and proposed wind energy facilities in the vicinity of the project.

12. Please identify the City of Palm Springs' current zoning for the land previously considered for the Ocotillo Power Plant and describe why this zoning would preclude development and whether zoning variances are an option at this location.

BACKGROUND

AFC page 8-4 states that the area directly west of the Devers substation has just been approved by the Riverside County Planning Commission for further wind farm development and that the EIR for the Dillon Wind Farm project was certified by the Riverside County Planning Commission in May 2007. The EIR likely includes possible site alternatives to the wind farm project. Given that the wind farm would need to connect with the Devers substation, similar to Sentinel, the Dillon Wind Farm alternatives discussion may identify additional locations that could serve as alternative sites for the Sentinel project.

DATA REQUEST

13. Please identify the alternatives considered in the Dillon Wind Farm EIR and discuss whether those alternatives could serve as alternatives to the Sentinel project.

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

Technical Area: Cultural Resources
Author: Dorothy Torres

Any information that identifies the location of archaeological sites needs to be submitted under confidential cover.

BACKGROUND

The Water Resources Section, page 7.14, discusses five ground water wells that may be constructed on or near the proposed project site. To assess potential impacts to cultural resources caused by construction of the wells, staff needs information regarding the proposed locations of the wells.

DATA REQUESTS

14.

a) Please identify the proposed well locations and conduct a cultural resources survey of well locations if the areas were not previously surveyed for the CPV Sentinel Project.

b) Please provide an updated Figure 7.3-5 that identifies the well locations and cultural resources survey boundaries.

15. Please provide a discussion of the survey methodology, procedures, resumes of survey personnel, and findings.

BACKGROUND

The discussion of survey coverage, by project component, on page 2-3 of the Confidential Technical Report identifies locations that were not surveyed because there were issues regarding access. Figure 7.3-5 identifies those locations. Staff needs additional information about incomplete surveys at buffer areas to ensure that all cultural resources have been identified.

DATA REQUEST

16.

a) Please provide a discussion of why each area was not surveyed. Please include a description of the environment that could be observed at each location that was not surveyed, but could be observed from fence lines or roadways.

b) Please explain how the above observations substantiate the Technical Report conclusion that no cultural resources were identified.

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

Technical Area: Land Use
Author: Amanda Stennick

INTRODUCTION

Prior to making findings for its license, the Energy Commission needs to know whether Riverside County would normally require the CPV Sentinel Energy Project (Sentinel) to obtain a conditional use permit and height variance (and what conditions the County would attach to these entitlements) but for the exclusive jurisdiction and permit authority of the Energy Commission. Also, the Energy Commission needs to know the County's timeline for granting the proposed parcel merger and any conditions the County would place on the parcel merger. On September 13, 2007, staff sent a letter to the Riverside County requesting that the County provide this information.

For the Sun Valley Energy Project (05-AFC-3) proposed in western Riverside County, Energy Commission staff did not receive a written response from the County to a similar letter without the project applicant initiating a formal request to the County regarding the project's conformity and consistence with its general plan and zoning designations. To ensure Riverside County's timely review of the project's local LORS compliance, the Sun Valley project applicant submitted an application and associated fees to Riverside County for an advisory Conditional Use Permit (CUP). The County was aware that their CUP was advisory and their actions in this matter represented a review of the project that the County would normally undergo but for the Energy Commission's exclusive jurisdiction and permit authority. In addition to zoning development standards, the advisory CUP addressed and conditioned the project in the areas of biological resources, visual resources, drainage and flood control, health, waste, socioeconomic resources, and traffic and transportation. Similar to the Sun Valley case, staff encourages CPV Sentinel to work with Riverside County to resolve these issues, all of which are discussed in detail below.

Also, because portions of the proposed construction laydown area and gas line would lie within Palm Springs city limits, staff sent a letter to the City of Palm Springs requesting they provide similar information where a use permit would normally be required but for the Energy Commission's exclusive jurisdiction and permit authority. Staff also encourages CPV Sentinel to work with the City of Palm Springs to determine the type of use permits and any associated conditions that the City would normally place on the project but for the Energy Commission's exclusive jurisdiction and permit authority.

BACKGROUND

As stated in the AFC, the Riverside County General Plan land use designation for the site and proposed transmission line is Public Facilities (PF); the site is zoned W-2 (Controlled Development Area). According to the AFC, allowed uses in this land use designation include electric generating stations; permitted uses in this zoning district include structures and the pertinent facilities necessary and incidental to the development and transmission of electrical power and gas. Portions of the construction laydown area are designated by Riverside County as Rural Desert (RD) and zoned as

W-E (Wind Energy Resource). The storage of vehicles, machinery and materials would be a proposed use in the construction laydown area.

Prior to making findings for its license, the Energy Commission needs to know whether the project would normally require a conditional use permit but for the exclusive authority of the Energy Commission and what conditions Riverside County would attach to this project, were it the permitting agency. As part of the County's discussion of the conditional use permit, we are also interested in understanding the County's position on the proposed project's consistency with its General Plan and Zoning Ordinance.

DATA REQUEST

17. Please provide written confirmation from Riverside County as to whether the project would need a conditional use permit or any other land use entitlement from Riverside County but for the exclusive authority of the Energy Commission.

18. If the project would need a conditional use permit, please provide the conditions, if known, that Riverside County would place on the project or provide a timeline as to when these conditions would become available to staff.

19. Please provide Riverside County's position on the proposed project's consistency with its General Plan and Zoning Ordinance.

BACKGROUND

The project's stacks would exceed the County's height limit of 75 feet (Riverside County Zoning Ordinance, Article XV W-2 Zone) and the project would normally need a variance from Riverside County, but for the Energy Commission's exclusive licensing jurisdiction.

DATA REQUEST

20. Please provide written confirmation from Riverside County whether, in the County's opinion, a variance could be granted and if so, what conditions Riverside County would require were it the permitting agency.

21. Please cite the section of the zoning or other code that states the findings the County would make for a variance, were it the permitting agency.

BACKGROUND

As stated in the AFC, the 37-acre power plant site consists of three separate Assessor's Parcel Numbers (APNs): 668-130-005, 668-130-007, and 668-140-001, which CPV Sentinel anticipates merging through an application for a Certificate of Parcel Merger with the Riverside County Planning Department.

DATA REQUEST

22. Please provide the County's timeline for granting the parcel merger and what conditions (if any) Riverside County would place on the parcel merger. Please cite the section of the zoning or other code that states the findings the County would be required to make for the merger.

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

Technical Area: Socioeconomics
Author: Hedy Born

BACKGROUND

Sections 7.8.2.2 through 7.8.2.4 (see AFC pages 7.8-8 to 7.8-10) state the economic impacts and fiscal resources of the proposed project. In order to know the time value of money, please provide the following.

DATA REQUEST

23. Please indicate the year for all economic dollar estimates (e.g., construction costs, construction and operation payroll, sales taxes, property taxes, school impacts fees, etc.).

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

Technical Area: Transmission System Engineering
Author: Ajoy Guha, P. E. and Mark Hesters

INTRODUCTION

Staff needs to determine the system reliability impacts of the project and to identify the interconnection facilities, including downstream facilities needed to support the reliable interconnection of the proposed CPV Sentinel Energy Project (CPV Sentinel). The interconnection must comply with Laws, Ordinances, Regulations and Standards (LORS) such as Utility Reliability and Planning Criteria, North American Electric Reliability Council (NERC) Planning Standards, NERC/Western Electricity Coordinating Council (WECC) Planning Standards, and California Independent System Operator (California ISO) Planning Standards. In addition the California Environmental Quality Act (CEQA) requires the identification and description of the "direct and indirect significant effects of the project on the environment."

For the compliance with planning and reliability standards and the identification of indirect or downstream transmission impacts, staff relies on the System Impact Study (SIS) and Facilities Study (FS) as well as review of these studies by the agencies responsible for insuring the interconnecting grid meets reliability standards, in this case, Southern California Edison (SCE) and California ISO. The studies analyze the effect of the proposed project on the ability of the transmission network to meet reliability standards. When the studies determine the project will cause the transmission to violate reliability requirements, the potential mitigation or upgrades required to bring the system into compliance are identified. The mitigation measures often include modification and construction of downstream transmission facilities. CEQA requires environmental analysis of any downstream facilities for potential indirect impacts of the proposed project.

BACKGROUND

The submitted Application for Certification (AFC) indicates the interconnection on-line date for the proposed CPV Sentinel generation plant units would be between March, 2010 and May, 2010. The April 6, 2005 SIS and the January 6, 2006 FS analyzed the interconnection of the project with 2008 summer peak and spring system conditions based on a May 1, 2008 on-line date. Therefore, for demonstration of conformance or non-conformance with the NERC/WECC, California ISO and/or Utility Planning Standards and reliability criteria, staff requires a report or letter from the CA ISO and /or from the SCE confirming the validity of the above SIS and FS reports with regard to the proposed on-line date in 2010 or a new SIS/FS analyzing the proposed project under 2010 system conditions.

According to the California ISO letter of August 8, 2007, the California ISO will shortly complete a Large Generator Interconnection Agreement (LGIA) with CPV Sentinel and also pursuant to Section 12.2.4 of the Large Generator Interconnection Procedures (LGIP) an Operational study examining the impacts of the proposed project on the grid as of the 2010 in-service date. Staff, therefore, concludes that the Operational study would substitute for the requirement of the SIS based on the on-line date.

Also under Article 14 of the LGIA, a LGIA is required to comply with all regulatory requirements and LORS, and under Article 3 of the LGIA, the transmission provider is required to provide a copy of the signed LGIA (with any amendments) with Government agencies when asked for.

DATA REQUESTS

24. Please provide a copy of the final executed Large Generator Interconnection Agreement (LGIA) between the CPV Sentinel owner and the California ISO.

25. Provide SCE's Operational study report based on CPV Sentinel's net 850 MW generation output under 2010 system conditions to assess potential impacts on the grid with a selected mitigation plan.

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

Technical Area: Visual Resources
Author: William Kanemoto

BACKGROUND

In order to review potential cumulative impacts of project vapor plumes, setting information on other existing or foreseeable vapor plume sources is necessary.

DATA REQUEST

26. Please identify any other existing or foreseeable vapor plume sources within a 5-mile radius of the project site, if any.

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

Technical Area: Waste Management
Author: Christopher Dennis, P.G.

BACKGROUND

The October 2006 report, "Phase I Environmental Assessment, Assessor's Parcel Numbers (APNs) 668-130-005 and 668-140-001, Riverside County, California," states that the environmental assessment (ESA) was conducted according to the scope and limitations of "Standard Environmental Site Assessment: Phase I Environmental Site Assessment Process, " (ASTM E 1527-00, ASTM International). ASTM E 1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," contains the following requirements:

> 12.13 *Environmental Professional Statement* - As required by 40 CFR 312.21(d), the report shall include the following statements of the *environmental professional(s)* responsible for conducting the *Phase I Environmental Site Assessment* and preparation of the *report*.
>
> 12.13.1 "[I, We] declare that, to the best of [my, our] professional knowledge and belief, [I, we] meet the definition of *Environmental professional* as defined in §312.10 of 40m CFR 213" and
>
> 12.13.2 "[I, We] have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. [I, We] have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

DATA REQUEST

27. For the Phase I report, please provide this statement in accordance with ASTM E 1527-05.

BACKGROUND

A Phase II environmental assessment was conducted for the project and was documented in a February 2007 report, "Phase II Baseline Investigation – CPV Ocotillo Site, Assessor's Parcel Numbers (APNs) 668-130-005 and 668-140-001, Riverside County, California." While the report is signed, there is no indication that the environmental assessment or report was overseen and signed by a California licensed Professional Engineer or Geologist. Sections 7835 and 7835.1 of the California Business and Professions Code requires all geological and geophysical reports to be signed or stamped by a licensed engineer or geologist, indicating his or her responsibility for the assessment and report.

DATA REQUEST

28. Please provide the name and license of the Professional Engineer or Geologist overseeing the Phase II baseline investigation and report.

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

BACKGROUND

In a letter dated August 8, 2007, the California Department of Toxic Substances Control (DTSC) reviewed the Application for Certification (AFC), including the Phase II baseline investigation report, and had the following comments applicable to this data request:

Item 5: All environmental investigations, sampling and/or remediation should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous waste cleanup. The findings and sampling results from the subsequent report should be clearly summarized in the EIR.

Item 6: Proper investigation, sampling and remedial actions, if necessary, should be conducted at the site prior to the new development or any construction, and overseen by a regulatory agency.

Item 8: Human health and the environment of sensitive receptors should be protected during construction or demolition activities. A study of the site overseen by the appropriate government agency might have to be conducted to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.

Item 9: If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety code, Division 20, chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.54. If so, the facility should obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942.

Item 10: If hazardous wastes are (a) stored in tanks or containers for more than 90 days, (b) disposed of onsite, then a permit from DTSC may be required. If so, that facility should contact DTSC at (818) 551-2171 to initiate pre-application discussions and determine the permitting process applicable to the facility.

Item 11: Certain hazardous waste treatment processes may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.

Item 13: If during construction/demolition of the project, soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the AFC should identify how any required investigation and/or remediation will be conducted, and the appropriate government agency to provide regulatory oversight.

Item 14: If structures in the Project Site contain potentially hazardous materials, such as: asbestos-containing material (ACM), lead-based paint (LBP), and mercury- or PCB-containing material, such materials should be removed properly prior to demolition, and disposed of at appropriate landfills or recycled, in accordance with regulatory guidance

provided in California Code of Regulations (CCR) and following the requirements of the Universal Waste Rule (40CFR part 9).

DATA REQUEST

29. In accordance with the August 8, 2007, DTSC letter, please provide evidence that Items numbers 5, 6, 8, and 14 were addressed during the Phase II baseline investigation for the potential LBP and ACM in the building material of the onsite structures. This includes the structures in the construction area and in the laydown area.

BACKGROUND

Items 9, 10, 11, 13, and 14 in the August 8, 2007 DTSC letter, need to be addressed. All wastes need to be properly documented and handled in accordance with state and federal regulations. If contaminated material is encountered, work must stop and all proper health and safety procedures implemented until such material is properly characterized and removed or remediated by other means. All such activity must be conducted with the oversight by the appropriate regulatory agency.

DATA REQUEST

30. Please discuss a plan and schedule for responding to DTSC items 9, 10, 11, 13, and 14.

BACKGROUND

The October 2006 report, "Phase I Environmental Assessment, Assessor's Parcel Numbers (APNs) 668-130-005 and 668-140-001, Riverside County, California," states that LBP and/or ACM may be present in the building materials of the structures on the subject property. The February 2007 report, "Phase II Baseline Investigation, Assessor's Parcel Numbers (APNs) 668-130-005 and 668-140-001, Riverside County, California," states that LBP and/or ACM may be present in the building materials of the structures on the subject property. However, no LBP or ACM sampling and analysis were conducted on the structures on the building materials of the subject property. In addition, based on the aerial photographs, there is another building in the project laydown area. No mention of this building was made in the Phase I or Phase II reports.

DATA REQUEST

31. Please provide the report documenting the LBP and ACM sampling, analytical results, and recommendations.

32. Please provide evidence that a copy of the Phase I report was provided to the appropriate oversight regulatory agency(s).

33. Please determine whether LBP or ACM are present in the building within the project laydown area and provide a copy of a related report containing the determination to the appropriate oversight agency and the California Energy Commission.

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

Technical Area: Water and Soil Resources
Author: Christopher Dennis, P.G.

BACKGROUND

Construction and operation of the Sentinel Power Plant Project (the Project) may induce water and wind erosion in the construction area, transmission and pipeline corridors, and laydown and parking areas. The entire project area is currently undeveloped, except for an uninhabited residential building and associated garage and groundwater well within the construction area and a building and possible building materials within the laydown area. The residential building and garage are to be removed by the existing property owner. The groundwater well will apparently remain. Wells partially destroyed and later lost during construction can provide a direct route of contamination to aquifers. The status of the building and possible building materials in the laydown area is unknown. Also, in the project laydown area and pipeline corridor area are windmills that are part of a wind farm.

To determine the potential erosion impacts to water and soil resources from construction of the Project, the California Energy Commission (CEC) requires a draft Drainage Erosion and Sediment Control Plan (DESCP). The draft DESCP is to be updated and revised as the project moves from the preliminary to final design phases and is to be a separate document from the construction Storm Water Pollution Prevention Plan (SWPPP). The DESCP, submitted prior to site mobilization, must be developed and signed by a professional engineer/erosion control specialist. Please note that Section 7.14.4.2 of the AFC mentions that an approved Erosion Control Plan is discussed in section 7.9.2 of the AFC. However, no such plan is referenced in section 7.9.2 or is part of the AFC.

DATA REQUEST

34. Please discuss:

    a) Plans for abandoning the groundwater well in accordance with the California Department of Water Resources (DWR) Bulletin 74-90, California Well Standards, and Riverside County requirements prior to construction.

    b) If the well will not be abandoned, please provide a written plan outlining the procedures that will be followed for the protection of this well.

35. Please provide a copy of the Erosion Control Plan referenced in Section 7.14.4.2 of the AFC.

36. Please provide a draft DESCP containing elements A through I listed below. These elements will outline site management activities and erosion/sediment control Best Management Practices (BMPs) to be implemented during site mobilization, excavation, construction, and post-construction activities. The level of detail in the draft DESCP should correspond to the current level of planning for site construction and corresponding site grading and drainage. Please provide all conceptual erosion control information for those phases of construction and post-

construction that have been developed or provide a statement when such information will be available.

A. Vicinity Map: A map(s) at a minimum scale 1"=100' shall be provided indicating the location of all Project elements and depictions of all significant geographic features including swales, storm drains, and sensitive areas.

B. Site Delineation: All areas subject to soil disturbance, such as the construction area, laydown area, parking area, all linear facilities, and landscaping areas shall be delineated showing boundary lines and the location of all existing and proposed structures, pipelines, roads, and drainage facilities.

C. Watercourses and Critical Areas: The DESCP shall show the location of all nearby watercourses including swales, storm drains, and drainage ditches. Indicate the proximity of those features to the Project construction, laydown, and landscape areas and all transmission and pipeline construction corridors.

D. Drainage Map: The DESCP shall provide a topographic site map(s) at a minimum scale 1"=100' showing existing, interim, and proposed drainage systems and drainage area boundaries. On the map, spot elevations are required where relatively flat conditions exist. The spot elevations and contours shall be extended off-site for a minimum distance of 100 feet in flat terrain.

E. Drainage of Project Site Narrative: The DESCP shall include a narrative of the drainage measures to be taken to protect soil and water resources onsite and downstream. The narrative shall include a summary of the hydraulic analysis prepared by a professional engineer/erosion control specialist. The narrative shall state the watershed size in acres that was used in the calculation of drainage measures. The hydraulic analysis should be used to support the selection of BMPs and structural controls to divert off-site and on-site drainage around or through the construction and laydown areas.

F. Clearing and Grading Plans: The DESCP shall provide a delineation of all areas to be cleared of vegetation and areas to be preserved. The plan shall provide elevations, slopes, locations, and extent of all proposed grading as shown by contours, cross-sections, or other means. The locations of any disposal areas, fills, or other special features shall also be shown. Illustrate existing and proposed topography tying in proposed contours with existing topography.

G. Clearing and Grading Narrative: The DESCP shall include a table with the quantities of material excavated or filled during construction in all area such as the construction area, laydown area, and transmission and pipeline corridors. This table shall identify whether the materials removed and brought in were temporarily or permanently added or removed and the amount of such material brought in or removed.

H. Best Management Practices Plan: The DESCP shall identify on the topographic site map(s) the location of the site specific Best Management Practices (BMPs) to be employed during each phase of construction, initial grading, project element excavation and construction, and final grading/stabilization. BMPs shall include measures designed to prevent wind and water erosion. Treatment control BMPs used during construction should enable testing of groundwater and/or stormwater runoff prior to discharge.

I. Best Management Practices Narrative: The DESCP shall show the location (as identified in H above), timing, and a maintenance schedule of all erosion and sediment control BMPs to be used prior to initial grading, during Project excavation and construction, final grading/stabilization, and post-construction. Separate BMP implementation schedules shall be provided for each phase of construction. The maintenance schedule should include post-construction maintenance of structural control BMPs or a statement provided when such information will be available.

BACKGROUND

Potentially significant impacts to soil by wind and water erosion could be mitigated through the preparation of construction and operation SWPPPs and the use of appropriate BMPs.

DATA REQUEST

37. Please provide a copy of the final construction SWPPP.

BACKGROUND

The State Water Resource Control Board's (SWRCB) policy on the Use and Disposal of Inland Waters Used for Power Plant Cooling (SWRCB Resolution 75-58) states fresh inland water should only be used for power plant cooling if other sources or other methods of cooling would be environmentally undesirable or economically unsound. The SWRCB policy requires that power plant cooling water should come from, in order of priority: wastewater being discharged to the ocean; ocean water; brackish water from natural sources or irrigation return flow; inland waste waters of low total dissolved solids; and other inland waters. Additionally, Water Code Section 13550 finds the use of potable water for industrial and irrigation uses is a waste or an unreasonable use of potable water within the meaning of Section 2 of Article X of the California Constitution if recycled water is available and meets certain conditions. The Energy Commission adopted a similar policy in the 2003 Integrated Energy Policy Report.

The Project proposes using groundwater for cooling operations for the power plant. The Mission Creek Sub-basin groundwater will be accessed using onsite wells. The peak water usage is stated to be 1,100 acre-feet per year (AFY) with an average use of 550 AFY. According to the 2007 Desert Water Agency Engineer's Report: *Ground Water Replenishment and Assessment Program for the Mission Creek Subbasin*, the sub-basin is already in a state of overdraft by 9,000 to 10,000 AF. If the sub-basin aquifers come to a state of extreme overdraft, the soil matrix can irreversibly collapse leading to

land subsidence and lose of available aquifer volume. Comparing the existing groundwater overdraft to the expected yearly average and peak groundwater requirements of the project, an average of 5.5 to 6.1 percent and maximum 11 to 12.2 percent of the total overdraft volume annually is proposed to be used for plant cooling operations. In other words, the project is proposing to use annually between 5.5 to 12.5 percent of the water needed to recharge the over-drafted groundwater sub-basin.

The project, if approved, would require a number of complex water transfers and exchanges for groundwater replenishment. Each of these transfers or exchanges require either a will-serve letter or a letter of intent indicating: (1) that the purveyor is willing to serve the project; (2) that the purveyor has adequate water supplies available for the life of the project; and (3) any conditions or restrictions that apply to the provision of the water. Agencies and districts involved include the Mission Springs Water District (MSWD), Desert Water Agency (DWA), Metropolitan Water District (MWD), and the California Department of Water Resources (DWR).

DATA REQUEST

38. Please provide a detailed discussion and analysis, and the supporting economic and environmental factors for the proposed use of groundwater for power plant cooling compared to other options/alternatives including air-cooled systems and inlet chiller systems. This discussion and analysis should include:

    a) An explanation with supporting data of why the use of air-cooled systems are not considered economically feasible.

    b) An analysis of the groundwater water supply for power plant cooling with an explanation of why it is considered technically/environmentally feasible in a over-drafted sub-basin with a limited and unreliable supply of recharge water.

    c) A breakdown of estimated capital and operating costs for the use of water-cooled and air-cooled systems for the project.

    d) Specific contact responses and other data that support the detailed evaluation and conclusions that water-cooling is the most feasible cooling method available.

39. Please provide a will-serve letter or letter of intent for each transfer and exchange of water associated with this project.

40. For transfer and exchange of water associated with this project, please provide the status of all public agency approvals, the contracts or agreements involved, and describe the contractual relationships between the agencies.

41. Please describe the rules and regulations with citations that are applicable to SWP/CRA water importation by DWA, and provide either a Webpage link to each rule and regulation or a hard copy.

BACKGROUND

According to the MSWD Urban Water Management Plan dated February 2006, the capacity to reduce overdraft conditions by continuing groundwater recharge of the sub-basin depends on the availability of future water from the Colorado River Aqueduct (CRA) water and the on MWD's exchange agreements with DWA. This water supply is a fixed amount set by the DWR. In addition, according to the DWA's April 2007 Engineer's Report, the sub-basin overdraft will continue until increased maximum SWP water allocations are obtained. The U.S. Ninth Circuit Court, on August 31, 2007, ruled that surface water pumping, for the SWP and federal Central Valley Project, be reduced to protect the Delta Smelt, a small, endangered delta fish. This could result in a reduction of the water available to recharge the sub-basin by as much as 30%. In addition, in drought years or as other circumstances warrant, the DWR could substantially reduce the volume of SWP water available to the DWA.

DATA REQUEST

42. Please discuss in detail the reliability of CPV's proposal for recharging the water supply to the sub-basin from sources including CRA water, SWP water, and recycled water. This detailed discussion should include:

    a) The amount of SWP water required for exchange of CRA water.

    b) The amount of CRA water, SWP water, and recycled water that can obtained reliably on a month-to-month and year-to-year basis.

    c) Citations from the CRA, SWP, and other water agency planning documents to support the Item 'b' conclusions.

    d) The DWA's estimated annual delivery over the life of the project, based on the DWR's 2005 Final State Water Project Delivery Reliability Report.

    e) Data documenting all of the historical deliveries to the sub-basin over the last 10 years.

    f) The effect of the following on the available water supply over the life of the project: (1) the recent Ninth Circuit Court ruling; (2) single dry and multiple dry years; and (3) increased water supply demand as the region's population and economy grow.

43. Please discuss in detail the supply of water available to the MSWD and the project. This detailed discussion should include:

    a) The amount of water needed for the project.

    b) The amount of recycled water that will be used in conjunction with the project and its source.

    c) The monthly and annual deliveries representative of normal and critically dry single and multiple water years for MSWD's existing customers.

d) Since the project has only one source of water with no backup supply, please discuss the dependability of the water source.

e) The available historical data for any interruptions to the proposed water supply over the last 10 years.

f) A summary of MSWD's water supply rights, entitlements, and service contracts and commitments of its water supply to existing and planned customers, noting the: (1) priority for service; (2) maximum supply rate; (3) maximum annual volume; (4) maximum contractual deliveries for all months; and (5) the term of the agreements.

44. Please provide a detailed discussion of the project's potential impact to other users of the groundwater supply currently and over the life of the project. This detailed discussion should include:

a) The quality of imported water used for recharge compared to the quality of groundwater existing in the sub-basin. Laboratory analytical data should be used in this discussion, if available.

b) The effect on the sub-basin's groundwater quality of importing water for recharge, including the degree of groundwater quality degradation and the spatial extent of the degradation.

c) The impact from the Project's planned 550 AFY average groundwater use and 1,100 AFY peak groundwater use to the supply for other users of the sub-basin's groundwater resource.

BACKGROUND

All water supplied to the sub-basin (surface and reclaimed water) is limited in volume and is currently being used for groundwater recharge of the over-drafted sub-basin.

DATA REQUEST

45. Please support the statement that extracting groundwater from the sub-basin can lead to a net overall gain to the sub-basin water supply relative to current conditions.

46. a) Please discuss how using groundwater for turbine cooling and then offsetting the groundwater use with reclaimed water and surface water would impact the aquifer, in that the reclaimed and surface waters are currently providing recharge to an over-drafted sub-basin.

b) Discuss how these methods are consistent with the SWRCB and Energy Commission water policies (see the Background statement preceding Data Request No. 38 for a summary of the SWRCB policy on the Use and Disposal of Inland Waters Used for Power Plant Cooling and the Energy Commission's water policy).

CPV SENTINEL ENERGY PROJECT
07-AFC-3
DATA REQUESTS

BACKGROUND

The applicant discussed in the AFC the feasibility of installing wells at the property under existing property rights, negotiating conditions with the MSWD for extraction of groundwater, and paying a replenishment fee to the DWA. The applicant also discussed in the AFC the feasibility of buying approximately 1,500 AFY of secondary or tertiary treated water from the MSWD Horton Wastewater Treatment Plant (WWTP) for groundwater recharge while also using groundwater via onsite wells.

DATA REQUEST

47. If the Applicant were to purchase treated water for groundwater recharge, discuss the legal status of the applicant to act as a groundwater replenisher in the basin with an existing 2004 Settlement Agreement between the MSWD, DWA, and Coachella Valley Water District. Also, discuss the applicant's need for regulatory or statutory authority to act as a recharger in the sub-basin.

48. Please describe and explain any legal requirements, including citations, that govern the use of groundwater in the basin, reclaimed water from the Horton WWTP, and SWP water.

49. Describe any legal requirements governing a non-governmental entity's ability to bank reclaimed or surface water in the ground, and provide either a Webpage link to each rule and regulation or a hard copy.

50. Please provide a description of the site-specific hydrologic and geologic conditions of the Horton WWTP percolation site. The purpose of this request is to obtain information necessary to assess the hydrologic effect of the percolation. Please include the following information:

    a) Describe the MSWD and DWA recharge projects using SWP/CRA and reclaimed water. Include any available assessments of the recharge performance of these projects

    b) Outline the current and future service area of the WWTP on an appropriately scaled map.

    c) Describe the source of wastewater treated at the Horton WWTP.

    d) Discuss the legal authority of the MSWD to sell wastewater on a retail basis and for the project.

    e) Include a surface map of an appropriate scale of the site(s) location and a description of current recharge rate, recharge capacity, hydrology, and hydrogeology.

    f) Identify the underlying aquifer formations using geologic cross-section(s).

    g) Describe layering and subsurface features that would affect groundwater recharge, for example, hardpans, lakebed deposits or faults.

h) Please describe the following: (1) Aquifer parameters including hydraulic conductivity and specific yield; (2) Depth to groundwater over the last 10 years, if available, and (3) descriptions and results of percolation tests or studies.

i) Total acreage of irrigation or percolation site.

j) Historical monthly irrigation records and/or average monthly irrigation rates (provide monthly breakdown of supply sources if reclaimed water is not sole source).

k) Please discuss the volume of wastewater expected to be produced during 2007 and 2008 and how much of that water will be used for groundwater recharge through percolation.

l) Average monthly potential evapotranspiration, along with evapotranspiration balance.

m) Please discuss how much freshwater use is required to make 1,500 AF of wastewater?

BACKGROUND

The groundwater use was modeled in the AFC. The groundwater was modeled assuming that only the wells on the project site would be extracting groundwater, and did not account for potential impacts on other users of groundwater (i.e., other wells) or the loss of recharge water through absorption and evaporation while settling in percolation ponds at the Horton WWTP.

DATA REQUEST

51. The rate of evapotranspiration in the project area is approximately 72 to 94 inches per year. Please determine the volume of water loss through evapotranspiration, and revise the groundwater model to include this loss of water available for recharge of the sub-basin.

52. Please determine and incorporate into the model the volume of water lost due to absorption by the soil during percolation.

53. The AFC stated that the Project would purchase 1,500 AFY of treated water from the MSWD Horton WWTP for groundwater recharge at the WWTP. Incorporating loss of water to soil absorption and evapotranspiration, please provide support for the conclusion that 1,500 AFY is a sufficient volume of water to more than equate to the maximum volume of water proposed to be used by the Project (i.e., 1,100 AFY).

54. Please discuss the cumulative effect of groundwater extraction from all groundwater users on the overdraft of the sub-basin over the life of the project (including the project's use of groundwater).

55. Using existing well data (well location and known pumping rates) please revise the model to assess the net affect of all groundwater extraction from the sub-basin over the life of the project.

56. Please describe and quantify the annual groundwater production rates in the sub-basin for the last 10 years.

57. Please describe and quantify changes in recharge that have occurred in the sub-basin during the last 10 years. Include information on water importation, reclamation of wastewater, and new recharge programs.

58. Please describe and quantify the changes in groundwater levels that have occurred in the sub-basin over the last 10 years. Include hydrographs and groundwater contour maps to describe these changes.

59. Please provide a 10-year balance of water outflows and water inflows for the sub-basin and discuss the status and future of overdraft of the sub-basin

60. Please discuss the safe yield of the sub-basin at the Project location, and include all assumptions and calculations for this estimation.

61. Given the reliability issues of imported water (e.g., SWP and CRA supplies) for recharge of the sub-basin, please revise the model using two separate conditions: (1) a conservative baseline of guaranteed water supply for groundwater recharge, with all assumptions included; and (2) a reasonably foreseeable water supply available for groundwater recharge, including all assumptions used. In other words, in the model, please provide a worst-case scenario and a most-likely scenario for recharge water supply and how this affects the sub-basin's overdraft condition.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

APPLICATION FOR CERTIFICATION
FOR THE *CPV SENTINEL ENERGY PROJECT*
Power Plant Licensing Case

Docket No. 07-AFC-3
PROOF OF SERVICE
(Established 8/29/07)

INSTRUCTIONS: All parties shall 1) send an original signed document plus 12 copies OR 2) mail one original signed copy AND e-mail the document to the web address below, AND 3) all parties shall also send a printed OR electronic copy of the documents that shall include a proof of service declaration to each of the individuals on the proof of service:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 07-AFC-3
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DECLARATION OF SERVICE

I, Terry Piotrowski, declare that on October 4, 2007, I deposited copies of the attached CPV Sentinel Energy Project Data Requests (1-61) in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

Original signed by
Terry Piotrowski
Siting Office