CALIFORNIA ENERGY COMMISSION
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March 5, 2009

Mr. Andrew Welch, Vice President
Competitive Power Ventures, Inc.
8403 Colesville Road, Suite 915
Silver Spring, MD 20910

DOCKET
08-AFC-11
DATE Mar 05 2009
RECD. Mar 05 2009

RE: CPV VACA STATION PROJECT (08-AFC-11)
DATA REQUEST SET 1 (#s 1-53)

Dear Mr. Welch:

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 (#s 1-53) is being made in the areas of air quality (#s 1-29), biological resources (#s 30-35), cultural resources (#s 36-41), traffic and transportation (#s 42-46), transmission system design (#47), visual resources (#s 48-50) and waste management (#s 51-53). If possible, we would appreciate written responses to the enclosed data requests on or before April 5, 2009, or at such later date as may be mutually agreeable.

If you are unable to provide the specific information requested, need additional time, or object to providing requested/specific information, please send a written notice to both Commissioner Jeffrey Byron, Presiding Committee Member for the CPV Vaca Station (CPVVS) project, and to me, within 20 days of receipt of this letter. If sent, this notification must contain the reason(s) 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) 654-5191 or email me at rjones@energy.state.ca.us.

Sincerely,

Rod Jones
Project Manager

Enclosure
cc: Docket (08-AFC-11) and POS

PROOF OF SERVICE (REVISED 2/18/09) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 3/5/09
MS

Technical Area: Air Quality
Author: Brewster Birdsall

BACKGROUND

Project Description and Emissions
The Application For Certification is based on the power plant using either a General Electric or a Siemens combined-cycle system. Staff seeks to understand whether CPVVS expects to select the supplier for the equipment at any point during the Energy Commission review process or at some later time. Performance data from the vendors should be provided, where possible. Based on emissions rates in AFC Appendix 5.1A, the particulate matter emissions rates of the Siemens turbines would be substantially less than those of the General Electric turbines.

DATA REQUEST

1. Please describe the anticipated schedule for selecting the supplier of the combustion turbine generators.
2. Please provide vendor specifications confirming the combined-cycle system emission rates and confirming the maximum particulate matter emission rate of 7.5 pounds per hour for the Siemens turbines, compared to 9.0 pounds per hour for the General Electric turbines (as in AFC Tables 5.1A-2A and 5.1A-2B).

BACKGROUND

Construction and Operation Phases Greenhouse Gas Emissions
Staff plans to describe the quantity of greenhouse gases (GHG) emissions created during construction of the project, based on the construction equipment activity estimates and fuel use projections in AFC Appendix 5.1D. These include carbon dioxide, nitrous oxide, and methane (unburned natural gas). The GHG emissions estimates should consider activity related to construction of linear facilities, worker travel, and material deliveries using diesel trucks during construction.

The January 2009 AFC Supplement shows the GHG emissions from primary stationary sources related to operation of CPV Vaca Station. However, staff also seeks to quantify emissions from worker commutes and material deliveries during operation of the proposed project.

DATA REQUEST

3. Please show the total and annual GHG emissions for the construction phase of the proposed project including all activities at the construction site and any construction activities for linear facilities (gas pipeline and transmission lines), worker travel, and trucked material deliveries.
4. Please quantify emissions of criteria pollutants and GHG from worker commutes and material deliveries during operation of the proposed project.

BACKGROUND

Emission Reduction Credits (ERCs)
The Yolo-Solano Air Quality Management District's (YSAQMD) December 10, 2008 letter to CPV Vacaville, LLC (CPV) indicates that the applicant must supply evidence of sufficient ERCs

prior to issuance of a preconstruction permit. However, the list of ERCs is currently tentative and confidential. Staff will need to publish the list of credits and values in the preliminary staff assessment. When identifying the ERCs for the proposed project, the applicant should consider the distance of the reductions from the project, the interpollutant conversion ratios, and the viability of transferring credits from other air districts. The specific distance and interpollutant trading ratios should be clearly defined.

DATA REQUEST

5. Please identify whether the confidential filing dated December 5, 2008 represents the proposed ERCs that would be used for offsets and mitigation.

6. Please specifically state the proposed distance ratios, interpollutant trade ratios, and transfers of credits from other air districts.

ERCs and Particulate Matter Mitigation

Staff needs to demonstrate that the mitigation proposed as part of the CPVVS project would mitigate project impacts of particulate matter under 10 and 2.5 microns (PM10 and PM2.5), as the proposed project would be a source of both. It is not clear how the ERCs in the confidential filing would mitigate PM2.5. The Response to Data Adequacy filed January 8, 2009, indicated that "most of the PM10 offsets … come from combustion sources." However, the confidentially-filed ERC package is tentative. Staff needs to know what kinds of PM10 and PM2.5 reductions would be attributable to the ERCs ultimately surrendered by the applicant. Staff also needs to know if CPV proposes to use reductions in sulfur oxides (SOx) to provide particulate matter mitigation through an interpollutant trade. A brief description of the sources that were shut down in order to create the ERCs would help staff determine whether the particle size distribution of the reductions are likely to provide relevant PM2.5 mitigation.

DATA REQUEST

7. Please provide a brief description of the PM10 sources that were shut down in order to create the ERCs.

8. Please provide an analysis of the ERCs that are proposed to be surrendered that demonstrates the expected level of PM10 and PM2.5 mitigation provided by the ERCs.

9. Please provide an explanation of whether any SOx ERCs would be used to offset PM10 and PM2.5 emissions and, if so, an analysis of the appropriate interpollutant trading ratio.

ERCs and SOx Mitigation

The AFC (p. 5.1-60) indicates that the proposed sulfur dioxide (SO_2) emissions would not exceed the YSAQMD threshold for requiring offsets. However, it is Energy Commission staff's long-standing position that all nonattainment pollutant and precursor emissions, including SOx, be mitigated to avoid the project potentially contributing substantially to existing violations of the ambient air quality standards. Without proper offset mitigation for proposed SOx emissions, the project could contribute to existing violations of particulate matter standards.

DATA REQUEST

10. Please provide information showing how the ERCs that are proposed to be surrendered would be of a sufficient quantity to achieve a one-to-one offset of project SOx emissions.

BACKGROUND

Interpollutant Trading Ratio for Ozone

The AFC Table 5.1-32 shows there are insufficient ERCs available in the air district for project emissions of nitrogen oxides (NOx). The AFC (p. 5.1-61) indicates that an interpollutant trading ratio of 1.4 tons of volatile organic compound (VOC) reductions should be used to allow each ton of NOx increases, and that this ratio has been approved in the air basin. However, it is not clear if this ratio is well-established by the air quality management agencies in the Sacramento Valley air basin or the U.S. EPA, or if this ratio would be protective of the region-wide plan for ozone attainment. The project would emit large quantities of pollutants that are precursors to ozone (nitrogen oxides and volatile organic compounds), and the air district may allow offsetting these precursors by exchanging credits between the two pollutants. One appropriate method for determining an interpollutant offset ratio would include the use of the Urban Airshed Model (UAM), which was the method used by the Sacramento Metro Air Quality Management District to determine the VOC for NOx interpollutant offset ratio of 2.6:1 for the Cosumnes Power Plant case (01-AFC-19, Staff Assessment, February 2003).

DATA REQUEST

11. Please identify the source of the proposed 1.4-to-1 ratio for VOC to NOx and any technical studies or regional air quality management plans that support use of this ratio.

12. Please identify the circumstances and provide citations to where the YSAQMD or another air quality management agency with jurisdiction in the Sacramento Valley air basin, including the U.S. EPA, approved the proposed VOC to NOx interpollutant offset ratio.

BACKGROUND

Cooling Tower

The AFC (Appendix 5.1A, Table 5.1A-4) shows assumptions without citation that lead to the total dissolved solids (TDS), when airborne, having a particle size distribution of a 44 percent PM10 fraction and a 15 percent PM2.5 fraction. For a reasonable worst-case demonstration of ambient air quality impacts, staff normally assumes that 100 percent of the TDS present in the cooling water would be emitted to the ambient air as PM10 (U.S. EPA AP-42 Section 13.4, 1995). Staff's approach was deliberated in advance of the April 2003 Staff Assessment for the Tesla Power Project and the April 2005 Staff Assessment for Blythe Energy Project 2, and various other analyses. As in the previous cases, staff similarly proposes to assume that 100 percent of the Vaca Station cooling tower water TDS qualifies as PM2.5.

Because the AFC proposes less conservative calculations, staff requests evidence to support the applicant's particle size distribution assumptions. There also appear to be mathematical errors. Preliminary staff review of the calculation for the diameter of the solid particle (Ds) from the droplet diameter (Dd) at the largest droplet size category (over 525 microns) gives a particle size of about 84 microns [based on: 525 * (1/2.2 * 9,000/1,000,000)^1/3 = 83.9], rather than the quoted size of 124.5 microns.

DATA REQUEST

13. Please provide substantiating evidence or copies of technical reports supporting the assumption that "when a water droplet evaporates, the dissolved solids form a single particle" (AFC Appendix 5.1A, p. A-6). This information should address the likelihood of

every water droplet remaining coherent through evaporation, rather than breaking up into smaller droplets, as well as the likelihood of different dissolved salts adhering to each other to form the single particle.

14. Please provide substantiating evidence or copies of technical reports supporting the equation used for predicting the diameter of a solid particle formed from a cooling tower droplet (AFC Appendix 5.1A, p. A-6).

15. Please review the mathematical steps described and confirm that there are no errors or correct the apparent errors.

16. Please provide substantiating evidence or laboratory analysis of the proposed cooling water supporting the assumption that the density of the airborne particles would best match that of sodium chloride (AFC Appendix 5.1A, p. A-6).

17. Please provide substantiating evidence or copies of technical reports supporting the assumptions of mass distribution and various cooling tower drift droplet sizes (AFC Appendix 5.1A, p. A-7).

18. Please identify whether the assumptions used in the emission calculations for the cooling tower have been reviewed and approved by air management agencies, including U.S. EPA or the California Air Resources Board, and provide the approving documentation or a guidance document supporting use of the assumptions.

19. Please describe what steps could be taken to reduce the maximum total dissolved solids from 9,000 parts per million to a lower number.

BACKGROUND

Best Available Control Technology (BACT) for Carbon Monoxide
The AFC (Appendix 5.1E) proposes to limit the carbon monoxide (CO) emissions from the combustion turbine generators (CTGs) to 3.0 parts per million (ppm) at 15% O_2 on a 3-hour basis regardless of whether the duct burners are firing based on the use of an oxidation catalyst. However, the AFC also shows that the Magnolia Power Project in the South Coast Air Quality Management District has a CO limit of 2.0 ppmvd on a 1-hour basis, which appears to be achievable and demonstrated in practice for this class of source (AFC Table 5.1E-2). BACT, as defined in YSAQMD Rule 3.4, is the most effective limit that has been required, unless the applicant demonstrates that the limits have not been demonstrated to be achievable in practice.

DATA REQUEST

20. Please explain why a limit of 2.0 ppmvd on an l-hour averaging basis is not being proposed for the CPV Vaca Station project.

BACKGROUND

BACT for Startup Emissions
The AFC indicates that the project would use the "latest, most efficient generation technology to generate electricity in a manner that will minimize the amount of fuel needed, emissions of criteria pollutants, and potential effects on ambient air quality" (p. 5.1-1). In this spirit, the Energy Commission staff expects the design of the project to include the latest, most efficient technologies available to reduce startup durations and thus emissions during startups and currently-available design features to reduce emissions during low-load operating conditions.

AFC Tables 5.1A-2A and 5.1A-2B do not include load data to show whether or not the proposed project would incorporate the latest technologies to minimize startup or partial-load emissions.

"Rapid Response" systems from General Electric (GE "OpFlex" enhancements) or Siemens "Flex Plant" models for combined-cycle gas turbine systems promise these reductions, and they are being proposed for other cases before the Energy Commission (e.g., El Segundo, Palmdale Hybrid, Carlsbad, Lodi Energy Center, and Marsh Landing). At least one existing operational plant, Palomar Energy Center in Escondido, CA, has used the OpFlex proprietary control system since 2007 to improve efficiency and allow ammonia injection at relatively low temperatures, reducing startup and low-load NOx emissions. This avoids daily startups by allowing overnight low-load operation. The AFC provides little information supporting the proposed emission rates for startups or low loads. There is no vendor information demonstrating compliance with YSAQMD Rule 2.16, which is a 140 pound per hour NOx limit. Since this is an area of recent technological advancement for large combustion turbines, staff understands that the information being requested in the following data requests may be confidential, and thus provisions could be used if necessary for this information to remain confidential at the Commission.

DATA REQUEST

21. Please provide technical information, including vendor specifications that support the proposed emissions during startups and low loads (AFC Tables 5.1A-9A and 5.1A-9B), preferably on vendor letterhead. This information should include enough detail to determine emissions as a function of time in a hot startup and a cold startup and at certain increasing loads. If necessary, proprietary or confidential information may be submitted pursuant to the Energy Commissions siting regulations for the designation of confidential records.

22. Please provide vendor specifications demonstrating compliance with the 140 lb/hr NOx emission limit in YSAQMD Rule 2.16.

23. Please provide turbine load data (electrical and percent) for AFC Tables 5.1A-2A and 5.1A-2B, in order to confirm the part-load scenarios analyzed in the dispersion modeling and to evaluate the low-load performance of the proposed power plant.

24. Please describe why the proposed project is not incorporating "Rapid Response" technologies (including the GE OpFlex enhancements or the Siemens Flex Plant technology) for controlling and reducing low-load emissions to the extent feasible. Staff is required to ensure that the applicant incorporates into the project all measures that can be shown to be feasible, reasonably necessary, and available to substantially lessen or avoid significant adverse environmental effects (Title 20, California Code of Regulations, section 1741(b)).

25. Please investigate and describe the feasibility of implementing the OpFlex system low load emission reduction controls which have been in use since 2007 at Palomar Energy Center, or similar competing technologies.

BACKGROUND

Operational Mode, Automatic Control
On p. 2-34 of the AFC, an operational mode under the heading of Load Following is described as "automatic generation control." In this mode, the California Independent System Operator

has direct control of the operation of the project. Staff needs clarification on "automatic generation control", what entity controls the project in this mode of operation, and whether there could be any impacts on emission levels or increased likelihood of emission limits being exceeded during this mode of operation.

DATA REQUEST

26. Please provide a thorough description of "automatic generation control" and what role the California Independent System Operator (CAISO) has in implementing the automatic generation control.

27. Please describe what effect, if any, the automatic generation control will have on any aspect of the criteria pollutant emission levels for the project.

BACKGROUND

Operational Mode, Combustor Tuning
On some recent projects, most notably the Carlsbad Energy Center Project, language has been included in the local air district's Preliminary Determination of Compliance permit conditions that allow for an operational mode known as "tuning" whereby the normal emission limits for steady-state operation are proposed not to apply. The "tuning" mode was proposed by the Carlsbad applicant without being part of the AFC project description, and staff needs to know whether the Vaca Station project would also require permit conditions with similar language. If so, then a full discussion of the tuning circumstances should be included in the project description.

DATA REQUEST

28. Please describe whether the chosen model combustion turbine would require periodic combustor tuning. If so, then please provide the following information:

    a. The proposed frequency of combustor tuning.

    b. When tuning would take place, for example during the normal annual maintenance inspection, or at some other manufacturer-specified time period.

    c. A description of what the combustor tuning process entails.

    d. The criteria pollutant emission rates that would occur (concentrations and mass emission levels), and the duration in which emission rates over those of normal steady-state operation would occur.

BACKGROUND

Cumulative Impacts
The AFC (Section 5.1.5 and Appendix 5.1F) mentions a cumulative impacts analysis that considers reasonably foreseeable projects that may contribute to the air quality impacts of the proposed project. The status of the applicant's proposed consultation with the YSAQMD and Bay Area Air Quality Management District for identifying cumulative projects is not known.

DATA REQUEST

29. Please provide the list of cumulative sources to be considered and the cumulative analysis for ambient air quality impacts.

Technical Area: Biological Resources
Author: Heather Blair

BACKGROUND

The location for the proposed CPVVS project is within an area identified by the Draft Solano Multi-species Habitat Conservation Plan (MHCP) as providing suitable foraging habitat for western burrowing owl (*Athene cunicularia*), a California Species of Special Concern (SSC). As stated in the AFC (Sec. 5.2.1.7.6, pgs. 5.2-52 and 53), the applicant conducted protocol surveys for this species within the proposed project area in June 2008. The site was determined to lack burrows and be too heavily vegetated to provide suitable nesting or foraging habitat for western burrowing owl. However, the site was disked subsequent to protocol surveys (AFC Sec. 5.2.1.7.6, pg. 5.2-53), which could improve habitat suitability for this species. Staff requires additional information on the presence or absence of western burrowing owl to complete the analysis.

DATA REQUEST

30. Please conduct additional surveys of western burrowing owl according to the California Burrowing Owl Consortium survey protocol (CBOC 1993) within the CPVVS 1-mile survey area (including project linears, temporary laydown area, and substation) and provide survey results. If owls are found, also report results to the California Department of Fish and Game (CDFG).

BACKGROUND

The location for the proposed CPV Vaca Station is within an area identified by the Draft Solano MHCP as an Irrigated Agriculture Conservation Area which provides foraging habitat for Swainson's hawk (*Buteo swainsoni*), a state listed threatened species. As stated in the AFC (AFC Sec. 5.2.1.4, pg. 5.2-8), Swainson's hawk surveys were conducted according to established protocols. However, the results of these surveys are not provided in the AFC. Staff requires additional information on the presence or absence of nesting and foraging Swainson's hawk to complete the analysis.

DATA REQUEST

31. Please provide a detailed report of the Swainson's hawk protocol survey, including methodology and results.

BACKGROUND

It is not clear whether a jurisdictional determination of waters of the United States, including wetlands, as regulated by the U.S. Army Corps of Engineers (USACE) and waters of the State as regulated by Regional Water Quality Control Board (RWQCB) and/or CDFG, was conducted for the proposed project; however, a Routine Wetland Delineation Data Sheet was provided only for the constructed basin north of the proposed power plant site. The proposed natural gas

pipeline alignment would cross 12 agricultural drainages that have tertiary connectivity to Alamo Creek, and may be potentially jurisdictional. Staff requires additional information regarding potentially jurisdictional wetlands and waters to complete the analysis.

DATA REQUESTS

32. Please coordinate with USACE, RWQCB, and CDFG (as applicable) to determine the need for project permits. Provide any supporting documents (letter or record of conversation) that result from communication with these agencies.

33. Please conduct a preliminary jurisdictional delineation of waters of the United States, including wetlands, and waters of the State. The jurisdictional delineation should be conducted within the CPV Vaca Station 1-mile survey area (including project linears, temporary laydown area, and substation). Please provide the survey results and related map delineation.

34. If potentially jurisdictional wetlands and/or waters are identified, please coordinate with USACE, RWQCB, and CDFG (as applicable) regarding project permitting requirements. Provide any supporting documents (letter or record of conversation) that result from communication with these agencies, including the permits required for the project, the steps the applicant has taken or plans to take, and the schedule for obtaining the permits.

BACKGROUND

The proposed project may result in permanent and/or temporary impacts to several state and/or federally protected species, including giant garter snake (*Thamnophis gigas*; federally Threatened, State Threatened), Swainson's hawk (State Threatened), western burrowing owl (state SSC), and northern harrier (*Circus cyaneus*; state SSC). Although preliminary contacts with USFWS and CDFG have been initiated (as demonstrated in records of conversation provided in AFC Appendix 5.2G), it appears that further agency consultation for potential impacts to these species and review of applicant-proposed mitigation will be required.

DATA REQUEST

35. Please provide any supporting documents (letter or record of conversation) that result from communication with U.S. Fish and Wildlife Service (USFWS) and CDFG regarding potential impacts to state and/or federally protected species. Communication should be focused on:

    a. Potential impacts and agency approval of applicant-proposed mitigation measures (AFC Sec. 5.2.4, pgs. 5.2-68 through 5.2-73).

    b. Permits required for the project (e.g., Incidental Take Permits), the steps the applicant has taken or plans to take, and the schedule for obtaining the permits.

Technical Area: Cultural Resources
Author: Bright Eastman

BACKGROUND

The AFC for the CPVVS project includes information on the acreage of soil disturbance for laydown, site preparation, and grading (see Table 5.11-2, p.5.11-8). Information that appears to be missing from the AFC includes details regarding the respective depths of various excavation activities for construction of the new facility.

The CPVVS project description (pp. 2-1—2-23) lists numerous equipment installations that appear to require foundations capable of considerable weight-bearing. Staff assumes that such foundations would have to extend to some depth in the ground and additionally that over excavation of the holes for these foundations and filling with engineered fill could be required to ensure the stability of the foundations. Thus it is possible that excavations associated with the new installation could reach previously undisturbed soil layers where intact archaeological deposits could exist.

To assess potential project impacts to possible buried archaeological resources, staff needs information on the greatest depths to which the proposed new equipment foundations and pipeline trenches would extend.

DATA REQUESTS

36. Please provide the depths of the excavations, in feet and inches from the ground surface, required for the following foundations for proposed CPVVS equipment, systems, and features:

    a. Combustion turbine generator
    b. Steam turbine generator
    c. Heat recovery system generator
    d. Raw/fire water storage tank
    e. Control building
    f. Water treatment building
    g. Demineralized water storage tank
    h. Neutralization tank
    i. Feedwater pump enclosure
    j. Utility bridge
    k. Fire/water pump house
    l. Ammonia storage tank
    m. Switchyard
    n. Air cooled condensers
    o. Generator step-up
    p. Monopoles for the interconnection transmission line

37. Please adapt and provide a revised Figure 2.1-3 (the CPVVS project elevations) to show the expected depths of foundations for the illustrated equipment, pipelines, and underground tank installations at the power plant.

38. Please provide the maximum widths and depths, in feet and inches from the ground surface, of trenches for the conveyance pipelines for recycled water, potable water, and sewage.

BACKGROUND

The applicant's consultant observed that some potential does exist for intact cultural resources to be discovered in soils below the plow zone (pp. 5.3-12–5.3-13). Staff needs additional information to evaluate the potential presence of buried archaeological deposits above and down to the greatest depth of excavation that would be reached during construction.

DATA REQUESTS

39. Please provide a study of the historical geomorphology of the project site by a professional geoarchaeologist, who, at a minimum, meets the U.S. Secretary of the Interior's Professional Qualifications Standards for a professional in archeology and is able to demonstrate the completion of graduate-level coursework in geoarchaeology, physical geography, geomorphology, or quaternary science. The study should evidence consideration of the potential at the CPVVS for buried archaeological deposits from the surface to the maximum depth of excavation proposed for construction. The discussion should include information on the development of local landforms during and subsequent to the Late Pleistocene era, along with the apparent stability of the course of Alamo Creek during the Holocene. The primary grounds for the discussion should be data on the geomorphology, sedimentology, pedology, and stratigraphy of the project area or near the vicinity the Late Quaternary period. The sources of these data may be a combination, as necessary, of extant literature or primary field research.

40. Please provide the resume of the geoarchaeologist demonstrating his/her qualifications.

BACKGROUND

The AFC does not mention whether the project will need to import fill to the site and/or export unsuitable soils off-site. Staff needs to know if any soil borrow or soil disposal sites the project may use have been surveyed for cultural resources.

DATA REQUEST

41. Please indicate whether the proposed project may use any non-licensed, non-commercial soil borrow or disposal sites. If so:

    a. Please have a qualified archaeologist survey these sites and record on Department of Parks and Recreation (DPR) 523 forms any cultural resources that are identified; and

    b. Please submit to staff a report on the methods and results of these surveys, with recommendations for the treatment of any cultural resources identified in the surveys.

Technical Area: Traffic and Transportation
Author: David Flores

BACKGROUND

The pipeline construction activities for the natural gas fuel line and the electrical transmission line will result in work being done in roadway rights-of-way. The proposed routes are on Fry Road with small or no shoulders, and in some cases poor driving visibility during the winter season due to fog. As is in the case with inclement weather or road construction, there is potential impact to driver safety.

DATA REQUEST

42. Please discuss the mitigation measures planned to minimize the impact to drivers on Fry Road during pipeline construction activities.

43. Please indicate the types of traffic control programs that will be used to ensure safe roadway conditions, (such as lane marking, construction notices, roadway signage, detours, flagperson, etc.).

44. Please indicate what policies will be in place to ensure pipeline construction workers will park in designated areas.

45. Please indicate if transportation will be available from a central parking area to and from the work site for the linears.

BACKGROUND

The AFC states that shipments of hazardous material will occur on two routes dependent on whether they arrive from the east or west, and subject to Caltrans approval. The AFC states that the truck route coming from the west would exit Interstate 80 at Midway Road which is an east-west roadway, and turn onto Lewis Road which is also an east-westbound roadway.

DATA REQUEST

46. Please review the ease-west bound route for the delivery of hazardous material and provide a modified truck route of roadways that may be used for the delivery of hazardous material.

    a. Identify any traffic safety points such as railroad crossings or sharp curves; and any sensitive receptors such as school routes or bus stops along these routes.

Technical Area: Transmission System Engineering
Authors: Laiping Ng and Ajoy Guha
Technical Senior: Mark Hesters

BACKGROUND

The California Environmental Quality Act (CEQA) requires the identification and description of the "Direct and indirect significant effects of the project on the environment." The Application for Certification requires discussion of the "energy resource impacts which may result from the construction or operation of the power plant." For the identification of impacts on the transmission system resources and the indirect or downstream transmission impacts, staff relies on the System Impact and Facilities Studies for insuring the interconnecting grid meets the California Independent System Operator (California ISO) reliability standards. The studies analyze the effect of the proposed project on the ability of the transmission network to meet reliability standards. When the studies determine that the project will cause a violation of reliability standards, the potential mitigation or upgrades required to bring the system into compliance are identified. The mitigation measures often include the construction of downstream transmission facilities. CEQA requires the analysis of any downstream facilities for potential indirect impacts of the proposed project. Without a complete System Impact Study (SIS) or Facilities Study Report (FSR), staff is not able to fulfill the CEQA requirement to identify the indirect effects of the proposed project.

DATA REQUEST

47. Please provide a supplemental System Impact Study and submittal date, noted in the discussion with staff and Navigant Consulting, Inc. on February 24, 2009.

Technical Area: Visual Resources
Author: William Kanemoto

BACKGROUND

In order for staff to evaluate the mitigation measure proposed in AFC Section 5.13.4 and depicted in Figure 5.13-6, it would be helpful to know the assumed height of the tree screening depicted in the simulation.

DATA REQUEST

48. Please provide the assumed height of the redwood tree depicted in the simulation.

BACKGROUND

Staff requires additional information to understand and evaluate the potential effects of the proposed interconnection substation and new or existing 230kV lines and towers along Fry Road.

DATA REQUEST

49. Please provide a scaled layout plan of the interconnection substation showing major components and site boundaries, in relation to Fry Road; and scaled elevation views of the proposed interconnection substation.

50. Please provide an additional visual simulation depicting the proposed interconnection substation and 230kV transmission line as seen from Fry Road. A suggested viewpoint would be the vicinity of Meridian Road looking west, framed to capture both the transmission towers and substation.

Technical Area: Waste Management
Author: Ellen Townsend-Hough

BACKGROUND

The Phase I Environmental Site Assessment found that in the past the proposed project site was used for agricultural purposes. The proposed site received biosolids (wastewater treatment sludge) applications in 1990, 1992, and 1993. The biosolids were applied throughout the property as a fertilizer for corn production at a rate of less than 15 tons per acre. The property has been fallow for 5 to 6 years. Common agricultural practices can result in residual concentrations of fertilizers, pesticides or herbicides in near-surface soil. To ensure that the concentrations of various chemicals do not pose a potential health risk or hazard, the project owners should provide soil sampling of the parcel/project site.

The Phase I ESA did not identify any recognized environmental conditions, thereby eliminating the need for a Phase II ESA. Although a Phase II ESA was not completed, staff believes that given these past land uses and proposed construction the project owner should verify that no harmful concentrations of any contaminants will be encountered at the proposed project site. The California Department of Toxic Substances Control (DTSC) has prepared the "Interim Guidance for Sampling Agricultural Fields for School Sites (Third Revision August 7, 2008)". Staff believes this guidance or equivalent may be appropriate for further site analysis.

Samples should be assessed for persistent agricultural chemicals, such as organochlorine pesticides and other analytes that might be indicated by a review of the characterization data associated with the sludge that was applied to the project property. These data would be used to determine a reasonable analytical suite for samples. The project owner should sample for CAM 17 metals (the 17 California regulated metals), and organochlorine pesticides in addition to the other chemicals. The AFC describes the size of the project as 25 acres. For 25 acres, a minimum of 34 discrete samples should be collected. Each location should be sampled to include one surface sample (0 to 6 inches) and one subsurface sample (2 to 3 foot range).

DATA REQUESTS

51. a. Please provide results of field sampling and analysis which adequately characterize the presence or absence of harmful chemicals or conditions and whether there will be any risk to construction or plant personnel due to the presence of these chemicals.

    b. Please determine if there is any analytical characterization data for the agriculture chemicals and biosolids that were applied to the land.

BACKGROUND

The Integrated Waste Management Act of 1989 (AB 939) established landfill waste diversion goals of 50 percent by the year 2000 for state and local jurisdictions. To meet the solid waste diversion goals, many local jurisdictions have implemented Construction and Demolition Waste Diversion Programs.

DATA REQUESTS

52. Please identify whether the city of Vacaville or Solano County operates a Construction and Demolition Waste Diversion Program, and cite the jurisdiction to which the CPVVS project would be accountable.

53. Please describe how project operations will meet each of the requirements of the program cited in the previous data request.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION FOR THE *CPV VACA STATION* BY THE *CPV VACAVILLE, L.L.C.*

Docket No. 08-AFC-11

PROOF OF SERVICE

(Established 2/18/2009)

APPLICANT

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DECLARATION OF SERVICE

I, Maria Santourdjian, declare that on March 5, 2009, I served and filed copies of the attached CPV Vaca Station (08-AFC-11) Data Request Set 1 (#s 1-53). The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[http://www.energy.ca.gov/sitingcases/vacastation/index.html]**. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(C*heck all that Apply*)

For service to all other parties:

✓ sent electronically to all email addresses on the Proof of Service list;

✓ by personal delivery or by depositing in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

For filing with the Energy Commission:

✓ **sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);**

OR

____ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-11
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

docket@energy.state.ca.us

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

Original Signature in Dockets
Maria Santourdjian