Noise

4.3.3.1 Significance Criteria: Following the CEQA guidelines (CCR, Title 14, Appendix G, Section XI), the Project would cause a significant impact if it would result in the following:

Exposure of people to noise levels in excess of standards established in the local General Plan or noise ordinance;

• Exposure of people to excessive ground-borne noise levels or vibration;

• Substantial permanent increase in ambient noise levels in the project vicinity; or

• Substantial temporary or periodic increase in ambient noise levels in the project vicinity.

As a basis for the acoustic assessment within the scope of land-use and planning, the minimum, or most stringent, noise levels required by any of the applicable LORS have been identified. Table 4.3 -10 displays the minimum Background Level, dBA per site. The table has reports the minimum noise level in the sample period per receptor location.

Background: The Kumuay campground is located a short distance from the locations for receptor site ST5 and has the potential to be in use 24 hours a day.

1. **Date Request: Please include data samples for the ST5 receptor site between the hours of 12 am and 4 am.**

Background: ST1 – ST5 are not capturing samples during the morning hours between 12pm and 4:00 am. The LT1 chart shows these are the quietest hours at that receptor site. This time period could contain significantly lower ambient noise levels and therefore have the potential for a larger increase to the ambient noise levels. Further ST5 did not have samples past 4pm.

2. **Date Request: Please provide data samples for receptor locations ST1 – ST5 that include ambient noise measurements between 12 am and 4 am. Please update table 4.3-10 accordingly.**

Background: The baseline sound survey was conducted over 2 days , July 20 and July 21st 2011 , both of these days fall during the week when base line noise from the freeway will be higher.

3. **Date Request: Weekends have the potential to carry less traffic on the 52 and surface streets. Please collect noise samples using the same methodology for receptor sites LT1, and ST1-ST5. Samples should include daytime and nighttime samples. Please include sample times between 12pm and 4am for the nighttime (in line with data request 2 above). Please update table 4.3-10 accordingly**

Background: The stacks of power plants can resonate and cause airborne vibrations. Additionally low frequency sounds can propagate for some length.

4. **Date Request: Please provide modeling of vibration levels at receptor sites LT1 and ST1-ST5 as well as two points a half mile and a mile away.**

Background: The start and stop of the plant uses various systems that would not be in use during regular baseline operation. Conclusions are drawn as to the cumulative increase in noise level based on Base Load Operation. Peaker plants by design will start and stop numerous times over the operational year.

5. **Date Request: Please prepare a chart like table 4.3-10 comparing the attenuated peak noise generated during starting or stopping procedure. The noise level should include modeling for all systems involved exhaust, preheaters, etc.**

Background: Ambient noise projections have been provided for the project. Section 4.3.3.3 details Operational noise impact but it is difficult to determine if certain noise sources have been included in the model, ie: emitted through the air inlet and the engine exhaust system, and auxiliary systems (such as cooler fans etc.). Since the concern is specifically the noise emissions at the fence line, and in particular the contribution of low frequency components.

6. **Date Request: Please indicate if the noise models of section 4.3.3.3 include emitted through the air inlet and the engine exhaust system, and auxiliary systems (such as cooler fans etc.). If they do not please update the modeling to include the mentioned sources**

<u>Air Quality</u>

Background: Engine emissions provided assume a steady state model based on engine performance. However engine emissions may be increased near the overhaul periods of the engines.

7. **Date Request: SO2 from engine lube could go up due to engine wear. Since the engine introduces sulfur into the exhaust stream, as the catalyst gets contaminated, ammonia carryover may be increased due to the decrease in the catalysts effectiveness. Please provide the max ppm and SO2 levels between overhauls of the engine as well as a graph of the levels over the time interval between overhauls.**

Background: Determining cumulative effects or project emissions is complicated by the number of Start/stops in a year's operation. Recently the CEC and applicants on the Russell City Energy Center (West Hayward) agreed that 614 times per year were an accurate number of times to model cumulative effects from.

8. **Date Request: Please provide a refactored Estimated Maximum Hourly, Daily and Annual Criteria Pollutant Emissions for all Wartsila Engines (including startups and shutdowns) based on 614 startups per year.**
9. **Date Request: In order to provide a worse case impact of start/stop ;Please provide a refactored Estimated Maximum Hourly, Daily and Annual Criteria Pollutant Emissions for all**

Wartsila Engines (including startups and shutdowns) based on the largest number of startups that any Peaker Plant in California during the previous 3 years of operation.

10. **Date Request: Please update table 4.8-5 from the Public health analysis using the worse case impact of start stop (DQ 10).**

Analysis of Alternatives

The California Environmental Quality Act requires consideration of "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives"

The Project's basic objectives are to:

• Respond to the SDG&E 2009 solicitation for conventional generation sources that will operate under a tolling agreement (i.e., utilizing natural gas provided by SDG&E) and will provide reliable and efficient peaking and load-shaping power to meet needs of SDG&E service area and facilitate integration of variable renewable sources to the grid;

• Use a site location within SDG&E's service territory that has infrastructure with available capacity and ability to reliably support Project electric transmission, fuel supply, and water needs with minimal impact on existing infrastructure systems or required new construction;

• Use a site that is commercially available, including control for reasonable access and linear facility rights-of-way; and

• Develop a site that has compatible zoning, compatible adjacent land uses, and is located away from sensitive receptors.

11. **Date Request: Please provide a complete list of alternative plant sites (section 3.4.17) that were considered in the SDG&E service territory not shown in table 3.4-1, if none were considered, please justify why there were no other suitable sites.**
12. **Date Request: Having the gas and Electric lines in close proximity to the proposed site was a stated project goal. Please provide a map of the SDG&E service area showing Gas and Power lines of sufficient similar size to the proposed plant locations in the Application.**

Background: The cost of battery technology is falling continuously. Some estimates by industry experts have the cost of batteries suitable for use by the Energy Utility to serve peak demand may fall in half between 2010 and 2015 (A123 technologies a large scale battery supplier to Sempra and Edision)

13. **Date Request: Assuming falling cost projections for large scale energy storage, please include in section 3.5 consideration of Battery storage as an alternative to the Wastila engines.**

Background: Section 3.5.1.10 dismisses solar energy on the grounds that it does not follow demand and there is not suitable area for photovoltaic installations. Roof top solar installations are increasing

dramatically. Roof top solar installations typically include energy storage. High demand loads typically occur when it is hottest in San Diego and for period of times shortly after the sun goes down. Roof top solar is likely to produce electricity for homeowners and business while the sun is shining and have stored energy for an hour or two after the sun goes down.

14. **Date Request: Please provide demand curves over time by day for the proposed Quail Brush Power plant.**
15. **Date Request: Please add consideration of roof top solar to 3.5.1.10, please include assumption on projected number/size of installations in San Diego and installed storage capacity as it relates to the demand curve.**

Background: Section 3.5.12 erroneously claims that water is needed for emissions control. The section also refers to the limited turndown capability, which is only true in larger turbines.

16. **Date Request: Please update section 3.5.12 removing the erroneous claim of water requirement and including using a number of smaller 20 MW per unit gas turbines**

Background: The combined cycle discussion (3.5.1.3) does not include 'Organic Rankine Cycles', which avoid some of the disadvantages stated. Also, fast start capability is available
for smaller combined cycle plants

17. **Date Request: Please update section 3.5.1.12 to include discussion of the 'Organic Rankine Cycle'**

Background: Section 3.5.3 discusses NOx control alternatives. The section does not consider NOx control with lean premix combustion on gas turbines as a control alternative. This alternative would avoid ammonia carryover
altogether.

18. **Date Request: Please include NOx control with a lean premix combustion on gas turbines**

Visual Resources

Section 4.5.1 reviews the regional and local landscape settings.

Background: Section 4.5.1.4 contains a summary of representational viewpoints. Viewpoint 7 is labeled Fortuna mountain, but located at the saddle between North and South Fortuna. North Fortuna is the more popular destination for hikers heading up to the Fortunas.

19. **Date Request: Please relocate viewpoint 7 to be at the peak of North Fortuna. Please update photo survey with simulated power point from the updated location.**

Background: Spring canyon is a popular trail for hikers and mountain bikers running north to south and located near the proposed power plant location.

20. **Date Request: Due to the popularity and close proximity of Spring Canyon to the proposed power plant, please add a Viewpoint at a location with the most exposed view and provide a photo survey with simulated power plant.**

Cultural Resources

Background: Section 4.1.1 details the resources used for Cultural review. Field survey results were obtained with a visual inspection of the area and does not account for any material that may be located close to the surface.

21. **Date Request: Due to the likelihood that archeological material could also be located near the surface of the ground, please include the results of a dig study of the covered area.**

Socioeconomics

Studies suggest that there is a property value impact related to proximity to Power Plants.

[1] Davis, Lucas W., "The Effect of Power Plants on Local Housing Values and Rents" Haas School of Business, University of California, Berkeley, CA 94720-1900 (May 2010)

[2] Davis, Lucas W., "The Effect of Power Plants on Local Housing Values and Rents:Evidence from Restricted Census Microdata" Massachusetts Institute of Technology, Center for Energy and Environmental Policy Research in its series Working Papers with number 0809 (Jun 2008)

22. **Date Request: Please include an impact analysis on the property values within 2 and 5 miles of the power plant**
23. **Date Request: San Diego County citizens can request a revaluation of their property tax base if there is a reasonable assumptions that the values have declined, please provide an impact assessment to the San Diego and Santee tax incomes based on the projections of property value reduction.**

Worker Health Safety

Background: Historically hexavalent chromium has been used as in the coolant to fight corrosion. Hexavalent chromium has been linked with adverse health affects

24. **Date Request: Please provide details of the chemical composition both components and amounts of the coolant itself or any additives.**

Background: Fire Safety: The power plant is proposed for a parcel falling within a State classified "very high" fire severity zone. Fire history for the site and immediate surrounding should be fully documented.

25. **Date Request: Please provide an analysis of Burn patterns under specific weather conditions. Historical and expected fuel loads at climax conditions should be disclosed and analyzed.**

Methods expected to be utilized to protect the power plant from a fire head and ember storm under 60 mph winds should be disclosed and analyzed.

26. **Date Request: If ember protection is needed, identify how the facility will be protected from an ember storm.**
27. **Date Request: What materials will the plant be constructed from and of these, which ones are combustible and at what temperatures?**
28. **Date Request: How will natural gas fuels be protected from conditions that we know will eventually occur in a worst-case firestorm scenario?**
29. **Date Request: What are the power plant's vulnerabilities under worst case firestorm conditions with no fire suppression resources available?**
30. **Date Request: Are employees expected to evacuate a firestorm, join in suppression efforts, or seek shelter inside the facility?**
31. **Date Request: How would the plant or plant evacuation requirements impact landfill employees and residential neighborhoods evacuation routes?**

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
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APPLICATION FOR CERTIFICATION
FOR THE *QUAIL BRUSH GENERATION PROJECT*

DOCKET NO. 11-AFC-03

PROOF OF SERVICE
(Revised 5/7/2012)

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DECLARATION OF SERVICE

I, _Kevin Brewster_, declare that on __5/11, 2012, I served and filed a copy of the ___Data Request___, dated __5/11__, 2012. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at:

http://www.energy.ca.gov/sitingcases/quailbrush/index.html.

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

(*Check all that Apply*)

For service to all other parties:

X Served electronically to all e-mail addresses on the Proof of Service list;

___ Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "e-mail preferred."

AND

For filing with the Docket Unit at the Energy Commission:

X by sending an electronic copy to the e-mail address below (preferred method); ***OR***

___ by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:

CALIFORNIA ENERGY COMMISSION – DOCKET UNIT
Attn: Docket No. 11-AFC-3
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.ca.gov

OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:

___ Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

California Energy Commission
Michael J. Levy, Chief Counsel
1516 Ninth Street MS-14
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I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.