

California Energy Commission  
**DOCKETED**  
**11-AFC-3**  
TN # 68713  
NOV. 29 2012

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November 29, 2012

Siting Committee  
Raoul Renaud, Hearing Officer  
Eric Solorio, Project Manager  
California Energy Commission  
Docket No. 11-AFC-3  
1516 9th Street  
Sacramento, CA 95814

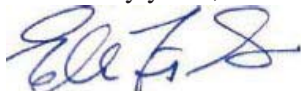
**Re: Cogentrix Quail Brush Generation Project - Docket Number 11-AFC-03,  
Response to Dorian Houser's Intervenor Data Requests, 36 through 40**

Docket Clerk:

Pursuant to the provisions of Title 20, California Code of Regulations, and on behalf of Quail Brush Genco, LLC, a wholly owned subsidiary of Cogentrix Energy, LLC, Bingham McCutchen LLP hereby submits the Response to Dorian Houser's Intervenor Data Requests, 36 through 40. The remaining data requests were addressed in the Applicant's 20-day initial response to these data requests docketed on November 19, 2012. The Quail Brush Generation Project is a 100 megawatt natural gas fired electric generation peaking facility to be located in the City of San Diego, California.

If you have any questions regarding this submittal, please contact Rick Neff at (704) 525-3800 or me at (415) 393-2572.

Sincerely yours,



Ella Foley Gannon

cc: Lori Ziebart, Cogentrix  
John Collins, Cogentrix  
Rick Neff, Cogentrix  
Proof of Service List

Beijing  
Boston  
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Hong Kong  
London  
Los Angeles  
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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  
QUAIL BRUSH GENERATION PROJECT**

DOCKET NO. 11-AFC-03  
PROOF OF SERVICE  
(Revised 11/19/2012)

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\*indicates change

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PUBLIC ADVISER**

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DECLARATION OF SERVICE

I, Margaret Pavao, declare that on November 29, 2012, I served and filed copies of the attached **Response Dorian Houser's Intervenor Data Requests, 36 through 40**, dated November 29, 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:

- 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 marked \*"**hard copy required**" or where no e-mail address is provided.

AND

For filing with the Docket Unit at the Energy Commission:

- 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-03  
1516 Ninth Street, MS-4  
Sacramento, CA 95814-5512  
[docket@energy.ca.gov](mailto: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  
Sacramento, CA 95814  
[michael.levy@energy.ca.gov](mailto:michael.levy@energy.ca.gov)

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.



\_\_\_\_\_  
Margaret Pavao



## Quail Brush Genco, LLC

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A Project Company of Cogentrix Energy, LLC

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(704) 525-3800  
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November 29, 2012

Siting Committee  
Raoul Renaud, Hearing Officer  
Eric Solorio, Project Manager  
California Energy Commission  
1516 Ninth Street, MS-15  
Sacramento, CA 95814

**Re: Quail Brush Generation Project (11-AFC-03),  
Response Dorian Houser's Intervenor Data Requests, 36 through 40**

Dear Members of the Siting Committee and Mr. Solorio:

In response to Dorian Houser's (Intervenor) Data Requests, 36 through 40, Quail Brush Generation Project (Quail Brush) provided an initial response to Request 37 on November 19, 2012. Quail Brush provides responses to Requests 36, 38, 39 and 40 below.

36. Data Request: Please provide a noise map for one stack operating concurrently with all other (non- stack) noise producing equipment. Please provide a subsequent noise map with all stacks operating concurrently with other noise producing equipment.

**Response:**

Please refer to Figures 4.3-2 and 4.3-3 of Supplement 3 to the Application for Certification (AFC) docketed on August 30, 2012 for mapping that shows all engines operating concurrently. An analysis of a one engine operating alone is not requisite information for the CEC to render a decision regarding the project as the worst case operation would consider the condition of all engines operating concurrently. An inherent property of the logarithmic decibel scale is that the sound pressure levels of two separate sources are not directly additive. The total sound energy generated by the project under this reduced load condition would be expected to result in a net decrease of 7 to 9 dBA when referencing the noise contour mapping as presented in Figures 4.3-2 and 4.3-3 of the Supplement 3 to the Application for Certification.

38. Data Request: Please provide error estimates (e.g. standard deviations) for all predicted noise levels at each of the monitoring sites as well as within the noise maps.

**Response:**

Sound power levels were assigned each source in a manner that best represents their expected acoustic performance. Figures 4.3-2 and 4.3-3 of Supplement 3 to the Application for Certification (AFC) docketed on August 30, 2012 are representative of expected received sound levels during future operation. Vendor information has been incorporated into the Project's acoustic model when available. The technical evaluation performed to date indicates that the equipment furnished by Wartsila are capable of meeting all Project performance, emissions and noise specifications and requirements. Wartsila is constantly improving their designs by introducing new or upgraded features. No field verification studies have been completed at a prototype facility in support of this application.

Operational sound associated with the Project was evaluated employing a computer simulation. DataKustic GmbH's CadnaA, the computer-aided noise abatement program (v 4.1.137) was used for the acoustic modeling analysis. CadnaA conforms to International Standard DIN ISO-9613.2, "*Acoustics – Attenuation of Sound during Propagation Outdoors.*" The standard specifies methods to enable noise levels in the community to be predicted from sources of known sound emission and provides a summary of existing knowledge on outdoor sound propagation as published by ISO (the International Organization for Standardization), a worldwide federation of national standards bodies. The calculation methodologies described is relied on by professionals in the field of acoustics.

39. Data Request: Please provide documentation on the validation of the Datakustik model. Please strive for peer-reviewed validation (i.e. attempt to avoid conference presentations and in-house reports).

**Response:**

The Datakustik is not a calculation model but a platform in which calculations are completed in accordance with U.S. and international standards. The acoustic modeling completed in support of the proposed project conforms to International Standard DIN ISO-9613.2, "*Acoustics – Attenuation of Sound during Propagation Outdoors.*" Please refer to response to RAI 38 for further information.

40. Data Request: Please provide references for sound power levels or source levels for all noise generators included in the acoustic model.

**Response:**

Several design elements will be necessary to control noise emissions and will be employed to meet the project noise limits. The sound power levels used in the model are summarized below by octave band center frequency and broadband A-weight decibels.

**Sound Power Levels Used to Model Wartsilla Engines, dB (Flat)**

	Octave Band Center Frequency, hertz (Hz)									Broadband (dBA)
	31	63	125	250	500	1000	2000	4000	8000	
Engine Generator (1 of 10)	125	117	120	121	119	116	110	115	110	122
Radiator (1 of 2)	129	121	120	109	103	100	97	94	92	108
Silenced Air Inlet (1 or 10)	102	111	95	94	88	72	70	86	93	95
Silenced Stack (1 of 10)	117	112	107	92	79	75	67	71	82	93

I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Regards,



\_\_\_\_\_  
C. Richard Neff  
Vice President

cc: Docket (11-AFC-3)