



TETRA TECH EC, INC.

California Energy Commission

**DOCKETED**  
**11-AFC-3**

TN # 67795

OCT 17 2012

October 17, 2012

Eric Solorio, Project Manager  
California Energy Commission  
Docket No. 11-AFC-3  
1516 9<sup>th</sup> St.  
Sacramento, CA 95814

**Cogentrix Quail Brush Generation Project - Docket Number 11-AFC-3, Letter from SDG&E Providing Additional Information on the Need for the Quail Brush Generation Project**

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, Tetra Tech hereby submits the Letter from SDG&E Providing Additional Information on the Need for the Quail Brush Generation Project (11-AFC-3). 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 (303) 980-3653.

Sincerely,

A handwritten signature in blue ink that reads "Constance E. Farmer".

Constance E. Farmer  
Project Manager/Tetra Tech

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

TETRA TECH EC, INC.



**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 10/16/2012)**

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DECLARATION OF SERVICE

I, Constance Farmer, declare that on October 17, 2012, I served and filed copies of the attached Letter from SDG&E Providing Additional Information on the Need for the Quail Brush Generation Project, dated October 10, 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.





**James P. Avery**  
Senior Vice President  
Power Supply

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Tel: 858.650.6102  
Fax: 858.650.6106  
JAvery@SempraUtilities.com

October 10, 2012

Ms. Lori Ziebart  
Project Manager  
Cogentrix Energy, LLC  
9405 Arrowpoint Boulevard  
Charlotte, NC 28273

Subject: Additional Information on the Need for the Quail Brush Generation Project

Dear Ms. Ziebart:

Per your request, the following letter provides additional information about the importance of the proposed Quail Brush Generation Project (Quail Brush) to San Diego Gas & Electric's (SDG&E) system, as well as reasons why the facility is needed to help meet the region's growing demand for clean and reliable power. Specific issues addressed within this letter include:

1. Why SDG&E supports the preferred Quail Brush site;
2. The role of Quail Brush in meeting SDG&E's long-term resource adequacy requirements;
3. Why Quail Brush is needed to help retire older generation in San Diego County;
4. How Quail Brush meets the California Independent System Operator's (CAISO) flexible resource requirements; and
5. Why rooftop solar alone is insufficient to meet San Diego County's electricity needs.

#### **Why SDG&E Supports the Preferred Quail Brush Site**

As you know, SDG&E's 2009 Request for Offers (RFO) specifically requested proposals for new generation facilities located in the San Diego region. The purpose of this RFO was to meet a projected demand for new electric capacity by 2014. Our CPUC-approved 2006 Long Term Procurement Plan (LTPP) also identified the need for quick-start units that could support intermittent renewable resources as well as provide reliable capacity at times of peak load. Quail Brush was successful during the RFO process for several reasons. First, the project will provide power at a low cost. The facility's flexibility and quick-start capability will also help to address intermittency issues associated with renewable energy. Finally, the proposed location will help meet SDG&E's objective of generating power in areas near load centers where it is consumed, and not in the sparsely populated outer regions of our service territory.

Siting power plants near load centers is important because these are the areas experiencing the highest population growth and, therefore, the greatest increase in demand for electricity. According to the San Diego Association of Governments (SANDAG), the population in the region is expected to increase by 40

percent between now and 2050. The estimate for the City of San Diego where the Quail Brush site is located is even higher at 46 percent. Additionally, several new housing projects are currently being proposed by Pardee Homes and HomeFed in the City of Santee, and by Marine Corps Air Station (MCAS) Miramar in the surrounding area. As the population grows over the next few decades, we are likely to see a significant increase in power usage, especially as technologies such as electric vehicles become more common. And while improved energy efficiency and conservation measures can help offset part of this demand, additional generation will be needed in order for SDG&E to continue providing load centers such as San Diego with a reliable power supply.

The proposed site is also located near natural gas and transmission lines. This close proximity to existing infrastructure eliminates the need to build miles of transmission and natural gas lines to connect to SDG&E's system, thereby reducing costs for ratepayers as well as disturbance of and impact to the environment during construction. The new natural gas and transmission lines will stand at 2,200 feet and 2,700 feet in length, respectively. Further, Quail Brush will interconnect to the Carlton Hills Substation, which has the capacity to accept new power from the peaker plant and, as such, will not require expensive new upgrades to the transmission system. Potential sites with these characteristics are extremely rare in San Diego County, and they are seldom located near load centers such as the City of San Diego. While Cogentrix did analyze several alternatives as part of its original Application for Certification (AFC), we understand that this particular site not only had convenient access to existing infrastructure, but also had the lowest biological impact.

### **The Role of Quail Brush in Meeting SDG&E's Long-Term Resource Adequacy Requirements**

Along with the 305-megawatt (MW) Pio Pico Energy Center in the County of San Diego and the 45-MW Escondido Energy Center, Quail Brush is critical to meeting SDG&E's long-term resource adequacy requirements and ensuring a reliable and accessible supply of power in San Diego. These peaker plants will play a critical role in filling the gap between demand from our customers and power supply from other resources. Specifically, they will help address the reliability and supply challenges presented by the significant addition of renewable resources associated with the State of California's 33 percent Renewables Portfolio Standard (RPS). As you know, wind and solar energy are not always available when power is needed most due to abrupt changes in weather and, in the case of solar, evening hours when rooftop panels cease to generate electricity.

Highly-efficient quick-start facilities such as Quail Brush help to stabilize the grid during these dips in renewable energy production and ensure reliability by providing sufficient resources to meet demand when needed. That is why SDG&E believes additional peaker plants are so important. Our company is well on its way to meeting the 33 percent RPS mandate and has seen a significant increase in peaker plant operations as a result of this changing energy portfolio. Historically, peaker plants in our system have run about 10 percent of the time. Some are now operating about 20 percent of the time, and we expect this usage to increase even more as the RPS deadline approaches in 2020. In fact, our 2009 RFO specified that respondents must provide generating facilities designed and permitted for operation for a minimum availability of 2,700 hours per year, or more than 30 percent of the time. Quail Brush is being licensed to be operational up to 43 percent of the time and will meet those requirements.

Several other factors also have the potential to affect the reliability of our region's electricity supply. Although some have questioned the need for Quail Brush and other peaker plants, we are currently faced with uncertainty surrounding the San Onofre Nuclear Generating Station (SONGS), which provides SDG&E

with 20 percent of our energy needs. We have made it through this summer's heat wave relatively unscathed due to the recent completion of the Sunrise Powerlink transmission line and by bringing two retired units in Huntington Beach back online. The Sunrise Powerlink will continue to provide a valuable connection to renewable energy in the Imperial Valley, but the Huntington Beach plant will no longer be available after this year. As a result, SDG&E must seek additional in-basin generation to ensure reliability in the event that SONGS remains out of service beyond 2012.

### **Why Quail Brush Is Needed to Help Retire Older Generation in San Diego County**

In 2010, the California State Water Resources Control Board (State Water Board) adopted a policy requiring 19 power plants throughout the state to eliminate the use of outdated once-through cooling technology either through retrofitting or permanent closure. One facility located in San Diego County – Chula Vista's South Bay Power Plant – has already been decommissioned. A second, the nearly 60-year-old Encina Power Station in Carlsbad, must comply with the State Water Board's policy by 2017. Quail Brush will help facilitate the retirement of older generation facilities such as the Encina Power Station by adding needed capacity to SDG&E's system. CAISO has estimated that, without the addition of generation projects proposed by SDG&E, approximately 650-950 MW of capacity will be needed at Encina or a similar site to ensure reliability for the region. Quail Brush, Pio Pico and the Escondido Energy Center will provide 450 MW of that power.

Retiring older, less efficient generation facilities will provide the San Diego region with a number of economic and environmental benefits beyond reducing the impacts of once-through cooling to marine life. For example, closing these plants would eliminate the need for costly retrofitting. The steam technology used at this type of facility also has start-up lead times that can exceed 12 hours, requiring the plants to be operated at their least efficient minimum load point overnight if needed on a day-to-day basis. That inefficiency results in continuous air emissions even when the power generated is not needed to meet demand. Conversely, Quail Brush's quick-start technology will allow the plant to ramp up within 10 minutes, allowing for lower gas usage and reduced air emissions.

### **How Quail Brush Meets CAISO's Flexible Resource Requirements**

CAISO has determined that the San Diego region has substantial local area resource needs, and that significant flexible resources beyond Quail Brush, Pio Pico and the Escondido Energy Center will be required to meet those needs. The increased use of intermittent renewable resources and the phasing out of once-through cooling technology noted above are two of the reasons for this determination. Another is the possible retirement of older, less efficient power plants.

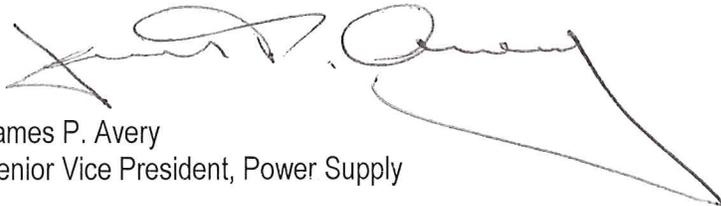
A flexible resource is one that can provide maximum continuous ramping and is load following, meaning that it can match the maximum MW by which net load is expected to change in either direction in a given hour. Flexible resources can also automatically respond to CAISO's four-second automatic generation control signal during the intra-dispatch interval by adjusting output to maintain system frequency and tie line load with neighboring balancing area authorities. By providing all these services, Quail Brush will help SDG&E meet its local resource adequacy need and CAISO achieve its goal of ensuring utilities have flexible resources to meet the growing and changing demand of their customers.

## Why Rooftop Solar Alone is Insufficient to Meet San Diego County's Electricity Needs

One common misperception in discussions about projects such as Quail Brush is that San Diego's demand for energy can be met entirely with rooftop solar facilities because our peak demand is during the afternoon when the sun shines brightest. SDG&E strongly supports rooftop solar and distributed generation in general. We have demonstrated this commitment through programs that encourage the use of these technologies, such as our Sustainable Communities program. However, San Diego's demand for energy cannot be met with rooftop solar alone. Power from rooftop solar facilities typically provide their peak performance in the June time frame and between the hours of 12 noon and 1:00 p.m. SDG&E's system typically peaks in late August to early October between the hours of 4:00 pm and 8:00 p.m. It follows that typical rooftop solar production does not coincide with the times when people use the most electricity. Photovoltaic solar also produces power only about 22 percent of the time on average. To meet SDG&E's peak demand and address intermittency issues associated with both large-scale and distributed rooftop solar, we must have quick-start natural gas facilities located close to load centers. We need projects like Quail Brush.

In summary, SDG&E believes that Quail Brush is needed to ensure electric reliability and resource adequacy, support the increased use of intermittent renewable resources to help achieve the state's 33 percent RPS goals, contribute toward the retirement of older generation facilities, and meet CAISO's flexible resource requirements. We also agree with the selection of the preferred project site. Should you have any questions about any of this information, please don't hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "James P. Avery". The signature is fluid and cursive, with a long, sweeping tail that extends to the right and then curves back down.

James P. Avery  
Senior Vice President, Power Supply