

**BEFORE THE
PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Application of San Diego Gas & Electric Company }
(U902E) for Authority to Enter into Purchase Power }
Tolling Agreements with Escondido Energy Center, }
Pio Pico Energy Center, and Quail Brush Power }

Application 11-05-023
(Filed May 19, 2011)

**RESPONSE OF NRG ENERGY, INC. TO APPLICATION FOR AUTHORITY TO
ENTER INTO PURCHASE POWER AGREEMENTS WITH ESCONDIDO
ENERGY CENTER, PIO PICO ENERGY CENTER, AND QUAIL BRUSH
POWER**

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Pursuant to Rule 2.6 of the Commission’s Rules of Practice and Procedure, NRG Energy, Inc. (“NRG”) hereby submits its Response to the to the Application of San Diego Gas & Electric Company (“SDG&E”) for authority to enter into Power Purchase Tolling Agreements with Escondido Energy Center, Pio Pico Energy Center, and Quail Brush Power, submitted May 23, 2011 in the above-captioned proceeding . NRG submits this Response for the specific purpose of clarifying the representations regarding its Encina Power Station and the relationship of its operations to reliability in the San Diego service territory.

I. Summary

In the instant application, SDG&E seeks approval of Power Purchase Tolling Agreements (“PPTAs”) with three proposed new generation projects: the 305 MW Pio Pico Energy Center (“Pio Pico”), the 45 MW Escondido Energy Center, and the 100 MW Quail Brush Generation Project. SDG&E asserts these new generation projects, which were procured through a 2009 competitive solicitation, are needed to meet both system and local Resource Adequacy requirements. According to the application, the Pio Pico

project is scheduled to begin producing power on May 27, 2014. The Escondido Energy Center is expected to begin producing power on July 1, 2012, with the possibility of an extension for regulatory delays. The Quail Brush Generation project is expected to begin delivering power on June 1, 2014.

NRG strongly concurs that natural-gas fired generation will continue to play a critical role in maintaining the reliability of both California's bulk power delivery system and the transmission-constrained local San Diego area, especially as the amount of variable and intermittent renewable generation being built under state policy mandates to meet California's Renewable Portfolio Standards is realized. However, NRG submits that several of the assumptions presented in SDG&E's application, especially those regarding the Encina Power Station and the Cabrillo II Peakers, do not reflect the current commercial status.

In these comments, NRG:

- 1) Corrects the presumption that the existing Encina Power Station will be retired by December 31, 2017 as referenced in the CA 316(b) Once Through Cooling ("OTC") policy. Encina's retirement is not within the CPUC's or SDG&E's ability to determine;
- 2) Provides evidence that the existing Encina Power Station can operate indefinitely to provide critical reliable capacity and optionality until the proposed repowering with the new Carlsbad Energy Center project – a plant with an efficient, rapid response load-following technology that has many environmental benefits including significantly lower emissions – is needed at the Encina Power Station site; and
- 3) Emphasizes that the Encina Power Station site has transmission, infrastructure, and timing advantages for repowering which mitigate development risks associated with building a power plant to reliably serve SDG&E; and

- 4) Clarifies that the timing of retiring the Cabrillo II peaking turbines is dependent not upon “air permit restrictions” but upon SDGE’s decision not to renew the site leases and notes the importance of these units to various non-SDG&E load serving entities (“LSE”) and the CAISO.

NRG respectfully urges the Commission to evaluate the timing of the projects presented in this application vis-à-vis the timing of the Carlsbad Energy Center in light of the comments offered herein.

II. Party Status

Under Rule 1.4(a)(2)(i), NRG becomes a party to this proceeding by virtue of this Response to the Application.

NRG is a leading independent power producer, with approximately 23,000 MW of generating facilities nationwide, including nuclear, coal, natural gas, solar and wind generation. In California, NRG has over 2,000 MW of thermal generation, in addition to over 1,000 MW of solar generation currently online or in active development. Additionally, NRG is committed to aggressively repowering its existing gas-fired generation, particularly at its El Segundo location, where NRG recently entered into a power purchase agreement to build a modern, efficient combined cycle generating facility at the site of its existing thermal generation, and at Encina, where we have a similar repowering application for units 1-3 under consideration by the California Energy Commission, with a final decision expected June 30, 2011. California’s energy procurement policies are critical to meeting the goal of procuring 20, and ultimately 33, percent of the State’s power from renewable sources. NRG plays two critical roles in meeting these goals: first, in providing the renewable power, and second, in providing the natural gas resources which are critical to SDG&E and southern California in general

specifically for local capacity and energy and to provide the ancillary services and firming products that can only come from properly configured natural gas resources.

III. Comments

1) NRG is actively pursuing options to allow the Encina Power Station to remain in service beyond December 31, 2017.

A key assumption presented by SDG&E in its application is that three existing units in the San Diego area are expected to retire on or before December 2017: (i) NRG's Cabrillo II peaking turbines which total 188 MW ("Cabrillo II Peakers"); (ii) Wellhead's existing Escondido Energy Center, and (iii) NRG's Encina Power Station. The Application further asserts that the current owner of the Escondido Energy Center, Wellhead Electric, has decided to retire the existing generating facility there. Finally, SDG&E projects that the entire Encina Power Station (five units comprising a total of 965 MW) will be retired by December 31, 2017, with Units 1-3 (320 MW) retired on or before December 31, 2013, and Units 4-5 (640 MW) retired by December 31, 2017, in accordance with recently adopted State Water Resources Control Board ("SWRCB") policy regarding the use of OTC technology.

It is premature to assume that the Encina Power Station will be fully retired by the end of 2017. NRG currently expects to extend the useful life of Encina, in compliance with California Coastal and Federal OTC policy, if commercially reasonable. To that end, NRG has filed an Implementation Plan with the SWRCB, in accordance with the CA 316 (b) policy, that outlines likely modifications to the ocean water cooling system for Encina Units 4 and 5 that would demonstrate Track 2 compliance with impingement and entrainment reduction requirements. If Encina achieves compliance by December 31,

2017, Encina Units 1, 2, 3, 4 and 5 could run indefinitely as long as the units are needed for capacity and reliability.

The Encina Power Station has demonstrated the ability to operate at low Pmin levels to respond rapidly to the CAISO real-time dispatch instructions to maintain grid reliability. Encina has provided local reliability benefits under Resource Adequacy contracts since 2007 and is key to SDG&E System Restoration Plans, and has black start capability in support of the San Onofre Nuclear Generating Station. Encina has routinely operated at Pmin levels well below accepted industry practice for the facility to be available for ramping and load following under CAISO and/or SDG&E dispatch. On average, the plant has achieved 98.24% availability over the last 5 years. Due to its location, the ability to provide these ancillary services is critical to maintaining grid reliability, especially for SDG&E's local area.

As noted above, NRG intends, to the extent it is commercially feasible, to continue to operate Encina and support the local capacity requirements. Additionally, because it owns and operates the Encina Power Station, and anticipates receiving a permit to replace Encina Units 1-3 with efficient, fast-start peaking turbines when such capability is needed, NRG is uniquely positioned to work with state and local stakeholders to replace the older units with new fast response, low heat rate technology. Until a transition to newer technology is deemed necessary, NRG believes that with correct intake screening technology, Encina will be able to continue operations within federal Clean Water Act Section 316(b) and SWCB guidelines and requirements for the foreseeable future.

2) Encina provides critical, reliable capacity and optionality that can operate indefinitely until the proposed Carlsbad Energy

Center repowering – a rapid-response, load following technology that has many environmental benefits (including significantly more efficient and lower emissions) – is needed at the Encina Power Station site

With Encina, SDG&E has options regarding system operation to support grid reliability. Encina has been in continuous operation since 1954 and currently provides 965 MW of capacity and energy in the SDG&E load area. Over the years, the operation of the Encina units has been transitioning to more cyclic operation. With the addition of significant amounts of intermittent renewable energy, this trend is expected to continue. However, due to the uncertainty of the commercial operations of and deliverability of renewable energy, and related constraints and difficulty in permitting and constructing new capacity in the area, NRG has been diligently pursuing a permit for a replacement facility for the Encina units to provide the type of capacity to be placed in service when such capacity is required by the grid.

NRG expects to receive a California Energy Commission (“CEC”) permit approving a 558 MW fast response, dry cooled highly efficient combined cycle project (the Carlsbad Energy Center) to replace Encina units 1-3. The replacement capacity will have significantly lower emissions, use minimal water for operation, operate much more effectively and efficiently, and provide significant environmental and economic benefits to the area. Additionally, this capacity will meet many of the key attributes SDG&E is touting for the three new gen projects – fast start, lower heat rates, and “operational flexibility” (page 16, lines 12-16 of SDG&E testimony).

3) The Encina Power Station site has transmission, infrastructure, and timing advantages well suited for a repowering which mitigate development risks associated with building a power plant to reliably serve SDG&E

SDG&E's application notes that the transmission impacts of two of the projects – the Pio Pico Energy Center and the Quail Brush Energy Project – are not known at this time. SDG&E expects that the transmission impacts of these projects will be known when the CAISO Phase 2 Cluster study results are released in August 2011.¹ NRG notes that the transmission infrastructure at the Encina location is robust with both 230 kV and 138 kV facilities that minimize the interconnection upgrade risk for projects at that location. NRG also notes that the interconnection for the proposed unit #1-3 replacement capacity has been approved by FERC,² removing uncertainty of cost and reliability upgrades for integrating this capacity. In addition, the contemplated retirement of older inefficient units with new fast response highly efficient technology provides some confidence that greenhouse gas (“GHG”) or carbon offset costs will be mitigated by virtue of the significant improvement in the characteristics of the plant and an expectation that Encina can provide its own emission credits for operation.

4) The Cabrillo II Peakers can continue to operate beyond 2013 and continue providing Local SD Capacity to its existing non-SDG&E customers.

According to SDG&E, the Cabrillo II Peakers will retire because of air emission restrictions on operations. It should be pointed out that the Cabrillo II Peakers have (i) air permits in perpetuity, (ii) partial black-start capabilities, (iii) been experiencing even more frequent dispatch, (iv) no commitments to sell Local RA Capacity to SDG&E, and (v) commitments to sell Local SD Capacity to numerous other LSEs. Furthermore, NRG has requested SDG&E (the owner of the property upon which the Cabrillo II peaking turbines are situated) to extend the leases in order for NRG to continue to provide the

¹ Prepared Public Testimony at 2:15 to 3:6.

² Cite to the FERC approval.

needed capacity to the abovementioned customers. In light of these facts, it appears that there are other parties relying on the capacity and energy from such units that will be seriously impacted by SDG&E opting not to extend the property lease.

Service List

For the purposes of this filing, please add the following person to the service list for NRG:

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Conclusion

In summary, given these clarifications regarding NRG's existing local generation fleet combined with its transmission friendly, well developed, and soon to be permitted brownfield site (which significantly reduces timing, ratepayer and regulatory risk), NRG respectfully requests the Commission to take these comments into account when considering SDG&E's request for approval of the PPTAs.

/s/

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