

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

Order Instituting Rulemaking to Integrate and
Refine Procurement Policies and Consider
Long-Term Procurement Plans

Rulemaking 12-03-014

**RESPONSES OF NRG ENERGY, INC. TO QUESTIONS POSED BY
ADMINISTRATIVE LAW JUDGE DAVID GAMSON AT THE SEPTEMBER 4, 2013
PRE-HEARING CONFERENCE**

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September 30, 2013

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NRG Energy, Inc. provides the following responses to some of the questions posed by ALJ Gamson at the September 4, 2013 Pre-Hearing Conference:

Q1-A. How much of the 1400-1800 MW authorized procurement from Track 1 should be assumed in Track 4?

A1-A. Track 1 assumed that SONGS will remain in operation. Now that this assumption has been nullified, and the LA Basin needs have increased, it is prudent to expeditiously proceed with Track 1. Because of the need to aggressively move forward with Track 1 procurement, it is reasonable to assume for Track 4 that all of the procurement authorized in Track 1 will take place.

Q1-B. What should we assume will be in place by 2018, 2020 or 2022?

A1-B. What resources will be in place by each of these years depends on when the power purchase agreements supporting those resources will be in place. Based on NRG's experience, it is reasonable to allow three years after the approval of power purchase agreements for new resources to achieve commercial operation. Consequently, generating projects whose power purchase agreements are in place by early 2015, 2017 and 2019 should be in place for 2018, 2020 and 2022, respectively.

Q2. Does it matter which resources or what mix should be procured?

A2. It does. While no generating unit is available 100 percent of the time (due to forced outages and the need to perform maintenance), conventional gas-fired generating resources are assumed to be largely fully available when they are not on outage. Additionally, absent any outage, environmental or other external operating restriction, conventional gas-fired generating resources are assumed to be able to provide continuous energy at their rated capacity.

The CAISO recently announced the beginning of a process, part of its 2013-2014 Transmission Planning Process, to consider how non-conventional generating units could be used to meet local area reliability requirements and displace the need for transmission or conventional generation to meet those local area needs.¹ The CAISO's initial proposal for using non-conventional resources to meet local reliability needs is first to catalog non-conventional resources based on three attributes: (1) response time; (2) energy duration and (3) availability. Next, the CAISO proposes to evaluate a proposed mix of non-conventional resources, based on the characteristics used to catalog those resources, to determine if that mix meets the reliability needs driven by a particular contingency.

Because gas-fired generating units are assumed to be available (except when on outage) and capable of sustaining their output indefinitely, if the system is deemed secure when the need for generation to address the most affecting contingency is met by gas-fired generation, the system is reasonably assumed to be secure for all other lesser contingencies, regardless of when they occur, because it is presumed that the gas-fired generation can fully respond to meet those lesser contingencies. However, even if the system is deemed secure for the most affecting contingency using a resource mix that includes preferred resources, it may not be the case that the system is secure for all other

¹ See CAISO Market Notice announcing the launch of this process at http://www.caiso.com/Documents/2013-2014TransmissionPlanningProcessConsideration-Non-ConventionalAlternativesCallSep18_2013.htm. See also materials for this process posted at <http://www.caiso.com/planning/Pages/TransmissionPlanning/2013-2014TransmissionPlanningProcess.aspx>.

contingencies, because preferred resources, including demand response, energy storage and variable energy resources, may not be fully available at other times. Demand response is not available at all times because the load supporting it is not available at all times. The availability of energy storage to address contingency needs depends on its state of charge and how much energy it can store. The availability of wind and solar resources depends, of course, on whether there is sufficient sunshine and wind to power these resources. Moreover, unless wind and solar resources are intentionally operated at levels below their available full output, such resources cannot ramp to meet contingency needs.

Q3. The Storage PD issued yesterday (9/3/13); should anything in that proceeding be considered with regard to Track 4 procurement?

A3. While the Proposed Decision in the Energy Storage proceeding clearly directs SCE to procure 580 MW of energy storage projects by 2020, and directs SDG&E to procure 165 MW of energy storage projects by 2020, what is not yet known is how energy storage will count towards meeting local area capacity requirements. As a result, how this procurement of energy storage may affect the need to procure other resources in the SCE and SDG&E areas is not known. Until the rules for how energy storage in its various forms qualifies towards meeting local reliability needs, it is not possible to say how the September 3 PD in the energy storage proceeding will affect Track 4 procurement.

Q4. Are there any other updates to assumptions that should be considered?

A4. No response.

Q5. What is the appropriate timeline for new resource procurement that may be authorized in Track 4? Do some resources have to come online earlier than others?

A5. Yes. Because of the scheduled OTC retirement dates for Encina, new generation needed to replace Encina in the San Diego sub-area must come on-line by 2018.

Q6. Should there be any contingency plan in case certain levels of expected resources do not materialize in an expected manner? For example, what happens if a gas plant is delayed?

A6. Given the magnitude of the needs created by the retirement of the SONGS Units, it may well be prudent to develop contingency plans in case resources – whether conventional or non-conventional – that are being counted on to meet these needs are delayed.

Q7. Should the Commission consider methods to address or reduce possible market power in the SONGS area for gas-fired resources and if so what?

A7. The Commission’s existing rules addressing utility procurement, as well as the standard review process at the Commission for new contracts, should ensure that market power cannot be exercised by any resource that is used to satisfy local area needs, whether such a resource is a gas-fired conventional resource or a non-conventional resource such as demand response or energy storage.

Q8. If a party recommends preferred resources or energy storage to fill any need, it would be helpful to indicate how the attributes of such resources will meet LCR needs.

A8. As part of its 2013-2014 Transmission Planning Process, the CAISO has initiated a stakeholder process to consider how “non-conventional” (i.e., preferred) resources can be used to displace the need for conventional generation and transmission in meeting local area reliability needs. In that process, the CAISO has proposed to catalog preferred resources based on three attributes: (1) response time; (2) output duration and (3) availability. Those attributes, coupled with an assumption of when the contingency to which these preferred responses must respond, will determine how preferred resources will be able to meet LCR needs. However, to maintain the current level of reliability, analysis must also be undertaken to evaluate the ability of the bulk power supply system, including these resources, to respond to contingencies that may occur when these preferred resources are the least able to respond. By

their nature, preferred resources may be fully capable of responding under certain conditions (at high load periods, or at times of high sun or wind) but may be incapable of responding at other times.

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Respectfully submitted,

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