

Docket: **R.12-03-014**

Exhibit Number:

Commissioner: M. Florio

Admin. Law Judge: D. Gamson

Witness: Craig Lewis, Executive

Director, Clean Coalition

**TESTIMONY OF THE CLEAN COALITION ON THE LOCAL RELIABILITY TRACK
(TRACK 1) OF LONG TERM PLANNING PROCUREMENT (LTPP)**

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June 25, 2012

I. INTRODUCTION

Pursuant to the May 17th Scoping Ruling by Commissioner Florio and ALJ Gamson, the Clean Coalition respectfully submits the following testimony of Craig Lewis, Executive Director of the Clean Coalition, into the record.

The Clean Coalition is a California-based group that advocates for vigorous expansion of the Wholesale Distributed Generation (WDG) market segment, which is comprised of renewable energy generation that connects to the distribution grid and serves local load. Since penetrations of WDG above about 20% require local balancing of supply and demand of energy, the Clean Coalition not only drives policy innovation that removes the top barriers to WDG (procurement and interconnection), but also drives policy innovations that will allow private capital to deploy Intelligent Grid (IG) solutions like demand response and energy storage. The Clean Coalition is active in proceedings at the California Public Utilities Commission, the Federal Energy Regulatory Commission, and related federal and state agencies throughout the United States. The Clean Coalition also designs and implements WDG and IG programs for local utilities and governments around the country.

As stated in our Motion for Party Status, Long Term Procurement Planning (LTPP) has long been a policy platform of the Clean Coalition, with the specific goal of ensuring that LTPP reflects a long-term plan for the major deployment of WDG projects in addition to IOU capital expenditures for distribution grid upgrades being allocated to facilitate full deployment of WDG. We also remain committed to ensuring that the 33% renewable portfolio standards (RPS) goals for California are included in LTPP. In Track 1 of this proceeding, we wish to emphasize the use of renewable resources/distributed generation combined with intelligent grid solutions towards a

renewable energy future while specifically meeting and exceeding California's RPS goals along the way.

II. RESOURCE ADEQUACY AND FLEXIBLE CAPACITY

The Clean Coalition has been active in addressing Resource Adequacy ("RA") needs in R.11-10-023. As Track 1 of the current proceeding is related to addressing RA needs, the Clean Coalition will continue to address the need for local reliability and address reliability concerns to allow for high penetrations of wholesale distributed generation.

As we have observed, the projected timeline in R.11-10-023 has been extended until 2014 as parties in that proceeding are considering instituting a minimum amount of flexible capacity, which will include baseload. However, pushing the timeline back may prevent expansion of renewables, which is not in the best interest of long-term planning. Since this proceeding addresses long term planning needs specifically, we recommend that LTPP maintain a timeline in which the expansion of renewables be considered, which is in the best interest of all parties, and ensures that this proceeding meets and exceeds the present and future RPS goals.

In terms of flexible capacity, it is our position that flexible capacity requirements should acknowledge demand response and energy storage as well as rigorous expansion of WDG, which can actually act as flexible capacity in conjunction with grid innovations. In addition, the flexible capacity requirement should be set at a level that satisfies technical necessities while remaining as cost effective as possible. We support a definition of flexible capacity that is technology neutral and does not over-privilege centralized generation, which we believe to include the combination of demand response and energy storage in conjunction with the WDG market segment. Instead of prioritizing plants at risk of retirement, we should be moving forward with

expansion of the WDG market with the interest of moving California towards a more renewable future. The Clean Coalition will continue to collaborate with other parties in both proceedings to make certain these elements are balanced to the best of our ability while also expanding the WDG market segment, which we believe to be the best possible solution to any gaps that are left behind by retiring plants. California will continue to raise the RPS goal as we move forward with the planning process and the Commission must continue to move forward to continuously meet and exceed these RPS goals. We believe the best way to do this is to expand renewables and increase investments to the grid to allow for higher penetrations of clean local energy, in addition to adopting intelligent grid resources.

III. DEMAND RESPONSE AND ENERGY STORAGE

In Track 2 of the LTPP proceeding, the Clean Coalition has emphasized the need to meet and exceed California's RPS goals, as we have already discussed in this testimony. It is our position that intelligent grid resources such as demand response and energy storage (in addition to expanding the renewable market segment) are *necessary* to help meet RPS in addition to obviating new conventional generation.

Using demand response and energy storage are Clean Coalition's preferred solutions to offset the variability of intermittent generation, which include solar and wind resources. Demand response and energy storage should also be used as capacity and ancillary services in their own right since they can both be dispatched in ways that other resources cannot. In addition, demand response can be used as replacements for OTC power plants if the demand response resources meet the required criteria, including, in particular, the scale California is attempting. The testimony submitted by Robert Sparks of the California ISO supports this conclusion:

Demand response was not modeled in the [California Energy Commission's

adopted demand forecast] analysis, but it could be used to reduce the replacement OTC needs if the demand response is in electrically equivalent locations and if they materialize and are determined to be feasible for mitigation.¹

Based upon this testimony, the Clean Coalition recommends that demand response **and** energy storage be modeled in any future analyses to fully explore the possibilities of using both elements in future planning to offset any future OTC replacement requirements in the interest of keeping all options available.

In addition to the possibility of replacing OTC power plants, the Clean Coalition believes that demand response and energy storage should be integrated into long term planning for two primary reasons. The first is that they are both zero emission solutions that increase reliability and capacity, which is consistent with this proceeding's goals. Second, demand response and energy storage can alleviate problems caused by variable generation like wind and solar. This is especially pertinent in regards to energy storage, which can be used in emergency situations to ensure reliability in energy supply or to fill any shortfall in variable generation.

IV. LOS ANGELES BASIN/BIG CREEK VENTURA/SAN DIEGO RELIABILITY AND CAPACITY NEEDS

As stated in the scoping ruling for this proceeding as well as the testimony by Mr. Sparks, the Los Angeles Basin, Big Creek Ventura and San Diego areas may experience shortfalls in local reliability and capacity due to retiring OTC generation in Southern California. Based on the above discussions regarding the effectiveness of demand response and energy storage, these elements should be a priority for ensuring that there are no shortfalls in these areas. With this in mind, the scenarios used to plan for any present and future reliability/capacity issues in Southern

¹ TESTIMONY OF ROBERT SPARKS ON BEHALF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION dated May 23rd, 2012, page 16.

California should include the rigorous use of demand response as well as energy storage to prevent any potential energy shortfalls in this region, especially with the concern of the San Onofre plant being offline. This is the perfect opportunity to explore the expansion of renewables in Southern California as well as using demand response/energy storage to replace any energy gaps left by the San Onofre plant in the event that this plant remains closed.

V. RECOMMENDATIONS

As stated throughout this testimony, the Clean Coalition's priority and primary recommendation in Track 1 is to increase the use of demand response, energy storage and WDG in long term procurement planning as it relates both to California overall and the Southern California region specifically. Since the retirement of OTC plants is of particular concern to all parties in this proceeding, the Clean Coalition sees this as the perfect opportunity for the Commission to remain committed to meeting the Governor's RPS goals for 2020 and beyond. We believe that for this to be done as efficiently and cost effectively as possible, the Commission and CAISO needs to consider expanding renewables; specifically expanding the WDG market segment. In addition, the expansion of intelligent grid (IG) elements such as energy storage and demand response done in conjunction with WDG can be used to fill any potential energy gaps.

VI. SUMMARY OF QUALIFICATIONS FOR CRAIG LEWIS

Q1: What is your name and business address?

My name is Craig Lewis and my business address is as follows:

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3000 El Camino Real, Suite 500
Palo Alto, CA 94306

Q2: What is your job title?

Executive Director, Clean Coalition.

Q3: Please describe your educational background and professional experience.

I am a leading Smart Energy strategist and advocate with over 20 years of experience in the renewables, wireless, and semiconductor industries. I have been working since 2005 to achieve Smart Energy outcomes via legislation, regulation, and public funding. I also spearheaded energy policy development for Steve Westly's 2006 gubernatorial campaign in California and was VP of Government Relations for GreenVolts, a solar technology company before he founded the Clean Coalition in January 2009. I navigated the first successful solar project through California's Renewables Portfolio Standard (RPS) solicitation process and have been involved in more than two dozen RPS projects. I have held senior government relations, corporate development, and marketing positions at wireless, semiconductor, and banking companies including Qualcomm, Ericsson, and Barclays. I received a MBA and MSEE from the University of Southern California, and a BSEE from UC Berkeley.

Q4: Has the Clean Coalition been involved in any relevant intelligent grid projects?

The Clean Coalition's Distributed Generation + Intelligent Grid (DG+IG) Initiative is as follows: The Clean Coalition is working with five different utilities to plan DG deployments within a single substation such that the DG supplies at least 25% of the total annual demand on the substation; and to deploy Energy Storage and/or DR and Curtailment to a level that allows the grid reliability/performance to be at least as strong as without any of the DG. The Clean Coalition is using feature-rich tools from GRIDiant that facilitate comprehensive DG planning and simulation efforts; and facilitates real-time operation of this energy future as well -- a future that maximizes value for ratepayers, rather than following the 100-year old approach of central generation, and minimizes expenditures in transmission and the associated inefficiencies of generating energy far from loads. The Clean Coalition is currently working with parties that have done intelligent grid deployments around the world.

Q5: Are you willing to be cross examined in evidentiary hearings?

Yes.