

Docket: A. 11-11-017  
Exhibit Number CC2  
Commissioner: Michael Peevey  
Admin. Law Judge: Kelly Hymes  
Witness: Craig Lewis, Executive  
Director, Clean Coalition

**TESTIMONY OF THE CLEAN COALITION ON PACIFIC GAS AND ELECTRIC  
COMPANY'S PROPOSED RATE INCREASES ASSOCIATED WITH SMART GRID  
PILOT DEPLOYMENT (A.11-11-017)**

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## **I. Introduction**

The Clean Coalition submits this rebuttal testimony in response to the testimonies of TURN, DRA and MENA on May 16, 2012. While we agree with several parties that the PG&E Application is extremely vague in its application, we believe that the aforementioned parties are not giving smart grid technology its due importance, especially its role in the integration of distributed generation. In general, we assert that the overly cautious approach by some parties may impede the goals of an improved distribution system and greater use of renewables.

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. Fully realizing the massive economic and environmental benefits of WDG identified by policy makers and utilities will require a smart grid pilot program that can integrate and balance large amounts of local energy. This vision of a smart grid integrated with distributed generation would allow for power to flow safely from thousands of generators across the state in any direction to meet load, keeping electricity supply in balance with demand at all times.

## **II. Definition of Smart Grid**

In its testimony, DRA suggested that the Commission issue a definition of its concept of ‘smart grid.’ We concur. ‘Smart grid’ is a nebulous concept which encompasses many things, from enhanced metering and home area networks to the distribution and transmission level technologies being discussed in this proceeding. Waiting for precise delineation may unnecessarily delay development, and the technology in this area is also moving extremely quickly. However, we ask that the Commission outline its thinking to the best of its ability so that this proceeding and the Smart Grid Deployment Plans can move forward without semantic disagreement.

### **III. Benefits of Smart Grid Technology**

As the Clean Coalition's priority is to promote local generation of energy, we cannot agree with TURN's assertion that voltage/VAR optimization is unnecessary for the integration of distributed renewable energy. Voltage/VAR optimization at the distribution level is essential in compensating for the rapidly changing output of many forms of distributed generation. As the amount of distributed generation increases, so does the case for voltage/VAR optimization. TURN also asks that PG&E should demonstrate the cost-benefit analysis of using troublemen and current non-communicating line sensors instead of communicating line sensors. While this seems sensible, it is somewhat short-sighted, ignoring the fact that communicating line sensors would be part of an integrated, communicating grid of the type to be established in the near term in compliance with SB17. Lastly, TURN's rejection of a technology because it may obsolesce in the future is in contradiction of the notion of a pilot program, which is meant to determine the best method of widespread deployment in the future. Testing out various technologies before they are applied to the entire service area is the ideal method.

MENA, in its testimony, asserts that the benefits of the smart grid pilot technologies accrue mainly to generation. As advocates for local distributed generation, we cannot agree. Increased amounts of renewable generation and distributed generation and combinations thereof do cause issues of integration with the distribution grid. In this sense, the benefits of preventing surges, outages and other problems with line sensors and optimization are operational in nature. We implore PG&E to better demonstrate these benefits in its exhibits and throughout this proceeding.

### **IV. Cost-effectiveness and recommendations**

We do agree with the majority of parties that marketing and outreach funds are preliminary at this point and would be better left for the deployment phase of the Smart Grid Plans. But we do

not believe that fund recovery for Smart Grid technology should be left for the General Rate Case.

The Clean Coalition places Governor Brown's 12,000 MW distributed generation goal to be met by 2020 as a high priority for our organization. As stated in our previous testimony, it is the position of the Clean Coalition that this 12,000 MW goal should be considered in this application, as any smart grid should move California towards meeting and exceeding its clean energy goals.

The state will not reach its 12,000 MW of local distributed energy goal by 2020 without smart grid improvements. If the utilities all wait for the GRC to implement their Smart Grid improvements, then this goal will not be met. It seems that PG&E will not implement the pilot without being able to recover costs in a balancing account. We applaud PG&E for making a separate application, but will not support the pilot unless PG&E makes updates with more specific information on the benefits it sees in smart grid technology and on the technology it will be testing and using.

## V. SUMMARY OF QUALIFICATIONS FOR CRAIG LEWIS

Q1: What is your name and business address?

A1: My name is Craig Lewis and my business address is as follows:

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

Q2: What is your job title?

A2: Executive Director, Clean Coalition.

Q3: Please describe your educational background and professional experience.

A3: 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 I 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: Have you been involved in other Smart Grid proceedings before this Commission?

A4: Yes, the Clean Coalition has been heavily involved in A.11-06-006, which is the Smart Grid project proposed by San Diego Gas and Electric. The Clean Coalition attended the Smart Grid workshops that were held at the PUC and I was a speaker at one of the workshops, describing the connection between smart grid and distributed generation.

Q5: Has the Clean Coalition been involved in other smart grid projects?

A5: 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 as well as facilitates real-time operation of this energy future. This is 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.

Q6: Are you willing to be cross examined in evidentiary hearings?

A6: Yes.

Q7: Is this the end of your testimony?

A7: Yes.