

11-IEP-1G

**DOCKET**

11-IEP-1H

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TO:

**CALIFORNIA ENERGY COMMISSION**

In the matter of,  
Preparation of the  
*2011 Integrated Energy Policy Report*  
(2011 IEPR)

Docket No. 11-IEP-1G, 11-IEP-1H  
COMMITTEE WORKSHOP

RE: Distribution Infrastructure and  
Smart Grid Solutions to  
Advance 12,000 MW of DG.

**WOMEN'S ENERGY MATTERS COMMENTS  
REGARDING CEC'S 6-22-11 DISTRIBUTED GENERATION WORKSHOP**

July 6, 2011

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**WOMEN'S ENERGY MATTERS COMMENTS  
REGARDING CEC'S 6-22-11 DISTRIBUTED GENERATION WORKSHOP**

Women's Energy Matters (WEM) is a long-time "ratepayer advocate" in energy agency proceedings in California (since 2001); we are a party in the CPUC's Long-Term Procurement Plans, several Energy Efficiency proceedings; and PG&E's recently concluded General Rate Case. We participated in the Jefferson Martin transmission proceeding a few years ago and several power plant siting cases.

WEM is also a leading community organizer for Marin Clean Energy's "Community Choice" program.

These comments respond to just one question in the Request for Comment for the CEC's June 22, 2011 Distributed Generation (DG) workshop:

**Planning for the Future**

**5. What are the most pressing technical challenges associated with the integration of 12,000 MWs of Distributed Generation (DG) by 2020?**

WEM has identified a serious challenge to the integration of 12,000 MW of DG by 2020. It is in some ways more of a question of technical *policy* than *engineering*, but we believe it is an important key to all other considerations.

WEM was unable to attend the workshop in person, but we participated by phone and web-ex. After PG&E's presentation in the morning, we asked the following question:

PG&E's Testimony in the 2011 GRC revealed that it ignores solar PV and energy efficiency in its load forecast — ***because it doesn't know where it is:***

18 PG&E load forecasting methodology *does not specifically adjust for*  
19 *changes in peak load because of increased customer photovoltaic*  
20 *installations, customer Energy Efficiency (EE) Programs, or increased load*  
21 *due to EV increased penetration. The affect these system-wide programs*  
22 *have on peak loads are not easily quantifiable on a DPA level, division or*  
23 *geographic area. **Therefore, PG&E cannot exactly know where reductions***  
**24 or increases will occur.** PG&E Testimony, Vol. 3, p. 9-12 (A0912020).

Is this still true?

PG&E knows exactly where every grid-connected PV system is installed because PG&E hooks them up! PG&E also knows where energy efficiency measures are installed. However, PG&E has not tracked this important data.

When will PG&E (and other utilities) begin recording and reporting this data?

Question submitted at the 6-22-11 DG Workshop by Barbara George of WEM.

We are grateful that Chairman Weisenmiller asked PG&E to submit a written response. Our notes on the response at the workshop by PG&E's representative, Jon Eric Thalman, showed some confusion. He indicated that the company has not yet provided any reports, but it is "working on the ability to record data... and knowing where it's going to impact the load forecast... The point in our testimony was not that we don't know – that's why we're working on it."

### **The problem of "system-wide" resource programs**

A careful reading of the passage quoted above from PG&E's rate case reveals the specific hitch: the concept of "system-wide" resource programs, which include energy efficiency and most generation resources connected to the distribution grid. In the Demand Forecast, CEC receives one big "system-wide" number for energy efficiency goals, and similarly general numbers for other preferred resources. These are subtracted from the overall demand for the utility's entire territory.

From that starting point, parties in the Long-Term Procurement Plans (LTPP) discuss the likelihood of various resources actually materializing, and what sorts of things will be allowed to fill the remaining "net short." In the 2007 decision on Long-term Procurement, D0712052, the CPUC required utilities to go back and see if there were more renewables available than they had previously incorporated in their RPS portfolios; gas-fired power plants were only supposed to be considered after these were exhausted.

*However, there was no mechanism in D0712052 to consider Energy efficiency, local solar PV, or other resources that are connected to the distribution grid. This was not explicitly stated, because it is simply how the system works – ever since deregulation gave the responsibility for managing the Transmission grid to CAISO, and left the responsibility for managing the Distribution grid with the utilities.*

### **Why "one big number" for DG and EE resources is unworkable**

Supplying one big number for a utility's territory for energy efficiency, for example, might seem to fully acknowledge those resources.

The problem is that procurement is more nuanced than that. Procurement planners and the CAISO need to know that there are resources available which are capable of meeting specific needs in specific places. These are, in particular:

- the 560 hours of highest peak load in the hottest areas of the state;
- the Local Capacity Requirement for specific areas that are "resource constrained" — lacking sufficient transmission, generation, or both.

(WEM is very concerned that utility resource planners reject all the ways energy efficiency could reduce peak load and/or address local capacity requirements – however, in this comment we focus on DG. To see WEM's proposals in the LTPP for greater use of energy efficiency as well as local renewables, see our Alternative Bundled

Procurement Plan at <http://www.womensenergymatters.org/nuclear/2011-05-23AlternativeBundledProcurementPlan.html>

CPUC posts documents in the Long-Term Procurement proceeding at <http://docs.cpuc.ca.gov/published/proceedings/R1005006.htm> )

WEM's recent brief in the Long-Term Procurement Proceeding provided more background on PG&E's management of the distribution system, and discussed why we think there is a pressing need to solve this problem as soon as possible:

**Distribution is the Missing Link: Making EE and DG visible to procurement**

Currently, the CAISO [or the CEC demand forecasters or other procurement planners] have no direct information about what's taking place on the distribution system. This is a problem that prevents both energy efficiency and distributed generation (DG) from full recognition as energy resources.

In PG&E's 2011 General Rate Case (GRC), WEM learned that PG&E has a profoundly insular process to determine distribution needs and priorities, controlled by a single program manager with virtually no oversight. This person gathers input from 18 "Local Area Planning Groups" from Engineering and Operations who:

prepare load growth studies, identify area and equipment overloads, and quantify capacity deficiencies... prepare detailed forecasts... for the next five years... then develop project cost estimates..." PG&E Testimony, Vol. 3, p. 9-2 (A0912020).

The program manager assesses each project, creates a yearly program plan and funding proposal, presents it to PG&E's management for approval, and then manages the program.

Thus, PG&E's electric distribution forecasting methodology is old-school – PG&E controls the inputs as well as access to the information on which the forecast is based, without oversight or public review.

*The distribution system needs to become transparent to the Long-Term Procurement Planning process...*

Currently, distribution issues are only addressed in General Rate Cases, where they are thrown in with dozens of other issues. GRCs primarily address financial concerns, with little time to explore engineering and operations issues that are essential for fully integrating energy efficiency and renewables, especially solar Distributed Generation.

WEM believes that utilities' failure to track local solar and energy efficiency helps drive excess use of dirty energy. According to CPUC's "Planning Assumptions" that it ordered utilities to use in their "Long-Term Procurement Plans" this year, investor-owned utilities like PG&E currently have more than 50% excess energy, a power glut that continues

through 2020. Clearly this is far more than the 15% reserve requirement — and is extremely costly to ratepayers. California could close both of its nuclear power plants and still have more than 40% excess energy.

WEM's chart *Excess energy with or without nuclear power*, which is based on the CPUC's Planning Assumptions, is posted at [http://www.womensenergymatters.org/nuclear/AlternativeBundledProcurementPlan/CA\\_Excess\\_Energy\\_Without\\_Nuclear-WEMfactsheet.pdf](http://www.womensenergymatters.org/nuclear/AlternativeBundledProcurementPlan/CA_Excess_Energy_Without_Nuclear-WEMfactsheet.pdf)

**Conclusion**

We appreciate the Commission considering our comments.

Dated: July 6, 2011

Respectfully Submitted,

/s/ Barbara George

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