

PUBLIC UTILITIES COMMISSION

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June 9, 2004

Advice Letter 2474-E

Ms Anita Smith, Rate Analyst  
Pacific Gas and Electric Company  
77 Beale Street, 10B Mail Code  
San Francisco, CA 94177

**Subject: Compliance with Ordering Paragraph (OP) 8 of Decision 04-01-050 Presenting Methodologies to Ensure Consistency Between Energy Savings Assumptions Used in Utility Long-Term Procurement Plans and Energy Efficiency Program Submittals**

Dear Ms Smith:

Advice Letter 2474-E is effective March 22, 2004. A copy of the advice letter is sent herewith for your records.

Sincerely,

A handwritten signature in cursive script that reads "Paul Clamor".

Director  
Energy Division



**Pacific Gas and  
Electric Company**

**Karen A. Tomcala**  
Vice President  
Regulatory Relations

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February 11, 2004

**Advice 2474-E  
(Pacific Gas and Electric Company ID U 39 E)**

Public Utilities Commission of the State of California

**Subject: Compliance with Ordering Paragraph (OP) 8 of Decision 04-01-050 Presenting Methodologies to Ensure Consistency Between Energy Savings Assumptions Used in Utility Long-Term Procurement Plans and Energy Efficiency Program Submittals**

Pacific Gas and Electric Company (PG&E) hereby submits this filing in accordance with OP 8 of Decision (D.) 04-01-050.

**Background**

The Commission in D. 04-01-050, OP 8, directs utilities “. . . to present to the Commission in this rulemaking within twenty-days of this decision the methodologies they will use to ensure that forecasted measured savings of energy efficiency savings and demand reductions in utility long-term plans in this rulemaking are equivalent to the savings calculated for measures used in utility savings assumptions for procurement related energy efficiency programs submitted in R.01-08-028.”

The Commission provides further guidance on pages 106/7, “We therefore require the utilities to submit within 20 days of this ruling their approach, with relevant examples, of how each utility will ensure that savings forecast in this rulemaking result in savings (and demand reductions) captured in their projected program targets in the Commission’s Energy Efficiency Rulemaking.” This submittal provides information on the methodologies PG&E used in 2003 to address the forecast consistency issue the Commission raises and proposes to use similar methodologies in the future, modified as necessary as PG&E responds to evolving Commission requirements.

**Summary**

PG&E plans to ensure the consistency of energy savings assumptions used in its long-term procurement plans by explicitly or implicitly relying on the same

measure-specific savings assumptions it uses in its energy efficiency program submittals for the first several years of the energy efficiency component of its long-term plan. This is the approach it used for its Long-Term Procurement Plan filed on April 15, 2003 in R. 01-10-024 (2003 LTP), and its Energy Efficiency for Procurement submission on September 23, 2003 in R. 01-08-028 (2003 EEP). This is described below in more detail. PG&E plans to apply the same approach in constructing the energy efficiency component of its next Long-Term Procurement Plan.

### **How PG&E ensured consistency between energy savings assumptions used in utility long-term procurement plan and energy efficiency program submittals in 2003**

PG&E ensured that its 2003 LTP energy savings forecast would be consistent with its 2003 EEP savings forecast during 2004 – 2005 by using forecasting methods based on measure-specific savings assumptions. For the 2003 LTP, the overall savings forecast was based on forecasts of expansions or enhancements of five existing programs funded by the Public Goods Charge (PGC). For the first several years of each program, the forecast was either directly based on a measure-specific forecast (bottoms-up forecast) or on the results of a measure-specific forecast. The assumptions from the most recently available energy efficiency program filing (November 2002) were used when applicable. As the savings assumptions for each measure changed little between the energy efficiency program filing for 2002 and 2003, the savings assumptions per measure were very similar for all three filings.

For each of the five program areas the relationship is described below. The Residential Single Family and Multifamily programs were modeled together and treated as one set of measures.

1. Residential Single Family and Multifamily programs. These programs' savings were based on bottoms-up forecasts for the 2003 LTP and the 2003 EEP. There was some change in the measures that comprised the forecast, as the program was refined between the two filings. In both filings, the programs' savings rely mainly on very efficient air conditioners.<sup>1</sup> The same annual energy load reduction assumptions for air conditioners and related measures were used for both the 2003 LTP and 2003 EEP forecasts for the years 2004 - 2005. Some of these are provided in the following table.

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<sup>1</sup> Those with high Energy Efficiency Ratios (EERs), which, while available, are seldom installed because of high cost.

Residential Rebate Measures for Procurement Program	Gross Energy Savings KWh per unit
A/C Tier III for Split Systems with TXV	733.02
A/C Tier III for Packaged Systems with TXV	617.28
Variable Speed motor for furnace with A/C	225.05
Refrigerant Charge and Air Flow	173.61
A/C Tier I for New Construction	439.17
A/C Early Replacement	790.89
A/C System Downsizing (Manual J)	417.95

2. The Express Efficiency rebate program for smaller nonresidential customers. The first several years of the 2003 LTP forecast was based on the savings per unit spending proposed for PG&E's 2002 PGC-funded Express Efficiency program, which itself was a bottoms-up, measure-specific forecast. These ratios were modified to reflect increased marketing effort to raise penetration of air conditioning measures and increased saturation of commercial lighting measures. In developing the 2003 EEP it was straightforward to build a bottoms-up plan to support the savings targets.
3. The Standard Performance Contract (SPC) program. The 2003 LTP included a forecast of the program's savings for customers with loads over 500 KW. The 2003 LTP forecasting approach was to first identify the portion of the proposed program budget to be paid in customer rebates. Then this figure was multiplied by the same energy savings per rebate expenditure relationships as were used in the 2002 SPC PGC-funded program. The PGC-funded portion of the SPC program used the same energy savings per rebate expenditure relationships for developing the 2004-2005 PGC-funded program that were used to develop the 2003 PGC-funded program. In summary, the same assumptions were used in all three program forecasts.

Lighting	Rebate amount per unit savings
Lighting	\$0.05/kWh
Heating, Ventilation, and Air Conditioning	\$0.14/kWh

4. The Savings by Design (SBD) program. This program is open to nonresidential new construction projects. The 2003 LTP forecasting

approach relied on the same energy savings forecasting approach as was used for the PGC funded program in both 2003 and 2004-2005.

While there is alignment between the methodology used for the 2004 and 2005 energy forecasts in PG&E's 2003 LTP and 2003 EEP, there were differences in the peak forecasting methodology. Any differences may be inherent in the two different uses of the forecasts. In the 2003 LTP PG&E reported annual peak load reductions in the energy efficiency testimony that were the maximum hourly load reductions from energy efficiency during that year. For procurement planning, maximum energy efficiency load reductions were calculated for each month. Also the estimated average MW savings in each month for the time periods typically used in each month to model market transactions (super-peak, shoulder-peak, and off-peak) were calculated. These were used to model PG&E's procurement plan.

The peak forecast reduction for the 2003 EEP was based on the same per measure peak reduction forecast used for the 2004-2005 PGC funded programs. These per measure forecasts of peak reduction have been provided to the Commission in the required program workbooks.

PG&E has found that the differences between the peak 2003 LTP forecast and the peak 2003 EEP forecast do not produce significantly different forecasts (about 5% after 2 years). Given that the use of the two forecasts is different, the two notions of peak may never entirely reconcile. The 2003 LTP is directly based on annual energy savings, load shapes, and the resulting distribution of those savings throughout the hours in a given month. The individual measure peak load reduction forecasts underlying the 2003 EEP typically attempt to account for similar characteristics: total annual load, its distribution in time, and frequently the diversity of operating hours. But the resulting calculation for an individual measure, which is then summed over all measures, may provide a different result. This will be explored further before PG&E files its next long-term procurement plan.

#### **How PG&E plans to ensure consistency between energy savings assumptions used in utility long-term procurement plans and energy efficiency program submittals in 2004**

PG&E's current approach of basing the first several years of its long-term procurement forecasts on a bottoms up approach for energy supports close matching of the forecast with the subsequent submission of procurement funded proposals in R.01-08-028. The relationship between the two peak forecasts can be explored to determine if there is any systematic relationship (e.g., one always higher than the other). This could be performed before PG&E files its next long-term procurement plan

In D.04-01-050, the Commission has indicated that the utilities will be required to submit 10-year procurement plans sometime during the second quarter of 2004. In the same decision, the Commission sets forth a multitude of scenarios the utilities are to include in the 10-year procurement plan, including use of the California Energy Commission's Integrated Energy Resource Plan, local planning scenarios, deliverability criteria, and the utility's preferred resource plan scenario, among others.

These multiple scenarios may well require different energy efficiency portfolios for each procurement plan scenario, and will require a revision of long-term energy efficiency planning methodologies. Accordingly, this complex procurement planning process may pose unforeseeable challenges in assuring the alignment with the program filing in R.01-08-028. These issues will be addressed as the Commission considers this new planning approach in the future.

### Protests

Anyone wishing to protest this filing may do so by sending a letter by **March 2, 2004**, which is 20 days from the date of this filing. The protest must state the grounds upon which it is based, including such items as financial and service impact, and should be submitted expeditiously. Protests should be mailed to:

IMC Branch Chief – Energy Division  
California Public Utilities Commission  
505 Van Ness Avenue, 4<sup>th</sup> Floor  
San Francisco, California 94102  
Facsimile: (415) 703-2200  
E-mail: [jjr@cpuc.ca.gov](mailto:jjr@cpuc.ca.gov)

Protests also should be sent by e-mail and facsimile to Mr. Jerry Royer, Energy Division, as shown above, and by U.S. mail to Mr. Royer at the above address.

The protest should be sent via both e-mail and facsimile to PG&E on the same date it is mailed or delivered to the Commission at the address shown below.

Pacific Gas and Electric Company  
Attention: Brian K. Cherry  
Director, Regulatory Relations  
77 Beale Street, Mail Code B10C  
P.O. Box 770000  
San Francisco, California 94177  
Facsimile: (415) 973-7226  
E-mail: [RxDd@pge.com](mailto:RxDd@pge.com)

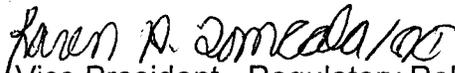
**Effective Date**

In compliance with General Order 96-A, PG&E requests that this advice filing be effective **March 22, 2004**, which is 40-days from the date of filing.

**Notice**

In accordance with General Order 96-A, Section III, Paragraph G, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the service list for Rulemaking (R.) 01-10-024 and R.01-08-028. Address changes should be directed to Sandra Ciach at (415) 973-7572. Advice letter filings can also be accessed electronically at:

<http://www.pge.com/tariffs/>

  
Vice President - Regulatory Relations

Attachments

cc: Service List – R.01-10-024, R.01-08-028

**PG&E Electric Advice Filing List  
General Order 96-A, Section III(G)**

ABAG Power Pool  
Aglet Consumer Alliance  
Agnews Developmental Center  
Ahmed, Ali  
Alcantar & Elsesser  
Anderson Donovan & Poole P.C.  
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Avista Corp  
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PPL EnergyPlus, LLC  
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