



**Pacific Gas and
Electric Company™**

Les Guliassi
Director
State Agency Relations

Mail Code B29L
Pacific Gas and Electric Company
P.O. Box 77000
San Francisco, CA 94177-0001

415.973.6463
Fax: 973.9572

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California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

DOCKET
05-SDO-1

DATE	JUN 9 2006
RECD.	JUN 9 2006

Re: Docket No. 05-SDO-1 (2007 Peak Demand Forecast)

Dear Docket Office,

Attached please find the comments of Pacific Gas and Electric Company (PG&E) on the CEC staff's proposed peak demand forecast for 2007. Our comments focus chiefly on the CEC's estimate for PG&E's peak load. We are concerned that flaws in the staff's model produced a value which is too high. We will continue to work with the staff with a goal of developing a consensus forecast before the CEC's June 29, 2006 business meeting.

PG&E is pleased to have an opportunity to work with the Commission on this matter. Please call me at the number above if you have any questions or concerns.

Sincerely,

Les Guliassi

cc: Lynn Marshall – California Energy Commission

Attachment

PG&E Comments Regarding CEC Staff Proposed 2007 Peak Forecast Update

Pacific Gas and Electric Company (PG&E) welcomes the opportunity to provide written comments on the CEC staff's proposed forecast update for 2007. As discussed at the workshop on June 5th, PG&E will follow-up on these written comments with further discussions with CEC staff with a goal of developing a consensus forecast in time for the Commission's business meeting on June 29, 2006.

The CEC staff presented to the state's IOUs a report in which the staff proposed an increase in the current PG&E Service Area IEPR projection for the year 2007 from 18,914 MW to a proposed level of 19,905 MW. The staff proposed an increase in the Southern California Edison (SCE) projection from the current level of 22,163 MW to 23,124 MW, as well as an increase in the San Diego Gas & Electric (SDG&E) forecast from the current 4,371 MW to 4,450 MW. The staff stated that the reason for the proposed increase in the forecasts was that its analysis of 2005 loads and temperatures suggested that temperature normalized loads were significantly above current forecast levels. The CEC staff's report notes that the primary purpose of this proposed update to the 2007 IEPR peak forecast is to provide a reference case for the California Public Utilities Commission's (CPUC) 2007 resource adequacy process.

At the June 5th workshop, CEC staff presented their findings and PG&E, SCE, and SDG&E, as well as other participants, gave preliminary comments. The comments from the IOUs were diverse. SDG&E stated that its own analysis of temperature adjusted summer 2005 loads suggested that no upward adjustment in the 2007 load projection was needed. PG&E supported an upward adjustment to the 2007 forecast level but expressed concern over the magnitude of the proposed adjustment. SCE stated support for both the direction and the magnitude of the proposed adjustment.

During the workshop PG&E agreed to provide written comments to the CEC staff outlining in further detail PG&E's concerns and to work with CEC staff to develop a consensus adjustment prior to the CEC next business meeting on June 29, 2006.

PG&E's comments are as follows:

- PG&E supports an increase in the level of the forecast for 2007; however, PG&E is concerned that an increase of 991 MW as proposed by the CEC staff is too large of an adjustment based on available information.
- PG&E proposes that a forecast level of 19,320 MW for 2007, as recently filed by PG&E with the FERC in Form 714, represents a reasonable adjustment for 2007. 19,320 MW is 400 MW above the current IEPR projection.
- PG&E suggests that the 2007 IEPR proceeding is the appropriate forum for discussing a change of the magnitude proposed by the CEC staff. An increase in the 2007 forecast of nearly 1,000 MW affects not only resource needs for 2007 but also

every subsequent year in the forecast horizon. In essence, the proposed forecast adjustment represents almost four years of load growth.

- PG&E welcomes the opportunity, as discussed at the June 5th workshop, to work with CEC staff to develop a consensus adjustment for 2007 loads.

PG&E's concern that the adjustment is too large, based on the available data, is motivated primarily on the CEC staff's reliance on a particular regression model, which attempts to show the relationship between 2005 observed loads and temperatures. The CEC staff uses this model to infer that, if temperatures had reached 102 degrees F during the summer of 2005, peak MW use in the PG&E service area would have been 19,272 MW, rather than the observed level of 18,748 MW. PG&E has several concerns about the underlying model that forms the basis of the staff's proposed forecast adjustment.

- The model parameters are difficult to interpret. The negative intercept value suggests that the temperature response parameter is overstated;¹ therefore, even though the model has good statistical properties (for example high R-squared), it may not be suitable for making inferences, especially inferences outside the range of the historical data from which it was estimated. The fact that the intercept value is negative (seemingly has the wrong sign) and that the parameter estimates for both the intercept value and the temperature response parameter change dramatically from 2004 to 2005, suggests that more study is needed before inferring such a large change in the forecast is supported by available data.
- Comparing the temperature adjusted 2004 and 2005 results from the CEC model, temperature adjusted load growth was ~ 675 MW, more than twice the projected load growth and more than twice the average annual load growth over the past two decades.² This result suggests that 2005 temperature normalized loads from the CEC model may be overstated.
- In its report and at the workshop, CEC staff suggested that increases in air conditioning saturation rates were perhaps the reason for the model results that were presented. Staff reported that increasing air conditioning saturation rates are confirmed by the results of the latest residential appliance survey. However, when looking at the two models that staff presented (2004 and 2005), the estimated parameters suggest that, in fact, there was an ~ 2,500 MW increase in the non-temperature sensitive load from 2004 to 2005 and a decrease in the temperature sensitive load of ~ 2,000 MW. Again, this counterintuitive result casts doubt on the suitability of the estimated model to make inference for adjusting 2007 loads.
- As presented at the workshop, alternative models of the 2005 data can be developed which have comparable statistical properties and non-negative intercept values. Those models suggest that, had the temperature risen to 102 degrees during the

¹ SCE also commented at the workshop that the CEC staff's estimated temperature response parameter seemed too high.

² The estimated temperature normalized growth for SCE was ~ 1,000 MW from 2004 to 2005, which is also more than double the previous forecast and historic growth.

summer of 2005, the likely result would have been peak use of ~ 18,800 MW, nearly 500 MW less than what the CEC model suggests.

- Given the large standard error of the model (500+ MW) it is impossible to reject the null hypothesis, with a high degree of confidence, that peak load MW in 2005 at assumed temperatures of 102 degrees would have been 18,800 MW rather than 19,272 MW, even using the CEC staff's model.

PG&E proposes that 19,320 MW as recently filed in FERC Form 714 represents a reasonable middle ground for 2007. Given the large degree of uncertainty that remains regarding 2005 loads, PG&E believes that it is appropriate to increase the forecast by something less than the suggested 991 MW for 2007. 19,320 MW represents an increase of ~ 400 MW relative to the current IEPR projection. This is a significant increase in its own right but one that PG&E believes can be fully supported by available data.

If the Commission were to adopt the staff proposed large peak increase, PG&E asks the Commission for guidance as to whether and how the proposed increase should be used in the upcoming long-term plan procurement proceeding at the CPUC given that the 2007 IEPR proceeding will not be complete for some time. An increase in the forecast of nearly 1,000 MW for 2007 affects not only the short-term but also the medium- and long-term plans of PG&E and all load serving entities within the PG&E planning area. 1,000 MW is the equivalent of almost 4 years of projected load growth. If 2007 projected load is increased to 19,905 MW, as suggested by CEC staff, then it will be 2012 before the current IEPR forecast shows any material load growth relative to the proposed adjusted 2007 load level. The specific question that should be answered is whether the proposed increase should be used as the new starting point for a fully adjusted 2005 IEPR load forecast.

PG&E thanks the Commission for reviewing these written comments and looks forward to the opportunity to work with staff over the next couple of weeks to develop a consensus adjustment for 2007. PG&E wishes to acknowledge the staff's expertise and dedication, as demonstrated in the work already done on this important matter. Staff's willingness to share their analysis and to incorporate the comments of stakeholders is very much appreciated.