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March 11, 2011

Electronic Delivery

California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
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Re: Docket No. 11-IEP-1C, 11-IEP-1K, and 11-IEP-1L

Docket Office:

Please find attached PG&E's comments on 2011 IEPR – Electricity, Natural Gas and Transportation Energy Forecasts workshop, held February 24. Please contact me should you have any questions.

Sincerely,

Attachment

PACIFIC GAS AND ELECTRIC COMPANY COMMENTS IN RESPONSE TO THE CEC IEPR WORKSHOP ON ENERGY DEMAND FORECAST ASSUMPTIONS DOCKET NOS. 11-IEP-1C, 11-IEP-1K, 11-IEP-1L

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to respond to the proposed methods, inputs, and assumptions to be used for long-term energy demand assessments and forecasts currently in development by Staff. We commend Staff on their diligent efforts in this space, and offer our comments and recommendations below for consideration.

I. Economics and Demographics:

Staff has proposed to use a forecast from IHS Global Insight as the high growth case and forecast scenarios from Moody's Analytics for the base case and low growth cases. PG&E agrees that the differences in these scenarios are large enough to bound an acceptable range of possible outcomes and that the asymmetry toward "higher than base case growth" is appropriate given that base case forecasts may tend to be overly pessimistic coming out of such a serious and lengthy downturn. PG&E supports Staff's proposed economic and demographic scenarios as describing a reasonable range of growth over the forecast horizon.

II. Natural Gas Prices:

PG&E looks forward to more information on the forthcoming natural gas price forecast when the base case analysis is completed by Rice University. As recognized in the workshop, gas market pricing is subject to several uncertainties, such as the costs and availability of shale gas. Therefore, evaluating ranges of prices rather than a single point forecast is a positive development. Fundamental forecasting such as using the World Gas Trade Model may provide informative insights by evaluating scenarios of interest. At the same time, PG&E suggests that since there are well established forward markets for gas deliveries in the US, this information should be relied upon for the base case gas price projections rather than model-based projections at least for the first few years of the forecast period.

III. Gas Modeling:

The CEC will be using the World Gas Trade Model, which is configured as either a monthly or annual model. One of the single-variable sensitivities that the Staff has identified for analysis is a Reduced Pipeline Pressure Case, which assumes reduced pipeline pressures/capacities associated with new public safety regulations.

To evaluate the effect of potential reduction in pressures and pipeline capacities on Local Distribution Company backbone or local transmission systems, the CEC may need to use a model that has time periods of shorter duration, such as a daily model. Depending on the level of pressure or capacity reductions, the effects of those reductions may not be able to be modeled using monthly time periods.

The World Gas Trade Model models PG&E's local transmission system as one large pipeline segment. To the extent that new public safety regulations affect only specific portions of PG&E's local transmission system, the CEC may need to update its assumptions and disaggregate the local transmission segment.

PG&E looks forward to reviewing the CEC's modeling assumptions at the April 19 IEPR Workshop.

IV. Electric Rates:

PG&E believes that the base case trajectory, as proposed by staff, is reasonable and consistent with PG&E's belief that overall electric rate increases can be managed so that they will exceed general inflation rates by only a small margin even in the face of increasing costs incurred to reduce the impacts of climate change. Both the high and low cases seem entirely plausible as well. We are concerned, however, that the base case trajectory assumes a 20% RPS (statewide) by 2022 rather than 33%, and that it remains unclear why PG&E's rates increase substantially in comparison to SCE's rates in the CEC staff's analysis. PG&E requests that CEC staff coordinate with PG&E staff to verify the E3 GHG calculator assumptions and results.

V. Energy Efficiency:

CEC staff has proposed three energy efficiency savings scenarios for the committed period (2010-2012); the high cases scenarios in based on IOU filed savings directly, the base case scenario uses the IOU filed savings adjusted for a 70% realization rate, and the low case scenario uses IOU filed savings adjusted based on the 2006-2008 EM&V studies. PG&E suggests that, for the committed period 2010-2012 IOU filed program savings estimates be used in all three energy efficiency scenarios. PG&E acknowledges that there is some degree of uncertainty regarding energy efficiency savings that will be realized during the current program cycle, however, PG&E does not feel that discounting filed program saving by either employing a 70% realization rate or the results of the 2006-2008 EM&V studies is appropriate. Filed program savings are based on well established procedures and represent the utility's best estimates of saving that will occur during the program cycle.

With respect to the issue of uncommitted savings, the primary issues continue to be how the Big Bold Energy Efficiency Strategies are to be treated in the scenarios, what peak/energy ratio should be used to develop the peak MW savings, and treatment of IOU measure decay. These are issues critical for the assessment of need in the state and are currently being discussed in the DAWG. Progress is being made toward developing a consensus view on the construction of the incremental uncommitted energy efficiency program scenarios.

VI. Combined Heat and Power Cases:

Staff has proposed two cases for CHP growth: the 2009 IEPR levels and 4,300 MW from the Aggressive Case in the E3 GHG calculator. PG&E concurs with use of the 2009 IEPR as the low case, but suggests using 1,871 MW for the high case, which is

the number PUC staff developed for the Long Term Plan for 2020 state-wide additions.[1]

The E3 GHG calculator used the Moderate Market Case from a 2005 Assessment of CHP market potential.[2] The Moderate Market Case assumed 1,208 MW of CHP additions in 2010 and 2,590 MW of additions on 2015 to arrive at just over 4,300 MW of CHP additions in 2020. The 2009 update of this study, which PG&E believes is also unrealistically high, decreased the estimate for 2020 in the analogous Expanded Exports case by over 1000 MW.[3] Based on the minimal CHP MW additions between 2005 and 2010 and the slim likelihood of 2,500 MW of CHP additions between now and 2015, PG&E believes that an appropriate aggressive case for CHP is the 1871 MW proposed for the state in the LTP staff assumptions.

Use of the lower number considers the 2009 IEPR findings that while "60 percent of potential host sites for large CHP are located" in Southern California, large amounts of CHP in Southern California would be difficult with existing emission credit problems, could lead to over-generation problems, and would not lead to the "optimal compliance pathway" to 33% renewables.[4]

PUC staff chose their 1,871 MW assumption, which includes capacity associated with avoided lines losses, as "an attempt to balance current state policy goals. . . with reliability concerns that could result from under procurement if these CHP goals are not fully achieved by 2020."[5] PG&E believes that, given trends of CHP additions in the last five years and uncertainty about market potential for high efficiency CHP, the Staff case is appropriate as an aggressive forecast.

VII. Overall Electricity Demand Forecast Scenarios:

As outlined at the February 24 workshop, the CEC staff proposes to have three overall demand forecast scenarios; high, base case and low. The high case would combine high case economic/demographic growth with low case rate increases and low case EE and DG, while the base case would combine the base case scenarios for all the items and the low case would combine low economic/demographic growth with high rates and high EE and DG. PG&E agrees that the scenarios as proposed are likely to produce a range of demand projections which provide a reasonable representation of the range of what may happen over the next 10-years. PG&E suggests that in future IEPRs the CEC staff should consider moving away from scenario based forecasting and towards forecasting using a simulation approach that better represents the full range of possible outcomes

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[1] See PUC staff's Technical Attachment Spreadsheet

[2] California Energy Commission, Public Interest Energy Research, 2005. "Assessment of California CHP Market and Policy Options for Increased Penetration, prepared by the Electric Power Research Institute.

[3] Darrow, Ken, Bruce Hedman, Anne Hampson. 2009. Combined Heat and Power Market Assessment. California Energy Commission, PIER Program. CEC-500-2009-094-D

[4] California Energy Commission, *2009 Integrated Energy Policy Report*, Final Commission Report, December 2009, CEC -100-2009-003-CMF, pages 191-193.

[5] Rulemaking 10-05-006, Assigned Commissioner and Administrative Law Judge's Joint Scoping Memo and Ruling, (Filed May 6, 2010) pg 23.

and the probability associated with each level of demand. PG&E believes this approach may prove more complimentary to a robust planning process.

PG&E also recommends that each scenario should include varying impacts of climate change on energy demand in the state. As shown in the sensitivity studies done for the 2009 IEPR analysis, including climate change scenarios explicitly into the forecasting models will produce a significant change in the outlook for energy demand. At the February 24 workshop there appeared to be general agreement among attendees that the potential impacts of climate change should be part of the overall demand forecasting scenarios for the 2011 IEPR.

VIII. Characterization of IOU EE Program Savings:

PG&E shares NRDC's concern about the characterization of IOU program savings in the 2009 IEPR and concomitant potential impacts in the 2011 IEPR analysis. The key issue here is whether the CEC staff should be permitted to publish estimates of IOU program savings in the context of the CED/IEPR that revise IOU program savings estimates that have already been litigated and approved by the CPUC. Within this context, the largest concern is CEC staff's application of both a 70% "gross realization rate" as well as an 80% "net to gross ratio" to historic IOU program savings estimates. The result is that historic IOU program savings estimates that have already been litigated and approved by the CPUC have been discounted by 50% in the CEC staff's analysis.

PG&E agrees with the NRDC that the CEC staff should not be permitted to revise the established history of IOU program savings based on the analysis that has been presented to date. There remains significant disagreement around the methods and results of the 2006-2008 EM&V analysis among stakeholder. Application of the results of this analysis even to the 2006-2008 period is controversial but applying the results to the entire history of estimated savings is not supported by the record in any way and, as NRDC has pointed out, is inconsistent with estimates of historic EE savings in other States.

IX. Conclusion

PG&E continues to look forward to a productive and collaborative effort with the Commission and Staff to develop transparent and accurate forecasts that serve the needs of the state.