Pacific Gas and Electric Company

Kathy Treleven
Manager
State Agency Relations

Mail Code B29L
Pacific Gas and Electric Company
P.O. Box 77000
San Francisco, CA 94177-0001
KTT3@pge.com

415.973.4185
Fax: 973.5003

October 2, 2009

DOCKET
09-IEP-1C
DATE OCT 02 2009
RECD OCT 05 2009

Electronic Delivery

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

RE: Docket No. 09-IEP-1C

Docket Office:

Please find attached PG&E's PowerPoint and comments regarding the 2010-2020 Revised Demand Forecast and Uncommitted Energy Efficiency Committee Workshop on September 21, 2009.

Please contact me should you have any questions.

Sincerely,

Kathy Treleven

Attachments

Pacific Gas and Electric Company Comments on
The CEC Staff's Revised California Energy Demand 2009-2020
Projections as Presented at the September 21st Workshop
Docket No. 09-IEP-1C

PG&E would like to recognize the efforts made by CEC staff to incorporate the comments on the draft California Energy Demand (CED) forecast provided during and after the May 21st workshop. PG&E looks forward to working with CEC staff over the next several months to finalize the CED forecast that will later be used in important planning applications such as GHG analysis, Long Term Procurement Planning and the ISO Transmission Planning Stakeholder Process.

- The revised forecast is certainly moving in the right direction relative to the draft forecast. The development of an econometric based model for major market segments may help stakeholders in reaching consensus around projections going forward because an econometric model can be verified and vetted by stakeholders whereas the staff's end-use model cannot.

- The commercial market segment projections need to be revised further to bring them into line with historic trends. In particular the commercial segment growth projection appears to be 50% lower than what it should be. The disconnect between historic and forecast growth rates in the commercial market segment as well as the disconnect between the relative growth rates between residential and commercial market segments in the historic and forecast periods cannot simply be brushed aside. While PG&E understands that these disconnects are driven by particular CEC modeling conventions and assumptions regarding commercial lighting, PG&E does not believe that disconnects of this magnitude are consistent with a reasonable forecast. Since the commercial segment is roughly one third of the total market, the aggregate CED forecast appears to have an unreasonably low growth rate due to the modeling of just this one market segment. PG&E recommends that staff temper the current assumptions in the modeling of commercial energy and peak demand such that the reduction in commercial energy and peak load growth in the final CEC forecast are consistent with the projected reductions in the residential market segment. PG&E believes that, absent any empirical evidence to support such a low growth rate for commercial in the forecast period, a reasonable reduction in growth between the historic and forecast period for commercial demand would be 10% or 20% rather than the currently projected 60% reduction. [1]

[1] For perspective keep in mind that the reduction in residential growth between the historic and forecast period is 2%. See PG&E presentation, attached slide 3. Also keep in mind that the forecast period may or may not be fully mitigated with respect to EE savings whereas the historic period does include all EE savings.

- The agricultural market segment growth rates also seem very low relative to historic growth rates. There is every reason to believe that changes in water policy and climate change will lead to more, not less, ground water pumping using electric pumps in the forecast period. Nevertheless, the revised CED projects that Ag pumping loads will actually go down, not up.[2]

- The CEC should scale back the revised PV assumptions to be more in line with PG&E's internal projections (65 MW per year installed capacity, 450 MW total peak reduction in 2020). This would represent a more reasonable assumption with respect to offsets to grid capacity needs than the projections shown in the revised CED forecast.

- The modeling of the "incremental uncommitted" is dependent on the modeling of the "embedded uncommitted" and therefore cannot move forward until there is general consensus around the modeling structure and results for the "embedded uncommitted". The lack of consensus around these elements of the forecast makes comparisons between the staff's revised CED projections and stakeholders projections difficult.

PG&E is glad to work with the CEC and its staff on these important issues regarding forecasts of load and energy efficiency projections. We look forward to helping with these efforts as the IEPR draws to a close and as the Demand Forecasting Energy Efficiency Quantification Project working group continues its important efforts.

[2] See slide 3 in the attached presentation. Ag pumping load growth in the forecast period is 118% below the level of growth in the historic period.

Comments on CEC Revised 2010-2020 CED Forecast

CEC Workshop – September 21, 2009

Richard Aslin – Pacific Gas and Electric Company

Work in Progress -- For Discussion Purposes Only

Pacific Gas and Electric Company

General comments on the models and forecasts

The staff's development of an econometric model for the major market sectors is a step in the right direction. Use of econometric models may help to resolve many of the current stalemates that exist.

The disconnect in the forecast between the historic period and the forecast period for energy demand/load growth remains unexplained. The disconnect between changes in energy demand/load growth from the draft to the revised forecast remain unexplained.

In the absence of PG&E being able to verify the model results, including the amount of embedded EE, PG&E is unable to make meaningful comparisons between PG&E's modeling results and the CEC staff's revised forecast.

The definition of the PG&E Planning Area should be changed to be consistent with the PG&E TAC definition as used by the ISO and by PG&E.

The Forecasts

There remains an unexplained disconnect between the growth rates in the historic and forecast periods.

This is particularly problematic for the commercial and AG classes which represent approximately 40% of total peak MW.

PG&E Planning Area Coincident Peak by Sector

Year	Residential	Commercial	Industrial	Agricultural	Other	Total Demand
Annual Growth Rates (%)						
1990-2007	2.04%	2.66%	0.17%	0.73%	1.29%	1.74%
2012-2020	1.99%	1.05%	0.09%	-0.14%	0.70%	1.24%
% Change in Growth Rate	-2.15%	-60.51%	-44.68%	-118.69%	-45.82%	-28.63%

It is important to keep in mind that the 2012-2020 growth rates are in the "uncommitted" period, while the historic growth rates include all EE savings.

The Forecasts

Energy demand increases by 5.5% while peak demand increases by only 1.5% from draft to revised forecast. They should be moving together unless there is some clear reason why they are not going to do that.

California Energy Commission

PG&E Planning Area Forecast Results

Consumption (GWH)					
	CED 2007 (Oct. 2007)	*CED 2009 Draft* mid-rate case (June 2009)	*CED 2009 Revised* (Sept. 2009)	Percent Difference *CED 2009 Revised/CED 2007*	Percent Difference *CED 2009 Revised/CED 2009 Draft*
1990	86,803	86,803	86,803	0.00%	0.00%
2000	101,331	101,331	101,333	0.00%	0.00%
2008	107,591	106,753	111,205	3.36%	4.17%
2010	110,503	108,240	108,628	-1.79%	2.15%
2015	117,806	110,878	115,860	-1.65%	4.49%
2018	121,873	112,959	119,123	-2.26%	5.46%
Average Annual Growth Rates					
1990-2000	1.56%	1.56%	1.56%		
2000-2008	0.75%	0.65%	1.17%		
2008-2010	1.34%	-0.24%	-1.21%		
2010-2018	1.23%	0.77%	1.17%		

Peak (MW)					
	CED 2007 (Oct. 2007)	*CED 2009 Draft* mid-rate case (June 2009)	*CED 2009 Revised* (Sept. 2009)	Percent Difference *CED 2009 Revised/CED 2007*	Percent Difference *CED 2009 Revised/CED 2009 Draft*
1990	17,055	17,013	17,250	-0.25%	1.39%
2000	20,716	20,665	20,628	-0.25%	-0.18%
2008	23,413	23,405	23,727	-0.03%	1.38%
2010	24,050	23,240	23,321	-3.37%	0.35%
2015	25,760	24,606	24,874	-4.48%	1.09%
2018	26,754	26,341	25,742	-5.28%	1.68%
Average Annual Growth Rates					
1990-2000	1.96%	1.96%	1.80%		
2000-2008	1.54%	1.67%	1.76%		
2008-2010	1.35%	-0.36%	-0.86%		
2010-2018	1.34%	1.09%	1.24%		
Historic values are shaded					

The Forecasts

- **Magnitude of estimated peak MW reduction due to PV seems to be without support:**
  - 2008 installed PV capacity for PG&E customers was 83 MW.
  - Installed PV capacity through August 2009 for PG&E customers is 44 MW.
  - PG&E internal forecast project average installed PV capacity growth of 65 MW for 2009-2020. CEC's estimate is 120 MW per year.
  - PG&E forecasts total peak reductions in 2020 of 450 MW which fully incorporates the CSI goals. CEC's estimate is 688 MW.

Year	CEC Forecast Incremental Peak Reduction (MW)	Implied Incremental Capacity Additions (MW)
2001	1	3
2002	3	8
2003	6	15
2004	11	28
2005	12	29
2006	17	42
2007	23	58
2008	41	102
2009	96	239
2010	68	169
2011	64	161
2012	64	159
2013	64	161
2014	64	160
2015	64	160
2016	64	160
2017	6	16
2018	6	16
2019	7	16
2020	7	17
Total	688	1720

Assumes: Implied capacity calculation assumes 40% generating efficiency of PV at time of PG&E peak 5 PM to 6 PM

Conclusion

- The revised forecast is certainly moving in the right direction relative to the draft forecast. The development of an econometric based model for major market segments may help stakeholders in reaching consensus around projections going forward. Including reaching consensus around the embedded EE savings.
- The commercial and agricultural segment projections need to be revised further to bring them into line with historic trends. In particular the commercial segment peak growth projection appears to be 50% lower than what it should be.
- The CEC should scale back the revised PV assumptions to be more in line with PG&E's internal projections (65 MW per year installed capacity, 450 MW total peak reduction in 2020).
- The modeling of the "incremental uncommitted" is dependent on the modeling of the "embedded uncommitted" and therefore cannot move forward until there is general consensus around the modeling structure and results for the "embedded uncommitted".