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Re: Docket No. 11-IEP-1D

Docket Office:

Please find attached PG&E's comments on 2010 IEPR and Electricity & Natural Gas Committee workshop, held November 23, 2010. Please contact me should you have any questions.

Sincerely,

Attachment

PACIFIC GAS AND ELECTRIC COMPANY COMMENTS IN RESPONSE TO THE NOVEMBER 23, 2010 JOINT IEPR AND ELECTRICITY & NATURAL GAS COMMITTEE WORKSHOP ON ELECTRICITY INFRASTRUCTURE NEED ASSESSMENT

DOCKET #11-IEP-1D RELIABILITY

On November 23, 2010, the California Energy Commission ("CEC") held a Joint Committee Workshop on Electricity Infrastructure Need Assessment in support of the 2011 Integrated Energy Policy Report ("2011 IEPR"). At the workshop, staff presented a white paper outlining a proposal for developing need assessment methodology for electricity infrastructure in California. Pacific Gas and Electric Company ("PG&E") participated in the workshop and appreciates the opportunity to offer the following comments and observations with respect to questions directed to stakeholders by Commissioners and staff.

I. How Might the Results of An Infrastructure Assessment Be Used?

As the CEC works through its need assessment proposal in the coming months, PG&E concurs with the Natural Resources Defense Counsel ("NRDC") and other stakeholders present that the CEC should only undertake those analyses and planning proceedings which add efficiencies to the current scheme. The CEC should avoid adding merely another layer to the myriad ongoing electricity infrastructure planning processes in the state, such as the California Public Utilities Commission's ("CPUC") Long-Term Procurement Plan ("LTPP") proceeding, the California Independent System Operator ("CAISO") 33% integration and transmission processes, the Renewable Energy Transmission Initiative ("RETI"), and the California Transmission Planning Group ("CTPG"). If the CEC has concerns about integration costs related to a 33% Renewable Portfolio Standard ("RPS") target, the Commission should consider looking at CAISO's and PG&E's integration models submitted in the 2010 LTPP.

While PG&E would support a qualitative effort that serves to bring together planning information across resource and planning agencies, having a clear understanding of the intended end-use is key to avoid duplication of efforts at other resource and planning agencies. PG&E agrees with the sentiments expressed by the CPUC's Energy Division that if the CEC intends to use its proposed need assessment analysis in the same manner as the incremental uncommitted EE analysis done for the 2009 IEPR (*i.e.*, a range of possibilities with data used in other proceedings), then it could prove useful. However, if the CEC intends this analysis to be a definitive assessment of need for the state and function like the LTPP at the CPUC or the transmission planning efforts at the CAISO and elsewhere, then it would be duplicative, and potentially conflicting.

PG&E agrees with the Independent Energy Producers Association's ("IEP") general principle of "do no harm" with respect to the impacts of this effort on permitting and siting of power plants. The AFC process at the CEC should not constitute a barrier in the LTPP, and ultimately the CEC should not be picking winners and losers in the utilities' Request for Offers ("RFOs"). PG&E welcomes the participation of CEC staff in PG&E's Procurement Review Groups, and believes that the Commission could gain further insight into how utility RFOs balance operational characteristics, geographic considerations, and other criteria.

II. What Kind of "Cases" Would Be Most Useful to Stakeholders for Displaying a Range of Need Resulting from the Uncertainties of Input Assumptions and Methods for Computing Need? How Can Ranges of Need Be Developed to Be Most Useful in Various Infrastructure Planning and/or Decision-making Forums?

PG&E agrees that meeting the challenges of renewable integration over the next decade will be critical for California to achieve its renewable and environmental goals, and that the methods for assessing renewable integration challenges are still evolving and improving over time. PG&E has consistently advocated in the 2010 LTPP that any analysis should ensure that a range of resource needs and costs for renewable integration is included. As echoed in staff's draft paper, it is simply not possible to get a single point estimate of resource need given the uncertainties associated with resource planning, including load growth, transmission build-out, the precise set of renewable resources that will meet the 33% RPS goal, other preferred and conventional resource development, and, the evolving nature of methods used to estimate the integration needs for intermittent renewables. PG&E concurs with the CPUC Energy Division's recommendation that the CEC's white paper make clear that it intends to use the CPUC's inputs and assumptions, as well as highlight the CPUC's statutory role in determining need.

As the CEC knows firsthand, new resources take time to permit, procure and develop. PG&E recommends the CEC utilize the cases currently being developed in the 2010 LTPP, or supplement those cases to incorporate the commercial realities not included in the CPUC policy driven scenarios released by the CPUC's recent LTPP Scoping Memo. The makeup of the state's future renewable portfolio is uncertain; however the uncertainty can be bracketed with the use of broader load, RPS and other preferred resource scenarios to determine how needs and costs change across scenarios. The CEC's proposed analysis could then make a determination with respect to integration needs after considering the likelihood of the scenarios and the range of integration needs and costs from those scenarios.

Another planning uncertainty worth considering in scenarios are the actual dates of retirement or repowering of once-through cooling (OTC) units. While the State Water Resources Control Board's ("SWRCB") regulation has set deadlines for retrofitting, repowering, or retirement of OTC units, the actual retirement dates remain uncertain. A unit's retirement is likely driven by when it breaks down and requires major repairs, or when it is no longer economic to operate, with final decision made by the unit's owners. Additionally, the SWRCB's policy contemplates potential compliance delay if CAISO says that a unit is needed for reliability and replacement generation is not online in time.

Ultimately, however, PG&E concurs with CAISO's contention at the workshop that getting to a precise quantification of need will be extremely difficult. Forecasting need 8-10 years into the future, with all its concomitant challenges (*e.g.* tradeoffs between generation/transmission in local load pockets, evolving public policy goals regarding air and water restrictions on new generation, etc.), will merely add another layer of analysis on top of other agency processes, and would be more duplicative than helpful.

III. Addressing Uncertainty in Future Demand

Energy utilities need to invest in infrastructure which often has useful lives of 20-50 years, as well as development and/or construction lead times of 5-10 years. Energy demand forecasts and long-term infrastructure planning, therefore, is highly dependent on projections of future climate conditions. A large (and growing) amount of energy demand is derived from space heating, space cooling and groundwater pumping. All of these end uses are impacted by a changing climate. It is generally agreed that, due to climate change, traditional methods of developing weather time series, based on an underlying assumption of stationarity, are no longer acceptable. Energy planning is done on a regional basis. However, global climate change models are not regional, necessitating some amount of "downscaling" to be useful in regional modeling efforts.

How one could capture the uncertainty in such an adjustment could be addressed in several ways. PG&E proposes the creation of a time series of weather data which reflect the results of the current set of climate change models at a regional level using statistical downscaling techniques. One could then develop scenarios covering the estimates from 21 global climate model runs and "downscale" those results to the daily minimum and maximum temperatures for a 50-year time horizon at regional weather stations throughout the 5 Balancing Authority Areas within the state. It would be essential to tailor this simulated data in such a way that it could be used in the widest variety of planning models currently in consideration among the energy resource agencies.

IV. Conclusion

Notwithstanding PG&E's various observations outlined in these comments on how to address uncertainty via cases and ranges, how this effort might be utilized in planning proceedings at sister agencies, and how to address uncertainty in future demand, we continue to stress that any proposed assessment of need must add efficiencies to the ongoing infrastructure planning processes in several venues within the state. Adding another layer of analysis may duplicate efforts at other resource agencies or may get too far out in front of current planning processes, leading to less regulatory certainty about how to plan for the future energy and environmental goals of the state.

Ultimately, when determining how such an assessment would fit into the CEC's siting process, we encourage the Commission to think broadly about what "success" looks like in the permitting and siting of power plants. Would "success" mean that every AFC that comes before the CEC eventually gets built? Oftentimes the right decision, from a market and/or operational perspective, is for a given power plant not to be built.

PG&E appreciates the opportunity to review and comment upon Staff's Draft Report and looks forward to an ongoing dialogue within the 2011 IEPR proceeding to delve more deeply into the inputs, assumptions, and ultimate end-uses of this proposal.