

February 8, 2013

**VIA E-MAIL DOCKET@ENERGY.
CA.GOV**California Energy Commission
Dockets Office, MS-4
Re: Docket No. 12-IEP-1A
1516 Ninth Street
Sacramento, CA 95814-5512Re: 2012 Integrated Energy Policy Report Update: Comments of Pacific Gas and Electric Company on the Final Lead Commissioner Report “2012 Integrated Energy Policy Report Update”**I. INTRODUCTION**

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the California Energy Commission’s (CEC) final Lead Commissioner Report entitled “2012 Integrated Energy Policy Report Update” (IEPR).

As noted in the December 6, 2012 comments on the draft IEPR, PG&E is among the most avid and active proponents of policies that will advance California’s transition to a low-carbon energy future.¹ While the final IEPR focuses on renewables, Californians will be best served by a clean energy policy that is wide ranging and supportive of all the tools that can reduce energy use and provide clean energy in a cost-effective manner. California’s clean energy policies should consider energy efficiency, demand response, efficient combined heat and power, and renewables, as well as the wealth of carbon-free resources California already has -- like large hydroelectric facilities, and PG&E’s existing nuclear power facilities. All of these resources together provide a diversified clean energy portfolio to power California in a safe, reliable, and cost-effective way. Clean energy strategies that do not consider the full array of carbon-free and low-carbon alternatives will only serve to increase customer costs.

PG&E’s earlier comments highlighted the many areas in the draft IEPR where PG&E agreed with the CEC’s approach. To avoid simply repeating past statements, PG&E’s comments on the

¹ See PG&E’s December 6, 2012 Comments “Comments of Pacific Gas and Electric Company on the *Draft 2012 Integrated Energy Policy Report Update*”—online at http://www.energy.ca.gov/2012_energy_policy/documents/2012-11-07_workshop/comments/Pacific_Gas_and_Electric_Comments_2012-12-06.pdf

final IEPR will be focused on remaining areas of concern and where the CEC specifically addressed PG&E's recommendations.

II. OPERATIONS AND INTEGRATION ISSUES MUST BE EVALUATED AND ADDRESSED BEFORE EXPANDING OUR CLEAN ENERGY GOALS

A. A Better Understanding of the Cost of Carbon Reduction Tools is Needed Before Moving Beyond 33% RPS

PG&E did not support Recommendation 3 of the Renewable Action Plan (RAP), as described in the draft IEPR, because it characterized the Renewables Portfolio Standard (RPS) as the primary way to meet California's 2050 greenhouse gas (GHG) reduction goals. Recommendation 3 did not address or mention the cost effectiveness of this as the sole means for reducing GHG emissions and it was also duplicative of the efforts of the California Public Utilities Commission (CPUC), which performs this type of analysis in its long-term procurement plan.

With these concerns in mind, PG&E recommended that the CEC instead evaluate what would be the projected quantity of GHG emission reductions (in tons) achieved by going from 33% to some higher level of RPS, and what would be the cost of those GHG reductions (in dollars per ton). With this information, the CEC could investigate alternative ways to achieve GHG emissions reductions, and to assess their relative costs.

The final IEPR partially addresses PG&E's concerns by broadening the purpose of the proposed 2030 Analysis beyond the RPS. The 2030 Study will now examine "likely or possible developments beyond the current 2020 planning horizon," not just an increased RPS target. Additionally, the final IEPR cites the importance of helping the "state control costs." However, these helpful changes are far from the comprehensive analysis PG&E recommended in its comments on the draft IEPR.

PG&E remains concerned that, as written, the final IEPR examines the implications of possible developments, such as an increased RPS target or maximized distributed generation (DG) development, as though they were a *fait accompli*. These are only a few of the many tools policymakers can choose from to reduce GHG emissions. Policymakers need information that will allow for a meaningful assessment of the cost and rate impacts of the myriad energy initiatives already adopted to get to 2020 and those being considered for the post-2020 period. California could then choose the most cost-effective means to drive GHG emissions below the ceiling adopted for 2050. The CEC's work could help guide the implementation timelines for various initiatives, particularly when considering the cost to refurbish other aging infrastructure in the state.

Accordingly, PG&E reiterates its recommendation that the CEC investigate alternative ways to achieve equivalent GHG emissions reductions across all sectors, and assess the associated carbon cost for each alternative.

**B. Consideration of Non-Energy Benefits in Portfolio Development is Important, But
A Balancing of Societal and Electric Customer Interests is Also Important**

PG&E supports a technology neutral and cost-effective approach to energy procurement. Therefore, PG&E requests that any proposed effort to modify procurement practices, to develop a higher-value portfolio, clearly incorporates all quantifiable, energy-related benefits that are directly attributable to various renewable energy technologies. In addition, PG&E is supportive of technology diversification where each load serving entity should be allowed to independently determine the appropriate mix of technology for its unique portfolio. Legislatively-mandated carve-out program (such as Senate Bill 1122) are not in line with efforts to ensure system reliability and procuring cost-effective energy through a competitive process to meet the state's energy goals. It is PG&E's view that important societal benefits such as reduction of forest fires, investment in disadvantaged communities and creating California jobs should be part of a larger discussion focusing on ways government and others can collaboratively achieve these societal goals. These important societal goals should not be exclusively borne through energy procurement efforts by utilities such as PG&E as they will disproportionately affect costs for its customers.

C. PG&E Supports DRECP-type Mapping Initiatives for Utility-Scale Development

As indicated in its draft comments, PG&E supports clearly articulated incentives for developing renewable energy projects in identified renewable energy development zones with planning process improvements such as streamlined permitting and expedited review. However, PG&E is seeking clarification on the CEC's reference of financial incentives (p. 51) to be provided for encouraging development in DG zones as it is unclear to PG&E how the CEC defines financial incentives.

Furthermore, as noted in its draft IEPR comments, endangered species permitting and mitigation should continue to be considered in the renewable energy zone planning as these are essential elements of determining preferred areas for development. All necessary wildlife agencies permitting to comply with the Endangered Species Act should be completed and best management practices should also be identified. PG&E acknowledges that challenges still remain in identifying preferred spots for DG and therefore suggests that careful analysis be performed to avoid any unintended consequences of higher DG penetration (e.g., integration costs).

**D. A Statewide Data Clearinghouse Could Better Inform Planning and Siting
Decisions**

PG&E's comments on the draft IEPR recommended 1) that any Geographic Information System (GIS) data gathered be made publicly available; 2) any effort to collect such data will have to be conducted in a way that protects customer confidentiality and proprietary information; and 3) that the CEC carefully evaluate what data may already exist and determine what additional value

a new clearinghouse would provide. PG&E is pleased that these concerns are fully addressed in the final IEPR.

E. Increases in Renewables Bring Limited Air Quality Benefits

The draft IEPR noted that renewable generation has the benefit of “improving air quality” (p. 3 and A-1). In comments on the draft IEPR, PG&E recommended that this statement be qualified, given ARB staff found that increasing the RPS target for the year 2020 from 20 percent to 33 percent would reduce statewide NOx emissions by 1,000 to 1,300 tons/year², which is about one-tenth of 1 percent of current statewide NOx emissions.³ As a result of this recommendation, the CEC addressed PG&E’s concern by deleting the reference to “improving air quality” on page 3.

III. THE IEPR MUST APPROPRIATELY CHARACTERIZE THE CAISO’S GRID RELIABILITY ASSESSMENT

In Chapter 4, on electricity infrastructure needs, the final IEPR recommends that a California Independent System Operator (CAISO) study on “nuclear facility replacement issues” should be used as the substantive basis for future policy decisions on reserve needs to address a nuclear facility outage.⁴ Fundamentally, this description mischaracterizes the CAISO’s study and it must be modified to ensure the IEPR is factually correct.

In its December 6, 2012 comments on the draft IEPR, PG&E also opposed this recommendation, noting that the CAISO’s study is not a nuclear replacement study, but a grid reliability impact study that focuses on an extremely narrow set of criteria. Since those comments were filed, the CAISO has now issued a draft of its “Nuclear Generation Backup Plan Studies” as part of the 2012-2013 Transmission Plan,⁵ the CAISO states that its studies are not sufficient to make decisions on nuclear replacements. The CEC’s final IEPR must be modified to ensure it does not overstate the CAISO’s analysis.

Support for these requested changes is found in one of the CAISO’s studies regarding Diablo Canyon, entitled *Grid Reliability Assessment for the Absence of Diablo Canyon Nuclear Power Plant*. The CAISO clearly indicates that there is not sufficient information to base a decision to keep or retire Diablo Canyon. Furthermore, the CAISO adds that other studies would be needed to provide a more complete assessment including asset valuations, environmental impacts of GHG emissions, AB 32 compliance, flexible generation requirements, planning reserve margin, rate impacts, and gas system impacts.⁶ Accordingly, the CAISO’s study is not a “credible

² See slide 21 of ARB staff’s presentation: <http://www.arb.ca.gov/board/books/2010/092310/10-7-1pres.pdf> .

³ Statewide total NOx emissions in 2008 were 3,209.7 tons per day, or about 1.2 million tons per year. (Source: <http://www.arb.ca.gov/ei/emissiondata.htm>)

⁴ See pages 43 to 44 of the final 2012 IEPR.

⁵ See “Grid Reliability Assessment for the Absence of Diablo Canyon Nuclear Power Plant” at <http://www.caiso.com/Documents/Draft2012-2013TransmissionPlan.pdf>

⁶ Ibid, p. 155.

nuclear replacement study” to be considered in the 2013 IEPR, nor is it likely that the other complex studies the CAISO indicates are needed can be prepared in sufficient time for consideration in the 2013 IEPR. Therefore, the final IEPR must be revised to ensure it correctly characterizes the CAISO study’s scope and intent, and feasibility of developing other needed analyses.

In addition to clarifying the scope and intent of the CAISO study, the other analyses needed to address the necessary reserves for nuclear facility outages should be addressed in the CPUC’s Long-Term Procurement Plan (LTPP), rather than the CEC’s 2013 IEPR. Many of the issues the CAISO indicates will need to be addressed – GHG emissions, planning reserve margins, rate impacts, among others – are commonly considered at the CPUC. These analyses will likely be time consuming and it is not feasible for all of these studies to be completed and considered in the 2013 IEPR. These important issues should not be addressed piecemeal across several agencies -- they must be addressed comprehensively before one regulatory agency so that future policy decisions appropriately balance all concerns and are based on a clear record. Furthermore, given the time needed to develop these necessary studies, any analysis in the 2013 IEPR that does not include such studies will be less than robust and will not provide the meaningful analysis to inform policymaking.

Accordingly, modifications are needed to pages 43 and 44 to appropriately characterize the CAISO’s study and to indicate that the CAISO study and other related assessments will be considered in the CPUC’s LTPP. PG&E recommends replacement of the current paragraph with the one below:

Long-Term Analyses of SONGS and Diablo Canyon Outages: Additional studies are needed to assess the impact of extended outages at California’s nuclear facilities. The Nuclear Generation Backup Plan Studies, which the California ISO is developing as part of its 2012/2013 Transmission Plan, consider the impact of extended nuclear outages on transmission system reliability. However, as noted in those studies, other studies are needed to assess factors beyond grid reliability, including asset valuations, environmental impacts of GHG emissions, AB 32 compliance, flexible generation requirements, planning reserve margin, rate impacts, and gas system impacts. Accordingly, the CEC recommends that the CPUC take up this issue in its Long-Term Procurement Plan proceeding so that the policy decisions for ensuring sufficient reserves are available to address nuclear facility outages are appropriately informed.

IV. PG&E SUPPORTS RECOMMENDATIONS TO REVISIT CHP TECHNICAL ASSESSMENTS, ALONG WITH A BALANCED ASSESSMENT OF ANY BARRIERS

As PG&E stated in its comments on the draft IEPR, while PG&E is generally supportive of the draft policy recommendations for CHP found in Chapter 3 of the final IEPR, PG&E disagrees with many of the listed “Barriers to CHP development.” As indicated previously, some of the alleged barriers, such as the cap-and-trade program’s impact on CHP development, are factually incorrect. Others, such as expanding the Net Energy Metering (NEM) program, are not

“barriers”; they are simply policies that do not currently subsidize CHP as they do for various renewable technologies, and these policies are now under critical review by the CPUC.

However, the final IEPR was not changed to address these concerns. PG&E asks that the CEC reconsider these comments and refers the CEC to PG&E’s earlier comments to the draft IEPR, as well as PG&E’s October 22, 2012 comments on the CEC staff white paper that address these perceived barriers.⁷ PG&E respectfully requests that its suggested modifications be incorporated into the final IEPR.

V. STANDARDS ARE NEEDED FOR VOLT-VAR INVERTERS

Strategy 3, Action 15 in the draft IEPR discussed the need for inverters that are able to provide fast flexible control of output current. PG&E pointed out that while there has been much discussion on the need for better inverters to respond to system conditions, although there is little consensus at this time as to what are the appropriate solutions.

Since this portion of the RAP in the final IEPR has not been changed, PG&E reiterates its recommendation that conversation be broadened beyond technology issues to include the appropriate regulatory mechanisms (e.g., tariffs) that will need to be developed to provide the right signals for investment in this technology. Standards are needed on how to coordinate multiple devices. Rules are needed to make sure that the inverters will not “fight each other” and cause voltage problems for load customers on the feeder systems. Identification of the conditions where inverters can effectively benefit the system is also needed to inform the standards development. These are important issues and even with a requirement for improved inverters, there are unanticipated consequences as DG achieves high penetration.

VI. NATURAL GAS CLARIFICATIONS

In PG&E’s comments on the draft IEPR, we requested a few corrections to the natural gas discussions in the draft IEPR to ensure the accuracy of the final IEPR. We would like to thank the CEC for making the following changes, which fully address our concerns.

- A. The draft IEPR stated that there was a need for gas nomination opportunities less than 24 hours before gas-fired plants come on line. Page 21 of the final IEPR was updated to reflect the fact that such opportunities already exist today. There are two “intra-day” opportunities whereby gas can be nominated for same day flow. These are in addition to the two cycles available the day before flow.

⁷ PG&E Comments to the CEC on *Combined Heat and Power Staff Paper* – online at http://www.energy.ca.gov/2012_energy-policy/documents/combined-heatpower/comments/Pacific_Gas_and_Electrics_Comments_2012-10-22_TN-67954.pdf

- B.** PG&E also requested that the draft IEPR be changed to appropriately characterize the San Bruno event, which occurred on the PG&E gas transmission system, not its distribution system. The final IEPR (page 19) fully addressed our concern by removing the reference to PG&E's distribution system.
- C.** Similarly, PG&E recommended that the draft IEPR's discussion of pipeline safety enhancement plans remove reference to PG&E's "distribution system." Page 19 of the final IEPR addressed our concern.
- D.** Finally, PG&E requested additional clarity in the draft IEPR's discussion of the additional pipeline capacity, by specifically referencing the Ruby Pipeline. Page 21 of the final IEPR reflects this change.

VII. CONCLUSION

PG&E is happy to meet with CEC staff on these important topics.

Sincerely,

/s/

Valerie J. Winn

cc: S. Korosec by email (Suzanne.korosec@[energy.ca.gov](mailto:Suzanne.korosec@energy.ca.gov))
L. Green by email (lynette.green@energy.ca.gov)
S. Bailey by email (Stephanie.bailey@energy.ca.gov)