Pacific Gas and Electric Company

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Ms. Rajinder Sahota
California Air Resources Board
1001 I Street
Sacramento, CA 95812-2828

Re: April 5, 2016 Cost Containment Workshop

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the April 5, 2016 "Cost Containment Workshop" (workshop). PG&E strongly supports California's clean energy goals and we look forward to working with the California Air Resources Board (ARB), the Legislature, and concerned stakeholders to craft legislation needed to codify a post-2020 greenhouse gas (GHG)- reduction goal.

<u>PG&E Recommends Updating Cap-and-Trade Market Studies to Assess Market Impact of More Ambitious Climate Goals</u>

Cost containment is a risk mitigation tool used to maintain healthy cap-and-trade market prices that are neither too low to effectively incent low-carbon investments nor too high to prove unsustainable for Californians who ultimately bear the cost of GHG-reduction programs. Before completing the design of a risk mitigation tool, it is best to understand both the probability of excessively high prices and the potential impacts of not sufficiently mitigating this risk. Fortunately, ARB has a strong example it can draw upon when developing post-2020 market studies.

The Market Simulation Group's (MSG) work referenced by staff during the workshop is a strong example of how ARB and subject-matter experts can study market dynamics and explore the potential for extreme price volatility or systemic market imbalances. In its paper, "Competitive Supply/Demand Balance in the California Allowance Market and the Potential for Market Manipulation," the MSG highlighted the risk of using complementary measures to deliver the same GHG-reductions that would have otherwise been delivered through a market-based mechanism, leaving the Cap-and-Trade Program with few incremental abatement opportunities. The MSG's modeling worked showed that, "the combination of large amounts of 'zero-price' abatement, and relatively modest price-responsive abatement creates a hockey stick shaped abatement supply curve (See Figure 1)."[1] Depending upon the design of the forthcoming 2030 Target Scoping Plan, the issue of interaction between complementary measures and market-based mechanisms could persist into the post-2020 period. The need to explore the potential for high prices within the Cap-and-Trade Program is particularly important given the possibility of an annual cap decline rate approximately twice that of the current rate. Therefore, PG&E strongly recommends that ARB invest the time and resources needed to assess the probability and full impact of cap-and-trade prices reaching unacceptable levels.

[1] http://www.arb.ca.gov/cc/capandtrade/simulationgroup/msg_final_v25.pdf

Without post-2020 market studies in place, PG&E's recommendations outlined below and support for maintaining the Allowance Price Containment Reserve (APCR) cost containment mechanism are based on the information currently available to stakeholders.

California Should Not Risk an Administrative Intervention

While the likelihood of APCR depletion may seem low now, PG&E finds it irresponsible to risk an "administrative intervention" if prices were to rise to "unacceptable levels."[2] An administrative intervention could prove detrimental to ongoing GHG-reduction efforts by removing the transparent price on carbon. PG&E also agrees with staff that an administrative intervention could "permanently damage the market's credibility." In addition, a unilateral intervention could create legal and financial implications with already-linked jurisdictions, making additional linkages nearly impossible. PG&E does not understand why California would want to risk an administrative intervention of unknown duration and nature when it is possible to create a solution today based on sound analysis and a formal public stakeholder engagement process.

ARB Should Ensure Post-2020 Prices Cannot Exceed Acceptable Levels

Many of the cost containment proposals staff presented at the workshop could successfully offer relief during temporary periods of high prices, but none could resolve a systemic allowance shortage. This continues to leave California open to the possibility of administrative intervention. Therefore, PG&E recommends that ARB work with stakeholders now to explore developing a mechanism to refill the APCR in the event it is depleted post-2020. One option, previously recommended by the Joint Utility Group (JUG), would be to identify a ready source of high-quality carbon offset credits not currently eligible for compliance in the Cap-and-Trade Program. ARB could either directly sell these offset credits to compliance entities or use the revenue raised from the sale of newly created APCR allowances to purchase offset credits. ARB could contract with a third-party to provide these services if it is hesitant to do so itself. Another option, presented by the MSG, would be to purchase allowances from other functioning carbon markets, if needed. Neither of these options is free of administrative implementation challenges, but they could both create a firm price ceiling while also maintaining the environmental integrity of the Cap-and-Trade program.

Since APCR allowances will only enter the market when prices approach unacceptably high levels, PG&E supports placing unused APCR allowances from prior periods into the post-2020 APCR. Similarly, if the 2021 cap is adjusted to reflect actual 2020 emissions, the difference between the cumulative allowances available under the "adjusted" approach and the "straight-line" trajectory should be placed in the APCR instead of retired. This approach balances environmental protection—by not placing the unused allowances back into pool of allowances

[2] Slide 6 of April 5, 2016 staff presentation: http://www.arb.ca.gov/cc/capandtrade/meetings/040516/cost_containment_april_5_workshop_presentation.pdf

sold at the quarterly auctions—and cost-containment—by not retiring the allowances. PG&E also recommends that the annual APCR escalation factor of 5% be removed post-2020. At the current rate, the lowest tier APCR price could reach well over $90/MT by 2030 with the floor price reaching only $24/MT (in 2013 dollars). This would leave a range of over $66/MT for market price fluctuations to occur—over twice as large as when the market began with a $10 reserve and $40 first-tier APCR price. PG&E would also be interested in exploring the potential market impacts of further limiting the number of APCR tiers.

<u>PG&E Supports ARB's Existing Cost Containment Features and Encourages Their Continuation</u>

PG&E supports ARB's existing cost containment features, including multi-year compliance periods, banking, and use of offset credits. PG&E supports staff's proposal to continue multi-year compliance periods and to continue banking, including banking of pre-2021 vintages. Such features acknowledge the time needed to implement emissions reductions and contract with offset credit providers and recognize the potential for temporary fluctuations in emissions within a single year (e.g., temporary changes to hydroelectric generation). Staff's proposal regarding banking of pre-2021 vintages will also help maintain incentives for early emissions reductions in the current program and provide certainty to market participants. PG&E also supports continued use of offset credits in the Cap-and-Trade program. However, without additional analysis of the post-2020 cap-and-trade fundamentals, as previously described, it is challenging to identify a preferred usage limit level. We note that higher offset usage limits are also worthy of further exploration given California's ambitious 2030 GHG targets.

<u>A Robust Market with a Wide Selection of Emissions Abatement Options Should Remain the Primary Objective</u>

PG&E strongly supports ARB's market expansion efforts, whether they come in the form of formal linkages, as happened with Quebec; informal collaborations, as is happening around the western United States, Canadian provinces, and Mexico; or inclusion of international carbon offset credits, as is being pursued with Acre and Chiapas. The best indicator of California's leadership on climate is the expansion of partner jurisdictions.

To this end, PG&E recommends ARB staff focus on the current opportunities to join forces with like-minded states and jurisdictions across the country (under the Clean Power Plan) and around the world (under the COP 21 Paris Agreement).

Sincerely,

/s/

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