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Ms. Judith Friedman
California Air Resources Board
1001 I Street
Sacramento, CA 95814-2828

Re: Pacific Gas and Electric Company's Comments on the California Air Resources Board's November 16, 2009 Workshop on AB 32 Economic Analysis

Dear Ms. Friedman:

Pacific Gas and Electric Company ("PG&E") welcomes the opportunity to provide these comments on the California Air Resources Board ("ARB") Staff and ICF International ("ICF") presentations at the November 16, 2009 public workshop on AB 32 economic analysis.

PG&E is committed to working with the ARB, other State agencies and concerned stakeholders to make AB 32 a success, and a model for emerging regional and national GHG reduction programs. PG&E supports ARB's efforts to model the effects of AB 32 implementation on the State, its residents and complying entities.

I. INTRODUCTION

PG&E believes that AB 32 policy design should be guided by environmental integrity and customer cost criteria. Policy mechanisms should accelerate emission reductions and help transition California's economy to low-carbon technologies. Equally important, policy mechanisms should be designed to mitigate customer costs, because the ultimate costs of reducing emissions in the electric sector flow through commodity markets to utility customers. Any economic analysis that ARB undertakes should focus on identifying the combination of policy mechanisms that achieves these dual objectives.

As addressed in the comments below, PG&E believes that ARB should undertake a timely, transparent stakeholder process to assess the direct compliance costs of emission reduction measures, in addition to the macroeconomic effects of AB 32. Understanding direct costs and sector-specific outcomes is critical to developing the right mix of AB 32 policies. Cost containment is one policy mechanism that has been absent ARB modeling analysis to date, and PG&E believes that it should be included. In any case where the E2020 or EDRAM models cannot capture cost containment options or other cap and trade design elements, PG&E requests

that the presentation of results explicitly state those limitations. Policy decisions should account for potential market outcomes that macroeconomic modeling cannot capture.

II. ARB'S MODELING ANALYSIS SHOULD IDENTIFY COST-EFFECTIVE EMISSION REDUCTION OPPORTUNITIES

To meet environmental integrity and customer cost objectives, PG&E believes that economic modeling should focus on assessing the abatement potential and direct costs of individual reduction opportunities, and on comparing these measures by cost effectiveness, on a dollar-per-ton basis in accordance with AB 32 (Health & Safety Code Section 38505 (d)). In the near term, ARB should develop emission abatement curves that reflect measure-specific reduction potential, associated costs and timing of reductions. These abatement curves will help stakeholders evaluate the cost effectiveness and technological feasibility of each emission reduction opportunity, and help the ARB demonstrate that proposed measures minimize costs and maximize benefits to the California economy, as required by AB 32 (Health & Safety Code Section 38560(c)).

Analysis that compares reduction measures and policy options according to cost-effectiveness criteria will identify the least-cost combination of reduction measures to meet the State's target. Furthermore, understanding measure-specific potential and costs will allow ARB to estimate a range of allowance prices, total compliance costs for programmatic measure and a cap-and-trade program, and sector-specific costs and economic outcomes. These results would enable evaluation of the relative costs of the policy options and proposals outlined in the ARB's Preliminary Draft Regulation (PDR).[1/]

All of the above information should be shared through a public process, so that stakeholders can provide their perspectives on emission reduction opportunities and policy options for implementing AB 32. PG&E looks forward to further detail on ARB's "compliance pathway" analysis.

III. ARB'S MODELING ANALYSIS SHOULD INCLUDE COST-CONTAINMENT MECHANISMS

PG&E strongly recommends that ARB and ICF model or otherwise analyze cost-containment policy options. The ARB's four proposed cost-containment mechanisms on page 50 of the PDR could serve as starting point, with additional scenarios reflecting expanded use of offsets.

With respect to offsets, PG&E believes that the two scenarios ICF modeled do not represent the full range of reasonable policy options. Limiting the offset scenarios to one that completely restricts offset use and one that limits offset use to only 4% of the total market, yields model results that capture only a narrow range of potential market outcomes. The ICF presentation at the November 16 workshop indicates that the allowance price increases from $21 to $37 when

1/ California Air Resources Board. Preliminary Draft Regulation for a California Cap-and-Trade Program. November 24, 2009.

offset use decreases from 4% to 0% of the market. These results suggest that in a narrow market, a small change in the use of offsets has a large effect on the allowance price. PG&E also notes that the State achieved more emission reductions under the scenario that allowed for the use of offsets.

Recent United States Climate Action Partnership (USCAP) economic analysis reinforces that access to offsets can have a dramatic effect on allowance prices.[2/] USCAP tested, among other policy scenarios, the use of offsets as a cost-containment mechanism. Running sensitivities that restricted offset availability in a variety of ways resulted in allowance prices that were 25-140% higher than the core case allowance price. In the interest of understanding how offset policy affects progress toward the State emission target, and associated customer costs, PG&E requests that ARB include scenarios that capture a wider range of offset policy options. In particular, PG&E recommends a scenario that represents the proposed Waxman-Markey offset limit.[3/]

IV. PRESENTATION OF RESULTS SHOULD ACKNOWLEDGE THAT MODELING CANNOT CAPTURE ALL POLICY OPTIONS

PG&E recognizes that computable general equilibrium and macroeconomic models, such as E2020 and EDRAM, cannot capture all aspects of cap-and-trade regulation. However, PG&E requests that ARB and ICF explicitly state those limitations when presenting results. Policy decisions should account for potential outcomes that the models cannot capture, and stakeholders should know which policy options could not be modeled.

PG&E is concerned that the model results do not reflect the effects of unexpected, unpredictable events, of returning electric sector auction revenue to local distribution companies (LDCs), or of providing complying entities with access to offsets. First, PG&E believes that the consumer protections in the current market structure are inadequate to protect PG&E's customers, and urges ARB to analyze scenarios that might cause price spikes. Such scenarios might include a drought or several cold months near the end of a compliance period, or hoarding in an attempt at market manipulation. Based on available information, it is not clear whether E2020 or EDRAM is capable of such analysis. The models apparently use long-run perspectives, with annual time steps. Price-induced conservation would be an important factor in such analysis, but E2020, to the best of PG&E's knowledge, does not accept short-run price elasticity of demand as an input variable.

Second, in the auction scenario, revenue leaves the model, so the results suggest that an auction causes an economic loss for the State. PG&E supports the California Public Utilities Commission's recommendation that, in the electric sector, LDCs use auction revenue for emission reductions or direct customer rebates that are not tied to an individual's electricity

2/ United States Climate Action Partnership. Key Findings from the Economic Analysis of the USCAP Blueprint for Legislative Action.

3/ H.R. 2454. The American Clean Energy and Security Act of 2009. July 7, 2009.

usage.[4/] Under these conditions, auctioning allowances should represent an economic benefit to the State, if modeled accurately.

PG&E raised similar concerns regarding offsets in the context of a November 2008 ICF E2020 results presentation to Western Climate Initiative stakeholders. In that presentation, scenarios with offsets resulted in lower overall savings for the region than the scenario without offsets, suggesting that the model counts offsets that capped entities purchase as a net loss to the State. However, offsets represent a cost-effective emission reduction opportunity that can reduce overall compliance costs for consumers. The ICF presentation at the November 16 ARB workshop did not include overall compliance costs, so it is unclear to PG&E if this concern was addressed in the state-specific analysis.

If E2020 and EDRAM cannot capture the macroeconomic effects of cost-containment mechanisms, including increased use of offsets, or reflect the relative effects of an auction compared to allowance allocation, those limitations should be considered in any comparison of policy options.

V. CONCLUSION

PG&E believes that additional modeling, focusing on measure-specific reduction potential, timing and costs is critical to evaluating policy options for AB 32 implementation. PG&E understands that ARB intends to model cap-and-trade design options in 2010, and believes that this analysis will be a useful tool in evaluating the PDR. PG&E strongly recommends that any future modeling or analysis include cost-containment mechanisms, particularly scenarios that incorporate increased use of offsets. To the extent that any modeling or analysis cannot capture particular policy options, PG&E believes that ARB and stakeholders should acknowledge those limitations when evaluating a comprehensive proposal for AB 32 implementation.

Thank you for the opportunity to submit these comments. We look forward to working constructively with ARB, other state agencies, concerned stakeholders, and members of the public to ensure the successful implementation of AB 32.

Very truly yours,

/S/

John W. Busterud

JWB:kp

cc: Mr. Steve Cliff
Mr. David Kennedy
Ms. Lucille Van Ommering

4/ California Public Utilities Commission. Final Opinion on Greenhouse Gas Regulatory Strategies. April 13, 2006.