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VIA EMAIL & REGULAR MAIL

November 18, 2005

Honorable Alan Lloyd, PhD.
Secretary, CalEPA
1001 I Street
Sacramento, CA 95812-2815

Re: Comments on the Climate Action Targets' Draft Implementation Plans

Dear Secretary Lloyd:

Pacific Gas and Electric Company ("PG&E") appreciates the opportunity to offer written comments on the California Climate Action Team's draft plans to implement the Governor's climate change targets. PG&E supports Governor Schwarzenegger's leadership on climate change, and we commend you and your team for your work to date on developing implementation plans for the Governor's targets. We offer these written comments as a supplement to the oral comments PG&E made at the Climate Action Team's public meetings on August 29, 2005 and October 24, 2005, and at the meeting you and Deputy Secretary Baker had with the CEC's Climate Change Advisory Committee on September 28, 2005.

Pacific Gas and Electric Company delivers safe, reliable, and responsive gas, electric, and customer service to approximately 14 million people throughout northern and central California. PG&E's system includes 141, 650 circuit miles of electric transmission and distribution lines and 46,200 miles of natural gas transmission and distribution pipelines; 6,500 megawatts of generation, including the Diablo Canyon nuclear power plant and one of the largest hydroelectric systems in the country.

PG&E believes that climate change is a worldwide phenomenon that has significant implications for all sectors of the state's economy and natural resources. Given the global nature of the problem, it is PG&E's strong policy preference that greenhouse gas regulation occur at a national level, be market-based, and either encompass or provide for the opportunity for multiple sectors to participate in a program.

Consistent with our policy preference, PG&E is an original member of the Clean Energy Group (CEG), a coalition of energy companies advocating for federal legislation to

implement national mandatory standards for reducing emissions from power plants, including CO_2. The CEG is working constructively with members of Congress and the U.S. EPA to advance such standards, including supporting the Clean Air Planning Act of 2003, which takes a market-based ("cap and trade") approach to emissions reduction.

However, we also recognize California feels an obligation to address this important issue and assume a leadership role on the matter. Therefore, PG&E is committed to working with California's climate change stakeholders to develop a program that (1) leverages existing policies, programs, initiatives, and investments that mitigate climate change; (2) addresses concerns about emissions flowing out-of-state or being transferred from investor-owned utilities to municipal utilities; (3) is flexible enough to fit into any future regional or national program that may emerge; (4) does not penalize early actors; and (5) and is cost-effective.

While our detailed comments on the Climate Action Team's draft implementation strategies (the cap and trade discussion paper and the "Potential Strategies to Reduce Climate Change Emission in California") are attached to this letter, three key points bear emphasis.

First, PG&E supports the Governor's call for the state agencies to work together to develop consistent climate change strategies and implementation plans. Only through a coordinated effort can California achieve its goals in a cost-effective manner. We strongly encourage the Climate Action Team to continue its leadership to put an end to competing or redundant climate change initiatives and directives from multiple state agencies.

Second, key to the success of any regulatory efforts in the climate change arena is the greenhouse gas ("GHG") emissions data. PG&E strongly supports rigorous standards for calculating, reporting, and certifying GHG emissions and reductions. Without transparent, reliable, third party verified emissions data, GHG regulation will fail. PG&E supports the Climate Action Team's draft implementation option of mandatory statewide GHG reporting. Mandatory reporting is a cost-effective, common sense step forward for California. PG&E urges the Climate Action Team to work with the California Climate Action Registry to determine what additional resources and authority the Registry will need to house the reporting data under a mandatory system.

Finally, PG&E respectfully urges the Climate Action Team to consider requiring all entities in California that emit more than a *de minimis* amount of GHGs to prepare a GHG Action Plan. The CEC's Climate Change Advisory Group Power Sector Subcommittee recommended the development of GHG action plans for all electric load serving entities in the State. We believe that requiring GHG action plans beyond the electric sector would be a solid and cost-effective step towards meeting the Governor's GHG targets.

Thank you for your consideration of our comments. We look forward to continuing to work with you and the rest of the Climate Action Team on this important undertaking. Please do not hesitate to call me at 415-973-8898 if you would like to discuss PG&E's comments.

Sincerely,

cc: Deputy Secretary Anne Baker (w/attach)

Attachment

Comments of Pacific Gas and Electric Company
on the
Climate Action Team's Draft Implementation Plans

I. Background

On June 1, 2005, Governor Schwarzenegger announced his Greenhouse Gas Initiative at the United Nations' World Environment Day 2005 in San Francisco, and signed Executive Order S-3-05 establishing greenhouse gas emissions targets for the state. The Executive Order establishes GHG emission reduction targets as follows:

> By 2010, reduce CO_2 emissions to 2000 levels (a 59 million ton reduction);
>
> By 2020, further reduce CO_2 emissions to 1990 levels (a 145 million ton reduction);
>
> By 2050, reduce CO_2 emissions to 80% of 1990 levels.

The Executive Order also directed the California Environmental Protection Agency (Cal EPA) to lead a multi-agency effort (the Climate Action Team) to conduct an analysis of the impacts of climate change on California and to develop strategies to achieve these targets as well as mitigation and adaptation plans for the State.

II. General Observations

A. Cost Impacts of the Possible Implementation Plans

According to the California Energy Commission's Staff Report California and Western Electricity Supply Outlook, July 2005 (Report CEC-700-2005-019), California's average retail electricity prices are the highest in the Western United States. Further, California's electricity rates will likely remain high due to the cost of DWR-contracted electricity supplies, bond payments to recoup the cost of power in 2000-2001, and the cost of new requirements including renewable resource procurement and needed infrastructure investments.

Cost/benefit tradeoffs are an important component of most climate change strategies that California might pursue. For example, a cap and trade program that applies to a limited segment of the economy will not yield cost-effective GHG reductions, and could instead have a negative impact on electricity rates. Similarly, a cap and trade program grafted onto other GHG reduction mandates likely will not be as cost-effective as a cap and trade program that replaces such mandates. PG&E believes that policy tradeoffs must be tempered and deepened by a complete consideration of the cost impact, and that the Climate Action Team should examine these trade-offs. It does not appear that such an examination has yet occurred.

Once the Climate Action Team has quantified the GHG reductions associated with the measures in Table 2, then it will be possible to evaluate the amount of reductions needed

from additional measures, such as those identified in Table 3. Without that information, however, the policymakers and the public will not be able to evaluate and compare the cost-effectiveness of the different Table 3 measures accurately, since the extent of the reductions needed from Table 3 measures will not be known.

B. Baseline Assumptions

We note that the Million Solar Homes assumption in Table 1 does not appear to be reasonable. Nor is it demonstrated to be a cost-effective means of achieving GHG reductions. We respectfully urge the Climate Action Team to remove the Million Solar Homes assumption from Table 1.

III. Cap and Trade

PG&E supports market-based approaches to climate change regulation, including cap and trade. We offer the following principles as the basis for a cap and trade program that provides optimal benefits for our customers, shareholders, the economy, and the environment:

1. Cap & trade should be built on broad participation and demand from diverse participants and multiple sectors and the broadest geographical scope possible.
2. Take into account costs to customers and be based on sound economic modeling.
3. Be based on a rigorous GHG measurement and accounting system, such as the California Climate Action Registry's. (We strongly support efforts to harmonize reporting standards across states, regions and nationally.)
4. Transparency; third party verification critical.
5. Be designed to prevent leakage.
6. Adopt an allocation methodology that rewards early action and performance efficiency and that recognizes the contribution that non-emitting resources and energy efficiency make toward reducing/avoiding GHG emissions.
7. Position California to be the model for a national program.

PG&E supports the use of offsets in a cap and trade regulatory context. Taking a market-based approach to achieving greenhouse gas emissions that fully incorporates emissions trading and the use of credible, verifiable offsets ensures that emissions reductions will be achieved in a way that is cost-effective and efficient. For example, recent U.S. EPA analysis of the Clean Air Planning Act of 2003, introduced by Senators Carper, Chafee, Alexander, and Gregg, indicates that a CO2 emission reduction program for the power sector that relies on trading and allows for 100% compliance with off-sector reductions can achieve emissions reductions at a cost of approximately $1 to $2 per ton of carbon. Because climate change is a global issue and not a local air quality issue, the manner and location in which a ton of CO_2 is reduced is not the critical concern; indeed, GHG offsets, if properly structured, can be a meaningful strategy to address local air quality issues. In such instances, climate change policy can be coordinated with environmental justice ("EJ") policy in order to maximize the benefits to global climate, local air quality, and EJ communities.

PG&E's support of offsets is contingent on the existence of a sound, transparent system to ensure that actions taken are making a contribution to mitigating greenhouse gas emissions. This accounting system is a critical underpinning of an offsets program in any regulatory context. Therefore, as stated in our cover letter, PG&E strongly supports mandatory reporting and third-party certification of GHG emissions. In addition, offset protocols must be developed to account for, track, and audit any offsets. We encourage the Climate Action Team to advance the development of such protocols through the California Climate Action Registry.

As we stated in public testimony on October 24th, PG&E is very concerned with the option presented by the Climate Action Team that the state's air quality management districts - and not the California Climate Action Registry – might serve as entity responsible for collecting statewide GHG data. The Registry, created by state law, already serves this function extremely well. Given the Registry's excellent track record, there is no reason for the State of California to change horses in mid stream. PG&E is particularly troubled by the notion that the State, after establishing the Registry with the specific intent of creating a repository of GHG data for consideration under future regulatory schemes, would switch this statewide function to the thirty-five local air districts.

IV. CARB Measures

PG&E recognizes that the power sector is one of the largest contributors nationwide to increasing atmospheric concentrations of greenhouse gases and, as such, has an important role in mitigating or reducing these emissions. In California, however, the power sector is the third largest identifiable contributor of greenhouse gases in the state (contributing 20 percent to the state's total greenhouse gas emissions). For context, the U.S. power sector accounts for approximately 35 percent of total U.S. emissions. The fact that the power sector contributes only 20 percent to California's total is a testament to the effectiveness of policies and programs that have been pursued by the state and the investor-owned utility sector to mitigate emissions from traditional generating sources, encourage energy efficiency, and invest in renewable and alternative power generation technologies.

PG&E is concerned that California's transportation sector, which accounts for 40% of the State's GHG emissions, must be a critical part of the State's climate change targets implementation plan. We encourage the Climate Action Team to develop a contingency plan in the event that the "Pavley regulations" pertaining to light duty vehicles do not survive litigation. In addition, PG&E strongly supports other measures in Table 2 that attempt to address GHG emissions from the transportation sector, such as truck stop electrification, diesel anti-idling, and port electrification. In particular, we urge the Climate Action Team to add a measure regarding plug in electric hybrid vehicles for passenger and heavy duty vehicles.

In addition, PG&E recommends that the Governor's Climate Action Team add an additional measure under the ARB heading in Table 1, pertaining to "Diesel Fleet ATCMs" with the description: "In addition to reducing diesel particulate matter emissions, the ATCMs provide incentives for alternative fueled and hybrid vehicles which reduce diesel use in trucks with significant air quality benefits." We believe that CARB should include the above incentive provisions for fleets utilizing alternative fuels and hybrids within the heavy duty diesel Fleet ATCMs currently under development.

Table 2 lists "Heavy Duty Vehicle Emission Reduction Measures" as an option for consideration. The text associated with this listing is "these include energy efficiency measures beyond the 2013 goals currently in place that could be expected as technology evolves and becomes more reliable and cost effective. Additional technical analysis is needed to determine technology readiness and costs."

In concept, PG&E strongly supports these proposed future measures. PG&E further suggests and supports, in addition to the above measures, that ARB integrate the goals of reducing petroleum dependency, and GHG emissions into the several Airborne Toxic Control Measures (ATCMs) regulations addressing diesel particulate matter (PM) from heavy duty on and off road diesel vehicles currently under or proposed for development.

ARB has the potential for accomplishing the two above goals by including within the ATCM regulations, incentives for those fleets purchasing alternative fueled vehicles and hybrids especially plug-in electric hybrids, which offer GHG advantages compared to "normal" diesel engines.

Unfortunately, at present, the existing garbage truck ATCM regulation does nothing to promote alternative fueled vehicles or hybrids of any type. Likewise the drafted Municipality and Utility Heavy Duty Diesel Fleet ATCM currently does not include incentive provisions for alternative fueled and hybrid vehicles although these concepts have been suggested to ARB staff.

Further, in relation to these proposed heavy duty diesel Fleet ATCMs, it is important to note that the majority of the diesel PM add-on control equipment, especially the level 3 technology, while reducing diesel PM emissions, inadvertently has the detrimental effect of decreasing diesel fuel efficiency leading to additional petroleum dependency and climate change emissions. Given this current control technology, we urge ARB to include incentive provisions for alternative fueled and hybrid vehicles within these ATCM regulations. Adding these incentives to the ATCMs has the potential to produce immediate short-term results and capture the synergy as the regulations are currently under development or proposed for development.

V. CEC and CPUC Measures

A. Energy Efficiency

PG&E and the other investor owned utilities under the oversight of the California Public Utilities Commission (CPUC) are in the process of implementing the energy efficiency portfolios which will achieve the CPUC's recently adopted energy efficiency targets. These will result in a substantial increase in energy efficiency activity, and reduction in greenhouse gas emissions, over the next decade. Over the last year, the CPUC, working with the CEC, has put in place energy efficiency targets, an administrative structure, policy rules and has adopted funding and portfolio designs for the period 2006-2008. PG&E is pleased to launch expanded and redesigned programs January 1, 2006 to achieve these targets.

These expanded energy efficiency programs will reduce customers' annual electricity and natural gas usage by 2008 by 2.7 billion KWh and 48 million therms, respectively. According to CPUC Decision 05-09-043, Table 2, this will reduce annual emissions of CO2 by 3.4 million tons by 2008, which is equivalent to the emissions from about 650,000 automobiles. (We note that the avoided emissions figure provided in the Climate Action Team's Table 1 differs from that in Decision 05-09-043.)

To ensure these benefits materialize, the State's explicit policy of supporting energy efficiency will need to be maintained. This includes periodically updating the targets with current information, and continuing the newly adopted administrative structure, which is founded on utility reliance on energy efficiency as a central element of its procurement plan. In addition, we urge the Climate Action Team to extend energy efficiency as the first procurement option to non-IOUs, so that all electricity providers in the state are aligned with this critical initiative. (Extending energy efficiency as the preferred resource for meeting customer demand to all load serving entities in the state would have the added benefit of reducing overall natural gas demand. Because natural gas-fired units are the marginal source for electricity, reducing electric demand, particularly peak demand, will result in natural gas savings, which is critical to helping reduce natural gas prices.)

B. GHG Adder

Given increasing concern over and interest in reducing global warming emissions, and the increasing likelihood of national regulatory action, it is appropriate now, as one element of an economy-wide program, for all California utility managers, independent power producers, other load serving entities (LSE), and regulators to take the financial risks of greenhouse gas regulation explicitly into account in long-term resource planning and procurement decisions, along with the potential for reducing emissions.

One such approach, which includes the assignment of dollar values to GHG emissions when comparing projected costs of alternative resource investments, has been developed

and is being implemented by the California Public Utilities Commission. We encourage the Climate Action Team to expand the use of a "carbon adder" to all retail service providers, in order to help minimize the exposure of all California households and businesses to increasingly obvious financial and reliability risks from long-term financial commitments to generation with high greenhouse gas emissions.

C. GHG Action Plans for all LSE's

PG&E respectfully suggests that the Climate Action Team add a measure to Table 3, requiring each investor-owned and publicly-owned utility (or joint powers agency as an appropriate alternative), all other LSE(s), and all California entities that emit GHGs exceeding a threshold amount to develop an action plan to meet the Governor's greenhouse-gas reduction goals. The action plans should include the following elements and information as applicable, and such plans should be made publicly available, with copies provided to the California Energy Commission and the California EPA, which should monitor this activity:

1. The impact of global warming on each entity;
2. Current and projected greenhouse gas emissions from each entity, based on current trends;
3. Options for each entity to reduce greenhouse gas emissions at least cost to customers, which could include actions such as increasing investments in energy efficiency.

VI. Greenhouse Gas Performance Standards

PG&E has interpreted California's energy policy over the past several years to be based on the following principles: (1) pursue supply resource options that are least cost and best fit, and (2) make that portfolio as clean as possible. GHG performance standards can help to achieve those objectives; however, they must be applied correctly and recognize limitations from a contractual, an administrative, and a technology availability standpoint, while at the same time support and be coordinated with existing policies and programs.

PG&E believes that assuming *arguendo* that state-level rather than national standards are pursued, a greenhouse gas performance standard may be an effective and cost-efficient means of mitigating greenhouse gas emissions if it is: (1) applied on a portfolio-wide basis, (2) applied to all load-serving entities in the state (regardless of ownership structure) in a consistent manner, and (3) integrated into the overall multiple-source program being developed by the Climate Action Team to meet the Governor's targets.

Establishing target emission standards (on a pound per megawatt-hour basis) that are applied portfolio-wide will allow load serving entities to manage resources in a way that optimizes their supply portfolio at least cost. For example, setting target emission standards portfolio-wide, as opposed to on a contract-by-contact basis, will allow the portfolio manager to determine the mix of resources that will best meet customers' needs

reliably and cost-effectively, whether it be through additional investment in energy efficiency, additional purchases of renewable generation, investment in new combined cycle gas turbines, or investment in clean coal technology (e.g. IGCC). And, more than likely, in order to diversify risk, a portfolio manager will create a supply portfolio that draws from each of these resource options. Setting performance standards in this manner, therefore, not only results in similar emission reductions, but it also is well-aligned with and supportive of the Energy Action Plan's preferred loading order, avoids presupposing the right mix of technologies and resources today to meet needs tomorrow, and allows for future adjustment of standards as technologies improve.

The issue of which entities are affected by this standard is critical. If the standard is implemented solely through the CPUC, which does not have the ability to apply the standard to municipal utilities, then not only will inequities arise, but there is a high probability that these emissions will merely be shifted from investor-owned utilities to municipal utilities by allowing higher-emitting municipal utilities to avoid costs and offer a price advantage over investor-owned utilities, attracting load away from the investor-owned utilities and negating any perceived benefits. In addition, emissions standards should be set in a way that does not discriminate against entities that have already taken significant steps to mitigate greenhouse gas emissions; i.e., a consistent set of emissions standards should be established for all entities, rather than separate standards for individual entities.

VII. IWMB Measures

Given the co-benefits associated with waste-stream diversion, PG&E encourages the IWMB and the Climate Action Team to a more ambitious goal for state recycling than the 50% in table 1.

VIII. DWR Measures

We commend the Climate Action Team for developing a measure relating to water conservation. Recent studies have quantified the significant energy use associated with California's water use. As a long-time leader in cost-effective energy efficiency programs and goals, PG&E is supportive of cost-effective water use efficiency programs and goals as well.