The following are PG&E’s comments that pertain to Chapter 5, Electricity and Natural Gas Sectors of the ETAAC 12/21/07 draft report. These comments reflect discussion with and concurrence from the Energy sector subcommittee in which PG&E has been participating in its capacity as an ETAAC committee member. Please refer to “PG&E Comments on ETAAC 12/21/07 Draft – Part 1” for PG&E’s comments on the remaining portions of the draft report.

1. General Comments

Carbon Credit and Valuation for Early Action

The Energy Sector subcommittee originally had this as a recommendation in Chapter 5 but moved it to the Introduction section. This recommendation is now mentioned briefly in Strategy #1; however, there is no longer a specific, actionable recommendation relating to this item. As there is no longer a Section 5.III.A as referenced under Strategy #1, the reference should be removed, and the following recommendations from the original recommendation should be reinstated:

Current uncertainty regarding the value of early action in advance of full AB 32 implementation may be delaying early GHG emission reduction investments by private actors. The current uncertainty over CARB’s acceptance of early actions to reduce GHG emissions in the energy sector could be delaying development of cutting edge initiatives. This is a perverse result, given California’s emphasis on cost-effective early actions to mitigate climate change, but one that may be amenable to timely and targeted policy intervention.

CARB should consider creating a banking mechanism, with clear underlying value attributable to the entity initiating early action, to allow value to be realized from corresponding early action GHG emission reductions. This effort will encourage investor confidence in the emerging California climate program and will stimulate liquidity in any future carbon market.

As a first priority, the CARB should develop protocols for quantifying carbon value, how emission reductions will be credited, certified, and tracked, as well as a process to bank the credits. This action would supplement, and could potentially precede, resolution of complex issues around the definition of obligated entities (i.e. load-based vs. first-seller approaches), the scope of compliance obligations (baselines and targets), and the ultimate approach to credit distribution (allocation vs. auction). By clearly defining a process by which a risk-taking entity can receive future rewards under a carbon control regime, CARB can liberate early action in new infrastructure investment as well as provide a basis for liquidity in any future credit markets that may emerge.
Regardless of what cost containment strategies, if any, are ultimately implemented, CARB should act now to put forward a stable set of early incentives for carbon-saving investment. A banking system with clear underlying property rights will enable private entities to act on the basis of their own assessment of the future value of carbon credits.

**Energy Storage**

Because of the potential of energy storage to enable higher penetration of renewable energy, we recommend that this be specifically called out as an opportunity (#3) in Chapter 1. The proposed text follows:

**Opportunity #3 - Aggressive RD&D for Electricity Storage Technologies**

Electricity storage has the potential to enable higher penetrations of intermittent renewable energy in California’s power supply portfolio, allowing the state to take better advantage of its abundant renewable resource endowments, and can transform intermittent renewable generation into a reliable resource for energy planning. As such, the ETAAC recommends that an aggressive program to develop electricity storage technologies and infrastructure be a high priority for ARB and the state.

The potential for a transformative effect from electricity storage is truly “game-changing,” and ETAAC recommends a high priority pursuit of these technologies. Electricity storage technologies such as pumped hydro storage, compressed air, thermal storage or batteries can potentially transform intermittent generation such as wind and solar power into dispatchable resources offering firm electricity supply to the grid. Storage may reduce the state’s reliance on polluting gas-fired peaker plants to firm intermittent energy contributions, as well as provide emergency and remote-area power supply. Moreover, electricity storage in the form of plug-in electric vehicles has the potential to both reduce reliance on fossil fuels in the transport sector and allow for even greater utilization of existing and future renewable generation. The state of California should recognize the value of energy storage in enabling intermittent renewable sources, and encourage its advancement via the incorporation of aggressive storage goals into utility resource planning and the development of targeted incentives to stimulate storage technology research, development, demonstration and deployment.

**2. Energy Efficiency**

**I. Introduction**

The following paragraph relating to energy efficiency was omitted from the 12/21/07 draft in the “text shuffling”. This paragraph should be reinstated. We recommend inserting this paragraph on page 5-2, after the third paragraph:
“In addition, the State must ensure that GHG policies not inadvertently disadvantage or worse, jeopardize the state’s successful energy efficiency programs. In particular, the state should ensure that voluntary and mandatory efforts to reduce GHG be counted in the in the counting and crediting of energy efficiency program achievements. Specifically, current IOU program participants receive energy efficiency savings incentives based on project savings that exceed certain baselines, which are established according to applicable codes and standards or industry practice in the absence of applicable codes/standards. Participants who install projects for reasons other than energy efficiency are considered "free-riders", and the project savings from such free-riders are discounted or disallowed. For example, the governor’s Green Building Initiative (GBI) issued in 2004 requires the state to reduce energy usage in its buildings 20 percent by 2015, and in doing so, reduce the GHG emissions associated with operating these buildings. This mandate would have rendered the state DGS' energy efficiency projects ineligible for EE program incentives as "free riders", had the CPUC not explicitly declared that that state DGS projects undertaken under the GBI would not be considered free-riders, thus allowing such projects to participate in the IOUs' energy efficiency programs. In the same vein, the State should ensure that energy efficiency projects that are implemented in compliance with GHG policy not be treated as “free-riders” subject to a higher energy savings baseline. Energy efficiency is a critical component in California’s GHG reduction strategy. As such, the state should ensure that any GHG policy or regulation to be implemented complement its energy efficiency objectives and not create any unintended consequences.”

II. Utility-Level Program to Accelerate Energy Efficiency

The opening paragraph describing standby losses seems a bit odd as a lead-in to the LED recommendations. We recommend moving the discussion regarding standby losses to the Appendix IV.

3. Grouping of Recommendations

V. Carbon Capture and Unifying Program Standards

Carbon Capture and Sequestration (CCS) and Unifying Program Standards are two very different topics. The Unifying Program Standards should be separated out and treated as a stand-alone recommendation. Please note that if this change is made, the Introduction also needs to be revised accordingly.

4. Miscellaneous Items

I. Introduction

1. The third paragraph lists the 4 major areas of recommendations. We recommend reordering them to match the discussions in sections that follow, and also adding Unifying Program Standards as a distinct area by itself.
   • Accelerating energy efficiency upgrades;
• Expanding renewable electricity supplies;
• Developing enabling technologies for zero carbon renewable energy and zero tailpipe emission vehicles
• Removing storing carbon from remaining fossil fuel and biomass electricity production
• Developing unifying program standards for climate-related programs.

2. Page 5-2, second paragraph, line 2, delete the following redundant words “to recognize the important”.

III. Expanding California’s Successful Renewable Energy Programs

1. Page 5-6, second paragraph: The first sentence should read “This section of the ETAAC electricity/natural gas sectors subgroup report addresses a number of the barriers to meeting renewable energy goals.”

2. Page 5-6, second paragraph: Please note typo – “Appendix VI” should be “Appendix IV” instead.

VI Suggested Legislative “To-Do” List

Item 10 should be deleted – it is no longer applicable.