

Decision 06-02-032 February 16, 2006

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Promote Policy  
and Program Coordination and Integration in  
Electric Utility Resource Planning.

Rulemaking 04-04-003  
(Filed April 1, 2004)

**OPINION ON PROCUREMENT INCENTIVES FRAMEWORK**

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## OPINION ON PROCUREMENT INCENTIVES FRAMEWORK

### 1. Summary<sup>1</sup>

Today we state our intent to develop a load-based cap on greenhouse gas (GHG) emissions for Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Southern California Edison Company (SCE), and non-utility load serving entities (LSEs) that provide electric power to customers within these respondents' service territories. Over the longer term, we also intend to develop a GHG limitation program that includes emissions from the natural gas sector, as the requisite emission reporting and certification protocols become available.

As discussed in this decision, we will establish a baseline for the GHG emissions cap on a historical year basis, with 1990 as our preferred reference year. Our final determination on this matter will await further consideration of implementation issues associated with using this particular year as the reference, including the availability of adequate historical emissions data for the investor-owned utilities (IOUs) and other LSEs. We also leave to the implementation phase our consideration of the appropriate level of emissions reductions (and associated caps) over time, relative to the base year.

We intend to create a load-based GHG emissions cap that is compatible with any other GHG cap-and-trade regime that may be developed in the future, either in the Western Region, nationally, or internationally. Therefore, the GHG emissions allowances associated with our load-based cap will be in the form of "tons of carbon-dioxide equivalent." Based on the record in this proceeding, our

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<sup>1</sup> Attachment 1 describes the abbreviations and acronyms used in this decision.

preference is to administratively allocate these allowances, rather than auction them.

All parties recognize that flexible compliance options are an integral component of a GHG emissions cap, but differ with regard to the scope and type of options that should be available, at least initially, as the Commission implements a GHG emissions reduction program. For the reasons discussed in this decision, we leave to the implementation phase our determination of flexible compliance options, including the scope of offsets, trading, banking and borrowing of allowances. We conclude that some form of penalty structure for non-compliance is necessary, or else the GHG reduction requirements will only be voluntary. At this juncture, we prefer structuring penalties as alternative compliance payments, but will further explore the nature of an appropriate penalty mechanism along with our consideration of flexible compliance options during the implementation phase. We will also evaluate the costs and benefits of the framework that emerges from the implementation phase. Throughout this process, we will continue to coordinate our efforts with the Governor's Climate Action Team as well as other state, regional or federal agencies that are exploring design options for cap-and-trade programs.

In conjunction with a load-based emissions cap on electric procurement, we will pursue the development of shareholder incentives in resource-specific proceedings, with our immediate focus on energy efficiency. As discussed in this decision, we will also explore the concept of allowance sale incentives during the implementation phase. Under this mechanism, the Commission would certify GHG emission allowances based on superior performance, as defined by the Commission, that the utilities could sell outside of California to the benefit of their shareholders.

We delegate to the Assigned Commissioner and Administrative Law Judge (ALJ) the scoping of the implementation steps necessary to implement our policy decision today for adoption in a future decision in this proceeding or a successor proceeding. Those implementation steps include, but are not limited to: (1) quantifying the GHG emissions baseline for each LSE, (2) adjusting GHG emission reduction requirements over time, relative to the baseline, (3) adopting and administering a process for allocating emissions allowances, and (4) developing flexible compliance mechanisms with appropriate performance penalties.

In the meantime, we require LSEs, when they file their 2006 procurement plans, to include information about existing GHG emissions profiles and the future GHG emissions implications of their procurement plans.

As discussed in this decision, our preference would be to require the immediate registration of emissions by all generation resources serving California load with the California Climate Action Registry (CCAR). CCAR is a non-profit public/private partnership that serves as a voluntary GHG registry of participating companies' emission profiles. Participating power generators and electric utilities account for and report GHG emission inventories according to the CCAR's reporting protocols. PG&E, SCE, and SDG&E are already voluntary members of CCAR.

However, there is more work to be done before this requirement can be implemented effectively. During the implementation phase, we will explore with CCAR ways in which their protocols can be modified to include generation/facility specific data to fit within a load-based cap, and establish a date by which all power purchase agreements that PG&E, SDG&E, and SCE sign for power should include a provision requiring supplier registration with the

CCAR. We may extend this requirement to the smaller electric IOUs under our jurisdiction after further consideration of this issue in a proceeding to which these companies are also respondents.

As discussed in this decision, we fully intend to continue to collaborate with Governor Schwarzenegger's Climate Action Team and to coordinate today's adopted policies with the administration's GHG reduction policies and goals. In particular, we will continue to work with the Governor's Climate Action Team to ensure that municipal utilities are also subject to a GHG emissions reduction regime that will assist California in meeting the aggressive GHG reduction goals articulated in Executive Order S-3-05.

We also note that, with this decision, we are joining in the pioneering efforts on greenhouse gas regulation started in the Northeast and Mid-Atlantic states with the voluntary Regional Greenhouse Gas Initiative there. We hope that these parallel but distinct efforts on both coasts will help move the ball forward on initiatives to reduce greenhouse gas emissions and mitigate global climate change in the United States and around the world.

## **2. Background**

The original Energy Action Plan (EAP) adopted in 2003 articulates the commitment of the California Public Utilities Commission (CPUC or Commission) and the California Energy Commission (CEC) to, among other things, "minimizing the energy sector's impact on climate change." In the EAP, the CPUC and the CEC committed to decreasing per capita energy use and reducing toxic emissions and gases through increased conservation, efficiency, and renewable resources. The EAP established a "loading order" of energy resources, with energy efficiency and conservation first, followed by demand

response, renewable generation, distributed generation, and then other conventional generation and transmission investments.

In the Order Instituting Rulemaking (R.) for this proceeding,<sup>2</sup> the Commission presented a staff proposal that would translate these commitments into a cap-and-trade procurement incentive framework (referred to as the Sky Trust proposal).

In its description of the Sky Trust proposal, staff noted that a cap-and-trade framework does not necessarily obviate the need to consider additional financial earnings/penalty incentive mechanisms tied to IOU procurement performance. Although a detailed consideration of financial incentives was beyond the scope of the Sky Trust paper, staff suggested that “the utility’s overall performance in energy procurement could be evaluated based on achieving the targets established for specific types of preferred resources (e.g., energy efficiency and renewable resources) as well as on performance targets established for long-term portfolio costs.”<sup>3</sup>

In Decision (D.) 04-12-048, the Commission discussed expectations regarding the development of a GHG reduction policy:

“In a separate phase of this proceeding, we will be evaluating a procurement incentive framework modeled after the cap-and-trade principles of the Sky Trust. [Footnote omitted.] Under that proposed framework, the Commission would establish annual limits on carbon-based energy procurement as a means to meet the Commission’s EAP goals and minimize utility contribution to

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<sup>2</sup> See *Order Instituting Rulemaking R.04-04-003* adopted April 1, 2004.

<sup>3</sup> See *Administrative Law Judge’s Ruling Scheduling Workshops on Procurement Incentive Framework*, November 23, 2004 (R.04-04-003), Appendix B, p. 14.

climate change. We will address the effectiveness of this proposal, as well as other approaches to “carbon caps” on utility procurement, to minimize utility contribution to climate change, in subsequent decisions in this rulemaking or other appropriate proceedings. For this purpose the Assigned ALJ and/or Assigned Commissioner may direct Commission staff to perform additional analysis or studies, as needed. We intend to put in place a procurement incentive framework after considering the cap-and-trade Sky Trust proposal as well as other approaches (e.g., specific carbon emission limits) by the end of 2006, or as soon as practicable.”<sup>4</sup>

On February 23, 2005, the Commission convened an en banc meeting to discuss best practices for reducing GHG emissions and to encourage the Commission-regulated entities to think “beyond procurement.” A paper prepared by the CPUC Division of Strategic Planning for that meeting, “Climate Change and the California Public Utilities Commission’s Role,” discusses in detail the “opportunity to make a significant contribution to emissions reductions statewide and nationally.”<sup>5</sup>

On March 7-9, 2005, the CPUC convened a three-day workshop in this proceeding to consider the potential interactions between strategies for GHG reduction and financial incentives for procurement performance that would apply to the four major IOUs. To help focus party preparation for these workshops, the assigned ALJ circulated the staff’s Sky Trust proposal and directed interested parties to file pre-workshop comments on the staff proposal and to submit alternate procurement incentive frameworks for Commission

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<sup>4</sup> D.04-12-048, *mimeo.*, p. 155.

<sup>5</sup> CPUC Division of Strategic Planning, “Climate Change and the California Public Utilities Commission’s Role,” February 23, 2005, p. 6.

consideration. Approximately 50 individuals, representing 25 different stakeholders, attended one or more days of the workshops.

On March 29, 2005, staff issued a workshop report detailing the contents of these workshops.<sup>6</sup> The workshop report contains details of the workshop participants, issues discussed at the workshops, and also includes attachments of parties' pre-workshop proposals and comments. On April 4, 2005, the assigned ALJ issued a ruling providing for parties' comments and reply comments on the workshop report. Comments were filed on May 2, 2005, with reply comments on May 23, 2005. As directed in the April 4 ruling, each energy service provider listed in Appendix A of D.05-03-013 and the service list in this proceeding, R.04-01-025 and R.03-10-003 was served a copy of the ruling and comments.

The following parties filed opening comments on the workshop report: Cogeneration Association of California (CAC) and Energy Producers and Users Coalition (EPUC) (jointly), Duke Energy North America (Duke), Green Power Institute (GPI), Natural Resources Defense Council (NRDC), Division of Ratepayer Advocates (DRA),<sup>7</sup> PG&E, SDG&E, Sempra Global (Sempra), Solargenix, SCE, The Utility Reform Network (TURN), and the Union of

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<sup>6</sup> See *Procurement Incentive Framework, R.04-04-003, Workshop Report, March 7-9, 2005*, prepared by Commission Workshop staff, March 29, 2005 (Workshop Report). This document can be viewed on the Commission's Website at: [www.cpuc.ca.gov/static/hottopics/1energy/r0404003.htm](http://www.cpuc.ca.gov/static/hottopics/1energy/r0404003.htm).

<sup>7</sup> Effective January 1, 2006 per California Public Utilities Code (Pub. Util. Code), Section 309.50, the CPUC's Office of Ratepayer Advocates became the Division of Ratepayer Advocates. We use this new name throughout today's decision, even for comments were filed under the previous name.

Concerned Scientists (UCS). Reply comments were filed by GPI, NRDC, PG&E, SCE, UCS, and TURN.<sup>8</sup>

On June 1, 2005, subsequent to the events in this proceeding, Governor Schwarzenegger announced his statewide GHG reduction targets in Executive Order S-3-05. Those targets provide for the following reductions in GHG emissions: reduction to 2000 emissions levels by 2010, reduction to 1990 levels by 2020, and reduction to 80% below 1990 levels by 2050.

Executive Order S-3-05 also calls for the California Environmental Protection Agency (CalEPA) to lead a multi-agency effort to conduct an analysis of the impacts of climate change on California and to develop strategies to achieve the targets and mitigation/adaptation plans for the state. This effort is now being referred to as the Climate Action Team. Strategies identified and under consideration by the Climate Action Team include significant anticipated reductions in GHG emissions from the electric sector.

In addition, in September and October 2005, both the CEC and the CPUC, respectively, adopted the EAP II. This updated plan includes several key actions specific to reducing GHG emissions, such as:

- Reporting to the Governor on the findings of the Climate Action Team subgroup on electric sector strategies for the state;
- Considering 2010, 2020, and 2050 GHG reduction targets for retail sellers of electricity to contribute to the Governor's GHG emission reduction targets;

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<sup>8</sup> Californians For Renewable Energy Inc. filed reply comments in this phase of the proceeding without obtaining intervenor (party) status, and therefore those comments are not considered in today's decision. See ALJ ruling dated March 28, 2005.

- Coordinating with the Climate Action Team on this proceeding's consideration of establishing a cap for IOUs;
- Ensuring that energy supplies serving California, from any source, are consistent with the Governor's climate change goals;
- Identifying Western State policies and strategies to achieve production of 30,000 MW of clean energy across the West by 2015, consistent with the Western Governors' Association Clear and Diversified Energy Committee and West Coast Climate Initiative goals; and
- Identifying methodologies to quantify the expected costs and benefits of climate change policies.

On October 6, 2005, the Commission issued a Policy Statement on Greenhouse Gas Performance Standards (GHG Policy Statement) announcing that "there are approximately 30 proposed coal-fired plants across the West, some of which are planned in anticipation of meeting demand in California. The carbon dioxide emissions from just three 500 MW conventional coal-fired power plants would offset all of the emissions reductions from the IOUs' energy efficiency programs and would seriously compromise the State's ability to meet the Governor's GHG goals. As the largest electricity consumer in the region, California has an obligation to provide clear guidance on performance standards for utility procurement."<sup>9</sup> To address this concern, the Commission stated its intent to investigate the integration of GHG emissions standards into its procurement policies.

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<sup>9</sup> GHG Policy Statement, p. 2. This can be viewed at:  
<http://www.cpuc.ca.gov/PUBLISHED/REPORT/50432.htm>.

### **3. Threshold Policy Issues**

In order to determine an approach to the procurement incentive framework, the Commission must address a number of threshold issues. First among these is the question of the appropriate characteristics of a procurement incentive framework. Should the framework be based around a cap on GHG emissions? If so, what type of cap is appropriate? To whom should such a cap apply? What role should financial incentives play in procurement choices of the IOUs, to encourage investment in preferred resources in the EAP “loading order” (such as energy efficiency and renewables)?

We address these threshold questions in this section, and associated implementation issues in Section 4. In doing so, we briefly summarize the parties’ positions on each issue, as presented in their pre- and post-workshop comments, concentrating on the chief points of contention. We do not attempt to summarize every nuance in individual positions. A more extensive discussion of the issues is provided in the Workshop Report.

Unless indicated otherwise, our reference to a GHG emissions cap refers to emissions associated with electric generation, and does not include emissions from non-electric generation usages of natural gas.

#### **3.1. Role of a Greenhouse Gas (GHG) Cap in Procurement Policies**

In this section, we discuss whether setting a cap on GHG emissions is an appropriate driver for a procurement incentive framework.

##### **3.1.1. Positions of Parties**

UCS believes that the Commission’s procurement incentive framework should include a GHG emissions cap. In UCS’s view, such a cap provides quantitative incentives for procurement actions to follow the EAP loading order

and helps direct any investments in fossil generation to lower emitting options. UCS also believes that a GHG emissions cap provides a quantitative measure against which to judge procurement performance and apply financial incentives.

GPI believes that a GHG reduction program is needed, but that it must be designed to merge easily and effectively into the inevitable national and international systems. While it may be that the reduction of GHGs is the “objective function” of environmental policy (i.e., singular emphasis that will yield a range of desired benefits), GPI feels that further study is required. GPI suggests that the Commission continue to develop its preferred resources aggressively, to the fullest extent possible. According to GPI, the sooner the major energy companies in California begin to adjust their practices and position themselves for future compliance, the better off they will be in the long run.

NRDC believes that the Commission should simultaneously support a Legislative effort to establish a cap-and-trade regime for all emissions from the electric and natural gas sectors, while continuing to develop policies for IOU caps alone. The IOU-specific approach, according to NRDC, should be developed via a series of joint workshops with the CEC and its Climate Change Advisory Group.

TURN believes that a legislatively mandated statewide program would be preferable, but that in its absence, the Commission should still continue to work in this area to prepare for the time when a statewide program is enacted. TURN agrees with NRDC that the Commission should work with the CEC Climate Advisory Group on a joint task force.

DRA believes that the Commission should open a new proceeding to further develop the issues presented in the workshops held by the Commission in March 2005. DRA is concerned that overlaying a GHG regime on existing

preferred resource programs may lead to duplication, uncertainty, and higher ratepayer costs. DRA's preferred approach to a GHG reduction framework is to accelerate the EAP initiatives.

CAC/EPUC propose that the Commission continue to develop its policies, but implement them only in the context of a broader statewide or regional policy. They are concerned that the Commission not competitively disadvantage the IOUs and/or their suppliers. CAC/EPUC argue that unforeseen consequences such as higher prices, reduced availability of generation, and system gaming could occur.

Solargenix strongly supports the imposition of a GHG emissions cap on the IOUs, on the basis of load.

Sempra believes that a GHG incentive mechanism to address the global problem of climate change should not be crafted too narrowly, and expresses particular concern over leakage and contract shuffling issues. Sempra believes that a GHG mechanism must do the following: set an accurate baseline and achievable reduction targets, treat imports, avoid double-counting with the carbon adder (adopted in D.04-12-048), support incentives for the EAP loading order, allow trading, and not inhibit the development of broader GHG frameworks.

Duke comments that a GHG incentive system should encourage the repowering of old facilities, and allow for generation not presently within the IOU portfolio to obtain contracts, repower, and improve GHG performance.

SDG&E believes that a cap would be premature, arguing that the semblance of normalcy has only very recently returned to markets. In SDG&E's view, a cap would have a destabilizing effect on procurement. SDG&E also argues that the imposition of a cap would make the utility responsible for issues

that cannot be controlled directly, such as population and economic growth. In addition, SDG&E believes that cap design will take years of study. For these reasons, SDG&E recommends staying the course with EAP commitments and awaiting federal/international coordination on a comprehensive GHG framework.

SCE has similar reservations about moving forward with a GHG-based procurement incentive framework. In particular, SCE contends that a GHG cap would encourage bypass of the utility system through customer migration, cause leakage by moving generation projects outside of California's procurement footprint, and create financial incentives for laundering contracts to create an appearance of displacement of generation. SCE believes that incentive frameworks that are too broad will not be compatible with long-term procurement planning, and will unduly constrain the IOUs' choices. In SCE's view, a focus on EAP resources is the best method of promoting GHG goals. SCE comments also express concern about fairness to all California LSEs as well as the potential burden on the California economy. In sum, it is SCE's position that efforts to regulate the production of GHG are best made at a national level across all carbon-emitting sectors.

PG&E recommends coordinating efforts with the CEC, CalEPA, the California Air Resources Board and the West Coast Governor's Global Warming Initiative. In the absence of a national approach, PG&E supports regional programs that incorporate diverse industries and the broadest possible geographic area. PG&E recommends that the Commission work to coordinate the multiple state-level efforts to create the equivalent of an EAP for climate change. PG&E does not believe that a GHG cap should be adopted now; instead, existing EAP commitments should be embraced as the means to achieve GHG

reductions. PG&E recommends that the Commission work with CCAR to develop a protocol for load-based accounting across the West. However, PG&E recommends that if the Commission does develop a cap program, it should be flexible enough to be superseded by state or federal programs. Finally, PG&E states that GHG caps can be considered separately from procurement incentive issues.

### **3.1.2. Discussion**

The question of whether to establish a GHG emissions cap is the threshold “fork in the road” policy issue in this phase of the proceeding. Many parties presented various views on this topic that ranged from extremely cautionary, recommending that the Commission wait for national or international policy consensus, to extremely enthusiastic, recommending that the Commission proceed now to establish a GHG emissions cap.

At this juncture, we are inclined to proceed proactively to establish a GHG emissions cap. There are several important reasons why we make this choice to proceed. First and foremost, since the initiation of this proceeding and the workshops this past spring on this topic, Governor Schwarzenegger has announced very aggressive GHG emissions targets for the state of California to reach. In doing so, he stated that California will be “the leader in the fight against global warming” and furthermore, that “the time for action is now.”<sup>10</sup> Our GHG Policy Statement echoes this imperative. In particular, it recognizes that current approaches for internalizing “the significant and under-recognized

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<sup>10</sup> Governor’s Remarks at World Environment Day Conference, June 1, 2005.

cost of GHG emissions” through a GHG adder must be augmented in order to meet EAP II and the Governor’s GHG goals.<sup>11</sup>

The electric sector is one of the most important categories of GHG emissions to be addressed in the state, representing approximately 20% of California’s climate change emissions.<sup>12</sup> This Commission has a great deal of authority over the largest component of the electric sector in the state, and we wish to move forward in a leadership role to help support the GHG reduction goals of Governor Schwarzenegger. Establishing a GHG cap is consistent with the Governor’s objectives for climate change policy, as well as our own GHG Policy Statement. By resolving the “fork in the road” policy issue today, we can now focus our efforts on addressing the myriad of implementation questions, including the appropriate level of GHG reduction requirements over time.

We agree with those parties that suggest we coordinate with other agencies in California in this process. We also agree that any policies we adopt should be compatible with any eventual regional, national, or international climate change policies that may develop in the future. In addition, we agree that we must start by addressing reporting and baseline issues associated with GHG emissions and incorporating GHG planning into procurement activities. We intend to do all of these things, with our eyes firmly on the goal of

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<sup>11</sup> GHG Policy Statement, p. 1.

<sup>12</sup> *California Environmental Protection Agency – Climate Action Team Report to the Governor and Legislature*, Draft dated December 8, 2006, p. 8, Figure 2-3. That figure shows the sources of GHG emissions (in terms of CO<sub>2</sub> equivalence) as follows: Transportation at 41.2%; Industrial at 22.8%, Electric Power (from both in-state and out-of-state sources) at 19.6%, Ag and Forestry at 8.0% and all other sources at 8.4%.

implementing a cap on GHG emissions in California for IOUs and other LSEs as soon as possible.

### **3.2. Type of Cap on GHG Emissions**

The workshops, workshop report, and parties' comments discussed several types of GHG emissions caps available. The two major options are a load-based cap or a generation-based (or sector-based) cap. Under a load-based cap, the LSEs would be subject to a GHG emissions cap for all resources procured to serve their load, no matter from what source, including imports. Under a generator-based cap, each generator would be subject to a GHG emissions cap.

#### **3.2.1. Positions of Parties**

Most parties commented on the type of cap that is preferable in the context of concerns about "leakage" and "contract shuffling." Leakage refers to the inability of a California-based cap to address the GHG emissions of out-of-state generation that is imported into California to serve load. Contract shuffling refers to the ability of suppliers who have a large portfolio of resources to allocate their contracts to California in such a way as to show a reduction in GHG emissions without actually lowering their GHG emissions, simply by assigning lower GHG-intensive resources to California delivery.

NRDC argues that leakage is best addressed through the establishment of a load-based GHG emissions cap. TURN agrees. Sempra also prefers a load-based cap, if one must be established at all.

Solargenix states that all generators should be required to register their emissions, but does not offer a direct opinion on whether a generator-based or load-based cap would be preferable.

SCE and SDG&E oppose establishing a load-based cap. SCE likens it to a “downstream” control regime, and cites a Congressional Budget Office study arguing that downstream trading systems are cost-prohibitive. In its reply comments, NRDC refutes this conclusion, arguing that the study’s reference to “downstream” approaches is actually more similar to a generator-based cap than a load-based cap.

SDG&E is more concerned that whatever cap is established in California be compatible with other future cap-and-trade programs regionally, nationally, or internationally. SDG&E argues that a load-based procurement cap will be incompatible with other cap-and-trade programs in the rest of the world. NRDC replies that a load-based system will create allowances representing a unit of GHG emissions, and will therefore be compatible with other cap-and-trade programs that may be established.

### **3.2.2. Discussion**

Despite the objections of the IOUs, we agree with the majority of parties commenting that a load-based GHG emissions cap is preferable to a generator-based cap. For one thing, a load-based cap is the type of cap over which the CPUC has obvious authority with regard to procurement practices. Our authority to impose a GHG cap on exempt wholesale generators under the jurisdiction of the Federal Energy Regulatory Commission is more questionable.

Furthermore, we agree with NRDC and others that a load-based cap is far preferable in minimizing the potential for leakage across California’s borders due to the sizeable reliance of California on imported electricity resources, at least at this time. With respect to concerns over contract shuffling, we note that any initiative that California takes to lead the way in GHG emission reductions by establishing reduction targets or caps will be susceptible to that potential until

other states follow our lead. However, as discussed during workshops, there are approaches we may be able to take (such as “MWh tagging”) during implementation that will enable us to track and quantify any contract shuffling that may occur.

Finally, we make clear that we wish to create a load-based GHG emissions cap that is compatible with any other GHG cap-and-trade regime that may be developed in the future, either in the Western Region, nationally, or internationally. Thus, we will proceed to develop a load-based cap where GHG emissions allowances are fungible. In order to do that, we must ensure that “a ton is a ton” of carbon dioxide emissions under our load-based cap. Thus, our emissions allowances will be in the form of “tons of carbon-dioxide equivalent.”

In comments on the draft decision, GPI points out that other GHGs in addition to CO<sub>2</sub> have significant impacts on climate change, and requests that we clarify our intent with regard to what GHGs will be included under the cap. Our intent is to ultimately include all six of the major GHGs under the load-based cap, as feasible over time.<sup>13</sup> We note that CCAR currently requires that all six must be included in the fourth year of reporting. The regulated IOUs are preparing for that fourth-year report at this time. During the implementation phase, we will consider the implementation details and timeline for including each of these major GHGs under a load-based cap.

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<sup>13</sup> These are: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).

### **3.3. Applicability of Cap**

During the workshop process, some parties raised the issue of the CPUC's legal authority to impose a GHG emissions cap on IOUs and on non-IOU LSEs such as community choice aggregators (CCAs) and electric service providers (ESPs). In addition to relevant policy and implementation issues, the assigned ALJ directed interested parties to comment on what, if any, legal issues the Commission would need to address if it adopted a GHG cap for procurement.

#### **3.3.1. Positions of Parties**

SCE and SDG&E were the only two parties that filed written comments in response to the ALJ's request on whether and how a GHG cap may be applied legally to IOUs or non-IOUs by the CPUC. Generally, both utilities argue that the CPUC should not impose a GHG limit on IOUs because it would be unfair or discriminatory to regulate only IOU emissions and not those of other providers in the marketplace. In addition, SDG&E postulates that Interstate Commerce Clause of the U.S. Constitution might prevent the CPUC from regulating the GHG emissions of out-of-state generators selling into the California market.

#### **3.3.2. Discussion**

By stating our policy preference for a load-based GHG emissions cap in this decision, we are confining our regulatory reach to our jurisdiction over LSEs in California. Though some parties question the wisdom of our establishing GHG emissions restrictions on IOUs, no party argued until comments on the draft decision that we do not have the authority to do so. We believe that regulating the GHG emissions of IOUs falls squarely within our authority over their procurement activities pursuant to Pub. Util. Code § 701. This statute is permissive, not restrictive: "the commission's powers are not limited to those expressly conferred on it: the Legislature further authorized the commission to

*'do all things, whether specifically designated in [the Public Utilities Act] or in addition thereto, which are necessary and convenient'* in the exercise of its jurisdiction over public utilities."<sup>14</sup> The Supreme Court has described the Commission as "a state agency of constitutional origin with far-reaching duties, functions and powers" whose "power to fix rates [and] establish rules" has been "liberally construed."<sup>15</sup> No party cites any statute directly barring the CPUC from issuing these regulations on public utilities, nor justifies an argument that pollution and emissions from utility generation or purchased power are not "cognate or germane to the regulation of public utilities," the primary limiting factor on Commission jurisdiction.<sup>16</sup>

In comments on the draft decision, SCE argues that the Commission cited no direct statutory authority to regulate GHGs as they relate to utility procurement, and thus that the Commission must be asserting some implied authority. As noted above, Section 701 provides such broad and direct authority. SCE suggests by its comments that such regulations may not be "cognate or germane to the regulation of public utilities," but does not explain why the environmental effects of utility purchasing activities are not proper regulatory subjects for this Commission. For example, Section 701.1 directly states that a goal of utility resource planning is "to improve the environment." The Commission is empowered to take into account environmental factors, including

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<sup>14</sup> *SDG&E v. Superior Ct.*, (1996) 13 Cal.4<sup>th</sup> 893, 915, citing Section 701, (italics in decision).

<sup>15</sup> *Southern California Edison Co. v. Peevey*, (2003) 31 Cal.4<sup>th</sup> 781, 792 (citations omitted).

<sup>16</sup> *PG&E Corp. v. CPUC*, (2001) 118 Cal. App. 4<sup>th</sup> 1174, 1201.

air emissions, as part of our jurisdiction over utility resource planning. SCE's reliance on *Southern California Gas Co. v. CPUC*, 24 Cal.3d 653 (1979), cited by SCE on page 12 of its comments, is misplaced, as in that situation legislation directly stated the Commission should allow utilities the option of offering a financing program for customers, but the Commission absolutely required the utilities to offer such a program.

EPUC also argues that the Commission was not granted authority to restrict GHG emissions, and claims that Section 701.1 "specifically prohibits remedies such as a carbon cap" and "does not . . . allow the Commission to impose caps on emissions from generating resources in the utility portfolio." EPUC's argument rests on a strict interpretation of the statute: "[Section] 701.1 addresses very narrowly and specifically the Commission's authority with respect to air quality impacts from utility procurement."<sup>17</sup> EPUC asserts the draft decision violates Section 701.1(g), which states that "[n]o provision of this section shall be construed as requiring an electric utility to alter the dispatch of its power plants for environmental purposes." EPUC cites no other part of the statute as specifically prohibiting the Commission from a remedy such as a carbon cap, and there is no such language in the statute. We further disagree that as a result of this decision, the Commission would be acting pursuant to Section 701.1 to require an electric utility to alter the dispatch of its power plants for environmental purposes. Section 701.1 does not bar the Commission from setting a load-based emissions cap.

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<sup>17</sup> EPUC Comments, p. 3.

We do not believe that this regulation violates any Interstate Commerce Clause principles, as SDG&E, SCE, and EPUC suggest. By setting a load-based emissions cap on the IOU's procurement portfolio, we are not treating out-of-state resources any differently than we are treating in-state resources that are used to serve an IOU's load.<sup>18</sup> California and non-California generators are all subject to the cap and must adjust their behavior accordingly. The cases cited by commentors involve state regulations that facially discriminated between in-state and out-of-state commercial interests.<sup>19</sup> SCE's arguments that the proposed regulations will result in improper extraterritorial effects are misleading and disingenuous, as the proposed regulations do not directly control the prices for electricity paid for in other states, nor regulate transactions wholly taking place outside of California.<sup>20</sup> Therefore, there should be no conflict with respect to the Interstate Commerce Clause.

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<sup>18</sup> See *Harvey and Harvey v. Delaware Solid Waste Authority*, 600 F.Supp. 1369, 1380-81 (D. Del. 1985) (in reviewing an environmental statute "which does not appear to materially favor in-state economic interests . . . the role of a reviewing court is quite limited.")

<sup>19</sup> See, e.g., *Hunt v. Washington Apple Advertising Comm'n*, (1977) 432 U.S. 333 at 351-52 (contrasting lack of any economic impact on in-state apple growers with increased costs on out-of-state growers), EPUC Comments, p. 6; *H.P. Hood & Sons, Inc. v. DuMond*, (1948) 333 U.S. 525 at 530-531 (noting that the challenged "restrictions [were] imposed for the avowed purpose and with the practical effect of curtailing the volume of interstate commerce to aid local economic interests"), SCE Comments, p. 12.

<sup>20</sup> *Healy v. Beer Inst.*, (1989) 491 U.S. 324, 334, 336 (determining that a regulation that would regulate price to be paid in other states and "directly controls commerce occurring wholly outside the boundaries of a State" is contrary to Commerce Clause), SCE Comments, p. 14.

EPUC argues that the regulations are invalid because they violate a purported national, unified regulatory policy for GHG emissions.<sup>21</sup> SCE argues that such regulations are contrary to a purported “federal foreign policy” that has rejected limits on GHG restrictions. However, neither party cites any federal statute or national, uniform scheme of regulation that the proposed regulations would violate, or any court decisions that have precluded any states from regulating GHGs. General assertions of a legislative or executive intent are not sufficient to preclude state legislation without specific legislation or regulations expressing such a clear intent.<sup>22</sup> Indeed, states such as California can exceed minimum national uniform air pollution requirements, directly contradicting EPUC’s claim that there is such a national, uniform scheme for air pollution. SCE concedes that the issue of California “statewide GHG policy” is currently being litigated in the United States District Court,<sup>23</sup> contradicting any notion that there is already a settled federal policy that pre-empts state regulation of GHGs. Moreover, as NRDC’s reply comments reveal, there are contrary interpretations of current Senate policy towards GHG regulations. We cannot agree that California is precluded from regulating GHGs in the absence of any definitive legislation, federal regulations, or court rulings pre-empting the state from doing so.

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<sup>21</sup> EPUC Comments, p. 8 (“interstate commerce must not be subject to varying local regulation where uniform regulation across states is necessary and desirable”).

<sup>22</sup> See *Guschke v. Oklahoma City*, 763 F.2d 379, 384 (10th Cir. 1985).

<sup>23</sup> *Central Valley Chrysler-Jeep, Inc. v. Witherspoon*, CIV-F-04-6663-REC-LJO (U.S. District Court, Eastern District of California), SCE Comments, p. 15.

This leaves the issue of whether the CPUC has authority to establish a load-based GHG emissions cap on non-IOU LSEs such as ESPs and CCAs. Assembly Bill 380, signed into law by Governor Schwarzenegger on September 5, 2005, grants the Commission the following authority in new Pub. Util. Code § 380(e):

“The commission shall implement and enforce the resource adequacy requirements established in accordance with this section in a nondiscriminatory manner. Each load-serving entity shall be subject to the same requirements for resource adequacy and the renewables portfolio standard program that are applicable to electrical corporations pursuant to this section, or otherwise required by law, or by order or decision of the commission. The commission shall exercise its enforcement powers to ensure compliance by all load-serving entities.”

There are two key portions of this code section. First, the Commission is required to impose resource adequacy requirements in a “non-discriminatory manner” and second, the Commission is given explicit authority over both the resource adequacy requirements and the renewables portfolio standard (RPS) program performance for all LSEs. Moreover, as discussed in D.05-11-025, other statutory provisions reinforce the Commission’s authority over CCAs and ESPs for procurement-related activities, in particular, for the RPS program. We believe that limiting GHG emissions from LSEs (including CCAs and ESPs) as part of our regulatory framework for procurement is a logical extension of this authority, in order to ensure that all LSEs are subject to the same requirements for resource adequacy and the RPS, as required by § 380(e). The Commission also has the authority to exercise limited jurisdiction over non-utilities in furtherance of their regulation of public utilities under Pub. Util. Code § 701. (See *PG&E Corp. v. CPUC*, 118 Cal. App. 4<sup>th</sup> (2001) 1195-1201.) Consistent with

the approach taken in D.05-11-025, during the implementation phase we will determine which terms and conditions of GHG reduction requirements and associated caps should be imposed on ESPs, CCAs, and IOUs in a similar fashion, and those where differences may be appropriate.

Alliance for Retail Energy Markets (AREM), in reply comments on the draft decision, claims that *PG&E Corp. v. CPUC* does not support the draft decision's regulation of non-IOU LSEs, because "Section 701 can expand the Commission's powers in a very limited way when doing so is cognate and germane to the regulation of public utilities." AREM also asserts that such regulation would contravene Section 394(f), which provides that "[n]othing in this part authorizes the commission to regulate the rates and terms and conditions of service offered by electric service providers."<sup>24</sup> As we have stated above, regulating the GHG emissions of entities providing service to utility customers is cognate and germane to the regulation of public utilities. Section 380 provides direct authority for this Commission to regulate all LSEs for procurement-related activities. Moreover, it would provide a competitive advantage to non-IOU generation over IOU generation if only IOU generation were subject to GHG emission limits. Such limited measures do not amount to general regulation of the rates or terms of services provided by ESPs and are related to the Commission's regulatory authority over public utilities.

As a general policy, we believe it is imperative that GHG reduction goals and responsibilities be shared as broadly as possible. Therefore, in addition to exercising our authority to apply a load-based GHG cap on IOUs, ESPs, and

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<sup>24</sup> *Reply Comments of Alliance for Retail Energy Markets Regarding the Opinion on Procurement Incentive Framework*, February 7, 2006, p. 4.

CCAs, we will also work with the Governor's Climate Action Team to ensure that municipal utilities are also subject to a GHG emissions reduction regime that will assist California in meeting the aggressive GHG reduction goals articulated in Executive Order S-3-05.

### **3.4. Role of Financial Incentives**

In this section, we discuss both the advisability of offering shareholder incentives for procurement performance, as well as whether those incentives should be developed on a portfolio-wide or category-specific basis. By portfolio-wide incentives, we refer to incentives that could be offered to utilities for optimizing the costs of their entire portfolio, after factoring in the risks of various resources included in that portfolio.

By category-specific incentives, we refer to financial rewards to IOU shareholders for superior achievement in procuring particular GHG-friendly resources, such as energy efficiency and renewable generation. Each category-specific incentive mechanism would establish a benchmark specific to that category, such as net resource savings from energy efficiency investments or savings below the market price referent for RPS programs.

#### **3.4.1. Positions of Parties**

A number of parties commented during and after workshops on the advisability of including financial rewards to shareholders for procurement performance.

UCS believes that incentives can help align the interests of ratepayers and shareholders, but are not necessary for meeting previously-established procurement targets. In UCS's view, category-specific incentives will motivate utilities to aggressively and effectively acquire each of the resources in a cost-effective manner. In particular, UCS believes that financial incentives are

appropriate for superior performance in energy efficiency. However, UCS argues that such incentives should not be provided for RPS resources at this time, given the design parameters of existing renewable energy programs and the lack of a suitable proposal by parties. UCS would, however, support incentives for long-term resource acquisition if the practices of IOUs could be shown to indicate a shift away from GHG-intensive resources.

NRDC goes further, stating that financial incentives are necessary to align shareholder and ratepayer interests. NRDC believes that a portfolio-wide incentive approach is worth pursuing, but does not make a specific proposal. Instead, NRDC recommends that the CPUC proceed by establishing performance-based incentives for energy efficiency, followed by renewable energy. However, NRDC does not currently support an incentive structure for demand response programs because methods for determining the cost effectiveness of these resources are still under development.

In TURN's view, the Commission should focus on GHG reductions alone in this proceeding, and not distract attention by attempting to create incentives in other areas. TURN also argues that creating incentives for energy efficiency, renewables, and demand response as a means of reducing carbon emissions is premature until a GHG program is in place. TURN does, however, recommend that financial incentives be discussed in category-specific proceedings.

TURN also contends that IOU incentives to increase sales are insurmountable. Therefore, in TURN's view, it is not possible to align ratepayer and shareholder interests in an incentive mechanism for energy efficiency. Instead, TURN recommends making supply-side investments less attractive. Finally, TURN argues that since renewable investments are legislatively mandated, they should not be supported by incentives. In TURN's opinion,

providing any financial incentives for such investments would be unwarranted, unnecessary, and detrimental to customer interests.

PG&E responds to TURN's position concerning financial incentives by arguing that TURN fails to understand the relationship between the utility's cost of capital and utility investment decisions, and also fails to recognize that the revenue requirement that supports their capital structure has been de-linked from annual sales for some time now. Overall, PG&E supports a procurement incentive framework that focuses on category-specific financial incentives for energy efficiency investments.

DRA's philosophy is that an IOU's reward should increase only if its risk is also increasing commensurately. Thus, DRA argues that incentives are warranted only if penalties are also in play. According to DRA, an incentive plan compliant with Assembly Bill 57 must do the following: (1) set penalties and rewards for each type of covered procurement activity, (2) establish benchmarks to judge gains and losses, (3) minimize the potential for gaming, (4) prevent the utility from influencing its own benchmark, (5) avoid significantly affecting the utility's credit rating in a negative manner, (6) establish a dead band separating penalties and rewards, (7) cap total penalties and rewards, (8) be formally reviewed in a mid-term review process, (9) establish reporting and verification procedures, and (10) establish a complaint resolution process. DRA further offers that since it is likely that any balanced incentive plan could negatively affect an IOU's credit rating, such a plan should only be developed for SDG&E at this time.

Solargenix supports financial rewards for performance as a necessary step in aligning ratepayer and shareholder interests. Further, Solargenix feels that category-specific approaches are preferable, with an emphasis on renewable

energy development. According to Solargenix, this would provide the greatest amount of benefits to the ratepayer in creating generation assets. Solargenix also recommends that incentives be evaluated to encourage contract renegotiation.

SCE takes the position that category-specific incentives may be appropriate, and that they should be pursued in individual resource-related proceedings.

SDG&E believes that shareholder incentives have been found to enhance efficiency and promote the alignment of interests between shareholders and ratepayers. In particular, SDG&E requests a stand-alone assessment of their incentive framework proposal introduced in this proceeding. In SDG&E's view, financial incentives are not linked to a GHG cap, and therefore should be employed regardless of any cap policy.

### **3.4.2. Discussion**

As a general matter, we agree with a number of parties who pointed out that shareholder incentives can help align ratepayer and shareholder interests. We note that proposals for a portfolio-wide shareholder incentive design did not emerge from the workshop process or in post-workshop comments. While workshop participants appreciated the simplicity of a portfolio-wide financial incentive framework, there was little if any agreement on whether a single portfolio-wide incentive approach could work for all IOUs. We share the concerns of many participants that, given the multi-attribute nature of the various resources in the portfolio, it is doubtful that a single cost-optimization metric applied to the entire portfolio would yield procurement results consistent with the EAP loading order of preferred resources and other Commission procurement policies. Even if such an approach existed in theory, it appears

highly uncertain that a portfolio-wide approach could be put into practice in a reasonable timeframe.

However, the record in this proceeding persuades us that financial incentives for preferred resources are worthwhile to pursue in conjunction with a GHG cap. Doing so is entirely consistent with the policies articulated in prior Commission decisions,<sup>25</sup> as well as with the action items outlined in the EAP (I and II). In particular, those policies articulate the need to bring energy efficiency and demand-side resource investments in line with traditional supply-side resources when it comes to the opportunities to earn returns on those investments. TURN's categorical rejection of financial incentives ignores these policies.<sup>26</sup>

As noted by SDG&E and others, moving forward with category-specific financial incentives is not contingent upon putting a GHG emissions cap in place. Therefore, we intend to move ahead with both elements of our procurement incentive framework in careful coordination, in order to address potential interactions. (See Section 3.5 below.) As several parties note, financial incentive mechanisms should include both "risk and reward," that is, provide IOUs with an opportunity to earn financial rewards balanced by the risk of financial penalties for poor performance. As we have articulated in prior decisions, we believe financial awards should be granted for performance that exceeds

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<sup>25</sup> See, for example, D.05-09-043, *mimeo.*, pp. 129, 132, 165-166.

<sup>26</sup> We have also reviewed TURN's and DRA's comments on the draft decision that reargue this issue, and we continue to find their rearguments opposing the development of financial incentive mechanisms to be without merit.

performance thresholds that are tied to our savings goals or, in the case of RPS resources, to Legislative mandates.<sup>27</sup>

With this guidance in mind, we will proceed to evaluate shareholder risk/reward incentive mechanisms in resource-specific proceedings. We will begin with energy efficiency incentives, which are already planned to be considered in R.01-08-028 or a successor proceeding to it in 2006.<sup>28</sup> We also intend to evaluate the possibility of shareholder incentives for RPS procurement in the future. However, given the plethora of issues under consideration related to RPS implementation in R.04-04-026, we do not commit to a timeframe for considering shareholder incentives for renewable resources at this time. We simply add this issue to the list to be considered in R.04-04-026 or its successor proceeding at a point to be determined by the Assigned Commissioner or ALJ to those proceedings, in the future.

As discussed in D.05-11-009, we are undertaking additional activities in the area of demand response “in order to ensure that our programs provide full value to California ratepayers,” including the development of a cost-effectiveness methodology and measurement and verification protocols.<sup>29</sup> Therefore, we agree with NRDC and other workshop participants that it is premature to explore financial incentives for demand response programs in the near future, although we may revisit this issue at a later date.

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<sup>27</sup> *Id.* See also, D.05-04-051, *mimeo.*, p. 56.

<sup>28</sup> D.05-09-043, *mimeo.*, pp. 165-166.

<sup>29</sup> D.05-11-009 in R.02-06-001, p. 1.

### **3.5. Interaction of GHG Cap and Financial Incentives**

In the revised proposal issued for the March 2005 workshops, and discussed in the Workshop Report, staff suggested that a mechanism could be established for the CPUC to certify GHG emissions allowances for sale outside of California. The CPUC would certify such allowances for superior performance in GHG reductions, as defined by the CPUC. After certification, LSEs could sell the allowances for the benefit of their shareholders as an incentive to further reduce GHG emissions.

#### **3.5.1. Positions of Parties**

Only a few parties commented on this proposal in their written comments on the workshop report. UCS feels that such a proposal may be appropriate, but should be further developed after the Commission has established its baseline methodology and the downward path of the cap over time. SDG&E believes that incentives should be set for individual categories of procurement, in the appropriate individual dockets, completely separate from GHG cap questions. SDG&E also notes that energy efficiency financial incentive mechanisms under consideration include a GHG component through the avoided cost valuation of resource benefits.

NRDC generally endorses the concept of GHG allowance sales under the certification process proposed by staff, but raises a number of issues. First, they suggest that the sale of allowances should be limited in any given year, in order to encourage banking of allowances to smooth out yearly fluctuations. Also, NRDC is concerned that if LSEs receive both category-specific and GHG-targeted incentives, it may be difficult to determine what actions contributed to the overall success of the GHG reduction initiative. Finally, NRDC believes that

potential shareholder rewards under the GHG-targeted incentive mechanism should also be paired with potential shareholder penalties.

### **3.5.2. Discussion**

We note that the staff proposal for allowance sale incentives was developed in the context of an “in California only” framework for trading/certifying offsets. (See Section 4.3 below.) As discussed in this decision, we are deferring our consideration of compliance options (including allowance trading and offsets) until the implementation phase. Therefore, the manner in which the staff-proposed allowance sales incentive mechanism would interact with the cap-and-trade framework that emerges from that phase needs to be further explored. At this juncture, we state a preliminary preference for pursuing the establishment of certified GHG emission allowances that the IOUs would be authorized to sell to the benefit of their shareholders. However, we agree with NRDC that these incentives should also be balanced with potential penalties. We agree with TURN’s observations that, to the extent that ratepayer-funded projects are creating such allowances, we should not preclude from consideration the concept of “shared-savings,” whereby both ratepayers and shareholders benefit from the sale of them.

We will further pursue the concept of allowance sale incentives in the implementation phase of this inquiry. We will also ensure that the design of resource-specific incentives works in tandem with this concept, in order to eliminate any double-counting of financial rewards or penalties.

As suggested in the Workshop Report, if the IOU earns a financial reward for exceeding the Commission’s energy efficiency savings targets and can also sell the extra GHG allowances associated with that achievement, the calculation of the energy efficiency reward may need to be based on a calculation of net

resource benefits that excludes the avoided cost of GHG emissions. Similarly, any direct financial incentives for renewable procurement, in conjunction with an allowance sale incentive, should avoid double payment for the same GHG benefit. There may be other factors to consider in dovetailing these two incentive approaches, so that double-counting and other compatibility problems are avoided.<sup>30</sup>

#### **4. Implementation Issues**

In the workshop and workshop report comments, a number of parties discussed questions related to the implementation of a GHG cap on IOU procurement. Those implementation issues include the following: (1) GHG emissions baselines; (2) adjustments to GHG emission reduction requirements (and associated caps) over time, relative to those baselines; (3) allocation of emissions allowances; (4) flexible compliance mechanisms; (5) potential penalties; (6) requirements for registration with the CCAR; (7) continuation of the GHG or carbon adder adopted in D.04-12-048; and (8) treatment of GHG emissions from the provision of natural gas for purposes other than electricity generation.

Below we discuss the key implementation issues. We also make a number of preliminary determinations to guide our next steps in implementing a load-based cap.

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<sup>30</sup> See Workshop Report, p. 20, footnote 8.

#### **4.1. GHG Emissions Baselines and Adjustments to Reduction Requirements Over Time**

Significant issues surround the question of how to establish GHG emissions baselines against which to set a GHG cap and make future downward adjustments to that cap. Baseline options include multi-year averaging of historical GHG emissions or selection of one single historical baseline year. Another option suggested in the workshop was to develop the emissions cap based on the emissions profile of the IOUs' procurement plans going forward. The method selected has the potential to reward or penalize entities for their prior performance. In addition, significant technical issues exist, such as how to account for weather variability among potential baseline years.

##### **4.1.1. Positions of Parties**

UCS suggests that the selection of a GHG emissions baseline be guided by both principle and practicality. In principle, UCS believes that the chosen baseline should represent each utility's predominant existing pattern with respect to GHG emissions. UCS submits that using an average of historical years is the best method to achieve this goal. Solargenix agrees.

In the alternative, UCS proposes that the Commission could adjust a single year's data to reflect average-hydro-year conditions. In terms of practicality, UCS recommends using a historical period for which the most comprehensive and accurate data can be obtained. In UCS's view, the use of historical year or years avoids much of the potential for gaming that is inherent in using a prospective year. Whatever baseline is chosen, UCS encourages the Commission to work with the CCAR and the CEC to establish methods of assessing out-of-state emissions.

Once the baseline is established, UCS recommends that the trajectory of emission reductions be based on reasonable assumptions about the technical potential of innovations in the GHG emissions reduction area. UCS believes that existing energy efficiency and renewable commitments should not be assumed to exhaust the potential for these resources. UCS suggests creating a supply curve of such resource options, in order to better evaluate the future potential for GHG emissions.

GPI recommends establishing 1990 as the baseline year along with a 7% emissions reduction requirement by 2010, in order to be consistent with the Kyoto Protocol. In GPI's view, this approach has the advantage of harmonizing California's baseline with international efforts. GPI would only enforce this requirement after the emissions profiles of the utilities have been established for the period since 1990. GPI also recommends that targets be reduced over time by some reasonably achievable margin. Further, GPI recommends that hydroelectric variability be addressed in the evaluation of IOU performance.

NRDC recommends a series of joint workshops with the CEC Climate Change Advisory Committee to develop an appropriate baseline and requests that early actors not be penalized in whatever baseline is adopted. PG&E agrees that early action should be recognized in the baseline. NRDC recommends that emission reduction requirements be established over a long period of time in order to send a clear market signal, and that flexible compliance mechanisms should be allowed.

SDG&E recommends that the Commission limit its consideration of these issues to a pilot program, in order to gain experience with GHG cap issues over time. SDG&E also recommends that any GHG cap adjustment take into account factors that are outside of the utilities' control, such as population, economic

activity, and pre-existing contracts. SDG&E also suggests building in off-ramps in case costs escalate. SDG&E opposes any approach that would calculate a baseline and associated emissions cap from the emissions profile of an adopted procurement plan. In SDG&E's view, this would not truly be a baseline because it would be calculated using various assumptions and emission factors and could not be relied upon to gauge true changes from year to year by comparing certified emissions.

#### **4.1.2. Discussion**

We agree with UCS and others that a historical reference point, rather than a prospective one based on procurement plans, should be used to establish a GHG emissions cap for LSEs. As UCS points out, the use of a prospective year has the potential for creating a perverse incentive for LSEs not only *not* to take immediate measures to start reducing GHG emissions, but to take measures that would actually *increase* their GHG emissions. The use of a historical baseline avoids this perverse incentive as well as the reliability issues identified by SDG&E. Moreover, using a historical baseline is consistent and compatible with efforts underway on the state and international level to address climate change.

As discussed in Section 2, subsequent to the workshop and the filing of post-workshop comments in this proceeding, Governor Schwarzenegger announced statewide GHG emission targets that establish 1990 as the historical baseline year against which emission reductions for 2020 and beyond will be gauged. As GPI points out in its comments, the Kyoto Protocol also uses 1990 as the emissions reduction baseline. The selection of 1990 as the reference year for a load-based GHG emissions cap clearly allows the greatest harmonization with the Governor's Executive Order and with existing international efforts to address climate change.

Therefore, it is our preference that 1990 be used as the baseline for developing a load-based GHG emissions cap in this proceeding. Our final determination on this matter will await further discussion of implementation issues associated with using this particular year as the reference, including the availability of adequate historical emissions data for the LSEs.<sup>31</sup>

We also leave to that discussion the consideration of the appropriate level of emissions reductions (and associated cap) over time, relative to the baseline year. For example, we could cap the emissions of each LSE at 1990 levels by 2020 and at 80% below 1990 levels by 2050 to be fully consistent with the statewide GHG reduction targets—or adopt an alternative trajectory of emissions reductions to serve as the load-based cap for LSEs. We will also need to adopt emissions reduction requirements (and associated caps) for the years between now and 2020.

We believe there is considerable merit to UCS's recommendation that this process be informed by an assessment of achievable potential in GHG reductions over the reduction period. During the implementation phase, we will explore UCS's suggestion that a "supply curve" of GHG reduction measures associated with each utility's resource portfolio be developed for this purpose.<sup>32</sup>

We also agree with a number of parties that we must account for the variability of hydroelectric resources in any given year. We leave to the

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<sup>31</sup> That discussion will also need to consider appropriate adjustments for energy service providers and community choice aggregators to take account of the fact that these entities did not exist as of 1990.

<sup>32</sup> *Post-Workshop Opening Comments of The Union of Concerned Scientists on Procurement Incentive Framework Workshop Report*, May 2, 2005, pp. 8-9.

implementation phase of this effort the determination of the best manner to account for hydro variability.

In addition, we recognize that the CCAR is essential to this effort. We note that CCAR participated in the workshops in this proceeding by describing the emissions data collection efforts already completed and those underway. CCAR has also offered to work closely with the LSEs on the further development of emissions data and with this Commission in exploring the implementation options associated with a load-based cap.<sup>33</sup> We appreciate CCAR's constructive participation in this proceeding. We will work closely with them, as well as the Governor's Climate Action Team, in our efforts to establish baselines and associated GHG emissions caps.

Finally, in order to facilitate further rigorous assessment of current performance in the establishment of GHG caps, we will require that all LSEs subject to the Commission's 2006 procurement process file information about their GHG emissions performance in their procurement plans.

As suggested by NRDC in its comments, 2006 procurement plans should include an integrated strategy for reducing GHG emissions over the timeframe addressed in the long-term plans. The plans should also include detailed information about the resource types (including different fuel types) planned for and the emissions characteristics of the preferred resource plans, as well as the various other resource scenarios.

In addition, the 2006 procurement plans should also include detailed information about the existing GHG emissions characteristics of the utilities'

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<sup>33</sup> Letter dated May 23, 2005 to President Michael Peevey from CCAR.

portfolios without the new resource additions proposed in the procurement plans. These will offer a starting point for further consideration of how to establish GHG reduction requirements that will most effectively reduce the absolute level of GHG emissions over time.

#### **4.2. Allocation of GHG Allowances**

An “allowance” refers to a permit provided to the LSE within the scope of the GHG emissions cap to emit one unit of emissions (e.g., ton of CO<sub>2</sub> equivalent). There are basically two options for distributing GHG emissions allowances to LSEs. The first option is to have an administrative allocation. The second is to have an auction where LSEs with obligations bid for the GHG emissions allowances. Opinions vary on the appropriate manner in which to allocate allowances, particularly for the first time. The initial staff Sky Trust proposal advocated an auction structure in order to provide additional revenues to fund energy efficiency and potentially other EAP preferred resources. The modified staff proposal developed during workshops stepped away from recommending an auction.

##### **4.2.1. Positions of Parties**

UCS advocates administrative allocation of the GHG emissions allowances in order to avoid potential problems with handling large revenue streams that would result from an auction. However, UCS believes that a limited auction could provide flexibility under the cap. In addition, UCS recommends further analysis of utility GHG emission profiles before answering this question.

NRDC recommends that an administrative allocation approach be used that ensures (1) no large windfalls, (2) no penalties for early action, (3) LSEs are motivated to make investment decisions that will reduce emissions, (4) administrative burdens are minimized, and (5) updating mechanisms do not

penalize action. NRDC also advocates that allowances be allocated to LSEs on behalf of their ratepayers and not their shareholders. NRDC suggests that a limited auction could be useful to raise additional funds as contemplated under the staff Sky Trust proposal, with the qualification that proceeds from such an auction not be used to replace dedicated funds for existing programs.

In addition, NRDC lists three key indicators that should be considered in determining the LSE-specific allocation, namely, number of customers, percent of statewide retail sales and historical emissions. NRDC advocates an initial allocation based on number of customers, in order to encourage energy efficiency by customers. NRDC also recommends further analysis of the option to weight allocations by customer class.

As discussed above, SDG&E prefers that a GHG emissions cap not be adopted at all. However, if one is established, SDG&E recommends that allowances be allocated administratively. SDG&E requests that such allocation ensure inter-utility equity and account for the variability in GHG emissions outside of the control of the LSE. PG&E also prefers that allowances be allocated administratively if the Commission decides to move in this direction.

#### **4.2.2. Discussion**

Based on the record in this proceeding, our preference is to allocate allowances administratively, based on some combination of the factors listed by NRDC: number of customers, percentage of statewide retail sales, and historical emissions. As discussed during workshops, an auction with so few buyers (as would be the case with a load-based cap for LSEs under CPUC jurisdiction) would be economically inefficient and prone to market power abuses. Allocation, rather than auction, also avoids the need for the Commission to undertake the set-up of an auction structure and rules. In addition, an

administrative allocation of allowances is more conducive to the existing regulatory process we have been using to address procurement-related issues.

We are, however, certain that the manner in which we allocate GHG emission allowances will require a great deal more thought and analysis by the Commission and the parties. Therefore, we intend to have further discussion, perhaps in workshops, on this issue in the next phase of our investigation into implementation of the GHG emissions cap.

### **4.3. Flexible Compliance**

In workshops and comments, parties discussed a number of issues related to flexible compliance with a GHG emissions load-based cap. These issues included: the use of offsets, trading of GHG emissions allowances, and banking and/or borrowing of allowances. The modified staff proposal presented at workshops included a proposal to allow limited offsets associated with utility-related activities within California, at least initially.

#### **4.3.1. Positions of Parties**

##### **4.3.1.1. Offsets**

“Offsets” refer to a reduction in one unit of emissions outside the scope of the cap, which in turn allows an increase in emissions within the scope of the cap. In other words, offsets would allow an LSE to exceed its allocated GHG emissions allowances under the load-based cap, provided that it reduced a comparable level of emissions elsewhere. For example, if an LSE made approved investments in activities outside of the scope of the GHG emissions cap, such as investing in forestation projects, it would receive an offset credit.

GPI and UCS agree with the staff proposal that, at least initially, offsets should be allowed in a limited manner, and only for activities directly resulting from utility activities (for example, diesel pump electrification). They believe

that it is important that IOUs focus immediately on reducing GHG emissions from their own energy portfolios, to ensure that the majority of emissions reductions originate from that portfolio and operational changes by the IOUs.

GPI would allow offsets that provide real net reductions in GHG emissions. UCS would allow offsets only if they are of high quality, independently verified, and with Commission oversight. In addition, they recommend limitations both quantitatively and geographically.

NRDC would prefer no offsets at all, with the possible exception of in-state programs directly connected to IOU operations. NRDC is also concerned that developing offset rules now would substantially delay work on other aspects of the GHG emissions program.

Solargenix is similarly concerned that counting offsets will create emission savings that will be difficult to track and maintain.

CAC/EPUC offer their cogeneration sources as potential in-state offsets for utilities.

PG&E, SCE, and SDG&E are unanimously in favor of allowing offsets, especially for all actions directly associated with IOU procurement (PG&E). In their view, offsets can encourage least-cost attainment of emission reduction goals.

#### **4.3.1.2. Trading**

Trading in the context of flexible compliance generally refers to the trading of allowances among entities subject to the GHG emissions cap, although offset credits can also be sold (traded) on the market. UCS would limit trading, at least initially, to inter-utility transactions. NRDC would do the same, but allow limited sales outside of California in order to provide the allowance incentives proposed under the modified staff proposal.

CAC/EPUC and Sempra recommend full market-based trading of emission allowances and offsets, working up to a regional or national trading system.

SCE and PG&E believe that unlimited flexible trading should be allowed. SDG&E, however, only advocates trading if purchasing is allowed beyond California borders. Otherwise, SDG&E contends that the market power of the two larger IOUs will place SDG&E at a consistent disadvantage. SDG&E also believes that allowing selling outside of California will likely be of little benefit, since California's GHG reductions are likely to be achieved at a relatively high cost. In SDG&E's view, banking is a better approach than allowing sales outside of California of emissions allowances.

#### **4.3.1.3. Banking and Borrowing**

All parties commenting on this issue indicate support, to one degree or another, for banking of emissions allowances (also referred to as emission "credits"). These parties include GPI, UCS, NRDC, Solargenix, SDG&E, and PG&E. According to SDG&E, this type of compliance flexibility is prudent because of the long-range nature of the GHG emissions problem. UCS would limit the amount of banking to encourage continued action. Both UCS and NRDC suggest options for consideration to discourage overbanking, such as expiration dates for allowances, an "accelerator" that would steepen the rate of decline in the cap if a threshold condition is met, or other discounting methods that would decrease the value of banked emissions credits over time.

GPI and SDG&E also advocate for borrowing of emissions credits from future years to be allowed.

### **4.3.2. Discussion**

All parties recognize that flexible compliance options are an integral component of a GHG emissions cap, but differ with regard to the scope and type of options that should be available, at least initially, as the Commission implements a GHG emissions reduction program. We are persuaded by the workshop comments and those submitted on the draft decision that there are significant drawbacks to adopting specific limitations to compliance options at this time, even with the intention of broadening those options over time.

Instead of dictating the type and location of offsets or the scope of trading at this juncture, we will focus our efforts during the implementation phase on ensuring that the compliance options that we do permit are credible, verifiable and administratively feasible, and that we further explore the pros and cons of alternate proposals for offsets, trading, banking and borrowing and other compliance options before making our final determinations. We will also evaluate the costs and benefits of the framework that emerges from the implementation phase. Throughout this process, we will continue to coordinate our efforts with the Governor's Climate Action Team as well as other state, regional or federal agencies that are exploring design options for cap-and-trade programs.

### **4.4. Penalties**

Comments about the enforceability of the GHG emissions cap centered around the potential imposition of penalties for noncompliance.

#### **4.4.1. Positions of Parties**

UCS was the main party arguing that penalties are essential for program success. UCS recommends structuring penalties as alternative compliance payments (ACPs), so that the funds may be used for future GHG reduction

efforts. UCS advocates collecting ACPs from shareholders, after flexible compliance mechanisms have been allowed to be fully utilized by LSEs.

NRDC recommends that CCAR protocols be used to track and report emissions, as well as monitor compliance. In NRDC's opinion, further analysis is needed in order to determine whether penalties are necessary.

SCE and SDG&E do not believe that penalties should be assessed for LSE non-compliance with Commission goals.

#### **4.4.2. Discussion**

We agree with UCS that some form of penalty structure is necessary or else the program will only be a voluntary one. At this juncture, based on the discussion of this issue in the workshop report and in UCS's comments, we prefer structuring penalties as ACPs. We do not have enough information, however, to determine the level or exact nature of an appropriate penalty mechanism at this time. This subject will require further work during the implementation phase in conjunction with our examination of compliance options, as discussed above.

#### **4.5. Emissions Registration**

The question here is whether resource suppliers to LSEs (as well as LSEs themselves) should be required to register their emissions with the CCAR. This is an important step in quantifying existing and future emissions. We note that SCE, PG&E, and SDG&E are already voluntary members of CCAR, and register their emissions using CCAR's reporting protocols.

##### **4.5.1. Positions of Parties**

Of parties commenting on this issue during the workshop process, only Sempra is opposed to the idea of requiring suppliers to register with the CCAR.

Sempra contends that such a requirement could limit the pool of potential suppliers to LSEs and raise prices for consumers.

UCS and NRDC favor requiring supplier registration with the CCAR through provisions in contracts with LSEs. They echo the suggestion made at workshops that IOUs be required to make registration a condition for granting an IOU power purchase agreement.

SDG&E recommends supplier registration with the CCAR, and suggests that if suppliers do not register voluntarily, their unspecified sources of power should be assigned the emissions value of coal.

#### **4.5.2. Discussion**

Our preference would be to require the immediate registration of emissions by all generation resources serving California load with the CCAR. We agree with UCS and NRDC that this should be a required element of a power purchase agreement with IOUs in California. However, we understand that CCAR's registration requirements are currently "entity based," that is, CCAR requires certification of both direct and indirect GHG emissions for the entire entity in California (or in the United States). Therefore, during the implementation phase, we will explore with CCAR ways in which their protocols can be modified to include generation/facility specific data to fit within a load-based cap, and establish a date by which all power purchase agreements that PG&E, SDG&E, and SCE sign for power should include a provision requiring supplier registration with the CCAR. We may extend this requirement to the smaller electric IOUs under our jurisdiction after further consideration of this issue in a proceeding to which these companies are also respondents.

That leaves a significant portion of the existing supply market, as well as the ESP suppliers, left to voluntary registration with the CCAR. In order to

address this larger portion of the market, we are inclined to adopt the suggestion offered by SDG&E. For any non-renewable supplies of electricity with fossil fuel emissions that are unregistered with the CCAR, SDG&E suggests that we require that those supplies automatically be assigned the emissions value of coal. In this way, LSEs purchasing those supplies will be encouraged to negotiate with suppliers for CCAR registration without the need for an explicit requirement by this Commission. However, we are persuaded by the comments on the draft decision that this approach and alternatives to it should be further explored during the implementation phase for our consideration.

Finally, we will take CCAR up on its offer to work with LSEs on developing appropriate proxy emissions factors for more accurate reporting of emissions.

#### **4.6. Continuation of GHG/Carbon Adder**

The issue here is related to the GHG/carbon adder adopted in D.04-12-048. Parties commented on whether the continued use of the adder would be necessary after a GHG emissions cap was in place.

##### **4.6.1. Positions of Parties**

In its comments, SDG&E characterizes a GHG procurement cap as a quantity limitation on the production of GHG emissions that produces a price to achieve that reduction, and a GHG adder as a price that leads to long-term resource choices that produce a certain reduction of GHG. If there were a GHG procurement cap with no price cap, SDG&E argues that the GHG adder is irrelevant. If there is a price cap, SDG&E suggests that the GHG adder be set at the price cap.

UCS believes that unless the GHG emissions allowance price is explicit, an adder will still be needed to shift procurement away from GHG-intensive

resources. NRDC also argues that a forecast of allowance costs will still be necessary to allow for the possibility of future regulations that are stricter than the Commission's GHG cap.

PG&E and Sempra argue that the adder would be redundant with a GHG emissions cap.

#### **4.6.2. Discussion**

Based on the comments in this proceeding, we are inclined to eliminate a GHG or carbon adder once a working GHG emissions cap is in place. However, the time to discontinue the use of the adder is only after we have successfully implemented a GHG emissions cap, and have considered the value of continuing with a carbon adder in that context. Until further notice from this Commission, the GHG/carbon adder should still be used in procurement resource evaluation.

#### **4.7. Treatment of GHG Emissions From Natural Gas for Purposes Other Than Electricity Generation**

Utility customers' direct use of natural gas is substantial compared with the amount of natural gas used to produce electricity for utility customers.<sup>34</sup> NRDC estimates that approximately 15% of carbon dioxide emissions are associated with end-use consumption of natural gas, making it a substantial contributor to the State's GHG emissions.<sup>35</sup> Both the Sky Trust and the modified

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<sup>34</sup> The CEC reports that direct utility customer natural gas consumption is currently about 58% of total usage, with the remaining 42% used to power in-state electricity generation. This does not include gas usage associated with imported electricity. See [http://www.energy.ca.gov/naturalgas/statistics/natural\\_gas\\_consumption\\_electricity.html](http://www.energy.ca.gov/naturalgas/statistics/natural_gas_consumption_electricity.html).

<sup>35</sup> *Post Workshop Comments of the NRDC on a Procurement Incentive Framework*, May 2, 2005, p. 10.

staff proposals suggest that the Commission consider the issue of setting limits on GHG emissions associated with natural gas distribution for purposes other than electricity generation. The workshop report and subsequent ALJ ruling posed the following questions for comment:

- (1) Can or should GHG emissions from non-electric generation usages of natural gas be addressed in a GHG cap and overall procurement incentive framework for the IOUs? If so, how?
- (2) Are there important differences between a load-based and a generation-based approach in this regard?
- (3) If the Commission focuses initially on GHG emissions associated with the production of electricity, what steps should it take to ensure that GHG emissions associated with customer use of natural gas can be incorporated in the future?

As a general principle, we believe that any long-term effort to limit carbon emissions should address natural gas use both for electricity production and directly by customers. To this end, the logical corollary to a load-based cap on GHG emissions for electricity procurement would be a GHG limitation program that includes emissions from the natural gas sector. However, we are persuaded by the comments and workshop discussion that we should refrain from limiting emissions from non-electric generation usages of natural gas until the requisite emission reporting and certification protocols become available.

In the meantime, however, we will continue to establish aggressive goals for energy efficiency in both the natural gas and electric sectors. We will also continue to support the CEC in its efforts to improve building and appliance efficiencies through codes and standards, and take other steps to reduce end-use consumption of GHG-emitting energy sources over time through our energy efficiency, demand response and renewable energy programs. During the implementation phase discussed below, we will further define the steps this

Commission should take to ensure that GHG emissions associated with customer use of natural gas are incorporated into a procurement incentive framework in the future.

## **5. Other Issues**

In this phase of the proceeding, SDG&E filed a proposal for a shareholder incentive framework that includes shareholder incentives for energy efficiency investments, as well as for beating certain market benchmarks in short-term procurement activities (e.g., short-term contracting and sales, contract renegotiations, among others).<sup>36</sup> SDG&E requests that we accept its incentive proposal here or, in the alternative, order further evaluation of this proposal in the future.

We decline to do so here. SDG&E's proposal does not fit within the scope or goals of our inquiry in this proceeding. Here, we are examining the interaction between GHG policies and potential financial incentives for resource investments that will be consistent with the preferred loading order identified in our procurement policy decisions and in the EAP.

SDG&E is free to propose elements of its incentive framework proposal in the energy efficiency rulemaking (or its successor proceeding) or SDG&E's rate case, as appropriate. However, we do not approve SDG&E's request for approval of its incentive proposal in this proceeding.

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<sup>36</sup> *Pre-Workshop Comments of SDG&E on Procurement Incentive Framework*, February 11, 2005.

## **6. Next Steps**

We will delegate to the Assigned Commissioner and assigned ALJ in this proceeding to determine the next steps for implementation of today's decision. We will leave to them the determination of schedule, a prioritized list of implementation issues and exact approach for carrying out our policy determinations. The implementation steps include, but are not limited to: (1) quantifying the GHG emissions baseline for each LSE, (2) adjusting GHG emission reduction requirements over time, relative to the baseline, (3) adopting and administering a process for allocating emissions allowances, (4) developing flexible compliance mechanisms with appropriate performance penalties, and (5) evaluating the costs and benefits of the resulting framework. As discussed in this decision, we fully intend to coordinate closely with CCAR during this process to ensure that the appropriate data collection, reporting and tracking protocols are developed in tandem with these implementation steps.

We emphasize that nothing in today's decision precludes us from opening a new proceeding to address these implementation issues and/or to consolidate these issues with our consideration of performance standards for utility procurement discussed in the Commission's October 6, 2005 GHG Policy Statement.

## **7. Comments on Draft Decision**

The draft decision of Commissioner Peevey on this matter was served to the parties in accordance with Pub. Util. Code § 311(g)(1) and Rule 77.7 of the Commission's Rules of Practice and Procedure (Rules). Comments were filed on February 2, 2006 by Independent Energy Producers, GPI, California Manufacturers & Technology Association, NRDC and UCS (jointly), DRA,

Sempra, PG&E, SDG&E, EPUC, CCAR, TURN, and SCE.<sup>37</sup> Reply comments were filed on February 7, 2006 by AREM, NRDC, SCE, Sempra, and SDG&E.

We have carefully reviewed the comments, and make certain clarifications and modifications in response to them. In particular, we modify the draft decision with respect to flexible compliance issues by deferring any determinations regarding the scope of offsets, trading, banking and borrowing of allowances until these and other flexible compliance issues can be further explored during the implementation phase. We also defer to that phase the timing and details associated with CCAR registration requirements, as discussed in Section 4.5.2. In addition, we clarify our intent that the load-based GHG emissions cap will ultimately apply to all six major GHGs as soon as practicable.

However, we do not alter the draft decision in terms of the threshold “fork in the road” policy issue or its guidance regarding other implementation issues, as some parties recommend. In particular, SCE argues that a load-based cap is unlikely to be compatible with a national program, and therefore establishing one at this juncture will not achieve the Commission’s goals. SDG&E expresses similar concerns that a load-based cap may be difficult to reconcile with generation-based caps that may be established nationally or in the western United States. We decline to abandon a load-based cap in favor of the alternative (generation-based cap), or abandon the concept of imposing a cap altogether, for the reasons discussed in this decision. We note that the Climate Action Team

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<sup>37</sup> Opening comments on the draft decision were also submitted by Redefining Progress and California Council for Environmental and Economic Balance. However, these organizations are not parties to this proceeding, and they did not submit timely motions to intervene. Therefore, we do not consider these comments in addressing the issues in this decision.

draft report also recognizes the advantages of a load-based cap for the electric sector.<sup>38</sup> Clearly, if a comprehensive regional or national plan for generation-based caps were implemented in the future, thereby addressing the leakage problems that a load-based helps to mitigate, we would be open to revisiting the structure of the GHG cap for California. However, in the meantime, we believe that the arguments for a load-based cap are persuasive, and will pursue the implementation of one at this juncture.

PG&E and Sempra urge us to condition the implementation of today's adopted decision upon the expansion of the program to include municipal utilities, either by statute or by order of the Governor. SCE also urges us not to proceed with the implementation of a cap program for just the electricity sector, or just a portion of the electricity sector. Sempra concurs, arguing that non-IOUs should actually be exempt from the program for some period of time to see if a regional or national program emerges. In effect, these parties ask us to "wait and do nothing" with respect to a GHG emissions cap until all the pieces of a coordinated state, regional or national program becomes operational. As we discuss in today's decision, we do not believe that this is a viable option. Instead, we will move forward with today's decision in close coordination with the Governor's Climate Action Team and other California agencies, and work with them to ensure that the broadest possible GHG emissions reduction program is implemented in California to meet the aggressive GHG reduction goals articulated in Executive Order S-3-05.

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<sup>38</sup> See *Climate Action Team Report to the Governor and Legislature*, December 8, 2005, pp. 62-63.

The comments of SCE and DRA raise issues concerning the scope of this proceeding. In particular, the comments of DRA urge us to adopt a carbon tax. We agree with SDG&E that DRA's proposal is improper. Per Rule 77.3, "Comments shall focus on factual, legal or technical errors in the proposed decision and in citing such errors shall make specific references to the record." A carbon tax proposal is neither mentioned in the draft decision, nor does DRA make any specific reference to the record where this issue was raised in the proceeding. Our review of the record indicates that a carbon tax proposal was not raised as a proposal to be explored in pre-workshop comments, was not discussed in the workshop report, in the ALJ ruling soliciting comments on that report, or in post-workshop comments. Moreover, a carbon tax proposal has not been identified for investigation in any Commission decision, policy statement or ruling. DRA's proposal is beyond the scope of this proceeding.

SCE argues that "[a]t the outset, this proceeding was limited to the investigation [of] procurement incentives and the so-called 'Sky Trust' proposal" and asserts that a load-based GHG emissions cap is out of the scope of this proceeding.<sup>39</sup> We disagree. As NRDC points out in its reply comments, from the start of this process, we have set out two complementary purposes for this proceeding: (1) to address GHG emission reduction policies as an overall procurement incentive framework, and (2) to address risk/reward financial incentive mechanisms for total portfolio and/or resource-specific procurement. Commission staff structured the workshops to cover both sets of issues, and the ALJ ruling soliciting comments did so as well. Contrary to SCE's claim, the

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<sup>39</sup> *Southern California Edison Company's Comments on Draft Decision on Procurement Incentives Framework*, p. 8.

Order Instituting Rulemaking dated April 1, 2004 made it clear that the Sky Trust staff proposal was “intended to illustrate one approach . . . and other alternatives can be explored.”<sup>40</sup> Indeed, the March workshops and the two rounds of pre- and post-workshop comments were not limited to the Sky Trust proposal, and parties explored various alternatives in great detail. We find no merit to SCE’s assertion that today’s determinations are outside the scope of this proceeding.

Finally, some parties request that we provide additional guidance in today’s decision on the specific design of a load-based cap. In particular, SCE requests that such a cap be designed to reflect load increases. SDG&E requests that we establish the cap and reduction schedules to reflect factors beyond the LSE’s control, such as population, economic activity, and pre-existing contracts. SCE and SDG&E also recommend that the cap include “off ramps” or “safety valves” for the program, based on a price cap equal to the Commission’s adopted GHG adder.

We decline to resolve these issues today. Instead, along with other implementation details, these proposals should be explored during the implementation phase, where the pros and cons of a wide range of implementation and design options can be carefully considered. We also decline to include in today’s decision a specific sequence or list of issues for the implementation phase, as some parties suggest in their comments on the draft decision. We delegate that responsibility to the Assigned Commissioner and ALJ, as discussed in Section 6 above.

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<sup>40</sup> Order Instituting Rulemaking 04-04-003, April 1, 2004, pp. 16-17.

## **8. Assignment of Proceeding**

Michael R. Peevey is the Assigned Commissioner. Meg Gottstein is the assigned ALJ for the procurement incentives portion of this proceeding.

### **Findings of Fact**

1. The electric power sector is one of the most important categories of GHG emissions to be addressed in the state, representing approximately 20% of California's climate change emissions.

2. Establishing a GHG emissions cap for LSEs is consistent with, and follows the lead of Governor Schwarzenegger's Executive Order S-3-05. It is also consistent with the goals of the EAP and this Commission's October 6, 2005 Policy Statement on Greenhouse Gas Performance Standards.

3. California relies on significant sources of generation imported into California from other states. A load-based cap on GHG emissions can minimize leakage across California borders.

4. Establishing allowances under the load-based cap based on "tons of carbon-dioxide equivalent" will create allowances that are fungible and compatible with any other GHG cap-and-trade regime that may be developed in the future.

5. The implementation details and timeline for including each of the six major GHGs emissions under the load-based cap should be addressed during the implementation phase.

6. As discussed during workshops, there are approaches that can be taken during implementation of a load-based cap to track and quantify potential contract shuffling. As other states follow California's lead on limiting GHG emissions, contract shuffling will become moot.

7. Shareholder financial incentives can help align ratepayer and shareholder interests.

8. Given the multi-attribute nature of the various resources in the portfolio, it is doubtful that a single cost-optimization metric applied to the entire procurement portfolio would yield results consistent with EAP loading order of preferred resources and other Commission procurement policies. Even if such an approach existed in theory, it appears highly uncertain that a portfolio-wide approach to financial incentives could be put into practice in a reasonable timeframe.

9. Moving forward with category-specific financial incentives is not contingent upon putting a GHG emissions cap in place.

10. Moving forward with the development of financial incentives for preferred resources is worthwhile and consistent with the policies articulated in prior Commission decisions, as well as with the action items outlined in the EAP. In particular, developing financial incentives for energy efficiency investments addresses the need to bring those investments in line with traditional supply-side resources when it comes to opportunities to earn returns on those investments.

11. TURN's categorical rejection of financial incentives for energy efficiency and other EAP preferred resources ignores the policies articulated by the CPUC in prior decisions and the action items contained in the EAP.

12. Financial incentive mechanisms should provide an opportunity to earn financial rewards balanced by the risk of financial penalties for poor performance. Financial rewards should be granted for performance that exceeds performance thresholds that are tied to Commission savings goals or, in the case of RPS resources, to Legislative mandates.

13. It would be premature to commit today to a timeframe for considering financial incentives for renewable resource procurement, given the plethora of issues under consideration related to RPS implementation in R.04-04-026.

14. It would be premature to explore financial incentives for demand response programs until the Commission undertakes the additional activities identified in D.05-11-009 that will ensure that these programs provide full value to California. These include the development of a cost-effectiveness methodology and measurement and verification protocols.

15. The concept of allowance sale incentives in conjunction with a GHG emissions cap has appeal, and should be further explored in the implementation phase of this proceeding. If such an incentive mechanism is established, the resource-specific incentives should be designed work in tandem with this concept, in order to eliminate any double-counting of financial rewards or penalties.

16. The use of a prospective year as the baseline for a GHG emissions cap has the potential for creating a perverse incentive for LSEs to (1) not take immediate measures to start reducing GHG emissions, and/or (2) take measures that would actually increase their GHG emissions. The use of a historical baseline avoids this perverse incentive.

17. An approach that would calculate a baseline and associated emissions cap from the emissions profile of an adopted procurement plan would not truly be a baseline because it would be calculated using various assumptions and emissions factors. Therefore, it could not be relied upon to gauge true changes from year to year by comparing certified emissions.

18. Using a historical baseline is consistent and compatible with efforts underway on the state and international level to address climate change.

19. A historical reference point, rather than a prospective one based on procurement plans, should be used to establish the GHG emissions cap adopted in this decision.

20. As discussed in this decision, the selection of 1990 as the baseline for a load-based GHG emissions cap allows the greatest harmonization with the Governor's Executive Order and with international efforts to address climate change.

21. The record needs to be further developed with respect to the implementation issues associated with using 1990 as the reference year, including the availability of adequate historical emissions data for the IOUs and other LSEs.

22. The record needs to be further developed with respect to the appropriate level of emissions reductions (and associated caps) over time, relative to the baseline. An assessment of achievable potential in GHG reductions using "supply curves" of GHG reduction measures may help inform this process, and should be explored further during the implementation phase.

23. The variability of hydroelectric conditions has an impact on the GHG emissions profile of LSEs in any given year. How best to account for this hydro variability should be explored during the implementation phase.

24. As discussed in this decision, the CCAR is an essential component to the implementation of today's adopted policies.

25. Requiring LSEs to file information about existing GHG emissions and the GHG emissions impacts of their planned procurement activities will enable the CPUC to establish GHG reduction requirements (and associated caps) that most effectively reduce the absolute level of GHG emissions over time.

26. An auction of allowances with few buyers, which is the case here, would be economically inefficient and prone to market power abuses.

27. Administrative allocation of allowances, rather than auction, avoids the need for the CPUC to undertake the complex set-up of an auction structure and rules.

28. Administrative allocation of GHG emissions allowances is more conducive to the CPUC's regulatory process for addressing procurement related issues.

29. The manner in which the CPUC will allocate GHG emission allowances needs to be explored in detail during the implementation phase.

30. As discussed in this decision, the issues associated with flexible compliance (e.g., the type and location of allowable offsets, the scope of trading, banking and borrowing of allowances) are complicated and should be evaluated further during the implementation phase.

31. Without some form of penalty structure, compliance with the GHG emissions cap will only be voluntary.

32. The CPUC does not have enough information about appropriate penalty levels or mechanisms at this time. However, the concept of structuring penalties in the form of alternate compliance payments has considerable appeal, based on the record in this phase of the proceeding, and should be further explored during the implementation phase in conjunction with the examination of compliance options.

33. The registration of LSEs and resource suppliers to LSEs with CCAR is an important step in quantifying existing and future emissions.

34. The IOU respondents in this proceeding (PG&E, SCE, and SDG&E) are registered with CCAR and report their emissions using CCAR's reporting protocols.

35. Requiring that all power purchase agreements signed by PG&E, SDG&E, and SCE include a provision that the generation supplier register with CCAR will help facilitate emissions reporting and tracking in California. For reasons discussed in this decision, the timing for implementation of this requirement must await further coordination with CCAR during the implementation phase. Even when implemented, this requirement will still leave a significant portion of the existing supply market, as well as the ESP suppliers, left to voluntary registration with the CCAR.

36. During the implementation phase, SDG&E's suggestion to assign the emissions value of coal to any non-renewable supplies of electricity with fossil fuel emissions that are unregistered with the CCAR should be further explored along with other alternatives to address this larger portion of the market.

37. As discussed in this decision, it may be appropriate to discontinue the use of a GHG or carbon adder once a working GHG emissions cap is in place.

38. Any long-term effort to limit carbon emissions should address natural gas use both for electricity production and directly by customers. However, until the requisite emission reporting and certification protocols become available, it is premature to establish GHG emissions reductions (or associated caps) for non-electric generation usages of natural gas. The implementation phase should further define the steps the CPUC should take to ensure that GHG emissions associated with customer use of natural gas are incorporated into a procurement incentive framework in the future.

39. As discussed in this decision, SDG&E has submitted a proposal for shareholder incentives that does not fit within the scope or goals of our inquiry in this proceeding.

40. As discussed in this decision, DRA has submitted a proposal for consideration of a carbon tax in comments on the draft decision that is outside the scope of this proceeding, as well as outside the scope of permissible comments on a draft decision.

41. SCE's assertions that a load-based GHG emissions cap is out of the scope of this proceeding are without merit, as discussed herein.

### **Conclusions of Law**

1. The CPUC should continue to coordinate with Governor Schwarzenegger's Climate Action Team, as well as other regional, national, and international efforts to reduce GHG emissions.

2. As described in this decision, the CPUC should establish a load-based cap on GHG emissions for PG&E, SDG&E, SCE, and non-utility LSEs that provide electric power to customers within respondents' service territories.

3. The setting of a load-based GHG emissions cap by the CPUC is not prohibited by or inconsistent with the Interstate Commerce Clause of the U.S. Constitution.

4. The CPUC has authority to regulate GHG emissions within its overall authority over the procurement activities of California IOUs pursuant to the legal authority granted by Pub. Util. Code § 701 and other statutory provisions. As discussed in this decision, this authority logically extends to the GHG emissions of CCAs and ESPs under the legal authority granted by Pub. Util. Code § 380(e) and other statutory provisions.

5. Regulating the GHG emissions of California IOUs falls squarely within the Commission's authority over their procurement activities.

6. Pub. Util. Code § 380(e) gives this Commission the authority to establish resource adequacy requirements on all IOUs, CCAs, and ESPs in California in a

“non-discriminatory” manner, and makes these LSEs subject to the same requirements for resource adequacy and the RPS program. Section 380(e), along with other statutory provisions, reinforces the Commission’s authority over CCAs and ESPs for procurement related activities, in particular, the RPS program.

7. In a separate phase of this proceeding, its successor proceeding, or a new rulemaking, the CPUC should address the implementation of today’s decision. In doing so, the Commission may consolidate these implementation issues with its consideration of performance standards for utility procurement discussed in the October 6, 2005 GHG Policy Statement.

8. In addition to establishing a load-based GHG emissions cap, the CPUC should evaluate proposals for shareholder financial incentives in resource-specific proceedings, beginning with energy efficiency and including renewable energy in the future. As discussed in this decision, the CPUC may consider the issue of shareholder incentives for demand response programs at a later date.

9. The CPUC should require LSEs to file information about their GHG emissions baselines and the GHG emissions impacts of their planned procurement activities in their 2006 long-term procurement plans.

10. After addressing the coordination and implementation issues with CCAR, as discussed in this decision, the CPUC should require that all future power purchase agreements signed by PG&E, SDG&E, and SCE contain a requirement that the generation supplier register with the CCAR. The CPUC should consider extending this requirement to the smaller electric IOUs under its jurisdiction after further consideration of this issue in a proceeding to which these companies are also respondents.

11. The CPUC should continue the use of the carbon adder ordered in D.04-12-048 until after the CPUC has considered the value of continuing with a carbon adder in the context of a fully implemented GHG emissions cap.

12. The CPUC should delegate to the Assigned Commissioner and assigned ALJ the management of the implementation steps associated with today's decision.

13. The CPUC should deny SDG&E's request for approval of its incentive proposal at this time.

14. Today's determinations are fully within the scope of this proceeding.

15. In order to proceed as expeditiously as possible to implement today's adopted policies, this order should be effective immediately.

## **O R D E R**

### **IT IS ORDERED** that:

1. The California Public Utilities Commission (CPUC or Commission) shall proceed to establish a load-based cap on greenhouse gas (GHG) emissions for Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Southern California Edison Company (SCE) ("the utilities") and non-utility load serving entities (LSEs) that provide electric power to customers within the utilities' service territories.

2. Implementation of a load-based cap shall be guided by the following:

- a. The load-based cap should include emissions allowances for "tons of carbon dioxide equivalent," and over time include all six major GHGs (i.e., carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).
- b. The load-based cap should include provisions for lowering the GHG reduction requirements (and associated cap) over time, relative to a baseline level of GHG emissions.

- c. The baseline should be established on a historical year basis, with 1990 as the preferred reference year. A final determination on this matter should await further consideration of implementation issues associated with using this particular year as the reference, including the availability of adequate historical emissions data for the investor-owned utilities and other LSEs.
- d. GHG emissions allowances under the load-based cap should be allocated administratively by the CPUC.
- e. The pros and cons of various flexible compliance options should be fully explored, including offsets, trading, banking and borrowing. Efforts during the implementation phase should focus on ensuring that compliance options are credible, verifiable, and administratively feasible.
- f. A penalty mechanism should be developed in conjunction with further consideration of flexible compliance options, with preference towards structuring penalties as alternative compliance payments.
- g. The costs and benefits of the GHG emissions cap and associated flexible compliance options that are developed for Commission consideration during the implementation phase should be evaluated.
- h. The specific reporting requirements/protocols should be established for the CCAR registration requirements discussed in today's decision, and a method for assigning emissions values to supplies that are unregistered with the CCAR should be developed. In addition, a date should be established by which all power purchase agreements that PG&E, SCE, and SDG&E sign for power should include a provision requiring supplier registration with the CCAR.

3. As discussed in this decision, allowance sale incentives, whereby the CPUC would certify GHG emissions allowances for sale by the utilities outside of California to the benefit of their shareholders, shall be further considered and developed during the implementation of today's decision.

4. During implementation, the CPUC shall identify the issues for which energy service providers, community choice aggregators and the utilities should be subject to the same terms and conditions of GHG reduction requirements and associated caps, and those where differences may be appropriate.

5. During implementation, the CPUC shall further define the steps it will take to ensure that GHG emissions associated with customer use of natural gas are incorporated into a procurement incentive framework in the future.

6. Implementation of today's decision shall be addressed in a subsequent phase of this rulemaking, or its successor proceeding, or in a new rulemaking opened by the Commission specifically for this purpose. The Commission may consolidate these implementation issues with its consideration of performance standards discussed in the Commission's October 6, 2005 GHG Policy Statement.

7. As discussed in this decision and Decision (D.) 05-09-043, the CPUC shall proceed to develop a risk/reward incentive mechanism for energy efficiency in Rulemaking (R.) 01-08-028, or its successor proceeding.

8. All LSEs that are required to file a 2006 long-term procurement plan shall include the following information in their plans:

- a. GHG emissions baseline information about the LSE's existing resource portfolio, and
- b. The emissions characteristics associated with its preferred resource plan and any alternative scenarios presented or proposed, including information about the planned resources (including different fuel types).

9. The use of the carbon adder adopted in D.04-12-048 shall remain in effect for procurement activities until further notice.

10. SDG&E's request for approval of its incentive proposal in this proceeding is denied.

11. The Assigned Commissioner and assigned Administrative Law Judge may make rulings, hold prehearing conferences, and conduct other activities as necessary to manage the implementation of today's decision.

12. This decision shall be served on the service list in this procurement proceeding (R.04-04-003), the energy efficiency rulemaking (R.01-08-028), the avoided cost rulemaking (R.04-04-025), the community choice aggregator rulemaking (R.03-10-003), on-going transmission proceedings (R.04-01-026 and Investigation 00-11-001), renewables portfolio standard rulemaking (R.04-04-026), and the distributed generation rulemaking (R.04-03-017).

13. This proceeding shall remain open to address other procurement-related issues, as appropriate.

This order is effective today.

Dated February 16, 2006, at San Francisco, California.

MICHAEL R. PEEVEY  
President  
GEOFFREY F. BROWN  
JOHN A. BOHN  
RACHELLE B. CHONG  
Commissioners

Commissioner Dian M. Grueneich recused herself from this agenda item and was not part of the quorum in its consideration.

**ATTACHMENT 1: ABBREVIATIONS AND ACRONYMS**

<b>Abbreviation or Acronym</b>	<b>Name</b>
ACPs	alternative compliance payments
ALJ	Administrative Law Judge
AREM	Alliance for Retail Energy Markets
CAC	Cogeneration Association of California
CalEPA	the California Environmental Protection Agency
CCAR	California Climate Action Registry
CCAs	community choice aggregators
CEC	the California Energy Commission
CPUC or Commission	the California Public Utilities Commission
D.	Decision
Duke	Duke Energy North America
EAP	Energy Action Plan
EPUC	Energy Producers and Users Coalition
ESPs	electric service providers
GHG	greenhouse gas
GPI	Green Power Institute
IOUs	investor-owned utilities
LSEs	load serving entities
NRDC	Natural Resources Defense Council
DRA	Division of Ratepayer Advocates
PG&E	Pacific Gas and Electric Company
Pub. Util. Code	Public Utilities Code

R.	Rulemaking
RPS	renewables portfolio standard
Rules	the Commission's Rules of Practice and Procedure
SCE	Southern California Edison Company
SDG&E	San Diego Gas & Electric Company
Sempra	Sempra Global
TURN	The Utility Reform Network
UCS	the Union of Concerned Scientists

**(END OF ATTACHMENT 1)**