

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

Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies.

Rulemaking 06-04-009  
(Filed April 13, 2006)

**ADMINISTRATIVE LAW JUDGES' RULING  
REQUESTING COMMENTS ON EMISSION REDUCTION MEASURES,  
MODELING RESULTS, AND OTHER ISSUES;  
INCORPORATING MATERIALS INTO THE RECORD;  
AND RECOMMENDING OUTLINE FOR COMMENTS**

**1. Summary**

In this ruling, we request that parties comment on emission reduction measures, the modeling efforts of consultants Energy and Environmental Economics, Inc. (E3), and certain other issues. We also incorporate into the record of Rulemaking (R.) 06-04-009 materials from the recent workshops and an updated version of the April 16, 2008 staff paper on allocation of greenhouse gas (GHG) allowances that reflects typographical and other minor corrections. Parties may address these documents in their comprehensive comments and reply comments that, pursuant to an April 16, 2008 ruling, are due on, respectively, May 27, 2008 and June 10, 2008. We provide additional guidance and an outline which we request that parties use in preparation of their comments and reply comments.

## **2. Emission Reduction Measures and Annual Emissions Caps**

The California Air Resources Board (ARB) hosted and the Public Utilities Commission and Energy Commission co-sponsored a workshop on May 2, 2008 on emission reduction measures available in the electricity and natural gas sectors. The focus of this workshop was largely on non-market-based emission reduction measures.

At the May 2 workshop, agency staff presented information about current activities in the electricity and natural gas sectors that relate to GHG emissions reduction. Copies of their presentations are attached to this ruling as Attachments 1 through 14, as identified in Section 5 below. Parties may comment on these presentations and other issues raised in the May 2, 2008 workshop in their May 27, 2008 comments and June 10, 2008 reply comments.

In addition, we request that parties respond to the following questions regarding GHG emission reduction measures and annual emissions caps:

1. What direct programmatic or regulatory emission reduction measures, in addition to current mandates in the areas of energy efficiency and renewables, should be included for the electricity and natural gas sectors in ARB's Assembly Bill (AB) 32 scoping plan?
2. Are there additional regulations that ARB should promulgate in the context of implementing AB 32, that would assist or augment existing programs and policies for emission reduction measures in the electricity and natural gas sectors?
3. For any non-market-based emission reduction measures for electricity discussed in your opening comments, are there any overlap or compatibility issues with the potential electricity sector participation in a cap-and-trade program? Explain.
4. The scope of this proceeding includes making recommendations to ARB regarding annual GHG emissions caps for the electricity and natural gas sectors. What should those recommendations be? What factors (e.g., potential effectiveness of identified

- emission reduction measures, rate impacts for electricity and natural gas customers, abatement cost in other sectors, anticipated carbon prices) should the Commissions consider in making GHG emissions cap recommendations? If sufficient information is not currently available to recommend cap levels, what cap-related recommendations should the Commissions make to ARB for inclusion in its scoping plan?
5. What percentage of emission reductions in the electricity sector should come from programmatic or regulatory measures, and what percentage should be derived from market-based measures or mechanisms? What criteria should be used to determine the portion from each approach? By what approach and in what timeframe should this question be resolved?
  6. Do any of the non-market-based emission reduction measures discussed in your opening comments raise any legal or regulatory concern(s) or barrier(s)? If so, please explain the legal or regulatory concern(s) or barrier(s), including citations to specific relevant legal authorities. Would additional legislation be necessary to overcome any identified legal barrier(s)? Also, explain if and, if so, how the emission reduction measure(s) could be modified to avoid the legal or regulatory concern(s) or barrier(s).
  7. For reply comments: do any of the emission reduction measures identified by other parties in their comments raise legal concerns? If so, please explain the legal concern(s), including citations to specific relevant legal authorities. Also, explain if and, if so, how the emission reduction measure(s) could be modified to avoid the legal concern(s).

### **3. GHG Model Results**

The purpose of the modeling effort in this proceeding is to produce a tool by which the key impacts of achieving emissions reductions within the electricity sector under AB 32 may be quantified. The modeling effort seeks primarily to provide insights about the relative cost-effectiveness of GHG abatement measures available within the electricity sector, as well as the overall cost

impacts of achieving GHG emission reductions of varying stringency within the 2020 timeframe.

At the April 21 and 22, 2008 workshop, E3 explained modifications it made in response to parties' Stage 1 comments and shared preliminary results for Stage 2. At the May 6, 2008 workshop, E3 presented additional Stage 2 model results and provided parties with training regarding operation of the revised GHG calculator. E3's presentations at the workshops are attached to this ruling as Attachments 15 through 20, as identified in Section 5 below.

After the May 6, 2008 workshop, E3 has made the following modifications to the GHG calculator:

- Revisions to the allocation scenarios in response to workshop comments regarding the treatment of the market clearing price and other factors;
- Corrections to the calculation of the renewable portfolio standard (RPS) percentage, with user-specified retail provider-specific RPS targets;
- Correction to the export-to-grid combined heat and power (CHP) cost of carbon in the supply curve and revision to the CHP capacity value;
- Correction to the formula used to calculate the percentage change in cost from 2008 to 2020;
- Updates to the generation assignment list to reflect input from the Modesto Irrigation District; and,
- Addition of a scenario documentation tab, as described below.

E3 has provided a paper that describes the purposes of the GHG calculator and its inherent limitations, to provide guidance regarding interpretation of the results. The E3 paper, which is included as Attachment 21 to this ruling, also describes how to load and save alternative scenarios in the GHG calculator. As the paper describes, E3 has added a scenario documentation tab (called

“Scenario\_Documentation”) to its spreadsheet model to facilitate understanding of alternative scenarios that parties may submit in support of their comments. A blank copy of that tab is included as Attachment 22 to this ruling.

The final version of the GHG calculator has been posted to E3’s website ([http://www.ethree.com/cpuc\\_ghg\\_model.html](http://www.ethree.com/cpuc_ghg_model.html)). E3’s revised model results for its reference case and the staff allocation scenarios are attached as Attachment 23 to this ruling.

In their comments due May 27, 2008 and reply comments due June 10, 2008, parties may comment on the E3 GHG calculator, E3’s presentations at the April 21 and 22, 2008 workshop and the May 6, 2008 workshop, and E3’s model results. We ask that interested parties address the following questions as part of their comments on modeling issues:

8. Address the performance and usefulness of the E3 model. Is it sufficiently reliable to be useful as the Commissions develop recommendations to ARB? How could it be improved?
9. Address the validity of the input assumptions in E3’s reference case and the other cases for which E3 has presented model results. If you disagree with the input assumptions used by E3, provide your recommended input assumptions.

Parties may model alternative scenarios, and may use the results as support for recommendations submitted in their comments. We require that parties that prepare and rely on alternative modeling scenarios provide the following information regarding such scenarios. For each such scenario using E3’s GHG calculator, parties should describe the changes relative to E3’s reference case, describe the allocation method modeled, and attach a hardcopy of the scenario documentation tab from the GHG calculator. Parties should also specify any changes that were made to the inputs and/or model that are not reflected in the copy of the scenario documentation tab provided for that

scenario. If parties use models other than E3's GHG calculator, they should provide comparable information regarding each modeling scenario referenced in their comments.

In addition, we require that, if requested by other parties and/or staff, parties that submit alternative modeling results using E3's GHG calculator provide electronic copies of the entire GHG calculator spreadsheet for their alternative scenarios within one business day of such request.

#### **4. Other Issues**

For completeness of the record, we ask that parties address the following additional questions. Questions in prior rulings have addressed these subjects for some, but not all, of the issue areas to be addressed in these comments.

10. What evaluation criteria should be used in assessing each issue area in these comments (allowance allocation, flexible compliance, CHP, and emission reduction measures and policies)? Explain how your recommendations satisfy any evaluation criteria you propose.
11. Address any interactions among issues that you believe the Commissions should take into account in developing recommendations to ARB.
12. In establishing policies regarding allowance allocation, flexible compliance, CHP, and emission reduction policies, what should California keep in mind regarding the potential transition to regional and/or national cap-and-trade programs in the future? Are there policies or methods that California should avoid or embrace in order to maximize potential compatibility with other cap-and-trade systems?
13. For each issue addressed in your comments, do you have any recommendations about the level of detail and specificity regarding the electricity and natural gas sectors that ARB should include in the scoping plan? Is there enough information in the record in this proceeding to support that level of detail and specificity? What additional information

and/or analysis may be needed before ARB finalizes its scoping plan? What determinations regarding the electricity and natural gas sectors should ARB defer for further analysis after the scoping plan is issued? Please be as specific as possible about GHG-related policies for the electricity and natural gas sectors that you recommend be resolved this year, and policies that you believe should be deferred for further analysis after the scoping plan is issued.

## **5. Incorporation of Materials into the Record**

We incorporate into the record in R.06-04-009 the materials attached to this ruling. These attachments include presentations at the April 21 and 22, 2008 workshop on emission allocation methodologies and preliminary model results, the May 2, 2008 workshop on energy sector emission reduction opportunities, and the May 6, 2008 workshop on E3's GHG calculator and model results. As described in Section 3 above, three attachments provide additional documentation of the E3 model and revised E3 model results. Additionally, Attachment 24 is a corrected copy of the April 16, 2008 staff paper on allocation of GHG allowances, which corrects typographical and other minor errors. Parties may wish to consider these materials in preparing their comments:

### **Attachment**

### **Title**

#### Presentations at May 2, 2008 workshop:

1. AB 32 California Global Warming Solutions Act of 2006 and the Scoping Plan
2. Regulatory Approaches to GHG Reduction in the Energy Sectors
3. CPUC and Energy Efficiency: Utility Programs & Strategic Planning Process (2009-2020)
4. Building and Appliance Standards
5. Policy Initiatives to Increase Energy Efficiency
6. Energy Efficiency in California's Publicly Owned Utilities

<u>Attachment</u>	<u>Title</u>
7.	Climate Action Team – Green Building Measures
8.	Distributed Generation and California Solar Initiative: CPUC Policies and Programs
9.	New Solar Homes Partnership
10.	GHG Regulation for Combined Heat and Power
11.	CEC’s 2007 Integrated Energy Policy Report Recommendations for Distributed Generation and Combined Heat & Power Facilities
12.	Renewables Portfolio Standard (RPS)
13.	Renewable Energy Transmission Initiative
14.	Sulfur Hexafluoride Emission Reductions <u>Presentations at April 21 – 22, 2008 workshop:</u>
15.	Context, Principles, and Key Questions for Allowance Allocation in the Electricity Sector
16.	Evaluation of GHG Allowance Allocation Options
17.	SCE Allowance Allocation Proposal
18.	Electricity & Natural Gas GHG Modeling – Methodology & Key Revision
19.	Allocation Scenarios: Preliminary Analysis <u>Presentation at May 6, 2008 workshop:</u>
20.	Electricity & Natural Gas GHG Modeling – Results and Sensitivities <u>Additional E3 documentation:</u>
21.	Purpose and Overview of the GHG Calculator
22.	E3 Scenario Documentation Template
23.	Electricity & Natural Gas GHG Modeling – Revised Results and Sensitivities <u>Revised staff paper on allowance allocation:</u>
24.	Joint California Public Utilities Commission and California Energy Commission Staff Paper on Options for Allocation of

**Attachment**

**Title**

GHG Allowances in the Electricity Sector, April 16, 2008,  
Revised May 13, 2008.

**6. Guidance for May 27 and June 10 Comments**

In this section, we provide a suggested outline for parties' use when preparing their comments and reply comments that are due on May 27 and June 10, 2008, respectively. This is intended as a guideline only, to assist parties in preparation and the Commissions in review of the comments and reply comments.

In the outline below, we have mapped the questions asked in this and prior rulings<sup>1</sup> to the sections of parties' comments where we suggest they be addressed. We reiterate, as discussed in prior rulings, that parties are not required to address all issues, nor are they required to respond to all questions that have been posed. Parties also may provide additional information wherever they deem appropriate in their comments.

We ask that parties provide in the Summary section of their comments a succinct summary of positions taken in each of the subsequent sections of their comments. The outline below includes a separate section for Questions 10 (regarding evaluation criteria), 11 (interactions among issues), 12 (transition to regional and/or national cap-and-trade programs), and 13 (level of detail and specificity appropriate for ARB's scoping plan) in today's ruling. However, parties may choose to address these issues in the overall Summary to their

---

<sup>1</sup> Questions regarding CHP systems are contained in the staff paper on CHP issues attached to the May 1, 2008 ALJ ruling, rather than in the ruling itself.

comments or in the sections of their comments dealing with specific issues, rather than, or in addition to, a separate section of the comments as identified in the outline below. Similarly, parties may wish to discuss modeling results and related concerns in the individual comment sections (*e.g.*, allowance allocation, flexible compliance, and emission reduction measures), rather than, or in addition to, in a separate modeling section as identified below:

Suggested Outline for Parties' Comments and Reply Comments

	Specific Questions in <u>Identified Rulings</u>
I. Summary	
II. General issues	Q3, Q10-Q13 (5/13/08); Q1(a), Q1(b), Q2, and Q3 (5/6/08)
III. Allowance allocation	
A. Detailed proposal	Q1 and Q10 (4/16/08)
B. Response to staff paper on allowance allocation options and other allocation recommendations	Q8-Q13 (4/16/08) and Q6 (5/13/08)
C. Legal issues	Q2-Q7 (4/16/08)
IV. Flexible compliance	
A. Detailed proposal	Q1 (5/6/08)
B. Scope of market and related issues	Q1(a)-Q1(d), Q4, Q5 (5/6/08)
C. Price triggers and other safety valves	Q6-Q7 (5/6/08)
D. Linkage	Q8-Q11 (5/6/08)
E. Compliance periods	Q12-Q13 (5/6/08)
F. Banking and borrowing	Q14-Q16 (5/6/08)
G. Penalties and alternative compliance payments	Q17-Q20 (5/6/08)

	<u>Specific Questions in Identified Rulings</u>
H. Offsets	Q21-Q26 (5/6/08)
I. Legal issues	Q27-Q31 (5/6/08)
V. Treatment of CHP	
A. Detailed proposal	Q1 (5/1/08)
B. Regulation of CHP GHG emissions	Q2-Q15, Q17, Q24 (5/1/08)
C. CHP as an emission reduction measure	Q16, Q18-Q21, Q23 (5/1/08)
D. Legal issues	Q22 (5/1/08)
VI. Non-market-based emission reduction measures (other than CHP) and emission caps	
A. Electricity emission reduction measures	Q1-Q2, Q5 (5/13/08)
B. Natural gas emission reduction measures	Q1-Q2 (5/13/08)
C. Annual emission caps for the electricity and natural gas sectors	Q4 (5/13/08)
D. Legal issues	Q6, Q7 (5/13/08)
VII. Modeling issues	
A. Methodology	Q8 (5/13/08)
B. Inputs	Q9 (5/13/08)
C. Results reported by E3	
D. Additional modeling and scenarios to support parties' comments	
Attachment to comments: Copies of scenario documentation tab for any referenced alternative scenarios that use the E3 GHG calculator	

## **7. Filing Requirements**

All parties filing comments or reply comments should file them at the Public Utilities Commission's Docket Office and should serve them consistent

with Rules 1.9 and 1.10 of the Public Utilities Commission Rules of Practice and Procedure and Resolution ALJ-188. The parties should serve their comments and reply comments on the service list for R.06-04-009 posted at [www.cpuc.ca.gov](http://www.cpuc.ca.gov) when the filings are due, and should mail a hard copy of the filings to the assigned Commissioner and assigned Administrative Law Judges.

To support the ability of the Public Utilities Commission and the Energy Commission to develop joint recommendations to ARB, we ask that parties submit their comments and reply comments both in R.06-04-009 and to the Energy Commission's Docket 07-OIIP-01.

Procedures for submitting the filings to the Energy Commission are included here for the parties' convenience. The Energy Commission encourages comments by e-mail attachments. In the subject line or first paragraph of the comments, include **Docket 07-OIIP-01**. When naming your attached file, please include your name or your organization's name. The attachment should be either in Microsoft Word format or provided as a Portable Document File (PDF). Send your comments to [docket@energy.state.ca.us](mailto:docket@energy.state.ca.us) and to project manager Karen Griffin at [kgriffin@energy.state.ca.us](mailto:kgriffin@energy.state.ca.us). In addition to electronic filing, **one paper copy** must also be sent to:

California Energy Commission  
Docket Office, MS-4  
Re: Docket No. 07-OIIP-01  
1516 Ninth Street  
Sacramento, CA 95814-5512

**IT IS RULED** that:

1. As directed in this ruling, parties may file comments no later than May 27, 2008 that address the issues identified in this ruling and the materials in

Attachments 1 through 24. Parties may file reply comments no later than June 10, 2008.

2. Parties that prepare and rely on alternative modeling scenarios in their comments or reply comments shall include the information regarding each scenario specified in this ruling, including a copy of the scenario documentation tab from E3's GHG calculator.

3. Parties shall file their comments and reply comments at the Public Utilities Commission's Docket Office and shall serve them consistent with Rules 1.9 and 1.10 and Resolution ALJ-188. The parties shall serve their filings on the service list for R.06-04-009 posted at [www.cpuc.ca.gov](http://www.cpuc.ca.gov) when the filings are due, and shall mail a hard copy of the comments to the assigned Commissioner and the assigned Administrative Law Judges.

4. Parties that submit alternative modeling results using E3's GHG calculator shall, if requested by other parties and/or staff, provide electronic copies of the entire GHG calculator spreadsheet for their alternative scenarios within one business day of such request(s).

Dated May 13, 2008, at San Francisco, California.

/s/ CHARLOTTE F. TERKEURST

Charlotte F. TerKeurst  
Administrative Law Judge

/s/ JONATHAN LAKRITZ

Jonathan Lakritz  
Administrative Law Judge

**INFORMATION REGARDING SERVICE**

I have provided notification of filing to the electronic mail addresses on the attached service list.

Upon confirmation of this document's acceptance for filing, I will cause a Notice of Availability of the filed document to be served upon the service list to this proceeding by U.S. mail. The service list I will use to serve the Notice of Availability of the filed document is current as of today's date.

Dated May 13, 2008, at San Francisco, California.

/s/ ROSCELLA GONZALEZ

Roscella Gonzalez