



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

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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)

Energy Commission Docket 07-OIIP-01

**INITIAL COMMENTS OF EL PASO NATURAL GAS COMPANY AND MOJAVE PIPELINE COMPANY ON ISSUES REGARDING POINT OF REGULATION IN THE NATURAL GAS SECTOR**

Craig V. Richardson, Esq.  
Stephen G. Koerner, Esq.  
El Paso Corporation – Western Pipelines  
2 North Nevada Ave.  
Colorado Springs, CO 80903  
(719) 520-4443  
Email: [steve.koerner@elpaso.com](mailto:steve.koerner@elpaso.com)

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## **INITIAL COMMENTS OF EL PASO NATURAL GAS COMPANY AND MOJAVE PIPELINE COMPANY ON ISSUES REGARDING POINT OF REGULATION IN THE NATURAL GAS SECTOR**

In accordance with the “Ruling Requesting Comments on Type and Point of Regulation Issues for the Natural Gas Sector” of the Administrative Law Judge, dated November 28, 2007 (Ruling), El Paso Natural Gas Company (EPNG) and Mojave Pipeline Company (Mojave) submit their joint comments on the point of regulation (POR) issues relating to greenhouse gas (GHG) emissions in the natural gas sector. In submitting these comments, as requested in the Ruling, we have not repeated at length our prior comments in this proceeding.

### **Introduction and Background**

The EPNG and Mojave pipeline systems provide over 30% of the natural gas consumed in California.<sup>1</sup> The two companies are subsidiaries of El Paso Corporation (collectively, “El Paso”), which is organized around two core businesses—pipelines and exploration and production. El Paso’s pipeline group operates a network of nearly 43,000 miles of pipeline, comprising over 20% of the interstate gas pipeline infrastructure in the country. El Paso has operations in over thirty (30) states and several federal jurisdictions.

El Paso currently helps satisfy, and will continue to help meet, California’s growing demand for clean-burning natural gas through its extensive network of natural gas pipelines and future natural gas projects. As a Climate Action Leader™ and member of the California Climate Action Registry (CCAR), El Paso has been in the forefront of efforts to address the concerns being expressed by public and governmental stakeholders over the issue of GHGs.<sup>2</sup>

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<sup>1</sup> EPNG and Mojave are interstate pipelines subject to federal rather than state utility commission jurisdiction. However, we will continue to cooperate with state agencies such as the Commission as appropriate.

<sup>2</sup> El Paso’s additional leadership credentials in GHG matters are summarized on Attachment “1” hereto.

## Summary of Comments

EPNG's and Mojave's comments on the specific questions in the Ruling are set forth in Attachment "2" hereto. In summary:

1. El Paso supports an economy wide cap-and-trade greenhouse gas regulatory structure with the POR on the downstream side of the natural gas supply system.
2. In general market-based regulatory programs provide the opportunity to achieve environmental goals at lower cost to society, with greater flexibility for the regulated sectors, greater equity among sectors, and less effort for regulators. However, some of the means of implementing market-based programs that are currently being proposed in the context of AB32 and California's GHG goals (e.g. upstream POR approach for natural gas pipelines and Liquefied Natural Gas [LNG] facilities) have extremely limited practical application and could potentially face regulatory, legal and technical challenges. El Paso supports the use of market-based programs where they fit the characteristics of the regulated sector and the regulatory goals.
3. Specifically with respect to interstate natural gas transmission companies, we urge the Commission and the California Energy Commission (CEC) to consider the "real world" regulatory, legal, technical and market challenges affecting gas supply and transmission to/in California.
4. A "hybrid" program through a combination of cap-and-trade structure for large CO<sub>2</sub> emitters, offset programs for fugitive emissions and conventional policies and programs for small emitters may yield the optimum GHG reductions from the natural gas energy value chain.
5. With respect to additional criteria in designing a GHG emissions program for the natural gas sector, we urge the Commission and the CEC to consider the following sub-principles:
  - Realistic balance of fossil fuel demand with AB32's goals and targets.
  - Recognition of current regulatory and legal structure and minimizing disruption of the basic regulatory/legal framework of the energy markets.
6. The "natural gas sector" includes several different sectors of the economy with very different physical, economic, and regulatory characteristics. El Paso believes that a sector-specific, phased approach is most appropriate, with thresholds, regulatory mechanisms and possibly schedules tailored to the unique circumstances of each sector. Initial regulatory efforts should focus on the sectors that can provide the greatest emission reductions, most reliably, at the lowest cost, and with the least economic disruption. GHG emission programs should be developed and implemented sector-by-sector and include the most appropriate combination of market-based programs, technology development/incentives and voluntary programs.

7. El Paso recommends consistency of California's AB 32 regulations with other state/regional and eventual federal programs. Regulations to implement AB32 should contain appropriate regulatory measures to revisit and revise the regulations to ensure consistency with any national program, once any final federal regulations are adopted and effective.
8. The deferral of a cap-and-trade program for the natural gas sector is not likely to hinder California's integration into a subsequent regional or federal program. Waiting to see how these programs develop could improve consistency between the programs and reduce the need to revise or revamp California's program.
9. We recommend establishing a 25 MW equivalent applicability threshold for regulated sectors in the cap-and-trade program.
10. Due to the structure of the California energy markets, we do not envision drastic fuel switching to natural gas as a result of AB32.

### **Conclusion**

EPNG and Mojave support the Commission's and the CEC's efforts to develop recommendations to present to the California Air Resources Board (CARB) as it implements AB 32. We believe that any GHG regulation must incorporate a market-based cap-and-trade program with the POR on the downstream end of the natural gas supply system. Properly designed and deployed, a cap-and-trade regime with a downstream POR can offer the most cost-effective emission reduction strategies while balancing economic growth and providing additional incentives for the use of the best available technologies.

As a certified Climate Action Leader,<sup>TM</sup> we want to work with California in its efforts to reduce GHG emissions while continuing to ensure that adequate supplies of competitively-priced natural gas will flow to the state.

Respectfully submitted,

By /s/ Stephen G. Koerner  
Craig V. Richardson, Esq.  
Stephen G. Koerner, Esq.  
El Paso Corporation – Western Pipelines  
2 North Nevada Ave.  
Colorado Springs, CO 80903  
(719) 520-4443

Counsel for El Paso Natural Gas Company and Mojave Pipeline Company

Dated: December 12, 2007



## ATTACHMENT “1”

### EL PASO’S GHG LEADERSHIP CREDENTIALS

El Paso has been actively participating in national and international policy discussions and has instituted internal guiding principles on the issue of global climate change.<sup>3</sup>

El Paso has been a member of the CCAR since 2006. In June 2007, El Paso became the first natural gas transmission company to file an emissions inventory covering all applicable GHGs, including methane, N<sub>2</sub>O and CO<sub>2</sub>. On July 16<sup>th</sup> of this year El Paso became the first natural gas company to certify its emissions and earn the status of Climate Action Leader. Indeed, we are also the first CCAR member to report and certify an emissions inventory for 2006.<sup>4</sup> Later this year, El Paso intends to register its 2006 GHG emission estimates under DOE 1605(b) requirements.

El Paso maintains leadership positions at the Interstate Natural Gas Association of America (INGAA) on GHG and in the development of the INGAA Greenhouse Gas Emissions Estimation Guideline for Natural Gas Transmission and Storage.

El Paso has been invited to be a member of The Climate Registry’s Advisory Committee.<sup>5</sup> The Climate Registry was established as a nonprofit organization in May 2007 and is now comprised of 39 states, three Native American tribes, two Canadian provinces, and one Mexican state. Governors, secretaries, tribal leaders, and premiers have signed a Statement of Principles and Goals endorsing the Registry and each has designated a representative to sit on the organization’s Board of Directors. As part of the Advisory Committee, El Paso will provide

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<sup>3</sup> El Paso’s first internal (2004) GHG inventory was completed in 2005. El Paso’s 2005 GHG inventory for the pipeline group successfully underwent a third-party verification process. In addition, El Paso has produced a corporate GHG Inventory Management Plan and a pipeline GHG Inventory Technical Manual, and is in the process of developing a GHG Information Management System.

<sup>4</sup> El Paso’s 2006 entity-level emissions report is available at <http://www.climateregistry.org/CARROT/public/reports.aspx>.

<sup>5</sup> El Paso was nominated for this position by California Environmental Protection Agency.

input on technical elements associated with The Climate Registry's design and implementation and may also provide feedback on broader policy issues that could affect the organization's support of state and provincial climate programs.

El Paso is part of the Natural Gas Protocol Workgroup facilitated by the CCAR and the World Resources Institute (WRI) with the goal to produce a guidance document and protocol for estimating GHG emissions from Natural Gas Transmission, Storage and Distribution sectors. The protocol and calculation tool(s), which will be developed through a stakeholder workgroup process, will supplement the *California Climate Action Registry's General Reporting Protocol*<sup>6</sup> and the WRI/World Business Council for Sustainable Development Greenhouse Gas Protocol - A Corporate Reporting and Accounting Standard.<sup>7</sup>

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<sup>6</sup> [http://www.climateregistry.org/docs/PROTOCOLS/GRP%20V2-March2007\\_web.pdf](http://www.climateregistry.org/docs/PROTOCOLS/GRP%20V2-March2007_web.pdf)

<sup>7</sup> <http://www.ghgprotocol.org/templates/GHG5/layout.asp?type=p&MenuId=ODg4&doOpen=1&ClickMenu=No>

## ATTACHMENT “2”

### COMMENTS ON SPECIFIC POINT OF REGULATION ISSUES IN THE NATURAL GAS SECTOR

#### 1. Introduction

In addressing these comments, one must begin by recognizing that the “natural gas sector” as addressed in the Ruling includes several different sectors of the economy with very different physical, economic, and regulatory characteristics. The natural gas sector includes gas consumers, ranging from a very large number of small residential, commercial and even vehicular gas users. Gas consumers also include a smaller number of large point source gas users, some private non-regulated entities and some that are regulated by the Commission.

In addition, the natural gas sector includes the entities that produce, transport and deliver natural gas to customers. This includes local distribution utilities that are regulated by the Commission, interstate pipelines regulated by the Federal Energy Regulatory Commission (FERC), and unregulated companies that produce and process natural gas. The emissions from the entities in this portion of the natural gas sector include CO<sub>2</sub> from combustion and fugitive methane emissions from a wide variety of equipment types.

In general, El Paso supports an economy wide cap-and-trade greenhouse gas regulatory structure, with the POR on the downstream side of the natural gas supply system. Given the diversity of the natural gas sector in California, there is no single approach that provides an appropriate response for the entire sector. El Paso supports a structure and point of regulation that is effective, verifiable, cost-effective, legally sound, and takes into account the complexities of the natural gas market and the ability to recover costs for rate-regulated companies.

Emissions cap-and-trade programs based on the point of emission have been highly successful and cost effective. On the other hand, there are too many market inefficiencies and institutional barriers to those proposals that suggest moving the point of regulation to the point of

energy production (upstream), processing or transportation (midstream) to make such proposals workable in practice.

El Paso believes that a sector-specific, phased approach is most appropriate, with thresholds, regulatory mechanisms and possibly schedules tailored to the unique circumstances of each sector. Initial regulatory efforts should focus on the sectors and GHGs that can provide the greatest emission reductions, most reliably, at the lowest cost, and with the least economic disruption. GHG emission programs should be developed and implemented sector-by-sector and include the most appropriate combination of market-based programs, technology development/incentives and voluntary programs.

## **2. Responses to Specific Questions**

Our responses to certain specific questions identified in the Ruling are set forth on the following pages.<sup>8</sup>

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<sup>8</sup> Also, El Paso provided comments to the draft MAC report on this point of regulation issue. *See*

[http://www.climatechange.ca.gov/events/2007-06-2\\_mac\\_meeting/public\\_comments/MAC%20Cap%20and%20trade%20El%20Paso%20Comments\\_061507\\_FINAL\\_Ecopy\\_.pdf](http://www.climatechange.ca.gov/events/2007-06-2_mac_meeting/public_comments/MAC%20Cap%20and%20trade%20El%20Paso%20Comments_061507_FINAL_Ecopy_.pdf)

*Q1. What do you view as the incremental benefits of a market-based system for GHG compliance in the natural gas sector, in the current California context?*

Response to Q1:

The general benefits of market-based regulatory programs are the opportunity to achieve environmental goals at lower cost to society, with greater flexibility for the regulated sectors, greater equity among sectors, and less effort for regulators. The cap-and-trade approach using a “downstream” design, as one specific type of market-based program, has been demonstrated to be effective when applied to large stationary sources for emissions that can be accurately measured. There has been less, or in some cases, no experience with other forms of market-based programs that are currently being considered in the context of AB32 and California’s GHG goals (e.g. upstream POR design for natural gas and LNG facilities). El Paso supports the use of market-based programs where they fit the characteristics of the regulated sector and the regulatory goals. This would include a “downstream” regulatory design for the large stationary source CO<sub>2</sub> emitters in the California natural gas sector. It would not include other segments of the sector that comprise smaller sources or sources whose emissions cannot be accurately measured.

*Q2. Can a market-based system for the natural gas sector provide additional emissions reductions beyond existing policies and/or programs? If so, at what level? How much of such additional emission reductions could be achieved through expansion of existing policies and/or programs?*

Response to Q2:

A market-based system for the natural gas sector can provide additional GHG emission reductions beyond existing policies and/or programs designed to reduce GHGs. That said, there are existing programs designed to reduce GHGs through improved efficiency. California provides a number of energy efficiency programs funded by the state Public Goods Charge and administered by the state's investor-owned utilities. For the years 2006-2008, the Commission approved \$300 million for natural gas efficiency programs.<sup>9</sup> For example, natural gas-related projects can receive funding from the following types of programs:

- San Diego Gas & Electric Company's Energy Savings Bid Program provides incentives for electric and gas efficiency projects that save at least 500,000 kWh or 25,000 therms annually.
- Southern California Gas Company offers the Gas Engine program, which pays 30% of the cost of replacing or rebuilding an existing natural gas engine with a newer, more efficient model, or \$0.80 per therm saved, whichever is lower.
- California provides a number of other incentives for efficiency improvements through the Public Interest Energy Research funding opportunities.

As explained earlier, the appeal of market-based programs is that reductions can be achieved in a flexible and more cost-effective manner, and with less economic disruption relative to traditional "command and control" mechanisms. However, there are some sources that do not fit well into a cap-and-trade program. A cap-and-trade program requires highly accurate measurement of total emissions as the basis for determining compliance requirements. There are some sources, particularly sources of fugitive emissions for which total emissions are very difficult to measure, but emission *reductions* can be accurately measured.

For example, El Paso has been a best performer in the Environmental Protection Agency's (EPA's) Natural Gas STAR program since 1993. El Paso has reported over 55 Bcf of fugitive methane reductions using the Natural Gas STAR program guidelines. These kinds of reductions can be encouraged through an emission offset program in conjunction with a cap-and-trade program on CO<sub>2</sub> emitters.

For small combustion sources in the residential and commercial sectors, energy efficiency standards, codes, and incentives are probably the most effective option. The sources are too small and too numerous for a direct (downstream) cap-and-trade program. On the other hand, an upstream program creates a carbon tax on the end users, effectively increasing prices. It has been well demonstrated that higher energy prices are not an effective driver for increased efficiency due to a variety of institutional, educational and economic barriers. This is why the various energy efficiency programs have had to be instituted and the reason that the Regional

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<sup>9</sup> U.S. DOE, *Energy Efficiency and Renewable Energy, Energy Efficiency Funds and Demand Response Programs, California*, updated July 2007. [http://www1.eere.energy.gov/femp/program/utility/utilityman\\_em\\_ca.html](http://www1.eere.energy.gov/femp/program/utility/utilityman_em_ca.html).

Greenhouse Gas Initiative (RGGI) chose to use allowance auction proceeds to directly promote end-use efficiency. California has long been a leader in end-use efficiency programs, yet the state could still do more to promote efficiency among residential and commercial gas users.

It is difficult to predict the exact level of emissions reductions that can occur, resulting from the expansion of existing policies and development of new programs. However, a “hybrid” program through a combination of cap-and-trade programs for large CO<sub>2</sub> emitters, offset programs for fugitive emissions and conventional policies and programs for small emitters may yield the optimum reductions from the natural gas sector.

*Q3. What objectives or principles should the Public Utilities Commission and the Energy Commission use to determine the appropriate method of regulating GHG emissions in the natural gas sector, and why? Please rank the objectives you propose, in order of importance, adding any objectives not covered above.*

Response to Q3:

The Commission's Staff has proposed seven objectives that should "be used to evaluate GHG program design options and to develop recommendations regarding a GHG regulatory approach."<sup>10</sup> El Paso considered these items when crafting these comments, but *urges the consideration of two additional sub-principles as part of the basic principle of achieving the AB32's goals:*

- Realistically balancing fossil fuel demand with AB32's goals and targets.
- Recognition of current regulatory and legal structures and minimizing disruption of the basic regulatory/legal framework of the energy markets.

An economy-wide cap-and-trade regulatory program should avoid creating disincentives for additional supplies of natural gas to flow to the state of California. Further, there are major legal, regulatory and commercial hurdles that need to be considered in developing a POR with respect to interstate natural gas pipelines. Accordingly, any POR mechanism to be adopted should be tailored to the current legal and regulatory structures governing natural gas and electricity markets.

With consideration of the above two additional recommended sub-principles, El Paso believes that the objectives should be ranked in this order (from most important to least):

1. Goal Attainment – The goal of the program is to achieve specific emission reductions. This is the primary measure of success and primary objective.

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<sup>10</sup> The Staff's proposed objectives are:

- **Goal attainment:** Does the approach being considered have any particular advantages in terms of meeting overall emission reduction goals? For example, does the approach have any advantages to promoting energy efficiency or combined heat and power?
- **Cost minimization:** Is the approach likely to minimize the total cost to end users of achieving a given GHG reduction target?
- **Legal risk:** Is the approach at greater relative risk of being delayed or overturned in court?
- **Environmental Integrity:** Does the approach mitigate or allow the leakage of emissions occurring outside of California as a result of efforts to reduce emissions in California?
- **Expandability:** Would the approach integrate easily into a broader regional or national program? A related consideration is the suitability of the approach as a model for a national or regional program.
- **Accuracy:** Does the approach support accuracy in reporting and, therefore, ensure that reported emission reductions are real?
- **Administrative Simplicity:** Does the approach promote greater simplicity for reporting entities, verifiers, and state agency staff? How easy will the program design be to administer?

- a. Balance of AB 32's goals with energy demand and supplies.
- b. Recognition of current regulatory and legal structure and minimizing the disruption of the basic regulatory/legal framework of the energy markets.

These sub-principles are further explained below, following our recommended ranking of objectives.

2. Cost Minimization – The next priority is to achieve the goal at the minimum cost to society. Costs to industry ultimately become costs to consumers, so minimization of compliance costs should be a primary consideration in designing any GHG emissions reduction program.
3. Accuracy – Measurement of progress towards the goal must be based on accurate measurement. Without measurement, there can be no success. Accuracy is also critical to market-based programs, since emissions are a surrogate for currency in such programs. Lack of accurate measurement will destroy a market-based program.
4. Environmental Integrity – The measured reductions must be real and verifiable. If the program is simply shifting emissions out-of-state, then the goal is not being achieved and the state's citizens are paying higher prices for no environmental benefit.
5. Legal Risk – Spending months or years litigating the program delays compliance and increases costs and uncertainty for regulated parties. Keeping the program within legally defensible structures and following existing precedents will increase the likelihood of the success for the program.
6. Expandability – California is a member of the Western Climate Initiative (WCI) and should therefore ensure that its program is compatible with the program designed by that group. More broadly, it is important that the core of the regulatory structure be consistent between California's program and programs of adjoining states or a national program. This especially important with respect to an entity such as a natural gas pipeline that traverses multiple states. If there are conflicting provisions between state programs, between state and federal programs, or between regional and federal programs that apply to the same facility, there is a risk that emission reductions will not be achieved, that emissions and fossil fuel leakage could occur or that regulated entities could face conflicting, irreconcilable compliance requirements. Leakage of fossil fuel essentially means that customers will choose to transport gas to, and use fossil fuels in, markets with lower carbon constraints.

At the same time, there are issues, such as leakage, that are very important for state and local programs but much less important for a national program. While state programs can contribute to the development of a national program, they are unlikely to have the same structure as a national program. California should ensure that its program is compatible with existing or potential state, regional and federal programs. *It is less important to attempt to make the California program a "model" for a federal program.*

7. Administrative Simplicity – Simplicity is one aspect of cost minimization, but more importantly, a straightforward program is more likely to be successful. Simple goals and incentives are more effective, especially in a market-based program. Administrative simplicity will help to minimize costs, maintain the schedule and achieve the goal.

However, administrative burden should not override the basic principles of essentially ensuring that the market-based mechanisms achieve the goals and targets in the most cost effective, flexible and least disruptive manner to the existing regulatory/legal frameworks governing the affected sources.

#### Recommended additional sub-principles

In previous comments,<sup>11</sup> El Paso has urged the Commission and the CEC to recommend that the CARB adopt a cap-and-trade program with a realistic balance of fossil fuel demand to meet AB32's goals and targets, and to not create disincentives for additional natural gas supplies to flow to California. Specifically, El Paso believes that the state's regulatory agencies should also encourage pipeline expansion and new gas supply from the Rockies into California to address a looming tightness in gas supplies to the state. Conversely, California must be careful not to inadvertently create disincentives for additional gas to flow into the state. For if the state's GHG reduction program places significant additional costs on the natural gas delivered by the interstate pipelines, gas suppliers will have an incentive to move their gas to areas outside of California that are not burdened by such costs.

Secondly, there are some important policy considerations for natural gas transmission companies that are subject to the jurisdiction of the FERC. Under an "upstream" approach to the POR, pipelines serving California could be responsible for the costs of compliance of all downstream users (e.g., pipelines conceivably would be responsible for purchasing allowances in an "auction" system to cover their own emissions, as well as those of downstream users of the delivered gas). In addition, as explained in our Prehearing Conference Statement,<sup>12</sup> a California effort to regulate the natural gas sector at the interstate pipeline level would create enormous regulatory complications that could threaten the timely implementation of any GHG reduction program indefinitely, in contravention of the Legal Risk objective described by the Commission's Staff.<sup>13</sup> Many of these issues can be avoided by a carefully-designed GHG program that employs a 100% free allocation concept and a "downstream" point of regulation of the natural gas sector.

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<sup>11</sup> See *Comments of El Paso Natural Gas Company And Mojave Pipeline Company on Issues Relating To GH Allowance Allocation Issues in the Natural Gas Sector* filed October 31, 2007 in CPUC Docket No. 06-04-009 and CEC Docket No. 07-OII-01.

<sup>12</sup> *Prehearing Conference Statement of El Paso Natural Gas Company and Mojave Pipeline Company on Issues Relating to GHG Emissions in the Natural Gas Sector* dated July 26, 2007.

<sup>13</sup> Some of the legal/regulatory issues related to interstate pipelines include:

- To what extent can a state lawfully impose charges on interstate pipelines that affect their rates, which are exclusively subject to regulation by the FERC?
- Would such a program be pre-empted by the regulatory scheme under the Natural Gas Act and/or constitute an undue burden on interstate commerce?

*See also, e.g., Southern California Public Power Authority's Opening Comment on Allowance Allocation Issues*, filed October 31, 2007, at pp. 7-8 [recommending that the Commission reject and no longer give any consideration to an "upstream" POR for electric sector GHG regulation (i.e., in which either "sources" or "first-sellers" would be the point of regulation), due to the likelihood that such a program would be pre-empted by the FERC's jurisdiction.]

*Q4. Should GHG emissions from the natural gas sector be capped under AB 32? Are there certain sources of emissions within the sector that should be exempt from an enforceable cap?*

Response to Q4:

As noted above, the natural gas sector comprises a wide variety of GHG emissions sources that need to be treated differently within a GHG regulatory program.

- CO<sub>2</sub> emissions from large stationary sources can be included in a cap-and-trade program. A downstream cap-and-trade regulatory design has been shown to be an effective approach with the Acid Rain and the NO<sub>x</sub> SIP call regulations, although the magnitude and breadth of these programs are far less than that envisioned in a CO<sub>2</sub> cap-and-trade program.
- Entity level fugitive emissions from large stationary sources generally cannot be measured with sufficient accuracy to be directly included in a cap-and-trade program. This issue was highlighted in the recommendations of the Market Advisory Committee (MAC).<sup>14</sup> However, specific project-based emission reductions from these sources can be accurately quantified in order to create offsets employing protocols, such as we recommended in our Prehearing Conference statement<sup>15</sup> or the Clean Development Mechanism Approved Method #23. Allowing the creation of offsets from these sources in the context of a broader cap-and-trade program creates a driver for reductions that would not otherwise be achieved. As noted in the Commission Staff's Recommendations for the Natural Gas Sector, programs such as the EPA's Natural Gas STAR program, have already achieved significant methane reductions of this type.<sup>16</sup>
- Smaller sources of CO<sub>2</sub> from combustion in the residential/commercial sector are too small and too numerous to be directly included in a cap-and-trade program. While it has been proposed to include these sources indirectly through an upstream cap either at the utility or pipeline level, there are several things that should be understood about such a concept. The primary opportunities for reductions in these sectors are increased efficiency. *An upstream program amounts to a carbon tax on fuel.* Past experience has shown that increased fuel prices at these levels are not sufficient to trigger large efficiency increases. Codes, standards and incentives are much more effective. Thus, the inclusion of the residential/commercial sector in a cap is not likely to directly yield significant reductions. It could provide funding for new policies and measures to promote energy efficiency and reduce demand. Within the cap structure however, inclusion of the residential/commercial sectors is most likely to result in greater pressure on, and reductions from, the large stationary sources in the program. It may be more effective to simply focus on policies and programs for the small emitters and refine the targets for the cap.

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<sup>14</sup> MAC, *Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California*, June 30, 2007, pp. 37-39.

<sup>15</sup> *Prehearing Conference Statement of El Paso Natural Gas Company and Mojave Pipeline Company on Issues Relating to GHG Emissions in the Natural Gas Sector* dated July 26, 2007.

<sup>16</sup> CPUC, *Preliminary Staff Recommendation for Treatment of Natural Gas Sector Greenhouse Gas Emissions*, filed July 12, 2007, p. 11. <http://docs.cpuc.ca.gov/efile/RULINGS/70070.pdf>.

*Q5. For each of the following sources of GHG emissions, state whether the sources described should be subject to an enforceable cap and, if so, whether the cap should be covered by a cap-and-trade approach or only by programmatic measures. For sources you recommend covering programmatically, what specific programmatic actions should be taken? For sources you recommend covering in a cap-and-trade program, are there specific programmatic measures that should be undertaken as complementary to the cap-and-trade program? For each source, discuss how your recommended approach is likely to affect rates.*

*a. Natural gas combustion in the residential, commercial, and small industrial segments of the natural gas sector.*

*b. Natural gas combustion by natural gas vehicles.*

*c. Combustion-related emissions from operating the infrastructure (including infrastructure related to proprietary operations) used to deliver natural gas to end users within the State.*

*d. Fugitive emissions, including from pipelines, storage facilities, and compressor stations.*

*e. Non-combustion uses of natural gas (please specify).*

*f. Other sources of natural gas sector emissions not listed above (please specify).*

Response to Q5:

*a. Natural gas combustion in the residential, commercial, and small industrial segments of the natural gas sector.*

For the reasons discussed in our response to Question 4 above, El Paso believes that direct policies and programs will be the most effective tools for reducing emissions from the residential, commercial and small industrial segments of the natural gas sector. Existing energy efficiency programs need to be expanded and new programs implemented to reduce consumption by these smaller entities. This does not require inclusion in a cap-and-trade program. The rate impact of these programs depends on how they are implemented, but there are likely to be rate impacts of new efficiency programs. That said, such programs have been deemed to be cost-effective in the past.

While El Paso does not support extending cap-and-trade programs to the residential, commercial and small industrial segments of the natural gas sector, if the Commission and the CEC find that it is absolutely necessary to recommend that the CARB include small gas users in a cap-and-trade program, then El Paso accepts the Commission Staff's recommendations,<sup>17</sup> and those of the MAC,<sup>18</sup> that these smaller end users should be regulated at the distribution utility level. The upstream point of regulation theory assumes that: (1) compliance costs incurred by the upstream regulated or covered entity will be smoothly transmitted through the natural gas value

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<sup>17</sup> CPUC, *Preliminary Staff Recommendation for Treatment of Natural Gas Sector Greenhouse Gas Emissions*, filed July 12, 2007, p. 15. <http://docs.cpuc.ca.gov/efile/RULINGS/70070.pdf>.

<sup>18</sup> MAC, *Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California*, June 30, 2007, pp. 37-39. See also figure 4-1.

chain; and (2) appropriate price signals are transmitted to downstream users to facilitate changes in emissions profile and behavior. While theoretically this may be true, the practical regulatory, legal and technical hurdles may hinder pass through of compliance costs downstream and may cause an insufficient price signal to downstream customers to promote fundamental changes in their emissions profile and therefore the ultimate goal of emissions reductions. As further explained in our response to Question 8, this can create tremendous financial harm to the upstream POR covered entity.

The more efficient design would be to institute codes, standards and incentives for this sector to facilitate similar reductions in a more efficient manner. As discussed in our response to Question 4 above, this is not expected to directly create reductions but could provide funding for new policies and measures to promote efficiency and reduce demand. Implementing the regulation at the utility level keeps the program within the control of the Commission and keeps the program implementation with an entity (the utility) that can directly implement efficiency programs. Presumably, the cost of allowances under such a program would be passed through to consumers in order to further encourage additional efficiency measures. Thus, the cost to consumers would likely increase under this option as well.

Regulation of natural gas could theoretically be moved further upstream to the pipeline level, however this would create a variety of problems. First, if interstate pipelines are included, then it moves the rate and cost recovery issues away from the Commission's jurisdiction to the FERC's jurisdiction. These issues then become entangled with broader national rate issues and California loses control over the whole program. Due to the large cost of upstream allowance programs, appropriate cost recovery for rate-regulated sectors is essential. Moving to the pipeline level also moves the point of regulation further from the end use sectors that need to be affected through programmatic efforts. Finally, moving to the pipeline level complicates the task of separating out large stationary sources that receive gas via the pipelines. Assuming appropriate cost recovery, the rate impact would be the same for regulation at the utility or pipeline level.

*b. Natural gas combustion by natural gas vehicles.*

The situation for natural gas vehicles is very similar to that for small stationary consumers. One difference is that the Pavley bill may already regulate natural gas vehicles more stringently than the effect of a cap-and-trade program.

*c. Combustion-related emissions from operating the infrastructure (including infrastructure related to proprietary operations) used to deliver natural gas to end users within the State.*

Combustion-related emissions from operating gas delivery infrastructure in California are a very small part of the inventory. If deemed appropriate for them to be included in the cap-and-trade program, they could be included on the same basis as other stationary sources of CO<sub>2</sub> (i.e., appropriate thresholds, etc). The costs of participation in the cap-and-trade program would be passed through to consumers as part of rates.

*d. Fugitive emissions, including from pipelines, storage facilities, and compressor stations.*

“Fugitive emissions” is a broad term that includes both unintentional and sometimes intended emissions from non-distinct or non-confined sources. Fugitive emissions occur during

the production and distribution of a chemical, compound, or mixture of compounds and are usually the result of leaks in transportation or processing systems. Fugitive emissions may also result from “non-routine” activities in industries that transport or process large volumes of greenhouse gases. Non-routine activities are those that are not part of typical processing activities, but occur periodically as a part of overall system operations. These activities can be either planned or unplanned, and include maintenance and turnaround activities, line and equipment purging, and unplanned system depressurization in response to emergency conditions.

Table 1 Fugitive Emission Source Categories in Natural Gas Transmission Systems

<b>Emission Category</b>	<b>Emission Source Categories</b>	<b>GHG Emissions of Interest</b>
Fugitive Emissions	Transmission and Gathering Pipelines	Primarily CH <sub>4</sub> . To a lesser extent CO <sub>2</sub>
	Meter Stations	
	Wells	
	Gas Plants, Compressor Stations, Storage Stations Facilities and LNG Terminals	
	Compressors	
	Blowdowns	
	Amine Units	
	Storage Tanks Flashing Losses	
	Transportation Loading	
	Flares	
Chillers and A/C System	HFC-134a and other HFCs	

While several companies, including El Paso, have estimated fugitive emissions from their systems these emissions estimates have high degree of uncertainty<sup>19</sup>. Unlike the utility sector where over 95% of the CO<sub>2</sub> emissions are actually measured through a continuous emissions monitoring system (CEMS), entity-wide fugitive emissions are computed using emission factors derived from a USEPA/Gas Research Institute (GRI) survey from the early ‘90s. The intent of this study was to develop emission factors that would be appropriate at a Tier 1 or a national level emissions inventory. It was never was developed for the purpose of being employed in a cap-and-trade design.

<sup>19</sup> Fiji George & Katarzyna Chruscik, GHG Emissions Inventory Development Experience, IPIECA, January 2007 [http://www.ipieca.org/activities/climate\\_change/downloads/workshops/jan\\_07/5%20George.pdf](http://www.ipieca.org/activities/climate_change/downloads/workshops/jan_07/5%20George.pdf)

Table 1, provides broad examples of fugitive emission sources in the natural gas transmission sector. Fugitive and vented emissions from such facilities may comprise over 50% of the emissions profile. Unfortunately, for this segment of the natural gas industry, employing emissions factors to estimate emissions is the only way currently to develop entity-wide or system-wide emissions. This fact has been recognized by the USEPA in its scope of work related to updating the GRI/EPA study.<sup>20</sup>

Therefore, while the methodology and even the activity data<sup>21</sup> may be sound, due to the uncertainty surrounding the emissions factor, the actual emissions can actually vary significantly. This does not mean that the GHG inventories submitted by interstate pipelines are inaccurate or do not follow appropriate estimation methodologies. The inventories submitted by El Paso to the CCAR reflect the best available methodology currently available and satisfy the purpose for preparing such emissions inventories. Since the cap-and-trade program attempts to assign a “market value” to emissions, incorporating such fugitive emissions in a cap-and-trade program dilutes the integrity of the program when the emissions cap from the vast majority of the other sectors (especially the utility sector) is based on accurate CEMS data. This fact was recognized by the MAC in its recommendations to the CARB.<sup>22</sup> Therefore, fugitive emissions should not be regulated under a cap-and-trade program, because they typically cannot be measured with the required accuracy.

As outlined in our response to Question 4, on a specific project basis – which would be the case for an offset project, reductions of fugitives often can be appropriately measured. This ability to establish a rigorous monitoring scheme on a very limited subset of the fugitive emission sources in a pipeline system should not be misconstrued as being feasible to be extended to all sources of fugitive emissions in a pipeline system. As indicated in Table 1, fugitive emissions from pipeline systems comprises thousands of discrete components often which are extremely difficult to measure or even implement a direct measurement program. Establish similar rigorous monitoring on hundreds and thousands of fugitive components (on a vast nationwide pipeline network) is simply impossible. El Paso and a number of other gas companies that transport gas in California are already participating in the EPA’s Natural Gas Star program and are demonstrating the ability to verifiably reduce emissions. The ability to create creditable offsets will promote such activities and result in emission reductions. These activities could be an important source of early, low cost emission reductions with minimal rate impacts.

*e. Non-combustion uses of natural gas (please specify).*

Non-combustion uses of natural gas such as the production of chemical feedstocks should not be included in a cap-and-trade program. A voluntary reduction program should be implemented to address these non-combustion uses.

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<sup>20</sup> See RFP NO: EPA-OAR-CCD-07-05 [“Although the GRI/EPA Study remains the cornerstone for estimating CH4 emissions from the natural gas industry, the data on which the study is based is now over a decade old and not always reflective of current conditions in the United States.”]

<sup>21</sup> Emissions are a product of the emission factor for that particular source category and the activity data.

<sup>22</sup> MAC, *Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California*, June 30, 2007, pp. 37-39

*f. Other sources of natural gas sector emissions not listed above (please specify).*

Large stationary sources of CO<sub>2</sub> can be covered using the Commission Staff's recommendations – i.e., regulated as point sources as part of separate sectoral requirements under a cap-and-trade approach, and not as part of the natural gas sector.<sup>23</sup>

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<sup>23</sup> CPUC, *Preliminary Staff Recommendation for Treatment of Natural Gas Sector Greenhouse Gas Emissions*, filed July 12, 2007, p. 16. <http://docs.cpuc.ca.gov/efile/RULINGS/70070.pdf>.

*Q6. For the sources you recommend exempting from an enforceable cap, how would emission reductions be achieved?*

Response to Q6:

As described above:

- Small stationary sources should be addressed through energy efficiency programs, codes and standards.
- Natural gas vehicles should be addressed through vehicle standards.
- Fugitive emissions should be addressed through offset programs.
- Large stationary sources should be included in a cap-and-trade program.
- Non-combustion related emissions, should be addressed through a voluntary measures.

*Q7. As the Public Utilities Commission does not currently have authority to oversee all potential GHG-reducing programs for all kinds of natural gas entities in California, which agency(ies) should regulate in such areas? For example, should ARB require that publicly owned utilities meet energy efficiency targets? Would additional legislation need to be enacted?*

Response to Q7:

Regulation should be consistent and ideally a single lead agency should be responsible for implementing compliance with AB32. Applying different regulatory structures to different parts of the same sector or separately to different sectors will reduce regulatory effectiveness and increase costs.

By statute, the CARB has been designed the lead agency for implementing AB32. The CARB should also be the lead on the emissions monitoring, reporting and cap-and-trade programs associated with AB32. However, it is our opinion that non-emissions-related programs like energy efficiency or renewable portfolio standards should be led by the Commission and CEC. Such programs are vital pieces to the overall AB32 reduction goals. Consistency can be maintained by having the Commission and CEC provide periodic report to the CARB on the progress of such programs to facilitate the functioning of a robust cap-and-trade market.

*Q8. If you believe that the natural gas sector and other sources of emissions related to combustion of natural gas<sup>24</sup> should be included in a cap or cap-and-trade system, where should the compliance obligation be placed: upstream, as close to the fuel source as possible (for example, on natural gas processing plants and pipelines) or midstream/downstream (large point sources and, for smaller users, the local distribution company level)? If you suggest another option for assigning responsibility, please describe in detail.*

Response to Q8:

Emissions control programs have mostly focused on the point of emissions (downstream) where emissions can actually be measured and where they can be controlled. Emissions cap-and-trade programs based on the point of emission have been highly successful and cost effective. In a downstream design, the facility is directly in control of and responsible for managing its emissions profile and compliance with the cap. We believe that such a structure is much more efficient in meeting the requirements of AB32 and any other GHG goals, since the emitter is held accountable for compliance with all its emissions as opposed an upstream entity that has very limited ability to directly influence behavioral changes on the downstream entity. Further, the Commission should be aware that an upstream regulation attempts to regulate by using fuel as a proxy for emissions. Therefore, other GHG gases such as methane, nitrous oxide and three groups of fluorinated gases (sulfur hexafluoride, HFCs, and PFCs) can not be regulated through an upstream design.

Some GHG regulatory proposals have suggested moving the point of regulation to the point of energy production (upstream), processing or transportation (midstream). The primary intent of this is approach to allow regulation of a small number of upstream/midstream points to induce emission reductions at a large number of downstream sources through the imposition of a carbon fee at the upstream point. For example, implementing a cap or a fee on petroleum products at the refinery would be intended to create a price signal that would induce reduce gasoline consumption by consumers. Or, an upstream cap or fee on fuels would be intended to create a price signal to ultimately induce reduced electricity consumption. Table 2 provides an overview of the price of allowances (under a federal program) through various studies. While this data is not California-specific, it does provide an indication that future compliance costs could range from \$20-96/tonne CO<sub>2</sub> in 2030. On a state level, on December 6, 2007, the Minnesota Public Utilities Commission established an interim range of \$4 per ton to \$30 per ton for the costs of future carbon dioxide regulation to be used as one of many factors in resource planning and acquisition proceedings.<sup>25</sup>

Table 3 relates allowance costs to additional costs for natural gas (in \$/MMBtu). Therefore, a \$10/tonne allowance price would be an additional \$0.53/MMBtu cost for natural gas. This fact has to be carefully considered. By comparison, for example, EPNG 's total rate for transportation of gas to California (FT-1) is \$.3412/MMBtu (exclusive of fuel and surcharges); thus, the impact of an upstream form of GHG regulation on EPNG and its customers would be to more than double EPNG's total rate. Nor is it clear that this change in gas price to the consumer would have a large effect on increasing end use efficiency, yet it would have a huge upstream

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<sup>24</sup> Sources include cement plants, oil refineries, large point sources regulated by ARB and natural gas combusted to produce electricity.

<sup>25</sup> This action was taken in order to comply with the Next Generation Energy Act, Minnesota Laws 2007, Chapter 136, which requires that commission to establish by January 1, 2008, a likely range of costs of future carbon dioxide regulation on electricity generation.

effect on gas pipelines. At 5.7 bcf/d of natural gas consumption in California, if the entire natural gas sector were to be covered under a cap-and-trade program and at a modest allowance price of \$10/tonne, the overall compliance cost would amount to ~\$1.1BB/year. At \$30/tonne, the compliance cost would be \$3.3 billion per year. If all of these costs are included in regulated rates, the costs would ultimately be borne by the end users of the natural gas. If they are not included in regulated rates and not covered by free allowance allocations, the cost of compliance would threaten the financial viability of the interstate pipelines serving the state.

Table 2  
Allowance Prices Projected for GHG Regulatory Programs

<b>Study</b>	<b>\$/tonne CO<sub>2</sub> 2030</b>	<b>\$/tonne CO<sub>2</sub> 2050</b>
EPA	\$27 - \$32	\$70 - \$85
EIA	\$30 - \$60	NA
MIT	\$32 - \$96	\$70 - \$210
NCEP	\$20	NA

Table 3  
Allowance Price Impact on Natural Gas Prices

<b>\$/Tonne CO<sub>2</sub></b>	<b>Natural Gas (\$/MMBtu)</b>
\$10	\$0.53
\$20	\$1.06
\$30	\$1.60
\$40	\$2.13
\$50	\$2.66

While upstream POR systems seem simpler and, theoretically, may be equally as effective as other programs, there are so many market inefficiencies and institutional barriers to this kind of pure economic response that they may well be unworkable in practice. Certainly it is well established that price signals that rationally should drive extensive energy efficiency investment at the consumer level are not at all effective for a large number of reasons. These same barriers would be likely to limit the effectiveness of an upstream program. Therefore,

ineffective price signals or inability of the company to pass through the compliance costs, could cause tremendous financial burden on the regulated entity.<sup>26</sup>

Downstream regulation has been proven effective for the large stationary sources that should be the core of the GHG reduction program and fundamentally subscribes to the principle of “polluter pays” or is held responsible for compliance. Other sectors should be addressed through a hybrid system of different types of programs such as efficiency codes, standards and incentives and offset programs, discussed below. California should not try to force-fit all sectors and sources into one unproven regulatory structure. If the Commission and the CEC conclude that the El Paso-recommended hybrid approach is infeasible, El Paso urges that the POR be designated as per the final recommendations (Option A) outlined by the majority members of the MAC<sup>27</sup> and in the Commission Staff’s recommendations.<sup>28</sup>

In summary, it is very critical for the Commission, the CEC and the CARB to clearly understand the supply and constraints of the natural gas markets in California and also the regulatory/legal complexities related to the point of regulation issue with respect to interstate natural gas transmission companies. It is highly recommended that, in order to meet AB32’s implementation deadlines and targets, the Commission and the CEC should incorporate the realities of these constraints in its final recommendations to the CARB. We urge the Commission and the CEC to incorporate the need to balance AB32’s goals with current regulatory/legal and supply constraints surrounding natural gas as a governing principle in developing cap-and-trade regulations.

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<sup>26</sup> If the interstate pipelines are required to retire allowances for the CO<sub>2</sub> potential of their gas throughput or LNG imported, the FERC would need to approve recovery of the cost of the allowances fees in the pipeline’s rates. Such costs are significant (in some cases the amounts could equal or exceed what the rates that the pipelines are paid currently permitted to charge to transport the gas). Cost recovery would be a very contentious issue at the FERC. If the pipelines are not guaranteed free allocation of allowances or are not provided certainty of cost recovery for allowance purchases, the pipelines actually could risk going out of business due to the inability to recover such costs. In addition, even the risk of such an outcome could result in pipeline companies choosing not to develop new pipeline capacity into GHG-regulated regions and spending their capital to develop projects in the many other available U.S. markets.

<sup>27</sup> MAC, *Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California*, June 30, 2007, pp. 37-39. See also figure 4-1.

<sup>28</sup> CPUC, *Preliminary Staff Recommendation for Treatment of Natural Gas Sector Greenhouse Gas Emissions*, filed July 12, 2007, p. 15. <http://docs.cpuc.ca.gov/efile/RULINGS/70070.pdf>.

*Q9. Should core aggregators or natural gas marketers bear responsibility for the GHG emissions of the customers for whom they procure natural gas?*

Response to Q9:

El Paso believes that regulating gas aggregators and markets is likely to be a more complicated and less effective approach than the hybrid approach of cap-and-trade for large sources, offsets and polices and programs proposed above.

*Q10. If ARB chooses to individually regulate emissions from facilities in certain sectors as well as emissions from other large point sources, what level of GHG emissions should ARB use as the threshold to define large point sources? Explain your reasoning.*

Response to Q10:

The successful cap-and-trade programs to date have almost universally used a threshold of 25 MWe or equivalent. Although some proposed programs have suggested a threshold of 10,000 tonnes CO<sub>2</sub> per year, this is a much smaller threshold (about 3 MW) and would bring in a large number of sources with relatively small emissions. This would complicate the regulatory program providing little additional coverage. .

We suggest that California use the established threshold of 25 MW equivalent.

*Q11. In developing recommendation to ARB, should the Public Utilities Commission and the Energy Commission give consideration to actions other states may take regarding the regulation of natural gas sector GHG emissions? If so, how?*

Response to Q11:

As identified in our response to Question 3, it is important for California to ensure consistency and to take into account federal and other regional and or state actions regarding the regulation of natural gas sector GHG emissions. One of the main concerns regarding climate change is compliance costs and obligations – especially for operating companies like El Paso that operate in over 20 states. A way to keep these costs down and streamline compliance across the country is for California and the other states to adopt an eventual federal GHG construct as much as possible. If programs widely differ between states or the eventual federal program, it will be difficult for those regulated to comply with each state’s regulations. Also, the ability to trade allowances is an important element of any GHG program. Designing varying state programs will limit regulated facilities’ ability to trade allowances, and cause compliance costs to be greater. Further, as explained earlier, there is a possibility of emissions and fuel leakage. Therefore, we recommend provisions in the regulations to revisit and reconcile California’s GHG program with any eventual federal GHG program.

The Commission and CEC should attempt to ensure that California’s GHG program can at least be compatible with other WCI state programs. The Commission and CEC should review other WCI state regulations and actions related to climate change, and identify areas that need further consideration or may prove to be incompatible. Examples of areas California should consider are the Oregon<sup>29</sup> and Washington<sup>30</sup> CO<sub>2</sub> standards for new facilities; and the Oregon Clean Air Task Force’s recommendations for a carbon cap.<sup>31</sup> Additionally, California should consider the RGGI model rule<sup>32</sup> so that offset credits can possibly be used from different regional markets.

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<sup>29</sup> Oregon, Division 24, Specific Standards for Siting Facilities. <http://www.oregon.gov/ENERGY/SITING/docs/rules/div24.pdf>

<sup>30</sup> Washington State Department of Ecology, Carbon Dioxide Mitigation Program for Fossil-Fueled Thermal Electric Generating Facilities. <http://www.ecy.wa.gov/pubs/wac173407.pdf>.

<sup>31</sup> Oregon: Carbon Allocation Taskforce, Summary of the Median Proposal for an Oregon Carbon Allocation Standard. [http://oregon.gov/ENERGY/GBLWRM/docs/CATF\\_Proposal.pdf](http://oregon.gov/ENERGY/GBLWRM/docs/CATF_Proposal.pdf).

<sup>32</sup> RGGI, Updated Model Rule, 1/5/2007. [http://www.rggi.org/docs/model\\_rule\\_corrected\\_1\\_5\\_07.pdf](http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf).

*Q12. Is it important that the regulation of California natural gas sector GHG emissions be consistent with actions taken by other states?*

Response to Q12:

See our response to Question 11 above.

*Q13. Would deferral of a cap-and-trade program for the natural gas sector facilitate or hinder California's integration into a subsequent regional or federal program?*

Response to Q13:

Deferral of a cap-and-trade program for the natural gas sector is not likely to hinder California's integration into a subsequent regional or federal program. Additionally, California got an earlier start than most states in addressing the issue of climate change. Other states still have to work out an approach that considers the complexities of regulating the natural gas sector, such as rate regulation, measuring fugitive emissions, monitoring emissions from small sources, etc. It will likely be several years before a national program is structured and implemented. Waiting to see how these programs develop could improve consistency between the programs and reduce the need to revise or revamp California's program – especially with respect to natural gas.

We believe we have provided sound recommendations with respect to potential programs for the natural gas sector (*see*, in particular, our responses to Questions 1-6 above). As a secondary and less favorable option, El Paso agrees with the concept set forth in the MAC's recommendation, "Option A".<sup>33</sup> Under Option A, California would first regulate medium and large point sources of emissions, move on to also regulate CO<sub>2</sub> emissions from the transportation sector, and at a later date cover emissions from other sectors. This method of requiring reductions from sectors that have traditionally been regulated for their emissions first, and then moving onto sectors where states have little or no experience regulating makes sense and is not likely to hinder California's participation in other programs.

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<sup>33</sup> Recommendation of the Market Advisory Committee to the California Air Resources Board, "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California," June 1, 2007, [http://www.climatechange.ca.gov/events/2007-06-12\\_mac\\_meeting/2007-06-01\\_MAC\\_DRAFT\\_REPORT.PDF](http://www.climatechange.ca.gov/events/2007-06-12_mac_meeting/2007-06-01_MAC_DRAFT_REPORT.PDF).

*Q14. If neither a regional system nor a national system is implemented within a reasonable timeframe, should California proceed with implementing its own cap-and-trade system for the natural gas sector? If so, how long should California wait for other systems to develop before acting alone?*

Response to Q14:

California should wait at least until the beginning of 2010, to begin regulating the natural gas sector. This allows other states and the federal government time to develop a workable program. It is probable that by the start of 2010, Congress will have decided upon a GHG program, although it is unlikely that such a program will begin before 2012-2013.<sup>34</sup>

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<sup>34</sup> The Senate Environmental and Public Works Committee approved the Lieberman-Warner bill on December 5, 2007, indicating that passage of a GHG bill by Congress is possible within the next several years.

*Q15. If a market-based cap-and-trade system is not implemented for the natural gas sector in 2012, how would you recommend addressing early actions that entities may have undertaken in anticipation of a market?*

Response to Q15:

Early actions to reduce GHG emissions by the natural gas sector should be eligible for a portion of allowances or “early action credits” from the overall state budget. A number of different bills have proposed different thresholds for early action projects. The Lieberman-Warner bill proposes that projects undertaken since January 1, 1994 should be eligible for credits. The RGGI model rules states that only reductions achieved during 2006, 2007, and 2008, can receive early reduction credits. El Paso recommends considering January 1, 1994, as an early action date by California to account for early, voluntary environmentally-beneficial actions. Many of El Paso’s initiatives started in 1993 through participation in the EPA’s Natural Gas Star program. It is appropriate to reward early actors and leaders like El Paso who have expended a great deal of time, resources and finances in developing and implementing GHG reduction technologies on natural gas pipeline systems. Early action credits could be registered using appropriate protocols in the California Climate Action Registry.

*Q.16. For purposes of natural gas GHG regulation under AB 32, does it matter what is decided regarding electricity sector type and point of regulation? For example, would a load-based cap for the electricity sector necessitate a similar type of cap for the natural gas sector, with local distribution companies as the point of regulation? If applicable, explain the relationships you see between the electricity and natural gas sectors for AB 32 purposes.*

Response to Q16:

The electricity sector and the natural gas sector as discussed here are very different. Emissions from the electricity sector come from power plants that can be located inside or outside of California, while the transmission and consumption of electricity do not generate CO<sub>2</sub> emissions. Production of fuel for power plants is not included in the electricity sector. The natural gas sector includes emissions from the production, transmission and distribution and consumption of gas inside the state.

CO<sub>2</sub> emissions from gas-fired power plants could be considered part of either sector. The two sectors are not at all parallel and should not be automatically treated the same in terms of regulation. The cap-and-trade approaches should be designed and applied so as to provide the most effective achievement of the GHG goals at the lowest cost.

*Q17. If the electricity sector is not included in a California (or wider) cap-and-trade system, could/should the natural gas sector be included? What are your reasons?*

Response to Q17:

As mentioned in previous comments by El Paso, we support a downstream GHG design. If there is not cap-and-trade program for electric generators, that would likely signal a move to a more “command and control” type of approach, probably resulting in greater administrative complexity and higher compliance cost. El Paso would need to evaluate the options for the natural gas sector under such an approach.

*Q18. What implications might there be for fuel switching if GHG emissions for one sector (electricity or natural gas) are capped and GHG emissions for the other sector are not? Would such fuel switching likely lead to an overall decrease, or increase, in GHG emissions?*

Response to Q18:

Given the linkage between gas and electricity generation in California and the fact that gas is the overwhelming fuel choice for fossil-fueled generation and other fuel use in California, it has difficult to envision what kind of fuel switching might be a concern under the circumstances described. El Paso does not see this as a concern.

*Q19. How should the GHG emissions of cogeneration, combined heat and power, and distributed generation end users be considered and regulated (e.g., in the electricity sector, in the natural gas sector, or as a point source)?*

Response to Q19:

GHG emissions from combined heat and power (CHP), cogeneration, and distributed generation (DG) should be placed in a sector based on the size guidelines that were mentioned in our responses to prior questions above. Larger sources of electricity generation and large industrial units should be placed under the downstream electricity sector cap. Smaller CHP, DG units should be regulated along with other small combustor/emitters. CHP units should receive recognition for their higher efficiency through allowance allocation or other financial incentives

*Q20. Please explain in detail your proposal for how the natural gas sector should be treated under AB 32. Address whether the following emissions sources should be subject to an enforceable cap, and if so, whether reductions in the cap should be achieved by a cap-and-trade approach or only through programmatic requirements: end-user combustion of natural gas, combustion-related emissions from operating the infrastructure, fugitive emissions from pipelines and compressor stations, and noncombustion uses of natural gas. Identify the appropriate point of regulation for each source of emission that should be included in a cap or a cap-and-trade system. Should there just be a sectoral cap, or entity-specific caps as well? Should there be a cap-and-trade system? Address the relationship between programmatic strategies (e.g., energy efficiency programs and pipeline leak detection programs) and a sectoral cap. Discuss any legal concerns or need for new legislation to implement your recommended approach.*

Response to Q20:

The diverse segments of the natural gas sector should be regulated through a variety of differentiated regulatory structures. We have provided recommendations on a potential GHG emissions regulation program design in our responses to Questions 4-6. Emissions from electric generation natural gas customers should be regulated under the electricity sector requirements. El Paso believes that the electricity sector emissions should also be regulated downstream. Lastly, large industrial sources can be covered using the Commission Staff's recommendations – that is, regulated as point sources as part of separate sectoral requirements under a cap-and-trade approach, and not as part of the natural gas sector.<sup>35</sup>

Fugitive emissions should not be regulated under a cap-and-trade program, since it is very difficult to measure and quantify these emissions. Instead, they should be allowed to participate in the trading program through the creation of offsets. Moreover, emissions from the non-combustion uses of natural gas, such as through chemical feedstocks should not be included in a cap-and-trade program, but instead should be reduced through voluntary reduction programs.

Smaller natural gas end users should be addressed through efficiency policies and programs. If they must be included in the cap-and-trade program, the point of regulation should be the Commission-regulated utilities. The utilities already have a number of efficiency programs in place and can expand these programs to reduce end-user consumption.

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<sup>35</sup> CPUC, *Preliminary Staff Recommendation for Treatment of Natural Gas Sector Greenhouse Gas Emissions*, filed July 12, 2007, p 16. <http://docs.cpuc.ca.gov/efile/RULINGS/70070.pdf>.

*Q21. Describe how your recommended approach satisfies each one of the principles or objectives set forth in Section 3.2.*

Response to Q21:

The recommended approach satisfies each one of the approaches listed in Section 3.2 of the Ruling:

Goal attainment – by applying a downstream approach to emissions from electric generation natural gas customers, and a midstream/downstream approach to smaller natural gas end-users, most GHG-related emissions from natural gas are covered, and therefore will help meet AB 32's overall reduction goals.

Cost minimization – the approach helps minimize costs since reductions are required from sources whose emissions can more easily be monitored and reduced. Fugitive emissions and other natural gas-related GHG emissions that are difficult to measure will be addressed through efficiency and other programs (such as emission offsets).

Legal risk – regulating natural gas emissions primarily downstream will help minimize any legal risks, since the main legal questions – of preemption, conflict with the Commerce Clause, etc., if the POR responsibility were to be imposed on upstream parties (especially interstate natural gas pipelines), are avoided.

Environmental Integrity – for the natural gas sector, the approach preserves the integrity of the compliance obligation on the larger emitting sources based on actual emissions as opposed to a fuel proxy method which places placing the burden on an upstream entity with little or no influence in business or behavior of downstream end users of natural gas.

Expandability – a similar approach to regulating GHG emissions could be used by other WCI participants. If the program regulates large emitters using a downstream approach, similar to RGGI's plan, then allowances covering these large sources can possibly be traded between California and RGGI states.

Accuracy – the approach promotes accuracy since emissions that are difficult to monitor, like fugitive methane and vented emissions are not included in the cap, thus, improving accuracy.

Administrative Simplicity – the approach is relatively straightforward. Emissions that are difficult to measure, i.e., fugitive and vented emissions, are addressed through voluntary programs, further reducing administrative issues.

*Q22. How does your recommended approach differ from the Public Utilities Commission Staff's preliminary recommendations for the natural gas sector attached to the July 12, 2007 ruling?*

Response to Q22:

El Paso's recommendation is different from the Commission Staff's preliminary recommendations, in that El Paso does not believe that fugitive emissions from pipelines and other gas transmission, distribution, and storage activities should be covered under the cap, as explained above.