



**DOCKET 07-OHP-01
CALIFORNIA ENERGY COMMISSION
OPENING COMMENTS OF
PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) ON
TYPE AND POINT OF REGULATION OF
GREENHOUSE GAS EMISSIONS IN THE NATURAL
GAS SECTOR UNDER AB 32**

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I. INTRODUCTION

Pursuant to the ruling of the Administrative Law Judges dated November 28, 2007 (ALJs' Ruling), Pacific Gas and Electric Company (PG&E) provides its opening comments on type and point of regulation of greenhouse gas emissions in the natural gas sector under AB 32. PG&E's comments are in the form of an executive summary and responses to the questions listed in the ALJs' Ruling.

II. EXECUTIVE SUMMARY

PG&E has two overarching goals with respect to AB32 implementation. These are: 1) to achieve long-term and sustained reductions in greenhouse gas emissions; and 2) to manage the costs of achieving these reductions on behalf of our customers. As a proven and effective means of achieving these dual objectives, PG&E supports the use of a well-designed cap and trade market, and generally supports bringing as many sectors as practicable into a cap and trade market. There are some fundamental questions that help inform whether a particular sector, including the natural gas sector, should be included within a cap and trade market. They include:

- What are the amount and timing of emissions reduction opportunities available at a lower cost as related to other sectors?

- To what degree can these opportunities be captured through programmatic measures? How much of the remaining potential might be captured by bringing that sector into a cap and trade program? How likely and when will these savings be realized?
- Will there be significant market liquidity benefits from bringing a sector into a cap and trade market?
- What are the incremental administrative, reporting and transaction costs associated with moving this sector into a cap and trade market?
- What is the likely direction of a federal or regional program with respect to the sector? How will a California-only program for the sector integrate with a federal or regional program?

PG&E addresses these questions in turn.

For natural gas, the CPUC has recognized and PG&E agrees that there is a natural division between large customers and small customers. PG&E also supports bringing large customers into a California cap and trade market, but does not currently support bringing small natural gas customers (small commercial and residential customers) into a cap and trade market.

For small customers, PG&E views the emissions reduction opportunities to be directly tied to natural gas efficiency improvements and believes they are more limited. This view is supported by the initial draft results from the Energy and Environmental Economics (E3) GHG Modeling Study.^{1/} Further, PG&E believes it is likely that the bulk of these savings can be achieved through a well-integrated set of programmatic

^{1/} See Energy and Environmental Economics, Inc. (E3), summary of aggressive policy case results. Located at: http://ethree.com/GHG/Aggressive_Policy_Model_Results_v1b.doc.

measures directed at small customer natural gas consumption, which would include state appliance and building efficiency codes and standards, complementary utility customer energy efficiency programs, and possibly a point of sale energy efficiency program. Apart from these efficiency improvements, there appears to be very limited cost-effective opportunities for other, lower carbon fuels to substitute for small customer natural gas consumption. While PG&E certainly supports continued rigorous market assessment of the small customer natural gas segment to reaffirm these observations, nonetheless if the observations are true, then there may be little or no cost-savings available by including this segment in a cap and trade program.

In terms of market liquidity, PG&E makes two observations. First, as noted above, market opportunities may be limited. Second, fluctuations in residential and small commercial natural gas use are generally driven by cold winters, which is different than what drives short-term variations in electricity demand, and likely to be different than what drives short-term variations in demand by large natural gas customers (such as oil refineries), as well as the cement and transportation sectors. If so, then there may be a small diversity benefit to including this sector a cap and trade market. Overall, there appears to be limited liquidity benefits from including small natural gas customers in a cap and trade market, but again PG&E expects that further study evaluating liquidity benefits as a cap and trade market expands may be useful.

Unlike large natural gas users, consumption of natural gas by small customers occurs literally at millions of different customer premises and end uses. Further, the occupants of these premises may or may not be paying the bills. It is likely to be too costly and impractical for individual small customers in this segment to be directly

regulated through a cap and trade system. Moving further upstream, to the gas local distribution company, would reduce the complexity and cost of moving this segment into a cap and trade program, but also would be impractical because it in turn removes the point of compliance from the users with the ability to reduce emissions directly.

Lastly, a structural and programmatic approach increases the ease of any necessary transition to a regional or federal program and minimizes any potential sunk costs associated with implementing a cap and trade system that may need to be significantly modified or dismantled altogether when a broader federal or regional program is implemented.

In summary, for the small customer segment, PG&E observes that:

- cost-effective emissions reductions opportunities are limited,
- the bulk of these opportunities may be captured through an integrated set of programmatic measures,
- market liquidity benefits are likely to be small, and
- administrative and transaction costs may result in overall program costs which are high relative to the potential benefits.
- potential for a federal or regional program presents integration costs that are higher if a California only cap and trade program is in place.

However, in the context of an overall and well-designed cap and trade market, additional insight can be gained through closer examination of these issues.^{2/}

^{2/} As the preliminary staff recommendations attached to the ALJs' July 12 ruling confirmed, the largest percentage of GHG emissions attributable to natural gas are through end user combustion (13.87% according to Table 3 of Attachment A), while GHG emissions attributable to the transmission, distribution and storage of natural gas are more than an order of magnitude smaller

III. RESPONSE TO SPECIFIC QUESTIONS

1. Summary

Today's ruling requests comments on the general type and point of regulation to be used to reduce greenhouse gas (GHG) emissions in the natural gas sector. Parties are invited to file comments on the questions contained in this ruling, and any other issues they deem to be related to this topic. Parties may file comments no later than December 12, 2007 and reply comments no later than January 8, 2008.

2. General Instructions

We are requesting comments on the following issues and questions related to regulation of GHG emissions in the natural gas sector. In a July 12, 2007 ruling, we allowed parties to file prehearing conference statements on natural gas issues and comments on preliminary recommendations of the Public Utilities Commission Staff regarding the regulatory treatment of GHG emissions in the natural gas sector (Attachment A to that ruling). Parties should not repeat comments they submitted in response to the July 12, 2007 ruling. Parties may answer all or any of the following questions. At the end of the questions, parties are asked to submit their comprehensive proposal for how the natural gas sector should be treated for purposes of compliance with Assembly Bill (AB) 32.

Parties should explain their reasons for each answer in detail. Parties are encouraged to refer to their comments filed in response to our November 9, 2007 ruling requesting comments on type and point of regulation issues for the electricity sector, to address the manner in which your recommendations are consistent or differ for the electricity and natural gas sectors.

3. Questions to be Addressed in Comments

3.1. General

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?

Although PG&E is generally in favor of market based mechanisms because they are more likely to achieve the dual objectives of emissions reductions and cost minimization, the natural gas sector deserves further consideration given its structure and the unwieldy quantity of combustion and emission point sources. The benefits of the market based system may be enhanced if the regulated entity is the entity that emits the

(0.42%, according to Table 3 and page 8 of Attachment A.)

greenhouse gases and thus has the ability to directly make decisions on how it is combusted as well as how much. This means that the end users in the residential and commercial markets should be the point of regulation. However, regulating such a large number of individuals and small businesses under a market based system would be administratively burdensome and costly.

An important characteristic of the small customer segment of the natural gas sector is that there is no readily available clean and economic substitute for natural gas to meet residential and commercial space and heating needs. This fact has “good news/bad news” aspects for AB 32 regulation of the natural gas sector. The “good news” is that, despite the lack of any ready alternative to natural gas, overall California residential and commercial “core” gas consumption has remained flat since 1990, and thus GHG emissions from core gas use also have been flat. This is most likely because of the aggressive energy efficiency programs undertaken by California’s three primary local gas distribution companies -- PG&E, SDG&E and Southern California Gas-- over the last three decades. In addition, price-induced conservation is likely to have had an effect, along with higher standards for new buildings and new appliances. However, the “bad news” is that opportunities for further “easier,” low-capital-intensive energy efficiency gains in core gas use may be more limited, because such gains may be dependent on further building code and appliance standard improvements or relatively large outlays by homeowners and building owners to replace old gas furnaces and hot water heaters with high-efficiency furnaces and water heaters.^{3/}

^{3/} The California Legislature recently enacted a rebate program for solar hot water heaters, but even with rebates, the initial outlay required to purchase a solar hot water heater appears to remain relatively high.

Thus, PG&E recommends that improved building and appliance codes and standards, combined with incentives and technical assistance to residential and commercial core gas users at reasonable cost, be the primary means of reducing GHG emissions in the small customer segment of the natural gas sector. PG&E is not certain that the incremental benefits of a market-based system are worth the cost, particularly if a federal or regional system is different.

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?

In theory, if the natural gas sector is subject to a market based system, then additional emissions reductions will occur in the sector only to the extent the cost of the reductions across all the sectors that are in the market based system exceed the cost of the reductions in the small customer segment of the natural gas sector. One early indication of the likelihood of reductions in the natural gas sector is the economic modeling that is being performed by E3 and others. In E3's preliminary analysis of the opportunities for reduction in the natural gas sector there appear to be a small number of reductions available.^{4/} If the cap on the natural gas sector exceeds the level of these opportunities or if the cost of reductions in this sector is much higher than other sectors, then the entity that is the natural gas point of regulation will likely end up purchasing allowances in the open market to meet their cap rather than perform emission reductions measures that exceed the cost of an allowance. Finally, if the entity that is the point of regulation does not have sufficient influence over natural gas consumption decisions, it is also unlikely that any real long term reductions will occur within the sector.

3.2. Principles or Objectives to be Considered in Evaluating Design Options
In the November 9, 2007 ruling, we described principles or objectives that the Public Utilities Commission Staff proposes be used to evaluate GHG program design options and to develop recommendations regarding a GHG regulatory approach. Recognizing that some of the stated objectives are more applicable to the electricity sector, we repeat the Staff-proposed objectives below (omitting those items that are only relevant to the electricity sector):

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?

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.

PG&E believes that the overarching objectives the Commissions should keep in mind when considering how to regulate the emissions of the natural gas sector are: 1)

4/ See http://ethree.com/GHG/Aggressive_Policy_Model_Results_v1b.doc.

Achieving real and sustained long-term emissions reductions; and 2) Managing customer costs. PG&E also supports the other objectives listed in question as important to consider but believes these additional objectives to the extent they are met will all support the first two overarching objectives. The Governor's Market Advisory Committee (MAC) report recognized the challenges that some sectors might face in its discussion of scope. The MAC highlighted environmental integrity and administrative, monitoring and transaction costs as considerations that might argue for narrowing of scope for the overall program. "These factors may offset the potential benefits from a broad system. Accordingly, the Committee recommends that the cap-and-trade program start out with the broadest coverage consistent with the exclusion of entities that pose serious administrative costs or monitoring difficulties. Coverage can expand over time as these difficulties are overcome."^{5/}

3.3. Basic Design Questions: Scope of GHG Regulation

For the purposes of answering questions in Sections 3.3, 3.4, 3.5, 3.6, and 3.7, the referenced natural gas sector does not include sources likely to be directly regulated by the California Air Resources Board (ARB), e.g., cement plants, oil refineries, and large point sources, or natural gas used for electricity generation (these emissions are included in the electricity sector).

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?

Because it is the end user of natural gas and not the retail seller or the deliverer, which has the greatest ability to affect the amount of greenhouse gas emissions from natural gas, it is desirable to place the point of regulation close to the point of consumption where practicable. It may not be practical to directly regulate small

^{5/} "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California," Market Advisory Committee to the California Air Resources Board, June 30, 2007, p. 23.

commercial and residential gas users who are primarily responsible for emissions from this segment of the natural gas sector. However, it is more feasible and the initial model results suggest the opportunities for emissions reductions are greater with large consumers, because they can make choices about fuel type and fuel efficiency. A majority of these large consumers will be regulated under the AB 32 regulations as large industrial sources and therefore are already removed from the scope of discussion for these comments. PG&E recommends that the remaining natural gas users be left out of any potential cap and trade system, at least pending a thorough examination of the costs and benefits. This approach minimizes cost and administrative burdens, and minimizes potential investments in setting up a system that may not be cost beneficial and may be incompatible with a regional or federal program.

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.

For the residential, commercial and small industrial segments regulated under AB 32, PG&E recommends that the regulation be in the form of “structural” improvements to building codes and appliance standards, combined with technical assistance and financial incentives for users to convert inefficient GHG-emitting appliances and buildings to lower emitting alternatives at a reasonable cost.

b. Natural gas combustion by natural gas vehicles.

PG&E believes that given the complexities of determining emissions from vehicle use, the appropriate method of regulation of natural gas vehicles is under the same method and structure as that adopted for mobile sources in the broader transportation sector. Additionally, given that natural gas also serves as substitute for higher-emitting petroleum transportation fuels, distributors of natural gas for combustion by natural gas vehicles should receive credit for any GHG-related fuel-substitution value.

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.

The natural gas infrastructure is essentially an industrial process and it can be regulated in the same way as other industrial processes. If cap-and-trade is applied to industrial users of a specified size, then the same requirements can be applied to the infrastructure. The infrastructure should be considered as a single fuel consuming entity since it can manage overall emissions impact by increasing the efficiency of the total system rather than at individual components such as compressor stations.

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

PG&E recommends that regulators proceed cautiously regarding the emissions associated with fugitive natural gas from a utility's natural gas operations, in order to ensure that emissions subject to AB 32 source-specific caps be determined by well developed estimation techniques. If measurement is based on sound estimates of vented or fugitive volumes then the infrastructure can be regulated like any other point source

from an industrial process. If however, measurement is based on some of the existing rules of thumb such as miles of pipe or number of compressor stations, then regulation is not practical because the only way to achieve reductions is to curtail access to critical gas supplies.

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

Given the differences in emissions associated with non-combustion uses of natural gas, entities that use gas for other than combustion potentially should be subject to different forms of regulations. However, PG&E does not have a specific recommendation at this time.

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

PG&E does not have any additional sources of natural gas on which to make recommendations at this time.

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

PG&E believes that the large emissions sources that should be subject to a cap in the natural gas sector will for the most part be subject to the large point source regulation in the industrial sector generally. The small commercial and residential sector of the natural gas sector should for now be exempt from a regulatory cap. Regardless of whether this segment is brought within a cap and trade market, programmatic and structural measures such as building and appliance codes and standards as well as ongoing energy efficiency programs, including utility promotion for the development and deployment of high-efficiency hot water heaters, should be employed to achieve cost-effective emissions reductions.

An example of a programmatic and structural measure that could be evaluated for potential use in the core gas sector under AB 32 is the “time of sale” energy efficiency program recommended by NRDC in their initial recommendations to the ARB for the AB 32 scoping plan.^{6/} Other measures that could be considered are the building code and appliance standard improvements identified in the Climate Action Team’s comprehensive list of GHG reduction initiatives.^{7/}

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?

Under AB 32, the ARB is the only State agency with legal authority to enforce GHG emissions reduction regulations and thus would be the agency responsible for ensuring compliance with those regulations by publicly owned utilities.

3.4. Basic Design Questions: Point of Regulation

Q8. If you believe that the natural gas sector and other sources of emissions related to combustion of natural gas^{8/} 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.

As with most air quality regulations, the point of regulation or compliance obligation for all sectors should fall, where possible, at the point source of GHG

^{6/} Natural Resources Defense Council, Scoping Plan Recommendations, October 1, 2007, <http://www.arb.ca.gov/cc/scopingplan/submittals/electricity/electricity.htm>.

^{7/} “Climate Action Team Report to Governor Schwarzenegger and the Legislature,” California Environmental Protection Agency, March, 2006, pp. 51- 53; “Updated Macroeconomic Analysis of Climate Strategies Presented in the March 2006 Climate Action Team Report,” Economics Subgroup, Climate Action Team, October 15, 2007, pp. 6-7, 24- 25

^{8/} Sources include cement plants, oil refineries, large point sources regulated by ARB and natural gas combusted to produce electricity.

emissions. Except for certain emissions from pipelines and gas processing facilities, the point source for GHG emissions from the gas sector is at the end user in the natural gas sector. Because the ability to administer such a cap at such a large number of sources will be burdensome and costly, an alternative solution, as discussed above, would be a combination of programmatic and structural measures that can be targeted at the source of combustion and based on well-analyzed cost-benefit analysis.

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

No. As with utility LSEs, core aggregators could be an informational clearinghouse and source of consistent technical assistance as part of programs to reduce GHG emissions.

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.

Economic modeling and practical cost-benefit analysis, rather than arbitrary numerical cut-offs, should be used to determine the most efficient threshold of emissions above which to regulate. It is only through complete economic review of the opportunities for emissions reductions across all sectors that an informed tradeoff can be made that balances administrative costs with opportunities for reductions. As discussed above, PG&E believes that only large industrial gas users are practicably susceptible to direct cap and trade regulation. The information gathered in the natural gas data request and issued by the CPUC on December 10, 2007, demonstrates that there are not significant volumes associated with customers who consume between 2 million and 4.5

million therms per year.^{9/} Therefore, PG&E does not recommend any threshold lower than 4.5 million therms for large customers.

3.5. Deferral of a Market-based Cap-and-Trade System and Coordination with Other States

Section 3.5 of our November 9, 2007 ruling described a scenario in which a California-only cap-and-trade system may not be implemented at this time. Similar questions are asked here for the natural gas sector.

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?

The CPUC and the CEC should give great weight to the likely form of regulation at the regional or federal regulation. PG&E would find this to be especially important if some portion or all of the natural gas sector were included in a cap and trade system. Equally important, given the likely use of programmatic measures, is the decoupling of sales from earnings for natural gas utilities. Finally, California should be cognizant of any relative competitive and cost of living impacts if a California program is significantly more rigorous than that of other states.

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

See response to Question 11.

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?

PG&E believes deferral of a cap-and-trade program in the natural gas sector would facilitate integration into a regional or federal program and also minimize the risk

^{9/} See Attachment K located at <http://docs.cpuc.ca.gov/PUBLISHED/RULINGS/76322.htm>.

of incurring potential sunk costs with a system that does not integrate well with other potential programs whether regional or federal.

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?

If regional and federal programs are not implemented then California should proceed with a cap-and-trade system for the natural gas sector only if there are sufficient opportunities for reduction available in the sector at a reasonable cost. This can be determined after thorough modeling of the emission reduction opportunities in the Natural Gas sector as well as all other sectors considered for caps. As mentioned earlier, the small commercial and residential customer segment should be considered separately from large natural gas customers.

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?

Regardless of whether a cap-and-trade system is implemented for the natural gas sector, PG&E recommends that the primary measures used in the core gas sector should be programmatic and structural measures, as discussed above.

3.6. Relationship to GHG Regulatory Approach in the Electricity Sector

Q16. 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.

A load based cap in the electric sector would not require a comparable market structure for the natural gas sector. However if the natural gas sector is regulated further

upstream than the Local Distribution Company (LDC), such regulation would be incompatible with a load based cap or first seller alternatives. The programmatic and structural form of natural gas sector regulation suggested by PG&E would not result in any conflicts with the electric sector point of regulation.

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?

If the electricity sector is not included in the California cap-and-trade system, then the natural gas sector should also be left out of any cap and trade system. Without participation by the electric sector, it is unclear how a broad and liquid California market could be implemented. Without this, the market could be thin and allowance prices high and volatile.

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?

Electric to natural gas fuel switching, for low emitting portfolios such as PG&E's, is likely to increase overall emissions to some degree. Natural gas to electric fuel switching may result in reduced emissions. Since electric infrastructure lead times are relatively long, some infrastructure stress may occur for sudden fuel switching in this direction.

For PG&E, fuel switching from gasoline to either electricity or natural gas is likely to reduce emissions.

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)?

Under PG&E's recommended point of regulation of the electric sector – at the “first seller” – cogeneration or combined heat and power would be regulated as electric generation and the natural gas combustion for industrial processes should be regulated as a large industrial stationary sources. For this application the first seller approach is simpler and more accurate than a load based cap, because it obviates the need to apportion out efficiency improvements between industrial processes and electric generation. Under a load based cap it would be necessary to apportion out these efficiency improvements because a cogeneration facility would be subject to two points of regulation.

3.7. Recommendation and Comparison of Alternatives

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 non-combustion 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.

As discussed in the executive summary to these comments, PG&E generally supports the use of market-based mechanisms, such as a cap-and-trade program for the regulation of greenhouse gases. However, as highlighted in the MAC Report, the circumstances associated with greenhouse gas emissions of the end-user combustion of natural gas sector may require consideration of different approaches, because the great majority of emissions are attributable to millions of individual core gas end-users in the

residential and commercial sectors with no readily available substitutes for their use of gas for space heating and other domestic uses. For these reasons, PG&E recommends that GHG emissions in the natural gas sector not otherwise covered through large industrial regulation, or other sectors, should not initially be regulated directly through emissions caps. Instead, a combination of programmatic and structural measures should be considered, such as improved building codes and appliance standards, coupled with technical and financial assistance to residential and commercial building owners to convert their existing appliances and buildings to more energy efficient, low GHG-emitting alternatives. This approach is consistent with the current regulatory framework in which the CEC has the responsibility for establishing and enforcing compliance with mandatory energy efficiency standards for buildings and appliances. The CPUC, on the other hand, enforces incentive-based regulation by establishing the cost-effectiveness methodology and program design for voluntary adoption of energy efficiency measures by IOU customers.

PG&E believes that a “programmatic” and “structural” approach need not preclude the eventual use of market-based mechanisms on a supplemental basis after careful examination, such as offsets or allowance trading. However, the primary means of achieving GHG emission reductions in the gas sector should be individual programs and building and appliance codes and standards, rather than regulatory caps or market-based trading of emissions allowances.

Please see the response to question 5 for recommendations on other specific segments of the natural gas sector.

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

Goal attainment: The approach recommended in these comments is consistent with the objective of goal attainment for several reasons. Although deferring until regional or federal legislation is implemented will not provide certainty of reductions in the natural gas sector, based on the available preliminary modeling results from E3 the majority of the achievable emission reductions will be achieved in other sectors that can be capped and the cap if implemented for the gas sector will likely be achieved through allowance purchases rather than more expensive reductions in the gas sector.

Cost minimization: PG&E's approach minimizes costs primarily through reducing potentially high administrative costs relative to the small amount of potential reductions in the natural gas sector. Given the relatively limited reduction opportunities currently identified in the natural gas sector and the difficulty in regulating small commercial and residential customers, the benefits of implementing a cap-and-trade in this sector may not be cost beneficial given administrative costs. This is further supported by the potential for an investment in the administration of a market-based system to be lost if a regional or federal program are not compatible with the design of California's market.

Legal risk: The legal risks of a combined programmatic and structural approach are low, as long as the measures are implemented by ARB in a manner similar to other programmatic and structural measures ARB and the local air boards have implemented to reduce point source pollutants in the residential and commercial sectors.

Environmental Integrity: PG&E believes its approach does not provide any incentives to move emissions from natural gas outside of California. This approach

awaits a federal or regional program that would prevent leakage of emissions to other areas.

Expandability: The approach suggested within these comments maximizes the ability to fit within any federal or regional program by deferring state market-based mechanisms for small gas users given expectations of a federal or regional program.

Accuracy: The natural gas sector benefits from relatively straightforward reporting of emissions, therefore reporting accuracy should not be impacted as significantly as it might be in the electric sector under most regulatory frameworks.

Administrative Simplicity: PG&E recommends this particular approach because of the expected limited opportunity of achieving additional emissions reductions in the small commercial and residential customer segment of the natural gas sector.

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?

As outlined in PG&E's comments in response to the July 12, ruling, as well as in our comments here, PG&E does not agree with the Commission Staff's preliminary recommendation that a cap and trade mechanism be implemented for the small commercial and residential customer segment of the natural gas sector. PG&E currently recommends well-integrated programmatic and incentive-based approaches, focusing on end-users rather than on the upstream retail sellers, distributors or producers of gas.

IV. CONCLUSION

PG&E recommends that the CPUC and Energy Commission adopt a type and point of regulation for the natural gas sector consistent with these comments. PG&E does not currently recommend including the small commercial and residential segment of the natural gas sector in a California-only cap and trade mechanism.

Respectfully Submitted,

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