



SOUTHWEST GAS CORPORATION

**CALIFORNIA AIR RESOURCES BOARD
CLIMATE CHANGE DRAFT SCOPING PLAN**

**COMMENTS OF
SOUTHWEST GAS CORPORATION**

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**THE CALIFORNIA AIR RESOURCES BOARD
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**COMMENTS
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Southwest Gas Corporation (Southwest) respectfully submits its comments on the June 26, 2008 Draft Scoping Plan issued by the California Air Resources Board (CARB) pursuant to *The California Global Warming Solutions Act of 2006 (AB 32)*.

INTRODUCTION

On June 26, 2008, the CARB issued its Draft Scoping Plan presenting its draft proposals to lower California's greenhouse gas (GHG) emissions to 1990 levels by 2020 to meet the requirements of AB 32. The Draft Scoping Plan addresses numerous issues and industries, including a proposal to implement a cap and trade regulatory program, to implement a carbon fee to cover, at a minimum, its cost of administering the AB 32 program, and to work with the Western Climate Initiative (WCI) to achieve an integrated and complementary GHG regulatory regime in the western United States. The cap and trade program proposed by the CARB includes the natural gas industry. Southwest's comments address the proposal to include the natural gas industry in a cap and trade program.

DISCUSSION

Southwest is a local gas distribution company (LDC) serving more than 1.8 million customers in three western states -- Arizona, California, and Nevada. In California, Southwest is considered a small multi-jurisdictional utility. Southwest serves approximately 180,000 customers in the high desert areas of southern California, and in the mountain communities of Big Bear and Lake Tahoe. Southwest's customer base is approximately 99 percent residential and commercial. Southwest does not own any transmission or natural gas storage in California. Southwest is a member of the California Climate Action Registry and has completed three GHG inventories based on its operations in California. Southwest does not support the proposal to include the natural gas industry in a cap and trade regulatory regime, and as such, Southwest's comments will address the factors that support exclusion of this sector from this manner of regulation.

It is Southwest's firm belief that there is no need for a cap and trade system for the natural gas sector. Southwest sees few incremental benefits of a market-based system for GHG compliance in the natural gas sector, as the vast majority of emissions in this sector come from end-use customers' combustion of natural gas. This factor appears to underlie the CARB's proposal to include residential and commercial natural gas customers under the cap and trade system. The Draft Scoping Plan, unfortunately, does not indicate how the residential and commercial natural gas users would be regulated under the cap

and trade system. However, since it would be virtually impossible to regulate the individual natural gas consumption of the millions of residential and commercial customers in California, Southwest has to assume the point of regulation would be at the LDC level. Consequently, the additional and incremental cost of a cap and trade system would add another layer of costs on customers, who are already paying for the reduction of GHG emissions through stricter building codes, higher efficiency appliance standards, and mandatory energy efficiency/conservation programs. Since most GHG emissions reductions in the residential and commercial customer sector will be a result of building codes, appliance standards, and energy efficiency/conservation programs, a cap and trade system does not appear to add any additional incentive to reduce GHG emissions further.

A market-based system that includes a cap and trade program may be the most efficient and least costly alternative to achieve GHG emission reductions in the electric generation, industry and transportation sectors, where over 90 percent of the emissions are actually generated by the sector and essentially none are generated by the end-user. In direct contrast, the incremental benefits of a cap and trade program are limited for the natural gas distribution sector where over 90 percent of the GHG emissions from the natural gas sector are generated by the end-user and less than 10 percent is generated by the gas utility industry itself.

The actual emissions from the operations of LDCs constitute significantly less than one percent of the total GHG emissions in California. Therefore,

although there may be additional emissions reductions strategies that can be implemented by LDCs, they will have little effect on California's overall GHG emissions. Residential and commercial natural gas customers are estimated to represent only approximately nine percent of the total GHG emissions in California. This is less than one-half of the emissions reduction potential from the industry sector, only one-third of the potential emissions reductions from the electric sector, and only one-fifth of the potential emissions reductions from the transportation sector. Southwest believes the potential emissions reductions from residential and commercial customers are unlikely to play any major role in reducing total GHG emissions in California. In fact, based on Table 4 (Sector Responsibilities Under Cap-and-Trade Program), on page 17 of the Draft Scoping Plan, potential pro rata reductions from residential and commercial customers are on the magnitude of six to nine million metric tons of CO₂ equivalent (MMT_{CO₂E}), which represents only four to six percent of the total GHG reductions needed by 2020.

Residential and commercial customers of natural gas utilities do not have the same opportunities as the other sectors to reduce GHG emissions, as they have little ability to substitute low carbon alternatives for their natural gas. A key risk in designing a GHG compliance program for the residential and commercial customer natural gas sector is the unintended consequence of having customers shift away from natural gas and use more electricity, which is counter-productive in terms of overall GHG emissions reduction goals, as the increased electricity demand would result in the burning of more natural gas as a fuel for electric

generation -- a process substantially less efficient than the consumption of natural gas by end-users. The Western Governor's Association estimates electric generation (and the associated transmission) has an energy efficiency rating of only 33 percent. That is a loss of 67 percent of the original energy before the energy is actually delivered and available to the end-user. In contrast, natural gas production and transmission has an energy efficiency rating of over 90 percent; a loss of less than 10 percent of the original energy before the energy is delivered and available to the end-user. This represents a significant and immediate opportunity to reduce GHG emissions just by switching from electric appliances and fixtures to natural gas fueled appliances and fixtures.

Additionally, although many consider solar water heating systems as a viable alternative for emissions reductions from the combustion of natural gas by residential and commercial customers, it is not clear that they are cost-effective or that there are the materials and personnel resources to replace the millions of natural gas water heaters in California with a solar unit. For example, the California Legislature (in AB 1470) directed the California Public Utilities Commission (CPUC) to fund incentives for a solar water heating initiative at a cost of \$100.8 million to replace 200,000 gas water heaters by 2017. If that cost and time period were extrapolated to the replacement of natural gas water heaters for customers of the four major investor-owned gas utilities in California (Pacific Gas & Electric, San Diego Gas & Electric, Southern California Gas, and Southwest), it would take approximately five decades and \$5.4 billion dollars to complete the replacement; for a savings of approximately 11.7 MMTCO₂E (based

on an annual usage of 206 therms of natural gas per water heater). Southwest suggests that incurring a cost of approximately \$461 to remove one ton of CO₂E may not be in the best interests of its customers or the State of California. It would likely be more cost-effective to purchase allowances. The replacement of natural gas water heaters with solar water heaters, noted above, does not even consider the need for a back-up energy source when the sun sets or the sun is obscured. This back-up energy source is likely to be natural gas. Thus, reductions in gas consumption and, in turn, the extrapolated 11.7 MMTCO₂E reduction in GHG emissions, from converting natural gas water heaters to solar water heaters may be substantially overstated, and may bear a cost even greater than \$461 per ton of CO₂E.

Outside of replacement of natural gas fixtures and appliances with alternative fuel technologies (a potentially costly proposition as noted earlier) or mandatory curtailments, there are few actions an LDC can take to reduce end-users' GHG emissions. The viable actions or alternatives available are to enhance stricter energy efficient local building codes and appliance standards, and to implement additional energy efficiency and conservation programs for residential and commercial customers. In addition to codes, standards, and energy efficiency, LDCs are seeing significantly higher costs for natural gas, which will put a significant dampening effect on consumption. Higher natural gas costs are likely to continue as a result of the increased demand for natural gas (electric generation) to comply with GHG emission limits in the electric sector, as well as the proposed imposition of carbon fees on fuels, and a growing

supply/demand imbalance exacerbated by prohibitions on exploration and production.

Residential and commercial customers will be the parties responsible for paying the increased cost of energy efficiency/conservation programs and the higher cost of the fuel itself. It would be an added burden to customers to also pay for the cost of compliance with a cap and trade system on top of what is likely to be significantly increased prices for natural gas. Additionally, Southwest's customer base contains a significant number of low-income residential customers (approximately 28 percent). The imposition of a cap and trade system on residential and commercial customers would most adversely affect low-income customers, in contrast to language in AB 32, which states: "Ensure that activities undertaken to comply with the regulations do not disproportionately impact low-income communities."

Residential and commercial natural gas customers have already reduced their GHG emissions in California and elsewhere. In numerous comments filed in various proceedings, in reports, and in news releases throughout the country, the American Gas Association (AGA) has reported that average consumption of natural gas by U.S. households has gone down more than 30 percent since the 1970s. Southwest has also analyzed its California customer consumption data and it is clear that its customers have already reduced their natural gas consumption and, in turn, their GHG emissions. Southwest's residential customers used an average of only 45 therms per customer, per month in 2007 compared to 51 therms per month in 1990. This is a decrease of more than 13

percent. Southwest's low-income residential customers have also reduced their usage, on a per capita basis, by approximately 12 percent below 1990 levels. Overall, Southwest's total California system consumption of natural gas, on a per customer basis, has decreased greater than 20 percent since 1990. Clearly, Southwest's residential and commercial customers have already exceeded the mandate of AB 32 as it applies to reducing emissions to 1990 levels. Southwest, based on its own experience, and that reported by the AGA, would surmise that per capita consumption of natural gas has decreased in California and may already meet or exceed the statutory 1990 threshold.

The CARB, throughout its Draft Scoping Plan, gives recognition to the expertise and valuable contributions of the California Energy Commission (CEC) and the CPUC. On page 4 of the Draft Scoping Plan, the CARB notes that it considered the CEC/CPUC joint recommendations in developing the preliminary recommendations in its Draft Scoping Plan. However, the CEC/CPUC joint decision (Decision 08-03-018, dated March 13, 2008) on greenhouse gas regulatory strategies specifically excluded the natural gas sector from a cap and trade system. The CEC/CPUC noted several valid reasons for this recommendation, including but not limited to:

- The natural gas sector had significantly fewer options available to reduce GHG emissions compared to the electric sector.
- There is limited availability of low carbon alternative sources of natural gas.

- Energy efficiency and other natural gas demand reduction programs are the best options for reducing GHG emissions from the natural gas sector.
- The incremental benefits to including the natural gas sector in cap and trade are likely to be smaller than those for the electric sector.

The CEC/CPUC, in their joint decision, further noted that reporting protocols had not yet been developed for the natural gas sector and that taking programmatic actions in the interim was also compatible with the potential inclusion of the natural gas sector in an upstream form of regulation in the future. There were more than 40 participants in the CEC/CPUC joint proceeding. The parties participated actively and robustly. Participants in the proceeding ranged from utilities, to consumer advocates, to investment bankers, to environmental advocates. The CEC and CPUC took the varied positions, interests and information into consideration in their analysis and deliberations before coming to the logical conclusion that regulating the natural gas sector via a cap and trade regulatory regime, at this time, was neither warranted nor beneficial.

CONCLUSION

Southwest does not support the CARB's recommendation that natural gas residential and commercial customers be included in a cap and trade system to reduce GHG emissions. Residential and commercial natural gas customers produce less than 10 percent of the total California GHG emissions. There are only a few viable and cost-effective alternatives to using natural gas as an end-use fuel. Natural gas is most efficiently used at the customers' burner-tip, and

overall GHG emissions are reduced compared to using natural gas for electric generation. Curtailing or restricting gas supply to residential and commercial customers would be a poor option. Achieving GHG reductions would be far more practical through stricter building codes, higher efficiency appliance standards, and mandatory energy efficiency/conservation programs. In fact, natural gas residential and commercial customers are already using less natural gas than they were in 1990 based on Southwest's records and anecdotal evidence provided by the AGA. Subjecting residential and commercial natural gas customers to a cap and trade regulatory regime simply means those customers will pay additional monies for little, if any, additional reduction in GHG emissions from the natural gas sector. For all the above reasons, Southwest believes the CARB should remove the natural gas sector (specifically, residential and commercial customers) from the cap and trade mechanism being proposed in its Draft Scoping Plan, and instead, the CARB should follow the lead and wisdom of the joint CEC/CPUC recommendation and exempt natural gas residential and commercial customers, at this time, from any cap and trade regulatory regime. Southwest looks forward to reviewing the Proposed Scoping Plan to be issued in early-October and intends to actively participate in the CARB's comment and rulemaking process as it pertains to GHG emissions reductions.