SOUTHWEST GAS CORPORATION

Catherine M. Mazzeo, Senior Counsel/Legal Affairs

Via Electronic Submission

December 15, 2010

Kevin M. Kennedy, Ph.D.
Assistant Executive Officer, Climate Change
California Air Resources Board
1001 I Street
Sacramento, California, 95814

Re: Southwest Gas Corporation's Comments on the Air Resources Board's Proposed Cap-and-Trade Program and Regulation.

Dear Dr. Kennedy,

Attached please find the comments of Southwest Gas Corporation (Southwest) regarding the Proposed Regulation Order entitled "California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms", which was issued by the Air Resources Board on October 28, 2010 pursuant to Assembly Bill 32.

Southwest appreciates the opportunity to provide the attached comments, and looks forward to its continued participation in these proceedings.

Sincerely,

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On October 28, 2010, the Air Resources Board (ARB) released its Proposed Regulation Order (PRO), entitled "California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms" pursuant to Assembly Bill (AB) 32. The PRO establishes the framework for a cap-and-trade program that aims to control Greenhouse Gas (GHG) emissions from major emissions sources. ARB will hold a public hearing regarding the PRO on December 16, 2010. Parties were invited to submit comments by December 15, 2010, or at the December 16, 2010 public hearing. Southwest Gas Corporation (Southwest) has reviewed the PRO and hereby submits its comments regarding the proposed cap-and-trade program.[1]

Company Background.

Southwest is a natural gas local distribution company (LDC) that serves over 1.8 million customers in Arizona, California and Nevada. Southwest owns and operates 29,928 miles of distribution mains, and 937 miles of transmission pipelines. Southwest serves approximately 180,000 customers in California. Southwest's intrastate facilities in California are regulated by the California Public Utilities Commission (CPUC) under mandatory requirements of the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). Southwest's rates are also regulated by the CPUC.

Cap-and-Trade Should Not Apply To Natural Gas LDCs.

Southwest has historically opposed including natural gas LDCs in a cap-and-trade system, and does not believe that there is a need or reasonable justification for making the proposed cap-and-trade regulations applicable to the natural gas local distribution sector, for the following reasons:

- The CEC/CPUC joint decision dated March 13, 2008 (D.08-03-018) regarding greenhouse gas regulatory strategies cites several reasons for specifically excluding the natural gas sector from a cap-and-trade system. Southwest submits that the cap-and-trade system proposed in the PRO should also preempt

[1]Southwest believes that SoCalGas provided informal comments to ARB prior to the issuance of the PRO. Some of the points discussed herein were also discussed in SoCalGas' comments, and have been restated by Southwest with SoCalGas' permission.

the natural gas sector, for many of the same reasons. For example, natural gas is the most efficient of all fossil fuels and is a renewable fuel produced by digestion of organic material in an oxygen-free environment. When burned, natural gas is the most environmentally-friendly fossil fuel because it produces low levels of SO_x, particulate matter, NO_x and less CO_2 than other fuels. Almost all of the delivered gas is used by consumers to meet essential human needs—heating/cooling and electricity. Approximately 90% of the primary energy value of natural gas is delivered to consumers. In contrast, as little as 30% of the primary energy involved in producing electricity is delivered to consumers.

It is well documented that using natural gas on site to fuel end-use consumer appliances (space heaters, water heaters, natural gas stoves) and distributed generation technologies is much more efficient than burning fossil fuel as source fuel for traditional power generation. This exceptionally high efficiency, due to the direct use of natural gas for gas-fired appliances, makes switching from electric appliances to gas-fired appliances an opportunity to immediately reduce GHG emissions by as much as 50% to 70%. The opportunity to reduce GHG emissions by merely switching to gas fired appliances should be encouraged by the regulations. However, such switching could also increase natural gas consumption, and therefore, subjecting natural gas LDCs to the cap-and-trade regulations could inadvertently impose barriers that would compromise this opportunity.

- The goal of AB 32 is that by the year 2020, GHG emissions levels will be restored to 1990 levels. The pro rata GHG reductions attributable to natural gas customers represent only 4-6 percent of the total reductions needed by 2020. However, the consumers of natural gas have led the nation in reducing the emission of greenhouse gases over the last 40 years. It takes less natural gas to serve 65 million homes today than it took to serve about half that number in 1970. Further, the American Gas Association (AGA) estimates that the average residential natural gas consumption in the U.S. has decreased more than 30 percent compared to the levels experienced in the 1970's. Southwest has experienced a similar decline in consumption. In fact, Southwest Gas' California customers consume an average of 13% less natural gas than they did in 1990. In light of the steep decline in average use already experienced, the opportunities for further usage reductions by natural gas utility customers are likely to be more limited than the opportunities for usage reductions by electric utility customers.

- Electricity is present in every home, and its use often extends beyond the provision of basic necessities. However, as stated above, natural gas is primarily used for heating, cooling and hot water. There are more opportunities for renewable low-carbon energy sources in the electric sector than in the natural gas sector. The absence of low-carbon alternative sources of natural gas will make it more difficult for the natural gas sector to reduce emissions to the degree required by the proposed cap-and-trade program. Because there are fewer domestic uses of natural gas and those uses are non-discretionary in nature, natural gas customers should not be expected to achieve proportionally similar reductions in GHGs as are expected from the state's electric customers.

If Cap-and-Trade Does Apply to Natural Gas LDCs, Specific Considerations Should be Addressed.

Southwest realizes that most of the cap-and-trade dialogue has centered on the electric sector, thereby requiring further discussion about how cap-and-trade regulations will affect the natural gas sector. Since the cap-and-trade program does not seek to include natural gas LDCs until 2015, Southwest feels it would be premature to offer specific language to fill the natural gas placeholders in the PRO before such discussions take place. Southwest submits that the following concepts should be considered before regulations to include natural gas LDCs in cap-and-trade are drafted:

Disposition of Allowances.

- ARB should administratively allocate allowances in a manner that fully recognizes the advantages of life cycle energy efficiency and the emission reductions associated with avoiding energy loss during the process of electric generation and distribution.

- Revenues generated from the sale of allowances should be allocated to the natural gas LDCs for the benefit of the ratepayers to fund customer energy efficiency (CEE) and similar programs. The revenue allocated to each LDC should be determined by using the same procedure used for allocating allowances.

- The allowances allocated to each natural gas LDC should be based on a percentage of natural gas deliveries reported under mandatory reporting. The formula used to calculate allowances should take into account increased usage of natural gas caused by customers who switch from electric appliances to gas fired appliances in order to avoid

energy loss caused by consumption of fossil fuels for electric generation. More importantly, the allowance allocations should recognize the potential for end users to consider emission reduction opportunities associated with source energy consumption as recognized by the U.S. Department of Energy (Federal Register, Vol. 75, No. 161, Friday, August 20, 2010).

- Natural gas LDCs are undertaking policies that compliment AB 32. To the extent the LDCs further the goals of AB 32 through their energy efficiency programs, allowance value could be used to advance and support such programs. And while natural gas LDCs have fewer options for changing the GHG content of their fuel, the development of biomethane presents an opportunity which could require significant spending. In California, where there is technical potential for biomethane to displace up to 16% of current gas consumption[2], this technical potential is challenged by the reality that biomethane currently is twice as expensive as conventional natural gas. Likewise, the ARB Scoping Plan includes solar water heating that some natural gas LDCs are funding. Recently developed gas fired heat pumps (GFHP), designed for use in the western United States are competing with electric-powered heat pumps (EPHP) in the commercial market. While GFHP and combined heat and power (CHP) applications will add additional demand to LDCs, GFHPs will reduce GHG emissions by avoiding the large energy losses associated with conversion of fossil fuels to electricity. However, if the allowance calculation formula does not consider the emission reductions caused by switching from inefficient electric generation to direct combustion of fossil fuels by GFHPs, the new GFHP technology will be lost from the limited opportunities for natural gas customers to have a real impact on reduction of GHG emissions.

- Annual LDC gas deliveries can vary substantially based on year-to-year weather fluctuations. Southwest supports allocating allowances to LDC's using weather-normalized usage data. However, since weather fluctuations are more likely to be normalized over a 10-year period, Southwest would prefer that allocations be based upon 10-year weather-normalized usage data rather than the proposed 3-year normalization.

[2] An Assessment of Biomass Resources in California, 2007, CEC, PIER Collaborative Report, Contract 500-01-016, Page xix.

- Longer term LDC customer growth projections should allow adjustments for increased usage from the substitution of electric appliances with gas-fired appliances, to the extent that such direct use of natural gas nets lower GHG emissions. For a longer term program, an approach that accounts for customer growth should consider higher use of gas fired appliances to achieve better life cycle energy efficiency and should also be based on the knowledge that average consumption of natural gas by U.S. households has decreased more than 30% since the 1970s and has already exceeded the mandate of AB 32 as it applies to reducing emissions to 1990 levels.

- CHP users should be provided with allowances for any emission savings resulting from installing energy efficient CHP plants. Allowances should be calculated by comparing the CHP efficiencies with the weighted average energy efficiency of all natural gas electric generation plants located in California.

General Provisions for Direct Allocation.

Southwest supports the direct allocation of allowances to natural gas LDCs, as follows:

- ARB should directly allocate allowances to natural gas LDCs based on the sector's proportionate share of the total capped sector emissions, giving consideration to increases in the use of natural gas as an end-use fuel to increase overall efficiency and achieve corresponding reductions in GHG emissions.

- Gas LDCs are rate regulated by the CPUC or a local governing board, so any increased costs associated with the issuance or purchase of allowances must be approved for recovery by the CPUC. As such, ARB can be assured any allowances provided will be used to further the purposes of AB 32 and for the benefit of small gas consumers. Further, rates can be structured to provide appropriate price signals.

- Most natural gas LDCs have low income customer programs that provide a bill discount. Without an administrative allocation of allowances to the natural gas sector, these low-income customers will likely experience rate increases from the incorporation of the cost of allowances.

- Small commercial and industrial customers (small business) deserve the same transition assistance as large industrial customers. ARB has indicated that in addition to providing allowance value to deter leakage of large businesses (business flight), free allowances

would also be provided short-term to "provide a transition period to smooth market start-up". The same type of transition assistance should be provided to smaller commercial and industrial customers (under the 25,000 metric ton limit), so as to not discriminate against small business. Given the nature of rate regulation, allowances that are administratively allocated for this purpose can flow through to this class of customers.

Protection of Natural Gas Ratepayers.

Under the proposed regulation, natural gas LDCs are expected to procure allowances and pass on the cost of such allowances to their customers. In considering this possibility, Southwest believes that the following factors must be incorporated into any formula used to allocate initial allowances and calculate allowance reductions over time:

- The per-capita reductions in natural gas consumption should be recognized as credits (or should at least be a factor) in the formula to support a more generous allocation of allowances that might otherwise be based on current consumption rates.

- Increased use of new and old technologies, such as natural gas fired heat exchangers, water heaters, dryers and gas ranges will likely result in increased consumption of natural gas. These technologies allow end users to combust natural gas to heat and cool their homes while avoiding up to 70% of the energy loss that occurs during the process of electric generation and distribution. Any increases in natural gas use based upon these more efficient applications should not negatively impact the LDCs or their customers.

- Over the compliance period of 2015 to 2020, the allocation of allowances to the sector should take into consideration the decline in gas consumption that has already taken place since the 1970's. LDCs should not be subject to a universal reduction rate prescribed in the regulation.

- The cap-and-trade regulations may expose small end users of natural gas to greater price risk than small end users in the electric sector since there are fewer mitigation options; however, this price impact does not seem to correlate with significant reductions in the use of natural gas. For example, Dr. James Boyce cites an estimate of -0.2 for

short-run price elasticity of household natural gas demand, meaning that a ten percent increase in retail natural gas prices will cut household use by only two percent.[3]

Conclusion.

Natural gas is a low carbon fuel that has made great progress in reducing usage and emissions, and as such, LDCs should be excluded from the proposed cap-and-trade system. If LDCs are included, the system should include provisions allowing equitable disposition of allowances to LDCs, beneficial increased direct usage of natural gas, and life cycle fuel use analyses that level the playing field for both gas and electric utilities. Southwest appreciates the opportunity to participate in this proceeding and to provide comments on the proposed cap-and-trade program and the PRO. Southwest looks forward to working with ARB and the other stakeholders as the program continues to develop.

[3] James K. Boyce and Matthew Riddle, Political Economy Research Institute Working Papers 150, p.10, downloadable at http://www.peri.umass.edu/fileadmin/pdf/working_papers/working_papers_101-150/WPThe 150.pdf.