



**Response of the American Gas Association
to the U.S. House of Representatives,
Committee on Energy and Commerce, on Questions
Regarding Climate Change
March 19, 2007**

1. **Please outline which issues should be addressed in the Committee's legislation, how you think they should be resolved, and your recommended timetable for Congressional consideration and enactment. For any policy recommendations, please address the impacts you believe the relevant policy would have on:**
 - a. **emissions of greenhouse gases and the rate and consequences of climate change, and**
 - b. **the effects on the US economy, consumer prices, and jobs**

Overall Recommendations

The American Gas Association represents 200 local natural gas utilities throughout the country that deliver natural gas to some 64 million residential, commercial, industrial and electricity generation customers. We believe that greenhouse gas emissions can and should be reduced in the U.S., and that natural gas can and should play a significant role in the overall reduction strategy. The AGA has unanimously passed climate change principles, one of which states that federal action on climate change is warranted. We believe that a greenhouse gas reduction program must be constructed in concert with other national energy, economic and environmental objectives and realities. In this regard, it must be understood that natural gas supplies are constrained in this country, and therefore prices are 3 to 4 times higher than they were pre-2000. Any climate program must include measures to increase the availability of natural gas to support the important role that natural gas can play in reducing domestic greenhouse gases. Further, the most effective and efficient way to use natural gas is to use it directly and efficiently.

We believe that the direct use of natural gas should be promoted in high efficiency applications through tax credits, direct subsidies, and/or allowance mechanisms in recognition of its carbon-reduction potential. We also believe that large scale electricity generators should be provided adequate time and incentives to install clean and more efficient generating options. We believe that all sectors of the economy should contribute to reducing greenhouse gas emissions. However, the timing and the means by which different sectors contribute should be dealt with in a manner consistent with their economic impact, their contribution to greenhouse gas emissions and the degree to which the sector can help reduce domestic greenhouse gas levels. For

example, we do not believe a cap and trade or carbon tax program is the most effective or efficient means of reducing the emissions of residential and commercial customers. In support of this notion we point out that natural gas utilities and their customers are working together to promote efficiency. In fact, the average residential natural gas consumption on a weather-adjusted basis declined by 1 percent annually from 1980-2000, and by 2.2 percent annually from 2000-2006. The total reduction from 2000-2006 was 13.1 percent. That is, the average residential natural gas consumer was using 13.1 percent less gas in 2006 than in 2000 as a result of more efficient appliances, tighter homes and the support of local natural gas utilities. A continuation or intensification of these kinds of activities is preferable to a cap and trade or tax-based program for small volume customers.

The use of natural gas in high efficiency applications should be recognized and promoted.

Natural gas is a premiere fuel from an environmental perspective. It contains very low levels of most pollutants relative to other fuels. For example, natural gas combustion emits about 45 percent less CO₂ than coal combustion and about 30 percent less CO₂ than oil combustion. In addition, natural gas is very efficient in its production, transportation and use. That is, when natural gas is used, very little fuel is wasted from the point of production through the point of consumption. This combination of relatively low pollutant levels and high efficiency levels results in less impact than other fuels with respect to most environmental issues – including climate change. This combination of attributes is particularly noteworthy with respect to climate change in that it represents the two fundamental keys to reducing greenhouse gas emissions - use clean fuels and use them efficiently.

The use of natural gas in high efficiency residential, commercial and industrial applications is key to any attempt to lower U.S. greenhouse gas emissions. From residential water heaters to industrial furnaces and combined heat and power systems, natural gas can provide real climate change benefits. The benefits of natural gas should be recognized and promoted in any climate change legislation. For example, high efficiency natural gas equipment should be promoted through tax credits, direct subsidies, or an offset program.

Growth in electricity generation must not be based exclusively on natural gas.

Natural gas can also be used to generate electricity. However, there has been an over-reliance on natural gas for new electricity generators over the past 10 to 15 years. This over-reliance has become particularly problematic in light of ongoing restrictions to natural gas supplies. Therefore, the use of other means of generating electricity cleanly should be promoted – including nuclear, IGCC and other clean coal technologies, wind, solar and other renewables. An overly aggressive climate change program in terms of targets and/or timetables would unavoidably shift large quantities of natural gas to electricity generation because technology availability and construction lead times would not be sufficient for most other generating options. This further intensification of gas-based generation would not only forestall action on other clean generating options, but it would cause further deterioration in the natural gas supply/demand balance and move gas prices even higher. Higher prices will force gas out of its most environmentally preferable direct use markets – residential, commercial, and industrial – where gas use

is most efficient and greenhouse gas advantages are most pronounced. In contrast, an effective and well-considered climate change program will move natural gas into high efficiency direct use markets while directing electricity generation to clean and sustainable long-term alternatives.

The potential contribution of natural gas with respect to greenhouse gas emissions cannot be realized without a significant increase in natural gas supplies.

Although natural gas should be a cornerstone in any viable greenhouse gas reduction program, restrictions on access to natural gas supplies and on the infrastructure necessary to produce, transport and import natural gas limit the use of this fuel for environmental gain. Development of non-hydro renewable generation is key to the future in a carbon constrained world—but we cannot rely solely on these resources to meet electric load growth. The challenge of meeting resource needs is made greater by an aging fleet of coal plants that will need replacement during the next decades. As noted above, over 90 percent of the new electricity generation capacity constructed over the past decade or so is natural gas-based. Unfortunately, however, exploration and development of natural gas resources is not allowed off the East coast of the U.S., the West coast of the U.S., in the Alaskan OCS, in the eastern Gulf of Mexico nor in much of the Intermountain West. Additionally, there is no pipeline to move natural gas from Alaska to the Lower-48 states and the construction of LNG terminals faces numerous challenges and obstructions. Natural gas cannot be a significant short- or long-term mitigation tool unless access to the gas resource is increased significantly. Failure to increase gas supplies not only eliminates a potential contributor to a solution, but it exacerbates the problem by pushing fuel consumers to alternatives that are less clean and less efficient.

2. One particular policy option that has received a substantial amount of attention and analysis is “cap-and-trade.” Please answer the following questions regarding the potential enactment of a cap-and-trade policy:

2a. Which sectors should it cover? Should some sectors be phased-in over time?

All sectors of the economy should be covered under the program. However, timing of the coverage and the method of the coverage need not, and should not, be uniform across sectors. Consideration must be given to the contribution of the sector to total emissions and to the most effective and efficient means for reducing emissions in that sector. For example, we do not believe a cap and trade program would be effective for residential natural gas consumers who account for about 5 percent of U.S. CO₂ emissions and whose consumption has been declining at a rate of 2.2 percent annually since 2000.

2b. To what degree should the details be set in statute by Congress or delegated another entity?

An effective and efficient program must be national in scope and oversight. Therefore, to the maximum extent possible, it should be set in statute.

2c. Should the program's requirements be imposed upstream, downstream, or some combination thereof?

The preferable point for program requirements could be upstream, downstream or both (differing by sector). The approach need not be uniform for each sector. Rather, the selected approach should cost-effectively reduce domestic greenhouse gases. Previous attempts to apply price signals on millions of residential and commercial energy users have not been effective. In addition, such price signals on this diverse market may have unintended consequences, both economic and on decisions to switch away from direct efficient fuel usage. Efficiency standards, incentives, or similar programs for small sources are a more effective policy approach.

2d. How should allowances be allocated? By whom? What percentage of the allowances, if any, should be auctioned? Should non-emitting sources such as nuclear plants, be given allowances?

The bulk of allowances should be allocated, but a portion, e.g. 20 percent, should be held for auction to allow for growth and new sources. New non-emitting sources should be given allowances.

2e. How should the cap be set (e.g., tons of greenhouse gases emitted, CO₂ intensity)?

Tons of emissions must be considered and calculated at some point, even if converted to an intensity level. The key, whether using absolute tons or intensity, is to allow for, rather than stifle, economic growth and world-market competitiveness.

2f. Where should the cap be set for different years?

Any cap should be established in a gradual, slow-stop-reduce mode for emissions. The key criteria is whether or not technologies are available to meet the cap. A severe cap early on and prior to advances in clean generation technologies and/or greenhouse gas control technologies would be counter-productive. It would, for example, push large volumes of natural gas into existing electricity generation facilities in place of more sustainable long-term options.

2g. Which greenhouse gases should be covered?

CO₂ from combustion accounts for almost 81 percent of the total US greenhouse gas emission inventory and should be the primary focus of the program. Other greenhouse gases should be addressed with other methods so that inter-gas emission trading on a CO₂ equivalent basis is possible, e.g., as offsets. If a cost-effective monitoring technology or technique is not available for some non-CO₂ gases, e.g., fugitive methane emissions, reductions should not be required.

2h. Should early reductions be credited? If so, what criteria should be used to determine what is an early reduction?

Early credits based on credible and verifiable action, such as in response to DOE Section 1605(b) under the 1992 EPA Act, should be allowed.

2i. Should the program employ a safety valve? If so, at what level?

Some form of a safety valve is desirable. It should seek to balance reducing volatility while not inhibiting market signals.

2j. Should offsets be allowed? If so, what types of offsets? What criteria should govern the types of offsets that would be allowed?

Offsets that are credible and verifiable should be allowed, with a preference for energy project-related offsets. Offsets may be one of the most cost-effective means of compliance, and they should not be constrained by timing, geography or type of greenhouse gas.

2k. If an auction or a safety valve is used, what should be done with the revenue from those features?

Program revenues (e.g., from auctions and other sources) should be used to fund a variety of emission reduction activities: tax credits for the purchase of high efficiency residential, commercial and industrial natural gas equipment; LIHEAP weatherization programs; federal grants for R&D activity directed at all energy sources – not dominated by one or two; and grants to state energy efficiency programs, which in many instances have achieved laudable records.

2l. Are there special features that should be added to encourage technological development?

The development of new technologies that permit achieving climate-change objectives without derailing the American economy is absolutely essential. Technology development could be encouraged by a dedicated or segregated fund, off-budget and not subject to annual appropriations. Additionally, tax credits and other financial incentives should be employed. Reasonable timelines for compliance encourage technological advancement, whereas unreasonable deadlines promote short-term, quick-fix responses that are not sustainable and indeed may be inefficient.

2m. Are there design features that would encourage high-emitting developing countries to agree to limits on their greenhouse gas emissions?

The allowance of international offsets would encourage reductions in developing countries.

3. How well do you believe the existing authorities permitting or compelling voluntary or mandatory actions are functioning? What lessons do you think can be learned from existing voluntary or mandatory programs?

Currently, there are no mandatory greenhouse gas programs applicable to U.S. natural gas transmission or distribution, other than a mandatory reporting program for utilities that is being developed by the California Public Utilities Commission. AGA members are actively participating in at least three voluntary programs: (1) EPA's Natural Gas STAR; (2) DOE's voluntary reporting program; and (3) the California Climate Action Registry (CCAR).

EPA Natural Gas STAR:

The U.S. Environmental Protection Agency (EPA) has an innovative program called Natural Gas STAR that is a voluntary partnership between EPA and industry to reduce methane emissions from the natural gas system cost-effectively. AGA has been an official endorser and supporter of the EPA Natural Gas STAR program since 1993. The program helps facilitate technology and idea sharing, so that participants can develop best practices for methane reduction projects. Forty-seven AGA member companies participate. Through 2005, these gas utility companies have implemented STAR projects that have reduced emissions from their transmission, storage and distribution facilities by nearly 471 billion cubic feet (bcf).

To put the STAR reductions in perspective, the DOE Energy Information Administration (EIA) reports that in 2005, the U.S. natural gas production, transmission, storage, and distribution sectors emitted a total of 154 million metric tons of methane, measured in carbon dioxide equivalents, based on preliminary data. Of this total, distribution utilities emitted 42.6 million metric tons. EIA reports that Natural Gas STAR reductions from these sectors totaled 34.7 million metric tons of methane measured in carbon dioxide equivalents.

The attraction of the Natural Gas STAR program is that it identifies projects that can save enough valuable product (i.e. natural gas) to pay for the investment over time – generally one to ten years. This helps to encourage others to implement similar projects at their own facilities. The limitation of the program is that it is focused only on methane, and it naturally does not report the methane emission reductions due to large capital projects -- such as gas pipe replacements – that cannot “pay for themselves” solely based on the value of the methane recovered, but that may be desirable for other reasons such as pipeline safety and reliability. These pipe replacement projects can significantly reduce methane emissions as a side benefit, and it would be helpful for climate change legislation to help offset the high cost of such capital-intensive projects. One way to do this would be to reauthorize the existing accelerated depreciation for natural gas pipe installations.

DOE 1605(b) Voluntary Reporting Program:

DOE manages a different voluntary greenhouse gas reporting program under section 1605(b) of the Energy Policy Act of 1992. This DOE program covers all greenhouse gases, not just methane. Like the EPA Natural Gas STAR program, the DOE program also encourages innovative, low-cost methods for limiting emissions of greenhouse gases. Unlike the EPA program, the DOE program does not include workshops for sharing and brainstorming ideas and best practices.

California Climate Action Registry:

The California Climate Action Registry (CCAR) was created by the California Legislature in order to provide a rigorous, credible method for registering greenhouse gas emissions. Initially, the goal was to provide a voluntary reporting service to entities operating in California, but the mission has expanded to allow entities operating in other states to participate. Entities outside California have been attracted because CCAR uses a reporting scheme that is perceived to be more rigorous and credible, in part because it requires third party auditing and verification. CCAR works with experts in each sector to develop a “protocol” for measuring and reporting greenhouse gas emissions from that sector. So far, CCAR has developed protocols for forestry products and for electric utilities and generators.

4. How should potential mandatory domestic requirements be integrated with future obligations the United States may assume under the 1992 United Nations Framework Convention on Climate Change? In particular, how should any U.S. domestic regime be timed relative to any international obligations? Should adoption of mandatory domestic requirements be conditioned upon assumption of specific responsibilities by developing nations?

Climate change is a worldwide issue and a successful resolution will require a worldwide response. However, the U.S. is responsible for roughly one-fourth of worldwide greenhouse gas emissions and the U.S. has the ability to take a leadership role in reducing emissions. We believe that if a reasonable and responsible program is developed in the U.S. its implementation should not be conditioned on actions taken in other parts of the world, including the actions of developing countries. “Reasonable and responsible” in this context means that targets and timetables must be developed with recognition of technologies that are reasonably expected to be available, that control costs will not be extreme for consumers, and that a program not put U.S. manufacturers at a significant disadvantage in the international marketplace.

The U.S. should be a leader in the international community with respect to climate change mitigation. The U.S. cannot, however, solve this problem on its own. While implementation of a U.S. program that is reasonable and responsible should not be conditioned on actions by other countries, the continuation of a program should be contingent on actions of other countries as well as on impacts to U.S. consumers and the economy. Parameters for continuing a program should be clearly set out in the initial legislation.

5. What, if any, steps have your organization's members or its individual members taken to reduce their greenhouse gas emissions? Which of these have been voluntary in nature? If any actions have been taken in response to mandatory requirements, please explain which authority (State, Federal, or international) compelled them?

There are two issues to consider when addressing reductions in greenhouse gases made previously by local natural gas utilities. The first is the reductions from the operations of the gas utilities themselves. The second is the reductions of the natural gas consumers served by these utilities. Actions and successful results are clearly evident in each of these areas.

Natural gas utilities, as indicated in the response to question number 3 above, have taken numerous steps to reduce their greenhouse gas emissions, although emissions from natural gas utility operations are very minor from a national emissions perspective. Local natural gas utilities are reducing methane leakage by replacing cast iron pipe and tightening other points on their systems and they are also using more efficient equipment in their operations, such as various compressors and pumps. Virtually all of the actions taken to date by natural gas utilities have been voluntary.

A second step taken by a number of natural gas utilities has been to make a major and fundamental change to their rate structures that allows them to be more supportive of actions that increase the efficiency of their customers. Traditionally, the revenues of natural gas utilities have been determined largely by the volume of gas that flows through their lines to the ultimate consumer. Natural gas utilities do not profit from higher natural gas prices – the cost of the natural gas commodity is collected by the utility but then returned in its entirety to the supplier of the gas, generally a natural gas producer or supply aggregator. Natural gas utilities are comparable to a FedEx or UPS in that they are compensated for delivering the product, not for selling the product. Thus, by promoting energy efficiency to their customers, utilities were reducing the flow through their lines and reducing their profits. In the past few years a number of gas utilities have requested and received approval from their state public utility commissions to modify their rate structure so that more of the customer's monthly payment is fixed, and less is dependent on the volume of gas consumed. This allows the utility to promote energy efficiency and conservation measures by its customers more aggressively without being so detrimental to its own bottom line. This modification of the rate structure, often referred to as "decoupling," has now received approval in 9 states for gas utilities serving some 15 million customers (nearly one-fourth of all residential natural gas consumers nationwide). Decoupling proposals are pending in another 11 states and the District of Columbia that would affect an additional 4 million customers.

Natural gas utilities are involved in a multitude of programs to increase the efficiency of their customers. They provide everything from information and useful tips to energy audits, equipment tune-ups, weatherization programs and low interest loans. Programs such as these can now be promoted even more aggressively by gas utilities with decoupling tariffs.

The joint actions of natural gas utilities and their customers have resulted in a dramatic decline in the consumption of natural gas per customer. From 1980 through 2000, residential gas consumption per customer on a weather normalized basis fell at a rate of 1 percent per year. That is, the average residential customer consumed roughly 20 percent less natural gas in 2000 than in 1980. This decline was due primarily to tighter homes and more efficient appliances. With the dramatic natural gas prices increases experienced since 2000, consumption per customer has fallen at a more rapid rate. The decline rate of 1 percent annually experienced from 1980-2000 accelerated to 2.2 percent annually from 2000-2006, and the rate jumped to 4.9 percent for the last 2 years of that period, 2004-2006. (See: *An Economic Analysis of Consumer Response to Natural Gas Prices*, Frederick Joutz and Robert Trost, March 2007 and *Patterns in Residential Natural Gas Consumption, 1980-2001*, American Gas Association, May 2004.) The decline rate of 2.2 percent annually experienced since 2000 means that residential natural gas customers in 2006 were using 13.1 percent less natural gas per household than they were in 2000. Most of this decline – between 6 percent and 10 percent of the 13.1 percent total – is permanent in nature. That is, it is attributable to measure such as purchasing more efficient equipment, and therefore a reduction in prices would not return consumption to previous levels. Clearly, natural gas customers are using a clean fuel and they are using it more and more efficiently – the two fundamental prerequisites for reducing greenhouse gas emissions.