BY EDNA SUSSMAN

New York Addresses Climate Change with the First Mandatory U.S. Greenhouse Gas Program

"A great, great deal has been said about the weather, but nothing is done about it."

— Mark Twain

Today we are doing something about the weather, to undo what people have done to change it. Spurred by concerns about climate change and its impacts on the environment and the economy, the New England/Mid-Atlantic Regional Greenhouse Gas Initiative (RGGI) is breaking new ground, by creating the first mandatory greenhouse gas cap-and-trade program in the United States. Spearheaded by New York State, RGGI will reduce emissions of the principal greenhouse gas, carbon dioxide (CO_2), in the region and perhaps provide a model for the rest of the country.

With the execution of the RGGI Memorandum of Understanding (MOU) on December 20, 2005, by New York and six of its neighbors, implementation of RGGI is set to commence. This article will review the international setting for RGGI, describe the basic design of the program as set forth in the MOU, and summarize the current status of some of the other responses to climate change in the United States.

Background

The U.S. National Academy of Sciences issued a joint statement with 10 other national science academies in June of 2005 ("Joint Statement"), which observed:

> [T]here is now strong evidence that significant global warming is occurring. . . . It is likely that most of the warming in recent decades can be attributed to human activities . . . [and] has already led to changes in the Earth's climate.

As evidence of global warming, the Statement notes the rising surface and subsurface ocean temperatures, increases in average sea levels, retreating glaciers and changes to many physical and biological systems. The projected warming trends are, among other effects, likely to increase the frequency and severity of weather events and the melting of large ice sheets. The Joint Statement concludes by stating that it is "vital that all nations identify cost effective steps they can take now, to contribute to substantial and long term reduction in net global greenhouse gas emissions."[1]

The underpinnings for the Joint Statement's conclusions were the findings of the Intergovernmental Panel on Climate Change, which has been studying climate change since the 1980s. The panel's findings noted that CO_2 levels on earth have increased from 280 parts per million (ppm) in 1750 to 375 ppm today, a level significantly higher than any CO_2 level in the last 420,000 years. There is a positive correlation between CO_2 emissions and temperature. "Increasing greenhouse gases are causing temperatures to rise."

The scientific explanation for this is simple. CO_2 and other greenhouse gases trap heat in the atmosphere. While this "greenhouse effect" is essential to keeping the earth from being too cold, the accumulation of greenhouse gases emitted by the burning of fossil fuels such as oil, natural gas and coal has led to today's unprecedented CO_2 levels and to the consequent impact on climate.

World demand for energy is estimated to increase by almost 60% over the next 25 years, and fossil fuels, the principal source of CO_2 produced by humans, are projected to supply 85% of this demand. This will cause a dramatic increase in the levels of CO_2. And long-term solutions are required, because CO_2 remains in the atmosphere for many decades. Failure to take action now will make the job much harder in the future.[2] Scientists have estimated that very significant reductions of CO_2 are required – well in excess of 50% by 2050 – to stem the impact of greenhouse gases on climate change.

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Some contend that scientists have not been able to state with absolute certainty the extent to which current climate changes are due to natural weather variations. However, the Joint Statement concludes that "[a] lack of full scientific certainty about some aspects of climate change is not a reason for delaying an immediate response."[3] At a recent panel discussion by six former chiefs of the U.S. Environmental Protection Agency, all agreed that more aggressive action to limit greenhouse gas emissions was "urgent" and that the debate over how much of the problem is caused by human activity is a "waste of time."[4]

Solutions proposed for climate change address not only environmental concerns, but have sweeping ramifications for the essential goals of energy independence and energy security. In his 2006 State of the Union Address, President Bush spoke from a political perspective about the critical need to move towards powering our homes and offices with "zero emission" technology and to break our "addiction to oil" by reducing our use of oil by 75% by 2025.[5]

The debate is now not over whether action should be taken to reduce greenhouse gases, but whether mandatory action is required or wholly voluntary action will suffice. RGGI follows the wisdom of the international community on this question and adopts a mandatory approach.

International Climate Change Framework

To understand RGGI one must appreciate the international setting in which it was developed. RGGI is part of a massive international effort in which countries around the world have joined together to prevent the drastic climate changes that may result from greenhouse gas emissions.

The first major convening of nations on the issue took place in 1992 at the United Nations Conference on Environment and Development (the now-famed "Rio Earth Summit"), which resulted in the United Nations Framework Convention on Climate Change (UNFCCC). Based on years of research, the UNFCCC was ratified by 184 countries, including the United States.[6] Its stated goal was to stabilize greenhouse gas emissions at a level that would prevent interference with the world's climate system and to commence work on mechanisms for "adaptation" to already unavoidable change.

After five years of work on the means of implementing the UNFCCC, the Kyoto Protocol was signed in 1997.[7] It established a firm schedule for CO_2 reductions by industrialized countries that committed to reducing greenhouse gas emissions by an average of 5.2%, as against a 1990 base line, during the period 2008–2012. Specific targets were set for each of the signatory industrialized countries.

Developing countries did not commit to reductions under the UNFCCC but agreed to voluntary action and cooperation to improve the quality of local emission factors and to foster sustainable development. As the developed countries had already reaped the benefits of the industrialization enabled by their fossil fuel consumption, it was not deemed equitable to limit greenhouse gas emissions by developing countries, although some of those countries however, which include China and India, are likely to be major sources of increasing emissions in the coming decades.

Through the Kyoto Protocol, the industrialized countries seek to influence the developing countries to minimize greenhouse gas emissions by setting an example with their own commitment, creating a mechanism and incentives for investment in carbon reduction projects in the developing countries, keeping developing countries engaged in the international dialogue, and working to foster sustainable development in the near term and more binding commitments in the future.

The United States, drawing on its experience with its sulfur dioxide (SO_2) cap-and-trade program, urged adoption of similar market mechanisms. Cap-and-trade systems operate by capping the amount of emissions allowed, distributing emissions allowances to sources up to the cap, and requiring each covered source to have sufficient allowances to cover its emissions at the end of each compliance period. Sources can meet their emissions limit by reducing emissions, buying allowances or generating credits with qualified offset projects. Cap-and-trade programs have proved to be an effective market-driven mechanism that enables environmental goals to be met at the lowest cost. The Kyoto Protocol adopted the following market mechanisms to meet its targets:

- emission rights trading;
- recognition of Clean Development Mechanisms (CDMs) (sustainable development emission reduction projects in developing countries) as offsets; and
- recognition as offsets of Joint Implementation (JI), which are "additional" emission reduction projects in countries that have a commitment to reduce emissions under the Protocol; these are primarily Central and Eastern European transition economies.[8]

The Kyoto Protocol has been ratified by 160 countries. It went into effect in February of 2006, when Russia signed on, bringing the total number of developed countries ratifying the Protocol above the requisite 55%. The United States, which emits 25% of the world's CO_2 annually while housing only 5% of its population, is the only industrialized country, other than Australia, that has not ratified the Kyoto Protocol and committed to mandatory greenhouse gas reductions. Concern about the impact on the U.S. economy is the principal reason given for not ratifying the Protocol.

European Union Emissions Trading

To position themselves for compliance with the Kyoto Protocol, which starts in 2008, and to get a head start on reducing its own emissions, in 2003 the European Union (EU) member coun-

tries developed an EU-wide greenhouse gas allowance trading scheme, which went into effect in January of 2005. Each country was allocated an "allowance," which entitles the country to emit one ton of carbon dioxide, or an amount of any other greenhouse gas with an equivalent global warming potential, during a specified period. In addition to allowance trading, the EU also recognizes credits for certain types of CDM and JI offset projects that qualify under the Kyoto Protocol. Each country created a national plan allocating allowances to each installation in various industrial sectors including energy; iron and steel production and processing; the mineral industry; and the wood pulp, paper, and card industry.

In 2005, the 25 member states of the EU issued allowances for 2.2 billion tons of CO_2, capping the emission of 11,400 industrial facilities. The first year of the EU regime saw the development of an active market with trading of about 12% of the allowances issued, recognition of many CDM projects, and delivery of the first "Certified Emissions Credits" for CDM offset projects, which can be used like allowances to meet greenhouse gas obligations.

Launching the Regional Greenhouse Gas Initiative

In the context of the international commitment to address climate change, the limited U.S. federal government response, and the threat posed to our environment and economy, Governor Pataki announced the formation of a New York State Greenhouse Gas Task Force in 2001. The Task Force, which issued its report in April of 2003, recommended the creation of a flexible greenhouse gas market-based cap-and-trade program for the power sector, preferably on a regional basis. Governor Pataki adopted the recommendation and invited neighboring states to join in a cooperative planning effort.

An action plan was developed and guiding principles were set for the project that included:

- emphasizing uniformity across participating states to facilitate interstate trading of greenhouse gas allowances;
- building on the experiences of successful cap-and-trade programs;
- ensuring that the program is expandable so additional states can join; and
- focusing on power plants in the initial phase and developing reliable protocols for offsets over time.

The action plan recited the hope that RGGI "may serve as a platform and model for the implementation of future additional emissions trading programs."[9]

After more than two years of concentrated effort on developing the RGGI design, on December 20, 2005, a bi-partisan group of governors from seven states signed the MOU[10] – Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York and Vermont (the "Signatory States"). Massachusetts and Rhode Island actively participated in the design of the RGGI and negotiation of the MOU, but have not yet agreed to implement the program. Pennsylvania and Maryland participated as observers. The program launch date is January 1, 2009.

The two-year effort that led to the MOU involved extensive stakeholder participation. Myriad policy issues were addressed and resolved in developing the final program design, including the identification of those who should be governed by its provisions; the base line to be used and the extent of reduction that should be required over a time frame to be specified; how the CO_2 allowances should be allocated among the states; how concerns about leakage should be addressed; whether and when offsets should be allowed; whether and at what level price triggers should be established to give rise to additional offset rights; and which offsets should qualify. Numerous studies were conducted to inform the decisions made on these issues and to analyze the costs and benefits of the program.

Who, What and When

Power plants account for approximately 40% of the CO_2 emissions in this country. So a decision was made to limit the program's coverage to CO_2 and to regulate only electricity-generating units having a rated capacity equal to or greater than 25 megawatts and that burn more than 50% fossil fuel. Thus the program design addresses major sources of CO_2 but is, initially, more limited in scope so it is easier to administer. RGGI may be expanded in the future to cover CO_2 emissions from a wider range of sources, as in the EU. The MOU provides for multi-year compliance periods – initially a minimum of three years – to provide a mechanism for smoothing out weather-related spikes in emissions by averaging them over a longer period of time.

The Emissions Caps

The regional base CO_2 emission budget was set at 121.3 million short tons, the approximate equivalent of current levels. Each state was given an allocation out of the regional cap; New York State was allocated 64.3 million short tons. In developing the state emission budgets, consideration was given to 2000–2004 emissions, electricity consumption, population, potential emissions leakage and provision for new sources. The MOU contemplates keeping the states' base CO_2 emissions budget unchanged from 2009 through 2014. Beginning in 2015, each state's base annual emissions budget will decline by 2.5% per year so that by 2018 it will be 10% below the initial budget.

The MOU directs that each state reserve 25% of its emission allowance allocation for consumer benefit or strategic energy purposes. Thus at least 25% of the emission allowances will be available to be auctioned and the proceeds used for such activities as fostering renewable energy, offering consumer rebates, stimulating innovative carbon-reduction technologies, and funding the administration of the program. The auction of these allowances is projected to yield annual revenue of between $50 million and $185 million through 2020. It is anticipated that there will be an active market for allowances in which power plants with low emissions abatement costs will sell surplus allowances to plants with high abatement costs.

The allocation of allowances to specific sources or into the open emissions market will be determined as "appropriate" by each of the Signatory States. (The MOU is silent on salient design features that will need to be considered in allocating allowances to sources within the states.) Allocations can be made on the basis of energy output, fuel input or historic emissions. Which of these is used as the basis for the allocation and what base line is used will make a substantial difference.

Questions to be answered in the development of the allocation methodology include:

- What base line year or years will be used?
- Will allowances beyond the 25% set in the MOU be auctioned? If so, what percentage will be auctioned and what percentage will be allocated to the power plants at no cost?
- Will the allocation methodology be fuel-input neutral?
- Should allocations be awarded based on historic emissions (which would reward plants with higher emissions) or should the methodology be developed to allocate greater allowances to plants that have already switched to cleaner operations?
- Will non-emitting sources, including renewable sources, receive allowances?
- Will allowances be reserved for new sources?
- Will additional allowances be given to early adopters in recognition of their reduction of CO_2 emissions prior to the execution of the MOU?
- Will early reduction credits be awarded as part of the state's allocation or will they be allocated in addition to the state's cap?
- How will emissions and allowances be tracked?
- What will the enforcement mechanism be?

Safety Valves

The RGGI design includes several market features to help lower the cost of compliance in order to reduce the possibility of substantial increases in power prices. Because greenhouse gases are a global problem which accumulate over time, geographic and temporal limits can be flexibly applied – to some extent – without jeopardizing the principal goals of the program. Therefore, RGGI authorizes the states to allow early reduction credits for projects undertaken after the date of the MOU, and before the 2009 launch date, that reduce emissions from power plants. The MOU specifically allows power plants to bank surplus allowances, offset allowances and early reduction credits for use in subsequent compliance periods.

The RGGI program also provides for offset credits to sponsors of approved CO_2 emission offset projects, which can be used for compliance. A creditable offset is a project that removes CO_2 from the atmosphere. The MOU requires that it must be real, surplus, verifiable, permanent, and enforceable. In determining precisely which kinds of projects should be authorized as offsets, how much of a power plant's obligation could be satisfied with offsets, and what the geographic range should be for qualifying offsets, a balance was struck between affording greater market flexibility to the power plants and ensuring that RGGI would effect reductions in CO_2 levels at the power plants located within the Signatory States. This avoids the possibility that power plants could meet their CO_2 emission limits without changing their power-generating operations, but instead reducing their own emissions simply by investing in offset projects.

The use of offset allowances is capped pursuant to the MOU, and sources may use them for only up

to 3.3% of reported emissions. Offset allowances are available at one ton of allowance for each certified ton of CO_2 reduction, if the offset project is within the Signatory States; and one ton of allowance for each two tons of certified CO_2 reduction, if the offset project is in other parts of North America. Additional safety valves keyed to allowance pricing were built into the model. If emissions allowance prices exceed $7, the percentage of offsets that a source may use increases to 5% of reported emissions; projects anywhere in North America become eligible on the basis of one ton emission allowance for one ton of CO_2 reduction. If emission allowance prices hit $10 for an extended period, geographic availability is expanded to include international projects and generators, which may use offsets to cover up to 20% of emissions.

All issues related to leakage would, of course, be obviated if there were a national unified mandatory scheme for reducing greenhouse gases.

The MOU contemplates that, over time, additional offset categories will be added. However, recognition of offset credits is limited, for the time being, to natural gas, heating oil and propane energy efficiency; landfill gas and combustion; methane capture from animal operations; forestation of non-forested lands; reduction in sulfur hexafluoride (SF_6) emissions from transmission and distribution equipment; and reductions in fugitive emissions from natural gas transmission and distribution systems.

The safety valves raise another series of issues for the rule-making process:

- Which of the many offsets that have been urged by stakeholders will be added to the list?
- What level of technical information will be required to register an offset?
- How will the determination be made if an offset project is in fact "additional" (*i.e.*, it would not have happened anyway)?
- Will third-party verification of an offset's CO_2 reduction be required?
- How will compliance be monitored?
- How quickly can the mechanisms needed to administer the offset process be put in place?
- How will the determination be made whether the price triggers making additional offsets available have been met?
- Will the final design provide an absolute price cap on allowances?

Leakage Concerns

One of the principal concerns raised was the possibility of increased imports of electricity into the Signatory States from neighboring states that are not subject to RGGI's CO_2 caps, creating emissions "leakages." For example, Pennsylvania has sufficient electricity generation capacity, primarily utilizing coal as its energy source, to engage in significant exports of electricity into some of the Signatory States. It is feared that the Pennsylvania operators, unrestricted by RGGI, may be able to compete at a lower price and defeat RGGI's purpose by exporting electricity into Signatory States without CO_2 controls. By doing so, Pennsylvania operators would be "leaking" CO_2 emissions into the Signatory States while at the same time placing those states' power producers at a competitive disadvantage.

Various solutions have been suggested, including requiring companies that export electricity from their state into a Signatory State to offset their emissions on such electricity; and allocating allowances to current importers of electricity in the Signatory States in accordance with their current import level, but requiring them to purchase allowances to cover any increase in their imports based on the average emission rate of the state from which they are importing. Concerns about whether these solutions would run afoul of the Commerce Clause have been raised.

The MOU contemplates a study of the leakage issue by a panel of experts and recommendations by December of 2007 that take into account energy prices, allowance prices, electric system reliability and the economies of the Signatory States. Throughout the RGGI implementation period, electricity imports will be monitored to determine if and to what extent any increase in emissions from electricity generating units outside the Signatory States is attributable to the RGGI program. If a significant increase in such emissions is found, the Signatory States will implement measures to mitigate such emissions.

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Benefits, Costs, Growth Impact

The impact of RGGI on retail electricity pricing and on the economy was of prime interest to those engaged in the program design. Studies projected that the RGGI program would have minimal cost impacts with average retail price increases ranging from 0.3% to 0.6%, about $3 to $16 per average household annually in 2015.[11] An additional model was prepared utilizing a "high" gas price scenario that projected retail price impacts of 1.7% to 3.2% in 2015. However, when increased end-use energy efficiency due to RGGI and other policies is factored in, it is projected that RGGI will actually lead to savings in excess of any price impacts of the program.

Because compliance with RGGI will fundamentally affect business behavior related to energy, it is expected to promote non-emitting sources such as renewable energy, stimulate new technologies to store or scrub carbon, foster energy independence, reduce emissions of other air pollutants, and drive increased energy efficiency. Studies of RGGI's impact on the regional economy showed a negligible impact with a very small positive

effect, in the range of 0.01% to 0.02% due to investment in new technologies.[12]

Next Steps

The MOU sets out a schedule for the rule-making needed to implement RGGI. Each Signatory State committed to establish the RGGI program, under state law, by December 31, 2008. Some states will require legislative action while others will be able to implement the program through regulation. In New York State it is anticipated that regulatory action will suffice to implement the rule-making developed pursuant to RGGI.

A regional organization, based in New York City, will provide a forum for deliberative action by the Signatory States, track emissions and allowances, work on development of additional offset standards, and offer technical assistance on offset projects. The organization will not have any regulatory or enforcement authority.

The MOU specifically provides that non-signatory states may become Signatory States and that the Signatory States will work together to encourage other states to join. It also provides that any Signatory State can withdraw from the MOU upon 30 days' written notice.

Under RGGI the reliability of the electrical system will be monitored on an ongoing basis, and a comprehensive review of all aspects of the program and its implementation is scheduled for 2012. It is hoped that RGGI will inform and inspire a national CO_2 cap regime; the MOU proposes that the Signatory States will advocate for a federal program that rewards first movers and provides for transitioning into the federal program if it is comparable.

Reactions

RGGI was hailed as a critical advance in the U.S. approach to the climate change issue. It was viewed as an inspiration to other regional and local efforts in the U.S. and a signal that the U.S. is moving closer to a national mandatory market-based system to cap CO_2 emissions. The international community has pressed the U.S. to join the family of nations in this effort as no program to reduce greenhouse gases can succeed without participation of the world's largest producer of greenhouse gases. Moreover it is much more difficult to seek further action and to plan Kyoto mandates for the post-2012 period if the U.S. is not part of the international regime.

While those in favor of mandatory caps hailed RGGI, those that oppose RGGI have threatened legal action on constitutional grounds. They have raised questions as to whether a group of states can establish an interstate emissions credit program without congressional approval; whether the operation of a program with significant effects on interstate electricity markets raises preemption issues; and whether RGGI is preempted by federal CO_2 policy. RGGI proponents are confident that RGGI will withstand constitutional challenge.

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RGGI Spurs Other Initiatives

RGGI is a step ahead of a host of other efforts to address climate change at the regional and local levels. In recent months, one state after another, and municipalities across the country, have commenced efforts to tackle the issue.

The California Public Utility Commission announced its intention to develop a load-based cap on greenhouse gases for certain major utilities and expressly noted that it was "joining in the pioneering efforts" commenced by RGGI – Governor Schwarzenegger announced emission reduction goals for California with the ultimate goal of reducing greenhouse gas emissions by 2050 to 80% below 1990 levels. The governors of Oregon, Washington, and California have committed to act individually and regionally to reduce greenhouse gas emissions in an effort similar to RGGI.

New Mexico formed a Climate Change Action Council to develop proposals to reduce the state's total greenhouse gas emissions, ultimately seeking a reduction to 75% below 2000 levels by 2050. New Jersey revised its air pollution regulations to define CO_2 as a pollutant. Illinois established an agricultural carbon credit program. Massachusetts and Minnesota set goals for reducing greenhouse gases. Maine and Washington released climate action plans. North Carolina, Oregon, and Arizona created climate change advisory groups. Two hundred mayors across the country have signed on to the U.S. Mayors Climate Protection Agreement and committed to meet the Kyoto Protocol targets for CO_2 reductions within their municipalities.

Various other significant steps are being taken around the country to reduce CO_2 emissions. For example, California is adopting more stringent regulations for automobiles, which are to go into effect in 2009. The goal is to lower greenhouse gas emissions from cars and trucks, major sources of CO_2 emissions, by 30% by 2016. Although these regulations are being challenged by industry, several states (including New York) have followed California's lead. Many states' initiatives include increasing energy efficiency, promoting green building, and fostering the development of renewable energy. Over 20 states have adopted a Renewable Portfolio Standard, which requires that a certain percentage of the power generated in the state come from renewable sources.[13]

Impact on National Policy

RGGI presages what might well be the outcome of growing pressure at the national level. A call for mandatory

action has been heard from many quarters, in part driven by RGGI and the multiplicity of regional, state, and local efforts. The U.S. Senate has commenced an intensive review of the subject with an eye towards arriving at a national solution.

To date, voluntary action and investments in technology have been the federal government response to the climate change issue. The Asia-Pacific Partnership on Clean Development and Climate, launched during the summer of 2005 by the United States with five other countries, that together account for 50% of greenhouse gas emissions, is essentially a voluntary cooperation agreement to share technology advances. In early 2002, President Bush called for voluntary action to cut greenhouse gas intensity – the amount emitted per unit of economic activity – by 18% by 2012, and several commendable domestic programs were launched to encourage corporations to reduce CO_2 emissions. However, a growing chorus, which includes members of the Senate and representatives of energy companies, big business, the faith-based community, and environmental organizations, are urging that more be done and a mandatory regime be implemented. Recent data from the Department of Energy supports the conclusion that voluntary measures will not suffice. Notwithstanding the many voluntary efforts over the past few years, CO_2 emissions in the U.S. rose by 2% in 2004 over 2003 levels, and an increase of 28% in CO_2 emissions over 1990 U.S. levels by 2010 and over 50% by 2025 is predicted.[14]

Legislation to establish a federal carbon-cap system, the McCain-Lieberman Climate Stewardship Act, was first introduced in 2003. It would establish a comprehensive market-based system to cap emissions of six greenhouse gases in 2010 to 2000 levels, and includes the electricity, transportation, industry and commercial sectors. Senator Jeff Bingaman of New Mexico prepared a draft bill entitled "The Climate and Economy Insurance Act of 2005," based on the recommendations published by the National Commission on Energy Policy. This would require the Secretary of Energy to set emissions intensity targets for years starting in 2010, and to translate these intensity targets into an annual cap on greenhouse gas emissions. The draft bill provides for pollution credit trading and establishes a cost cap for emission "permits." At Senator Bingaman's request, the Energy Information Administration of the U.S. Department of Energy conducted a study of the economic impacts of such a greenhouse cap and found the impact to be minimal.[15]

Neither these nor other carbon cap measures survived congressional debate over the recently enacted Energy Policy Act of 2005, a comprehensive piece of energy legislation that was over four years in the making. While many of the provisions of the Energy Policy Act will indirectly reduce greenhouse gases, the legislation does not directly address greenhouse gases other than to commission several reports.

However, a significant non-binding sense of the Senate resolution was passed 53 to 44 in 2005 as an amendment to the Senate's version of the Energy Policy Act to provide a framework for legislation on climate change. The Senate's key findings were:

- Greenhouse gases accumulating in the atmosphere are causing average temperatures to rise at a rate outside the range of natural variability and are posing a substantial risk of rising sea levels, altered patterns of atmospheric and oceanic circulation, and increased frequency and severity of floods and droughts.
- There is growing scientific consensus that human activity is a substantial cause of greenhouse gas accumulation in the atmosphere.
- Mandatory steps will be required to slow or stop the growth of greenhouse gas emissions into the atmosphere.
- The Senate should enact a comprehensive and effective national program of mandatory market-based limits and incentives on emissions of greenhouse gases that slow, stop, and reverse the growth of such emissions at a rate and in a manner that will not significantly harm the U.S. economy; this program should encourage comparable action by other nations that are major trading partners and key contributors to global emissions.[16]

Following this resolution, Senate leaders held a series of hearings on climate change. In February of 2006, a white paper was issued that calls for comments and guidance on the difficult questions that must be resolved in designing a national greenhouse gas cap-and-trade program. These issues concern who should be regulated and at what level of distribution, how allowances should be allocated, whether the program should allow for trading with other greenhouse gas cap-and-trade regimes, and whether further steps should be contingent on action by major trading partners.[17]

Recent statements by Senate and community leaders suggest that federal mandatory climate change legislation may be on the horizon. Senator Richard Lugar, chair of the Senate Foreign Relations Committee, in a speech to the United Nations Security Council on February 6, 2006, called upon "the United States, the world's richest country and the largest emitter of greenhouse gases," to return to "international negotiations [on climate change] in a leadership role under the [UN] Framework Convention on Climate Change."[18] On the same day, the Evangelical Climate Initiative issued a statement that recognizes the scientific conclusion that climate change is happening and is caused mainly by human activity; millions of people could die because of climate change in this century; and the need to act is "urgent." The evangelical statement adopts the language of the Senate resolution. It urges that national legislation be passed "requiring sufficient economy-wide reductions in CO_2

emissions through cost-effective market based mechanisms such as a cap-and-trade-program."[19]

Senator Bingaman reported at the UNFCCC conference in Montreal in December of 2005 that there was increasing pressure from the business community to adopt a national carbon cap regime. He stated that business leaders are concerned that the different programs, such as RGGI, being adopted around the country to address climate change present a potential for conflicts among the states and pose difficult challenges for businesses trying to comply with a checkerboard of regulation. The Senator added that business leaders expressed a need for certainty about the regulatory scheme so that they can make informed decisions on energy capital investments that have a life of 30 to 50 years. While other Senators have since disagreed with this view, Senator Bingaman concluded that he believed that a mandatory national program to control greenhouse gases would be passed in the next year or two.[20]

Conclusion

The landmark RGGI cap-and-trade program is poised to deliver its intended environmental and economic benefits to this region. It has already accomplished its goal of informing climate change planning in other regions and fostering progress in the national debate on the subject. New York State should be proud of having been at the forefront of this signal achievement. ■

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