

# Environmental PROTECTION

MANAGEMENT AND PROBLEM-SOLVING FOR ENVIRONMENTAL PROFESSIONALS

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Controlling  
Global **Warming**  
States Keep  
Their Cool  
and Take Action



# Trailblazers

*In the absence of satisfactory federal programs, a new state initiative is tackling greenhouse gases and fossil fuel use*

*By Steve Barnett, Esq, PE, CIH*

There is a rising flood of coverage in America of global climate change and greenhouse gases (GHGs), including a motion picture (*The Day After Tomorrow*), an HBO feature (*Too Hot Not to Handle*), a New York Times piece (*Yelling 'Fire' on a Hot Planet*), a TIME magazine cover story (*Be Worried*), a film starring Al Gore (*An Inconvenient Truth*), photos of receding glaciers, and reports of drowning polar bears.<sup>1</sup> The coverage urges Americans to be concerned and take action over global climate change. Although most Americans believe climate change due to global warming has begun, polls show their concern over the issue is



The executive branch of the United States

has maintained since 2003 that the Clean Air Act does not authorize regulation of GHGs, and Congress and the federal courts have so far not disagreed. When the federal government does not enact a regulatory scheme, states may fashion their own. At the same time, increased fuel prices and political concerns over oil imports from the Middle East have caused many Americans to closely scrutinize their use of fossil fuels.

#### **What is RGGI?**

The Regional Greenhouse Gas Initiative (RGGI, pronounced Reggie) is the first mandatory cap-and-trade system for GHG in the United States. RGGI was initiated in April 2003 when New York Governor Pataki invited the governors of the Northeastern states, from Maine to Maryland, to participate in the design of a mandatory

cap-and-trade program to cover power plants. It will require fossil-fuel fired electric generators 25 megawatts (MW) and larger in the region (with certain exceptions) to limit their carbon dioxide (CO<sub>2</sub>) emissions. So far, Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York, and Vermont have all agreed to implement RGGI.<sup>2</sup>

On March 23, 2006, the seven participating states issued a draft model regulation ("Draft Model Rule") and accepted public comments for 60 days. Key provisions of the Draft Model Rule are:

- Regional annual emissions of CO<sub>2</sub> within the seven states will be capped at 121.3 million tons (approximately equal to 1990 emissions) through 2014 and reduced to 10 percent below this level by 2018.
- The first compliance period begins on Jan. 1, 2009.
- The Final Model Rule will be the basis for individual state rules. Each state will receive a share of the regional CO<sub>2</sub> budget and will establish a permitting system by which covered sources will be required to comply with provisions of the program. In some states, such as New Hampshire, legislative approval will be sought.

#### Background Leading up to RGGI: Clean Air Act Authority Does Not Extend to Carbon Dioxide — the Fabricant Memorandum, 2003.

In 2003, a legal memorandum from U.S. Environmental Protection

Agency (EPA) General Counsel Robert Fabricant to Acting EPA Administrator Horinko ("Fabricant Memorandum") set forth EPA's opinion that the federal Clean Air Act "does not authorize EPA to regulate for global climate change purposes. Accordingly, CO<sub>2</sub> and other GHG's cannot be considered "air pollutants" subject to the CAA's regulatory provisions for any contribution anthropogenic GHG emissions may make to global climate change." In so doing, Fabricant formally withdrew a contrary opinion prepared by previous EPA General Counsel Cannon.<sup>3</sup> The Fabricant Memorandum

remains EPA's position today.<sup>4</sup>

Significance of CO<sub>2</sub> Limits and Reductions Proposed by RGGI

In comparison with CO<sub>2</sub> emissions reductions of 12 million tons by 2018 as RGGI proposes, the carbon cycle has been estimated to include the following fluxes of CO<sub>2</sub>:

### The executive branch of the United States has maintained since 2003 that the Clean Air Act does not authorize regulation of GHGs, and Congress and the federal courts have so far not disagreed.

- 5.5 billion tons emitted annually to the atmosphere from anthropogenic sources (e.g., fossil fuel burning, cement production, etc.);
- 90 billions tons exchanged annually between oceans and the atmosphere; and
- 60 billions tons exchanged annually between land and the atmosphere. (See Figure 2).<sup>5</sup>

In 1999, electric utilities accounted for 36 percent of total CO<sub>2</sub> emissions from fossil fuels in the United States, and fossil fuels accounted for 98 percent of all CO<sub>2</sub> emissions in the United States.<sup>8</sup> For discussions of atmospheric CO<sub>2</sub> and global climate change, see the Intergovernmental Panel on Climate Change (IPCC) Web site.<sup>6</sup> For a different viewpoint, see the Center for the Study of Carbon Dioxide and Global

Change Web site, which asks and answers the question "[i]s carbon dioxide a harmful air pollutant, or is it an amazingly effective aerial fertilizer?" The Cato Institute Web site includes articles asserting that

there are no plans to regulate water vapor and clouds, which account for 98 percent of the greenhouse effect.<sup>7</sup>

#### Energy Independence and Efficiency

Rising energy prices and concern over oil imports have been at least important as climate change in the development of RGGI. Independence from fossil fuels as an end in itself has been a major driving force. By one estimate, spending on energy in New York increased from \$38 billion in 2003 to \$55 billion in 2005. New York's energy policy to combat rising fossil fuel costs focuses on four areas: power, transportation, government, and buildings. Power is addressed via RGGI and by New York's Renewable Portfolio Standard, which will require that 25 percent of the electricity sold in New York to come from renewable resources by the year 2013. With respect to transportation, New York has adopted California's GHG emissions regulations for vehicles. With respect to government, Governor Pataki's Executive Order 111 directs New York State agencies to reduce their energy needs. Grants and other assistance for green buildings are available through the New York State Energy Research and Development Authority (NYSERDA), green building state tax credits are available, and New York State energy codes help drive energy efficient buildings.

#### New Jersey Classifies CO<sub>2</sub> as an Air Pollutant, Nov. 21, 2005

States regulate CO<sub>2</sub> and other GHG's via various statutory and regulatory mechanisms. One example of recent activity in this regard is New Jersey, which had not heretofore regulated CO<sub>2</sub> except to require reporting of emissions by large stationary sources. In anticipation of the future adoption of the RGGI Final Model Rule, the New Jersey Department of Environmental Protection on Nov. 21, 2005 reclassified CO<sub>2</sub> as an air contaminant in its regulations pursuant to the New Jersey Air Pollution Control Act (NJAPCA). The Department removed CO<sub>2</sub> from its definitions of "distillates of air" which is a categorical exception to the NJAPCA definition of "air contaminants." Simultaneously, the

Department modified its rules to exempt CO<sub>2</sub> emissions from reporting, permitting, and other regulatory requirements, so that the

amendments create no additional obligations for regulated entities at this time.<sup>9</sup>

## The Regional Greenhouse Gas Initiative (RGGI, pronounced Reggie) is the first mandatory cap-and-trade system for GHG in the United States.

### Conclusions

Global warming and energy efficiency and independence are dilemmas, as described by Hardin in 1968, which are not in need of technical solutions.<sup>13</sup> Put aside for a moment the debate over whether, how much, or which GHG's contribute to global warming and what the impacts of it are. We have the science and technology to reduce GHG emissions and reliance on fossil fuels. The questions addressed by RGGI are not so much questions of science and technology, but ones of public policy. In the absence of a federal role, RGGI is at least an experiment and perhaps the beginnings of a final solution to these public policy issues.

**TABLE 3-5**  
**Global Warming Potentials (100-Year Time Horizon)**

Gas	GWP	Gas	GWP
Carbon Dioxide (CO <sub>2</sub> )	1	HFC-227ea	2,900
Methane (CH <sub>4</sub> )	21	HFC-236fa	6,300
Nitrous Oxide (N <sub>2</sub> O)	310	HFC-4310mee	1,300
HFC-23	11,700	CF <sub>4</sub>	6,500
HFC-125	2,800	C2F <sub>6</sub>	9,200
HFC-134a	1,300	C4F10	7,000
HFC-143a	3,800	C6F14	7,400
HFC-152a	140	Sulfur Hexafluoride (SF <sub>6</sub> )	23,900

\*The methane GWP includes direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effects due to the production of CO<sub>2</sub> are not included.

Source: IPCC 1996b

*U.S. Climate Action Report — 2002, Third National Communication of the United States of America Under the United Nations Framework Convention on Climate Change, p. 37, report available at [www.epa.gov/globalwarming/publications/car/index.html](http://www.epa.gov/globalwarming/publications/car/index.html).*

### References

<sup>1</sup> Readers may access links to websites and documents discussed in this article by visiting the Connell Foley LLP HSE blog at [www.connellfoley.com/hse/law](http://www.connellfoley.com/hse/law).

<sup>2</sup> Recent legislation in Maryland requires that Maryland implement RGGI as well.

<sup>3</sup> Memorandum from Jonathan Z. Cannon, General Counsel, to Carol M. Browner, Administrator, "EPA's Authority to Regu-

late Pollutants Emitted by Electric Power Generation Sources," April 10, 1998. (During Fiscal Year 1999 House Appropriations Committee Hearing, Congressman DeLay asked EPA Administrator Browner whether she believed the EPA had authority under the Clean Air Act to regulate four pollutants from electric power generation: nitrogen oxides, sulfur dioxide, CO<sub>2</sub> and mercury. In response to Congressman DeLay's

## What is Going on in Other Jurisdictions?

In the absence of federal standards, states serve as laboratories experimenting with different approaches. The California Air Resources Board (CARB) has proposed regulations requiring automakers to begin selling vehicles with reduced GHG emissions by model year 2009.<sup>10</sup> In December 2005, California submitted a request to EPA for approval ("waiver of pre-emption") of those regulations, which are simultaneously being challenged in court by the automotive industry and adopted by other states, such as New York and New Jersey. It is not likely that EPA will grant the waiver of pre-emption in light of the fact that its sister agency, the National Highway Traffic Safety Administration (NHTSA), recently devoted approximately 20 pages in the Federal Register to explain that any state vehicle GHG emission standards would be pre-empted by federal fuel economy standards promulgated pursuant to the federal Energy Policy Conservation Act (EPCA).<sup>11</sup> With regard to GHG's from the power industry, California, the northwestern states, and New Mexico in particular have expressed interest in participating in, or adopting, a framework similar to RGGI.

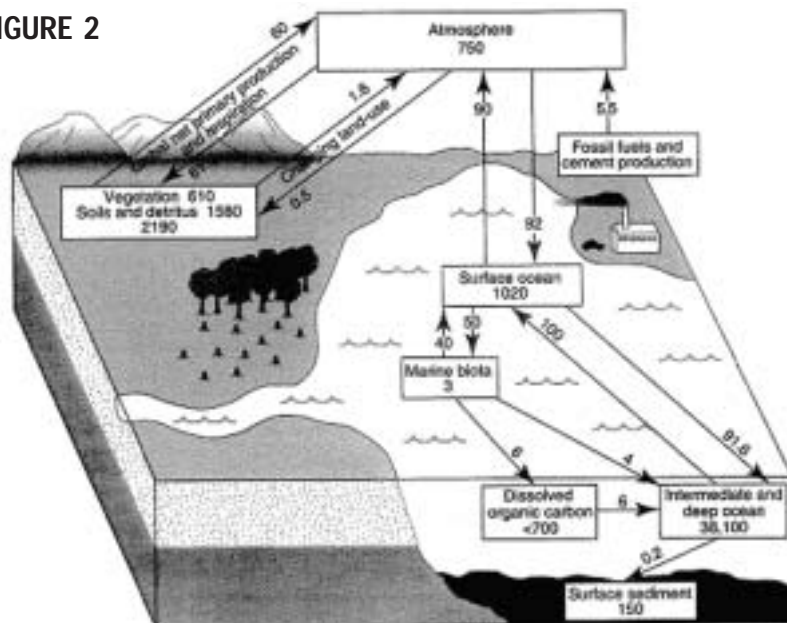
A number of states, including Connecticut, New York, California, Iowa, New Jersey, Rhode Island, Vermont, and Wisconsin have, in addition to other steps, sued what they allege are the five largest U.S. power companies, responsible for emissions constituting

approximately 40 percent of all CO<sub>2</sub> emitted by human activities in the United States, approximately 10 percent of worldwide CO<sub>2</sub> emissions from human activities, and more CO<sub>2</sub> emissions than all but six countries. The case was dismissed on political question grounds in federal district court<sup>12</sup> and is on appeal to the Second Circuit.

Legal actions pertaining to climate change have also been brought by environmental groups and individuals. These include a case against the Overseas Private Investment Corp. and the Export-Import Bank of the United States for not preparing environmental impact statements prior to financing overseas power projects, and a case brought by individuals in Mississippi who suffered property damage due to Hurricane Katrina, alleging oil companies contributed to climate change which in turn fostered the strengthening of Hurricane Katrina.

Outside the United States, the European Union and Australia have expressed interest in RGGI. Because the United States is not a signatory to the Kyoto Protocol, emission reductions achieved by RGGI cannot be recognized internationally. Kyoto signatory countries look to RGGI in the hope that it will lead to the United States joining in the Kyoto Protocol and an international GHG trading scheme.

FIGURE 2



From 1995 Intergovernmental Panel on Climate Change (IPCC) "Second Assessment Report," *Climate Change 1995: The Science of Climate Change*.

request for a legal opinion on this point particularly with regard to CO<sub>2</sub>, EPA General Counsel Cannon prepared a legal memorandum (the "Cannon Memorandum") to Administrator Browner setting forth his opinion that EPA's regulatory authority under the Clean Air Act extends to carbon dioxide emitted into the ambient air.)

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<sup>4</sup> A case brought by the State of Massachusetts and a number of other states against the EPA for its failure to regulate carbon dioxide under the Clean Air Act was recently dismissed by the United States Court of Appeals for the District of Columbia in a divided decision. *Massachusetts v. Environmental Protection Agency*, 415 F.3d 50 (D.C. Cir. 2005). A Petition for Certiorari has been filed with the United States Supreme Court. 74 USLW 3517 (Mar 02, 2006) (NO. 05-1120).

<sup>5</sup> From 1995 Intergovernmental Panel on Climate Change (IPCC) "Second

Assessment Report," *Climate Change 1995: The Science of Climate Change*.

<sup>6</sup> In its most recent Assessment, the IPCC stated that the globally averaged surface temperature is projected to increase by 1.4 to 5.8 degrees Celsius over the period 1990 to 2100 under different scenarios. Regarding CO<sub>2</sub>, IPCC stated that atmospheric concentration of CO<sub>2</sub> has increased from 280 parts per million (ppm) in 1750 to 367 ppm in 1999 (31 percent), today's CO<sub>2</sub> concentration has not been exceeded during the past 420,000 years and likely not during the past 20 million years, and that the rate of increase over the past century is unprecedented, at least during the past 20,000 years. IPCC, Third Assessment Report, 2001. IPCC's Fourth Assessment Report is due in 2007 and expected to include additional warnings regarding climate change.

<sup>7</sup> IPCC has classified six significant greenhouse gases: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulphur hexafluoride (SF<sub>6</sub>). IPCC has established a Global Warming Potential ("GWP") scale in order to show the relative contribution of each gas to global average radiative forcing. See **Figure 1** herein. **Figure 1** does not list water vapor. IPCC does not classify water vapor as a GHG and does not address reduction or control of water vapor emissions, e.g., steam from

anthropogenic activities.

<sup>8</sup> U.S. Department of State, U.S. Climate Action Report 2002, Washington D.C., May 2002, p. 38.

<sup>9</sup> 37 N.J.R. 4415(a), November 21, 2005.

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<sup>10</sup> Auto emissions account for almost 2 billion tons of carbon dioxide emissions annually in the United States, which is an amount roughly equal to the carbon dioxide emissions from electric utilities in the United States. U.S. Department of State, U.S. Climate Action Report 2002, Washington D.C., May 2002, p. 36-38.

<sup>11</sup> 71 FR. 17654-17670, April 6, 2006. Subsequent to publication of those federal fuel economy standards for SUVs and light trucks by NHTSA that NHTSA indicated will preempt California vehicle GHG emission standards, nine States brought suit against the NHTSA alleging that the federal standards are too lenient. New York Attorney General Elliot Spitzer commented, "At a time when consumers are struggling to pay surging gas prices and the challenge of global climate change has become even more clear, it is unconscionable that the Bush Administration is not requiring greater mileage efficiency for light trucks."

<sup>12</sup> *Connecticut et al. v. American Electric Power Co., Inc. et al.*, 406 F.Supp.2d. 265 (S.D.N.Y. 2005).

<sup>13</sup> Garrett Hardin, "The Tragedy of the Commons," *Science*, 162:1243-1248, 1968.

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