



## **Voluntary Efforts Won't Work Why We Need Mandatory Limits on Carbon Dioxide**

### **A History of Failure**

The federal government has relied on voluntary measures to address global warming for 15 years, starting with the first President Bush's National Energy Strategy in 1989 and the 1992 Framework Convention on Climate Change. The voluntary approach has demonstrably failed to reduce emissions of carbon dioxide (CO<sub>2</sub>), the main cause of global warming.

- Since 1990, U.S. CO<sub>2</sub> emissions have increased by 17 percent.<sup>1</sup>
- During this period, CO<sub>2</sub> emissions from electric power production increased by 26 percent, twice as fast as emissions from the rest of the economy.<sup>2</sup>

The longer we continue making high-carbon investments, the more costly and disruptive it will be to cut emissions. We must begin to change private investment decisions today.

We have three basic tools for reducing emissions of CO<sub>2</sub> and other global warming pollutants.

- We can produce and use energy more efficiently.
- We can dramatically increase our reliance on renewable energy resources for electricity and transportation.
- We can pursue methods to capture and permanently store CO<sub>2</sub> from the fossil energy sources we continue to use.

But voluntary programs and tax incentives are insufficient to get these technologies deployed at a sufficient scale and speed to avoid a climate catastrophe. The market conditions for these new investments will not be created without a limit on CO<sub>2</sub> emissions.

### **Been There, Done That**

Voluntary programs aimed at reducing global warming pollution have been in place for more than a decade. Periodically these programs are renamed and re-announced as new initiatives, but this can't change the fact that they simply aren't adequate.

- ***National Energy Strategy.*** The National Energy Strategy was announced by President George H. Bush in 1989, and first released in 1991 after extensive analysis and public debate. The elements of this plan have a striking similarity to the Bush-Cheney National Energy Plan of 2001, relying primarily on research and development for new technologies and subsidies for more production. The National Energy Strategy had no mandatory requirements for carbon dioxide emission reductions. It projected an increase in U.S. carbon dioxide emissions of 25 percent from 1990 to 2015, an acknowledgement that voluntary approaches would not significantly reduce emissions.<sup>3</sup>
- ***Climate Change Action Plan.*** President Clinton first announced the Climate Change Action Plan (CCAP) in October 1993. CCAP combined 46 separate programs into one coordinated plan with the goal of returning U.S. emissions to 1990 levels by 2000.<sup>4</sup> Most of these programs were voluntary public-private partnerships, technical assistance, and R&D efforts, but only eight of the programs had new regulatory elements. These primarily voluntary programs have made modest emission cuts, but they have failed to come close to reaching the CCAP's overall goal.

### **Reported “Reductions,” Rising Emissions**

Several Senators have introduced bills this year to encourage corporate voluntary “reductions” of global warming emissions. In fact, the Department of Energy has run such a system for reporting and recognizing voluntary action for nearly a decade under the 1992 Energy Policy Act. The greatest participation in the DOE system has come from the electric power industry. Their reports, however, illustrate how ineffective this voluntary program is.

In 2003, power companies claimed to have made 158 million tons of global warming pollution “reductions” even though their total CO<sub>2</sub> emissions skyrocketed by *491 million tons* since 1990.<sup>5</sup> (Power companies are required to report their actual CO<sub>2</sub> emissions to the Environmental Protection Agency under the 1990 Clean Air Act.) It is hard to take seriously the implicit claim that in the absence of voluntary “reductions” electricity industry emissions would actually have grown one-third more rapidly over the last 13 years.

**Instead of making real investments to reduce their pollution, most power companies simply claimed credit for business-as-usual actions – and thus made no real difference in rising emission trends.**<sup>6</sup> Here are some examples:

- In 2002 69 percent of reported “reductions” projects were due to the standard operation of nuclear plants, with the entire output of at least three plants being reported as reductions.
- Tennessee Valley Authority (TVA) reported “reductions” totaling 25 million tons CO<sub>2</sub> in 2003 from the Browns Ferry and Watts Bar nuclear facilities. These two units were not operational in 1990 and were subsequently brought online. TVA calculates emissions “reductions” assuming the total output of these nuclear

facilities offsets hypothetical emissions that would have been associated with their 1990 generating fleet. TVA therefore claims reductions simply from commencing operation of these facilities. Together with a similar report from TXU's Comanche Peak nuclear plant, this accounts for roughly one-third of all claimed electricity sector reductions.

- Florida Power Light (FPL) Group uses a hypothetical baseline to claim "reductions" for building natural-gas-fired generating stations. FPL Group's baseline assumes incremental capacity additions would have been coal-fired, had they not built gas-fired plants. Therefore, when the company built gas-fired plants, emissions increased, but increased less than if coal fired plants had been built. The new plants lead to an emissions increase, but a reported "reduction."
- Xcel reported CO<sub>2</sub> "reductions" from retiring aged units at their Arapahoe plant. The retirement was carried out under an agreement with Colorado State to reduce SO<sub>2</sub> and NO<sub>x</sub> emissions. Xcel calculated the baseline for CO<sub>2</sub> reductions by using the amount of CO<sub>2</sub> the retired units emitted, on average, between 1999 and 2002. Thus, the company claimed a reductions "program" by merely producing less energy.
- Getting even more creative, AES has claimed an emission "reduction" for recovering CO<sub>2</sub> from its Warrior Run plant and selling it for use in food processing and soft drinks. This does not produce any environmental benefit because AES's fossil CO<sub>2</sub> is replacing *renewable* CO<sub>2</sub> captured from ethanol plants, the usual source of food grade CO<sub>2</sub>. Moreover, no one at AES or the Department of Energy seems to realize that the bubbles in soda pop are "sequestered" only until the can is opened!

### **Not Enough Volunteers**

A few companies have made voluntary commitments to cap their own emissions. But these commitments are too few and have too many loopholes:

- BP and Shell have capped the global warming emissions from their refineries and other facilities, although these caps do not include the emissions from burning the fuels they provide.
- Several power companies – for example, American Electric Power, Cinergy, and Entergy – have announced voluntary caps, but these limits are less than they appear because the companies are relying heavily on dubious actions, such as tree planting, to "offset" continued emissions growth from their power plants.
- The largest voluntary effort of this kind is the Chicago Climate Exchange, but it has only 26 members that have agreed to limit their emissions. In short, the trouble with voluntary caps is that there aren't enough volunteers.

### **Not Enough Public Money**

Many corporations are asking for government spending or tax subsidies to employ climate-friendly technologies. Some tax credits – such as the wind energy production tax credit and proposed energy efficiency tax incentives – are helping to bring down the costs

of these technologies by more quickly reaching production economies of scale. Government incentives have an important role to play in technology deployment *together with* the market signal from a limit on emissions. But there simply is not enough government money *by itself* to change the market signals and reach mass deployment of all the necessary technologies.

- For example, leaders in industry, government, and the environmental community increasingly understand the need to replace existing coal-fired power plants with coal gasification plants that can generate both electricity and chemicals.
- The Administration has a \$1 billion “FutureGen” proposal to build *one* coal gasification plant with CO<sub>2</sub> capture, starting operation some 10 years from now – IF Congress actually funds the project. Even if this project proceeds, one plant will not provide the range of operational experience needed by U.S. industry and others around the world.
- To stimulate more investment, the private sector must see real market signals. A cost-sharing proposal for one subsidized project is no substitute for a genuine market signal. A market for coal gasification with CO<sub>2</sub> capture will be created when the private sector sees a real limit on global warming pollution and knows that CO<sub>2</sub> emitters will have to invest in limiting their emissions.

Until Congress makes that clear, the private sector’s response will be to take the government’s money and tax breaks, but “wait and see” before making any real changes.

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<sup>1</sup> Carbon dioxide emissions from fossil fuel combustion account for 85 percent of U.S. emissions of heat-trapping pollution. See U.S. EPA (2005), “Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2003.”

<http://yosemite.epa.gov/oar/globalwarming.nsf/content/ResourceCenterPublicationsGHGEmissionsUSEmissionsInventory2005.html>

<sup>2</sup> *Ibid* at ES-10. Percent changes are 2003 emissions (the most recent data available) relative to 1990.

<sup>3</sup> National Energy Strategy, First Edition, February 1991, pg.179.

<sup>4</sup> The Climate Change Action Plan, October 1993. Page i.

<sup>5</sup> EIA (2005), “Voluntary Reporting of Greenhouse Gases 2003,”

[http://www.eia.doe.gov/oiaf/1605/vrrpt/pdf/0608\(03\).pdf](http://www.eia.doe.gov/oiaf/1605/vrrpt/pdf/0608(03).pdf)

<sup>6</sup> NRDC (2001), “Reported ‘Reductions,’ Rising Emissions: The Failure of Voluntary Commitments and Reporting to Reduce U.S. Electric Industry CO<sub>2</sub> Emissions,”

<http://www.nrdc.org/globalWarming/reductions/execsum.asp>.