

Background

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The True Costs of EPA Global Warming Regulation

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Legislation designed to address global warming failed in Congress this year, largely due to concerns about its high costs and adverse impact on an already weakening economy. The congressional debate will likely resume in 2009, as legislators try again to balance the environmental and economic considerations on this complex issue. Meanwhile, the Environmental Protection Agency (EPA), pursuant to a 2007 Supreme Court decision, has initiated steps toward bypassing the legislative process and regulating greenhouse gas emissions under the Clean Air Act.

The EPA's Advance Notice of Proposed Rulemaking (ANPR) is nothing less than the most costly, complicated, and unworkable regulatory scheme ever proposed. Under ANPR, nearly every product, business, and building that uses fossil fuels could face requirements that border on the impossible. The overall cost of this agenda would likely exceed that of the legislation rejected by Congress, reaching well into the trillions of dollars while destroying millions of jobs in the manufacturing sector.¹ The ANPR is clearly not in the best interests of Americans, and the EPA should not proceed to a Notice of Proposed Rulemaking and final rule based upon it.

Climate Legislation

Concern that carbon dioxide and other greenhouse gases are gradually warming the planet has emerged as the major environmental issue of the day, and certainly the most hyped one. Carbon dioxide is a naturally occurring component of the air, but is also the ubiquitous and unavoidable by-product of

Talking Points

- Congress has thus far rejected legislation that seeks to curb global warming, in large part due to the prohibitive costs of reducing the carbon dioxide emissions from the fossil fuels that currently comprise 85 percent of the nation's energy supply.
- The Environmental Protection Agency's attempt to enact such measures through regulations under the Clean Air Act, pursuant to a 2007 Supreme Court decision, would be at least as costly, and probably more so, than the legislation rejected by Congress.
- The Clean Air Act is ill suited to address global warming. Attempts to do so would almost certainly unleash a costly and impractical regulatory scheme that would ensnare all manner of vehicles as well as a million or more businesses, buildings, and farms.
- Heritage's economic analysis estimates a nearly \$7 trillion cumulative decline in GDP by 2029 from such regulations, and up to 3 million lost manufacturing jobs.

This paper, in its entirety, can be found at:
www.heritage.org/Research/EnergyandEnvironment/bg2213.cfm

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fossil fuel combustion, which currently provides 85 percent of America's energy. Thus, any effort to substantially curtail such emissions would have extremely costly and disruptive impacts on the economy and on living standards.

For this reason, the federal government has been cautious about embarking on mandatory carbon reductions. In 1997, the U.S. Senate unanimously resolved to reject any international climate change treaty that unduly burdened the U.S. economy or failed to engage all major emitting nations, such as China and India. Although the Kyoto Protocol was signed by the U.S. later that year, neither President Bill Clinton nor President George W. Bush ever submitted the treaty to the Senate for the required ratification. This has shown itself to be a wise move: Many, if not most, of the European and other developed nations that ratified the treaty are failing to reduce their emissions due to the prohibitive costs in doing so.

Legislatively, Congress has thus far rejected every attempt to control carbon dioxide emissions. Chief among the legislative proposals in 2008 was S. 2191, the America's Climate Security Act of 2007, originally sponsored by Senators Joe Lieberman (I-CT) and John Warner (R-VA). This was a so-called cap-and-trade bill that would set a limit on the emissions of greenhouse gases, especially carbon dioxide from the combustion of coal, oil, and natural gas. Each power plant, factory, refinery, or other regulated entity would have been allocated rights to emit limited amounts of carbon dioxide and other greenhouse gases. Those entities that reduced their emissions below their annual allotment could sell their excess allowances to those that did not—the trade part of cap and trade. The bill would start with a mandated emissions freeze at 2005 levels in 2012, and end with a 70 percent reduction by 2050.

In effect, this bill would have acted like a tax on energy, driving up its cost so that businesses and consumers are forced to use less.

Last June, America's Climate Security Act was withdrawn by its Senate supporters after only three days of debate. A Heritage Foundation analysis detailed the costs of the bill, which included a 29 percent increase in the price of gasoline, net job losses well into the hundreds of thousands, and an overall reduction in gross domestic product of \$1.7 to \$4.8 trillion by 2030.² At the time of the debate, gasoline was approaching \$4 per gallon for the first time in history, and signs of a slowing economy were beginning to emerge. Economically speaking, the bill was one of the last items on the agenda that Americans wanted, and its Senate sponsors recognized that. Beyond the costs, the bill would have—even assuming the worst case scenarios of future warming—likely reduced the earth's future temperature by an amount too small to verify.³

The debate is sure to resume in 2009, but the economic concerns about such measures remain. Though gasoline prices may be lower next year than the last time climate legislation came to a vote, unemployment will likely be higher as will unease about the overall state of the economy. Thus, the legislative effort to place costly restrictions on energy still faces an economic headwind. Notwithstanding the state of the economy, such measures will always fail any reasonable cost-benefit test given their high costs and environmental benefits that are marginal at best.

Regulation as an Alternative to Legislation

While proponents of greenhouse gas restrictions have lobbied for additional legislation, they have also tried to force the EPA to regulate carbon dioxide as a pollutant under existing law. In 1999, an

1. This *Background* is a companion to: David W. Kreuzer and Karen A. Campbell, "CO₂-Emission Cuts: The Economic Costs of the EPA's ANPR Regulations," Heritage Foundation *Center for Data Analysis Report* No. 08-10, October 29, 2008, at <http://www.heritage.org/Research/EnergyandEnvironment/cda08-10.cfm>.
2. William W. Beach *et al.*, "The Economic Costs of the Lieberman-Warner Climate Change Legislation," Heritage Foundation *Center for Data Analysis Report* No. 08-02, May 12, 2008, at <http://www.heritage.org/Research/EnergyandEnvironment/cda08-02.cfm>.
3. Ben Lieberman, "The Lieberman-Warner Climate Change Act: A Solution Worse Than the Problem," Heritage Foundation *Background* No. 2140, June 2, 2008, pp. 6–9, at <http://www.heritage.org/Research/EnergyandEnvironment/bg2140.cfm>.

environmental activist group sued the EPA over its refusal to restrict such emissions from motor vehicles under the Clean Air Act. The case eventually reached the Supreme Court, which in April 2007 ruled in a five-to-four decision against the EPA.

The decision did not require the EPA to change its position and begin regulating carbon dioxide from vehicle exhaust; it only required the agency to demonstrate that whatever it chooses to do complies with the requirements of the Clean Air Act. Nonetheless, the agency's detailed ANPR, published on July 30, 2008, appears to treat such regulation as a foregone conclusion. Although the ANPR is preliminary in nature, the level of detail (the ANPR and supporting documentation exceed 18,000 pages) suggests that the EPA has already decided to impose regulations that are unprecedented in their cost, complexity, and reach.

The reasons for Congress's reluctance to enact global warming legislation are every bit as relevant to the debate over whether or not the EPA should achieve the same results through regulations. This is especially true given the many shortcomings of the Clean Air Act as an instrument for regulating carbon dioxide emissions—for which the statute was not intended. In effect, the measures detailed in the ANPR would require action at least as costly as comparable cap-and-trade bills, and likely more so given the added difficulty of doing it in a much more convoluted fashion.

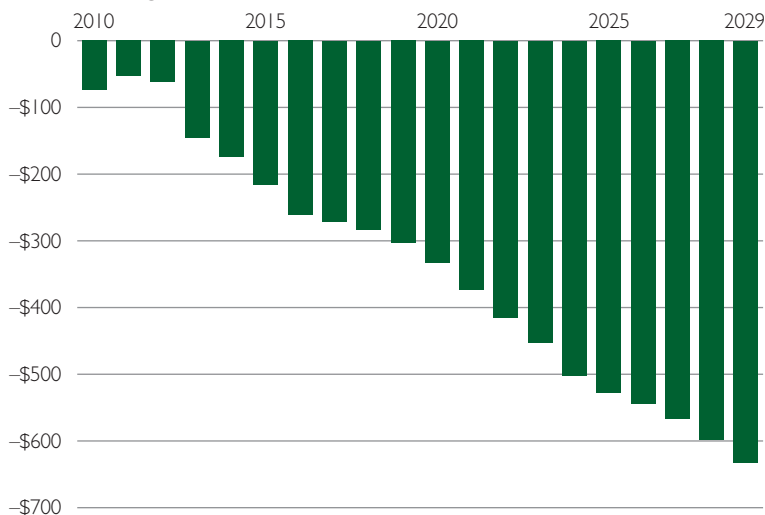
Regulating Vehicles— and Almost Everything Else

Because no technology exists to date that offers the possibility to filter out carbon dioxide emissions from motor vehicle exhaust, the only way to reduce emissions is to use less fuel. In the ANPR, the EPA contemplates higher gas mileage standards for motor vehicles beyond those already scheduled to be

Lost Gross Domestic Product Due to Clean Air Act Regulation of CO₂

By restricting CO₂ emissions, the Clean Air Act will create higher energy costs and decrease the U.S. economy by an average of \$339 billion every year through 2029.

Annual Change in Gross Domestic Product, in Billions of Dollars



Source: Center for Data Analysis, Heritage Foundation calculations from the Global Insight macroeconomic model.

Chart 1 • B 2213 heritage.org

imposed in accordance with the 2007 Energy Independence and Security Act. The EPA also discusses strict requirements for everything from airplanes to ships to trains to lawnmowers, all of which could be subject to new design specifications and usage limitations as well as fuel economy standards, as described in painstaking detail in the ANPR.

Beyond regulating anything that is mobile and uses energy, the ANPR also contemplates targeting anything that is immobile and uses energy—commercial and non-commercial buildings, large and small businesses, and farms. Under the Clean Air Act, once carbon dioxide emissions from motor vehicles are regulated, emissions from stationary sources must also be controlled under the New Source Review (NSR) and other Clean Air Act programs because they apply to all pollutants subject to regulation anywhere else in the statute. Even if the agency tries to rein in the reach of its regulation,

it will almost certainly face litigation by environmentalists opposing such restraint.

Given that the existing threshold for regulation under the Clean Air Act—250 tons of emissions per year, and in some cases as little as 100 tons per year—is easily met in the case of carbon dioxide emissions, the agency could impose new and onerous NSR requirements heretofore limited to major industrial facilities. Other Clean Air Act programs, such as the Title V permitting program and the hazardous-air-pollutants program, have even lower thresholds, creating a regulatory maze both restrictive and redundant.

Most pollutants regulated under the Clean Air Act are trace compounds like ozone or mercury that are typically measured in parts per billion, so these threshold levels are sensible to distinguish *de minimis* contributors from significant ones. But carbon dioxide is not a trace compound, thus, existing Clean Air Act thresholds are ill suited. Background levels alone account for 275 parts per million, and even relatively small usage of fossil fuels could reach these thresholds. Thus, even the kitchen in a restaurant, the heating system in an apartment or office building, or the activities associated with running a farm could cause these and other entities—potentially more than a million buildings, 200,000 manufacturing operations, and 20,000 farms⁴—to face substantial and unprecedented requirements. Churches, hospitals, schools, and government buildings could also be subjected to these requirements.

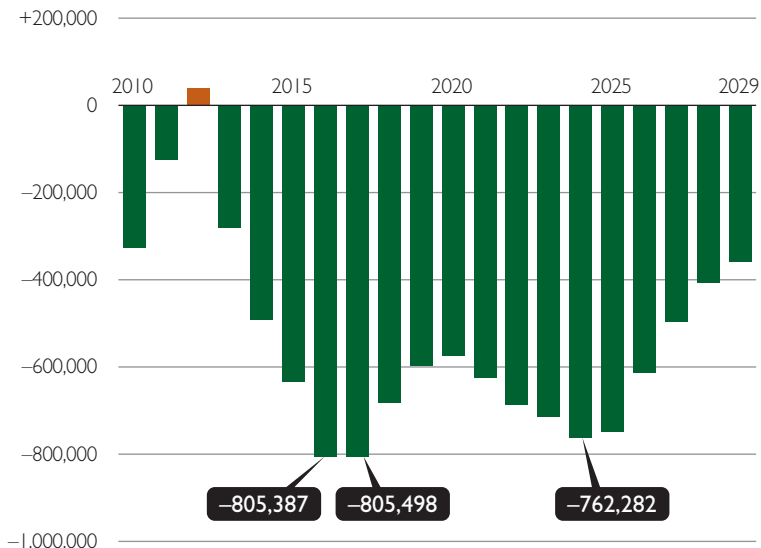
This type of industrial-strength EPA red tape that imposes an average of \$125,000 in costs and takes

4. Portia M. E. Mills, Mark P. Mills, “A Regulatory Burden: The Compliance Dimension of Regulation CO₂ as a Pollutant,” U.S. Chamber of Commerce, September 2008, p. 3.
 5. Carrie Wheeler, “Information Collection Request for Prevention of Significant Deterioration and Nonattainment New Source Review,” U.S. Environmental Protection Agency, no date.

Clean Air Act Regulations Will Cost Millions of Jobs

The U.S. will lose 10.7 million jobs cumulatively through 2029.

Annual Change in Non-Farm Employment



Source: Center for Data Analysis, Heritage Foundation calculations from the Global Insight macroeconomic model.

Chart 2 • B 2213 heritage.org

866 hours to complete⁵ could now be imposed, for the first time, on a million or more entities beyond the large power plants and factories that have traditionally already been regulated in this manner. Even more significant than the administrative costs is that all of these entities would be required to install costly technologies and operate under certain restrictions, as determined by EPA bureaucrats.

In sum, a host of complicated and redundant regulations could be applied to nearly every product, nearly every business, and nearly every building in America that uses fossil fuels. The ANPR, if finalized in anything near its current form, would create an environmental regulatory scheme more costly and intrusive than all the others combined.

The Costs of the ANPR

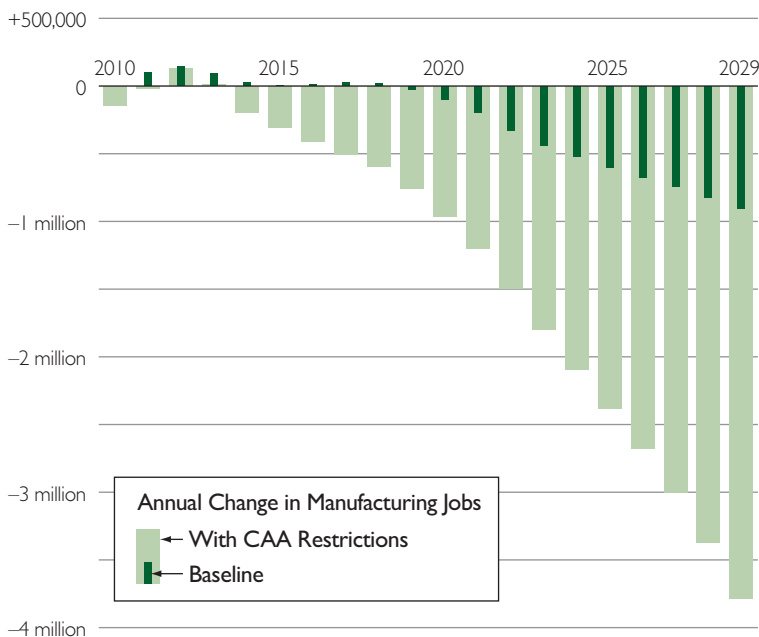
Either through legislation or regulation, efforts to reduce fossil fuel emissions will impose costs throughout the economy. For purposes of this analysis of the ANPR, the Heritage Foundation ignores the up-front administrative and compliance costs of imposing such an unprecedented crackdown both for regulated entities and for federal and state regulators. Heritage analysts instead assume the unlikely scenario of successful ANPR implementation and focus only on the cost of the rules in the form of higher energy costs.

The impact on the overall economy, as measured by gross domestic product (GDP), is substantial. The cumulative GDP losses for 2010 to 2029 approach \$7 trillion. Single-year losses exceed \$600 billion in 2029, more than \$5,000 per household. (See Chart 1.) Job losses are expected to exceed 800,000 in some years, and exceed at least 500,000 from 2015 through 2026. (See Chart 2). Note that these are net job losses, after any jobs created by compliance with the regulations—so-called green jobs—are taken into account. Hardest-hit are manufacturing jobs, with losses approaching 3 million. (See Chart 3). Particularly vulnerable are jobs in durable manufacturing (28 percent job losses), machinery manufacturing (57 percent), textiles (27.6 percent), electrical equipment and appliances (22 percent), paper (36 percent), and plastics and rubber products (54 percent). It should be noted that since the EPA rule is unilateral and few other nations are likely to follow the U.S. lead, many of these manufacturing jobs will be outsourced overseas.

The job losses or shifts to lower paying jobs are substantial, leading to declines in disposable income of \$145 billion by 2015—more than \$1,000 per household.

Manufacturing Jobs Will Take Significant Hit

Primarily due to increasing productivity, manufacturing can expect to see employment losses approaching 1 million jobs even without restrictions on CO₂ emissions. This is the baseline case. Higher energy costs from CO₂ restrictions under the Clean Air Act will lead to nearly 3 million more lost jobs in addition to the baseline losses.



Source: Center for Data Analysis, Heritage Foundation calculations from the Global Insight macroeconomic model.

Chart 3 • B 2213 heritage.org

Conclusion

Virtually every concern heightened by the economic downturn, especially job losses, would be exacerbated under the ANPR. As with cap-and-trade legislation, the EPA's suggested rulemaking would be poison to an already sick economy. But even in the best of economic times, this policy would likely end them. The estimated costs—close to \$7 trillion dollars and 3 million manufacturing jobs lost—are staggering. So is the sweep of regulations that could severely affect nearly every major energy-using product from cars to lawnmowers, and a million or more businesses and buildings of all types. And all of this sacrifice is in order to make, at best, a minuscule contribution to an overstated environmental threat. Congress has wisely resisted

implementing anything this costly and impractical. The fact that unelected and unaccountable EPA bureaucrats are trying to do the opposite is all the more objectionable.

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