
REACTION

CLIMATE CHANGE ACTION WITHOUT CONGRESS

*Michael B. Gerrard**

Congress has not enacted major environmental legislation since 1990, and no end to the paralysis is in sight. Nonetheless, there is a great deal that the Obama Administration can do with its existing statutory powers to fight climate change.

I. CLEAN AIR ACT

The most important authority derives from the Clean Air Act (CAA). As the Supreme Court held in 2007 in *Massachusetts v. EPA*, greenhouse gases (GHGs) fall within the definition of “air pollutant” under the CAA, and the Environmental Protection Agency (EPA) has the authority to regulate them.

Exercising that authority, EPA in December 2009 issued an “endangerment finding” that GHGs endanger public health and welfare (a prerequisite to further action). It then proceeded to promulgate a series of regulations, including standards for GHG emissions for automobiles, and rules concerning the prevention of significant deterioration program for new and modified stationary sources. These actions were the subject of more than 100 challenges filed with the U.S. Court of Appeals for the District of Columbia. That court combined the cases and, on June 26, 2012, dismissed them all, finding that EPA was acting well within its statutory authority. Unless the Supreme Court grants certiorari, EPA now has a clear path to proceed with further rulemaking.

A. New Power Plants

One important pending rulemaking concerns the new source performance standard (NSPS) for new fossil fuel-fired electric power plants. On April 13, 2012, EPA issued a proposed NSPS for carbon dioxide from such plants. It set an emission standard that can readily be met by natural gas combined-cycle units, but the standard cannot be met by plants that burn coal unless they are equipped with carbon capture and sequestration, a technology that is not yet in commercial

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application (though pieces of it are). Thus the proposed EPA rule would for now effectively bar the construction of new coal-fired power plants.

The practical significance of this rule is quite limited, since very few new coal plants were being proposed anyway, mostly due to the low price and high supply of natural gas, the long list of non-GHG environmental regulations that create hurdles to constructing new coal plants, and the environmental community's concerted litigation and political effort to block such plants. Of far greater importance is the fate of the more than five hundred existing coal-fired plants.

B. Existing Power Plants

Under CAA section 111(b), EPA can issue a NSPS that directly regulates new power plants. EPA's authority to regulate GHGs from existing power plants is much more constrained. EPA must utilize CAA section 111(d), under which EPA would issue a proposed guideline that would help states determine the "best system of emission reduction." The states would then impose this system under their state implementation plans (SIPs). For any states that would fail to adopt an adequate SIP revision, or to enforce it, EPA could step in and issue a federal implementation plan. That process is long and complicated. The environmental community has been pressing EPA to issue a NSPS for existing coal plants, but EPA — knowing the political and legal firestorm that will hit it if it does — has indicated that it is in no hurry to do so. Meanwhile, several proposals have been advanced for just how EPA could do this.

Some of these proposals, to varying degrees, would provide plant operators with flexibility through such measures as averaging, trading, and allowing credit for energy efficiency and renewable energy programs. The more innovative the method used, however, the greater the risk of a successful challenge to the rule as beyond EPA's authority under CAA section 111(d) and other laws.

C. Other Industrial Sources

Though power plants are the largest sources of GHG emissions, several other types of stationary sources are also major emitters. Some important examples include petroleum refineries, cement kilns, and nitric- and adipic-acid manufacturing. EPA is in the process of promulgating NSPSs for several of these categories. Emission reductions could also be achieved for some of these sources through efficiency improvements, fuel switching, and use of renewable energy such as biomass or geothermal.

D. Non-GHG Regulation of Stationary Sources

Several EPA regulations are pending for air pollutants that are not GHGs, but that come from GHG-emitting sources. These regulations could inhibit the construction of some of these sources and lead to the closure or more efficient operation of others. Among the rules now in the regulatory pipeline are the “Utility MACT,” which sets limits on mercury, acid gas, and other toxics from new power plants by designating the maximum achievable control technology; the “Boiler MACT,” which likewise regulates industrial boilers and incinerators; the Cross-State Air Pollution Rule, which concerns sulfur dioxide and nitrogen oxides (and which has experienced repeated setbacks in court); and new ambient air quality standards for ground-level ozone, sulfur dioxide, and fine particulates (Fine Particle (PM_{2.5}) Designations).

E. Mobile Sources

EPA and the National Highway Traffic Safety Administration have jointly issued GHG and fuel-economy standards for passenger automobiles and light-duty trucks through Model Year 2025. These standards will yield vehicles that are about twice as efficient as those sold in 2010, and most of both the automobile industry and the environmental community appear to be reasonably satisfied with the regulations, though there will be a mid-course review for Model Year 2021 and further improvements can be achieved after 2025. The standards for medium- and heavy-duty trucks only extend through Model Year 2018, so controversy about them is likely to resume more quickly.

EPA has yet to issue GHG standards for several other categories of mobile sources, such as off-highway engines, aircraft, and ships. Petitions have been filed seeking to force standards for all of these and other categories. Also evolving are EPA’s much-litigated renewable fuel standards, which will also lower GHG emissions.

F. Fugitive Methane Emissions

Natural gas is mostly methane, which is a potent GHG. There is growing concern that a great deal of methane is escaping in the extraction, processing, transport, and use of natural gas and in the extraction of certain types of oil. This concern is heightened by the tremendous growth of the use of hydraulic-fracturing techniques. On April 17, 2012, EPA finalized rules that will reduce emissions of certain non-GHGs from new oil and natural gas systems; these rules will also reduce methane leakage. EPA could also regulate methane from this sector directly (which it has so far declined to do), and it could adopt rules for existing systems. Such rules could have a substantial effect on the “life-cycle” advantage of electricity generation using natural gas versus coal. Controlling fugitive methane from extraction will be in-

creasingly important as power generation relies more heavily on natural gas.

G. Hydrofluorocarbons

Under Title VI of the CAA, which helps implement the Montreal Protocol on Substances that Deplete the Ozone Layer, EPA may regulate Hydrofluorocarbons (HFCs), which are powerful GHGs and are used primarily for refrigeration and air conditioning. A phase-down of HFC has already been proposed, but it could be accelerated, yielding considerable GHG benefits.

II. ENERGY EFFICIENCY

President Obama has set a goal of doubling the economic output per unit of energy consumed in the United States by 2030 relative to 2010 levels. The Alliance Commission on National Energy Efficiency Policy has issued a report on how this proposed doubling could be achieved. Among the measures are making financing more easily available for energy-efficiency projects; supporting energy productivity innovation and market adoption; and applying innovative best practices to government buildings and vehicle fleets. Many state and local actions are also proposed. Some changes to the tax laws are included, but most of the doubling could be achieved using existing laws.

The Department of Energy (DOE) currently has authority under several statutes to promulgate energy efficiency for consumer appliances and nonconsumer equipment. The DOE established seventeen standards between 2009 and 2011. Many other standards could be issued, and the process for setting and updating these standards could be accelerated.

III. CONCLUSION

The measures described above could make substantial progress toward reducing GHG emissions. They are less efficient and comprehensive than could be achieved through congressional action, but for now the Obama Administration must work with the tools it has, and it has many.