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Federal Executive Actions To Combat Climate Change

"I urge this Congress to pursue a bipartisan, market-based solution to climate change, like the one John McCain and Joe Lieberman worked on together a few years ago. But if Congress won't act soon to protect future generations, I will. I will direct my cabinet to come up with executive actions we can take, now and in the future, to reduce pollution, prepare our communities for the consequences of climate change, and speed the transition to more sustainable sources of energy."

—President Barack Obama State-of-the-Union Message Feb. 12, 2013

In the current partisan atmosphere in Washington, there appears to be almost no chance that this Congress will take significant action on climate change. What, then, are the executive actions that the Obama administration can take with its existing legislative authority?

There are quite a few, it turns out. This column will discuss the most significant ones.

Clean Air Act

The most important authority derives from the Clean Air Act (CAA). In 2007, in

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By
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the landmark decision in *Massachusetts v. EPA*,¹ the Supreme Court held that greenhouse gases (GHGs) fall within the definition of "air pollutant" under the CAA, and that the Environmental Protection Agency (EPA) has the authority to regulate them.

Exercising that authority, EPA in December 2009 issued an "endangerment finding" that GHGs emitted from automobiles may reasonably be anticipated to 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 (PSD) program for 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.² En banc review was denied on Dec. 20, 2012.

Several bills to revoke EPA's authority passed the House of Representatives but

failed to advance in the Senate (and would likely have been vetoed by Obama in any event). Though a certiorari petition to the Supreme Court is expected later this month, EPA now has a clear path to proceed with further rulemaking. Obama's resolve to use this tool was reaffirmed by his announcement on March 4 that he is nominating Gina McCarthy, who has been head of EPA's CAA program, as the next Administrator of EPA.

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 (CO₂) from such plants. It set an emission standard that can readily be met by natural gas combined cycle units, but it cannot be met by plants that burn coal unless they are equipped with carbon capture and sequestration. That is a technology that is not yet in commercial application (though pieces of it are), and thus the proposed EPA rule would for now effectively bar the construction of new coal-fired power plants. (New York already has a very similar rule in place.) EPA has received 2.5 million comments on the proposed rule. Under a judicial settlement the final rule is due on April 12, 2013, but this date may slip.

Though not yet final, the proposed rule already drew one lawsuit. The petitioners argued that the proposal went beyond environmental regulation and essentially made a fuel choice, which, the suit claimed, was outside of EPA's authority. To almost no one's surprise, the suit was dismissed as prema-

ture on Dec. 13, 2012, without prejudice to renewal if and when the rule becomes final.³

The practical significance of this rule is quite limited, since very few new coal plants were being proposed anyway. That is mostly due to the low price and high supply of natural gas, the long list of non-GHG environmental regulations that create hurdles to 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 500 existing coal-fired plants. These facilities are far and away the largest source of GHG emissions in the United States; they account for 26 percent of such emissions; the second-largest source, light-duty motor vehicles, account for 16 percent.

Existing power plants. Under CAA Sec. 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 Sec. 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 failed to adopt an adequate SIP revision, or to enforce it, EPA could step in and issue a federal implementation plan (FIP). That is a long and complicated process.

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 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 would provide a good deal of flexibility in achieving the standards and thus would have some of the benefits of a cap-and-trade system (a method of achieving lower-cost emissions reductions that is now much reviled in some circles).

The most prominent of these proposals comes from the Natural Resources Defense Council (NRDC).⁴ Under it, EPA would set state-specific performance standards using national average emission rate benchmarks and a state-specific generation mix in a baseline period to produce state average fossil fuel emission rate standards. Each of these standards would become an emission guideline that would serve as a template for acceptable SIPs.

Another proposal is from the National Climate Coalition, which includes certain companies in the aerospace, electronics, manufacturing, cement, energy, oil and power sectors. It would utilize the CAA 111(d) authority but do so on a uniform national basis, without NRDC's state-specific rules. It calls on EPA to set fuel- and technology-specific emissions performance standards based on a determination of what reductions can be achieved "with commercially-available, cost-effective technology."⁵

One important pending rule-making concerns the new source performance standard (NSPS) for new fossil fuel-fired electric power plants.

Yet another idea that is being discussed would take advantage of the fact that many combined-cycle natural gas plants are now operating at less than full capacity (such as only during peak periods) because coal is still usually cheaper. In an effort to increase the use of these plants and correspondingly to reduce the use of the coal plants (but not decommission them entirely), a voluntary trading program would be created to allow generators to meet new 111(d) guidelines by ramping up their use of gas and ramping down their use of coal (or paying others to do so).

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 is the likely risk of a successful challenge to it as being beyond what CAA 111(d) and other laws allow.⁶ The U.S. Court of Appeals for the D.C. Circuit has a history of striking down EPA regulations under the CAA that do not meet its particular reading of the statute,⁷ and the outcome is often affected by the identity of the panel that is randomly assigned to any particular case.

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 refin-

eries, 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.

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 operations 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 specifying the maximum achievable control technology;⁸ 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 for fine particulates (PM 2.5). (Several pending EPA rules outside of the air pollution area could also be bad news for existing coal plants, depending on their final shape, especially rules on coal ash and on cooling water intake structures.)

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 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 them, 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. (Canada often adopts the U.S. vehicle standards, thus yielding an added benefit.)

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 categories, and more.

Also evolving are EPA's much-litigated renewable fuel standards, which will also lower GHG emissions.

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 certain types of oil extraction. This concern is heightened by the tremendous growth of the use of hydraulic fracturing techniques. In April 2012 EPA finalized rules that will reduce emissions of certain non-GHGs from new oil and natural gas systems; this 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 "lifecycle" advantage of electricity generation using natural gas versus coal. Controlling fugitive methane from extraction is especially important as power generation relies more heavily on natural gas.

A great deal of methane also escapes from coal mines. EPA could issue performance standards for new coal mines, and guidelines for states to regulate existing mines.

Municipal solid waste landfills are another source of methane emissions. Emissions of volatile organic compounds from landfills are already regulated under the CAA; this incidentally also captures a great deal of methane. These standards could be strengthened, or new standards could be promulgated specifically for methane.

Hydrofluorocarbons (HFCs). Under Title VI of the CAA, which helps implement the Montreal Protocol on Substances that Deplete the Ozone Layer, EPA may regulate HFCs, which are powerful GHGs and are used primarily for refrigeration and air conditioning. A phase-down of HFC has already been proposed, but this could be accelerated, yielding considerable GHG benefits. Moreover, the Department of State could press for further international reductions in HFCs and other ozone-depleting substances under the framework that led to the Montreal Protocol.

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. His proposed budget includes \$200 million in "Race to the Top" awards to support state govern-

ments that implement effective policies to reduce energy waste.

An energy efficiency advocacy group has issued a report on how this proposed doubling could be achieved. Some changes to the tax laws are included (such as adjusting depreciation schedules to encourage investments that increase energy productivity), but most of it could be achieved using existing laws. 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.⁹

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 operations of others.

The Department of Energy currently has authority under several statutes to promulgate energy efficiency for consumer appliances and non-consumer equipment. The Energy Department established 17 standards between 2009 and 2011. Many other standards could be issued, and the process for setting and updating these standards could be accelerated.

NEPA and SEC Analysis

In early 2010, two important initiatives were announced, but little has been heard of them since. The Council on Environmental Quality issued proposed guidance on the consideration of climate change under the National Environmental Policy Act. The guidance received numerous public comments but has not been put into final form.

The Securities and Exchange Commission also issued guidance on the disclosure of climate issues in the securities filings of public companies. There has been

very little publicly announced enforcement of this guidance.

What Could Be Accomplished

The World Resources Institute and the Pace Energy and Climate Center recently analyzed the emissions reductions that could be achieved by use of many of the measures described above. They studied three levels of ambition—"lackluster," "middle-of-the-road" and "go-getter"—and concluded that at the "go-getter" level, the United States could meet or exceed the pledge it made after the United Nations climate conference in Copenhagen in December 2009 of reducing GHG emissions by at least 17 per cent below 2005 levels by 2020. (This is considerably more ambitious than the goals set under the Kyoto Protocol in 1997 but never ratified by the United States.) Various actions by the states could help make up the slack if the federal government acts at the "middle-of-the-road" level. In the period after 2020, a continuation of "go-getter" federal actions and aggressive state actions will make further progress, but without federal legislation not enough reductions can be realized to meet emission reduction objectives for the ensuing decades.¹⁰

1. 549 U.S. 497 (2007).

2. *Coalition for Responsible Regulation v. EPA*, 684 F.3d 102 (D.C. Cir. 2012), en banc review denied, ___F.3d___ (D.C. Cir. 2012).

3. *Las Brisas Energy Center v. EPA*, ___F.3d___ (D.C. Cir. Dec. 13, 2012).

4. Daniel A. Lashof et al., "Closing the Power Plant Carbon Pollution Loophole: Smart Ways the Clean Air Act Can Clean Up America's Biggest Climate Polluters" (Natural Resources Defense Council, December 2012).

5. National Climate Coalition Slides, February 2013, provided by NCC counsel Robert Wyman of Latham & Watkins.

6. See Jeremy M. Tarr et al., "Regulating Carbon Dioxide under Section 111(d) of the Clean Air Act: Options, Limits, and Impacts" (Duke Nicholas Institute for Environmental Policy Solutions, January 2013). 7. E.g. *EME Homer City Generation v. EPA*, 696 F.3d 7 (D.C. Cir. 2012).

8. EPA published this rule on Feb. 16, 2012, but then re-opened portions of this rule.

9. Alliance Commission on National Energy Efficiency Policy, "Energy 2030: Doubling U.S. Energy Productivity by 2030" (Feb. 7, 2013).

10. Nicholas M. Bianco et al., "Can the United States Get There From Here? Using Existing Federal Laws and State Actions to Reduce Greenhouse Gas Emissions" (World Resources Institute, February 2013).