Some politicians and pundits have decried President Obama’s directive calling on the Environmental Protection Agency (EPA) to regulate greenhouse gas emissions (GHGs) from electric-generating units (EGUs) as an end run around Congress, an executive usurpation of power, part of a “war on coal,” and an unwarranted extension of the Clean Air Act, a law they assert is unsuited to GHG regulation. Rhetoric aside, a substantial legal rationale supports the president’s commitment.

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The Presidential Memorandum issued with the President’s Climate Action Plan merely directs the EPA to comply belatedly with existing settlement agreements applying existing law that was adopted by Congress with overwhelming bipartisan support and that requires the EPA to take the actions the president directs.
**MASSACHUSETTS v. EPA**

This result follows from the EPA having applied sound science to the Clean Air Act in accordance with the Supreme Court’s decision in *Massachusetts v. EPA*. Massachusetts held that carbon dioxide and other GHGs are “pollutants” subject to regulation under the Clean Air Act. The decision also held that the act would require the EPA to regulate GHG emissions from cars and trucks (“mobile sources”) under Section 202 of the Clean Air Act if the agency found, based on its best scientific judgment, that those emissions “cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.” The Court held that if GHG emissions met the “endangerment standard” triggering regulation under that section, the EPA was legally bound to regulate those emissions unless the EPA could find specific language in the act providing authority to refuse to regulate.

This result follows from the EPA having applied sound science to the Clean Air Act in accordance with the Supreme Court’s decision.

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The Court reversed the EPA’s denial of a rulemaking petition by states and environmental groups and remanded the matter to the EPA to consider whether GHG emissions satisfied that endangerment standard.

When the EPA, under the Obama administration, fully considered the science, the agency made the Endangerment Finding, denied a petition to reconsider that finding, and promulgated regulations governing GHG emissions from motor vehicles under Section 202. A panel of the US Court of Appeals for the Washington, DC Circuit unanimously affirmed the finding, the regulations, and related regulatory actions.

**LEGAL IMPLICATIONS OF THE ENDANGERMENT FINDING**

The implications of the Endangerment Finding and this science extend beyond mobile source regulation under Section 202. The precautionary endangerment standard triggering regulation of mobile sources appears throughout the Clean Air Act (CAA), mandating EPA regulation of emissions meeting that standard under many other sections. These include Section 111, under which the president directed regulation of fossil-fuel-fired EGUs in the Presidential Memorandum.

The implications of the Endangerment Finding and this science extend beyond mobile source regulation under Section 202.

Following *Massachusetts v. EPA*, EPA staff surveyed the implications of making an endangerment finding and regulating GHGs...
as pollutants under Section 202 of the Clean Air Act, and incorporated that analysis into an Advance Notice of Proposed Rulemaking (ANPR). There the EPA invited comment on the range of issues raised by regulating GHGs under the Clean Air Act, noting that “[s]imilar endangerment language is found in numerous sections of the CAA, including sections 108, 111, 112, 115, 211, 213, 231 and 615.” The following discussion made clear that, although there were somewhat different standards triggering regulation in those sections, an endangerment finding could lead to economywide regulation of GHG emissions.9

An endangerment finding could lead to economywide regulation of GHG emissions.

By the time the ANPR was issued, litigation and rulemaking petitions were pending that could lead to regulation under several of those other sections. The ANPR noted that pending litigation challenged the EPA’s failure to promulgate greenhouse gas emissions standards for new and existing electricity-generating units and refineries under Section 111 of the Clean Air Act. Petitions had already been filed under Sections “211, 213, and 231 to regulate GHG emissions from (1) fuels and a wide array of mobile sources . . .; (2) all other types of non-road engines and equipment . . .; (3) aircraft; and (4) rebuilt heavy-duty highway engines.”10

Since then, additional petitions have sought regulation under all remaining Clean Air Act sections cited in the ANPR. The Center for Biological Diversity (CBD) and 350.org filed a petition to list greenhouse gases as criteria pollutants under Section 108 of the Clean Air Act. That listing would lead to the establishment of National Ambient Air Quality Standards (NAAQS) for GHGs under Section 109 of the act, triggering economywide regulation pursuant to state implementation plans (SIPs) promulgated by states and approved by the EPA under Section 110.11 The Institute for Policy Integrity (IPI) of the New York University School of Law filed a petition seeking to force the EPA to initiate rulemaking to limit GHG emissions under the following authorities: Section 115 of the act, which requires regulation of international pollution meeting the endangerment standard; Title VI, requiring regulation of pollution interfering with stratospheric ozone; Section 111; and Title II.

The IPI contends the EPA should employ market-based cap-and-trade programs.

The IPI contends the EPA should employ market-based cap-and-trade programs under the authority cited in the ANPR.

Requirements for Regulation of New and Existing Utility Units Already Exist Under Section 111

Even before the president’s direction to the EPA to regulate GHG emissions from new and existing EGUs, settlement agreements in lawsuits seeking enforcement of the EPA’s regulatory obligations required that the agency establish GHG emissions standards from both new and existing EGUs and new and existing refineries. Those agreements imposed more aggressive schedules than the Presidential Memorandum.13

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States, cities, and environmental groups had challenged the EPA’s failure to regulate GHG emissions when it established new source performance standards (NSPS) under Section 111(b) of the Clean Air Act both for new and modified EGUs and for new and modified refineries. In the case of EGUs, the EPA had requested that the Court remand the EGU NSPS to the agency to allow it to reconsider its action in light of Massachusetts v. EPA.14 The EPA granted a petition by environmental groups for reconsideration of the
emissions standards for refineries while their challenge to the refinery NSPS was pending. The settlement agreements were reached after the states and environmental groups threatened suit challenging the EPA’s failure to act on the remand of the utility NSPS and reconsideration of the refinery NSPS.

These settlement agreements became effective only after notice in the Federal Register and the opportunity for public comment. The original settlement agreement for EGUs required the EPA to sign proposed NSPS for GHG emissions from new EGUs under Section 111(b) and emissions guidelines under Section 111(d) for GHG emissions from existing EGUs by July 26, 2011, and to sign a final rule by May 26, 2012. The parties amended the agreement to extend the date for the EPA to sign a proposed rule to September 30, 2011. The refinery settlement similarly required the EPA to propose emissions standards for new refineries and emissions guidelines for existing refineries by December 10, 2011, and to sign a final rule by December 10, 2012.

Despite these deadlines, the EPA has not proposed any GHG standards for refineries and has proposed no guidelines for modified or existing EGUs. Following the announcement of the settlements, the EPA held five listening sessions and accepted a second set of pre-rulemaking comments (having already received comments on the ANPR). On April 13, 2012, the EPA proposed a single emissions standard for new but not existing baseload and intermediate-load fossil-fuel-fired EGUs (natural gas, oil, and coal) based on the emissions that could be achieved by combined-cycle gas-generating units. More than two million additional comments were filed supporting and opposing that proposal.

After the EPA missed the Clean Air Act’s one-year deadline for taking final action on that proposal, states and several environmental groups notified the EPA of their intent to file suit to compel promulgation of the standard, as well as standards and guidelines for modified and existing EGUs. The states and groups took the position that the one-year deadline created an obligation to take action. Their opponents took the opposite position, contending that the proposal became void when the EPA failed to act.

Role of June 25, 2013, Presidential Memorandum

The Presidential Memorandum’s directive that the EPA propose a new emissions standard for new EGUs no later than September 20, 2013, and timely issue a final rule will avoid litigation over that side issue. The Presidential Memorandum requires that the EPA “address carbon pollution from modified, reconstructed, and existing power plants and build on State efforts to move toward a cleaner power sector,” directing that the EPA “issue proposed carbon pollution standards, regulations, or guidelines, as appropriate, for modified, reconstructed, and existing power plants by no later than June 1, 2014,” approximately three years after the deadline in the settlement agreement. The EPA must finalize those standards by June 1, 2015.

Other requirements in the Presidential Memorandum largely restate the unique requirements applicable to regulation under Section 111(d), which has rarely been used. Under Section 111(b), which has frequently been used, EPA issues federally enforceable emissions standards for new and modified “stationary sources.” By contrast, Section 111(d) calls for a greater role for the states.

Section 111(d) directs the EPA to prescribe regulations to govern “a procedure similar to that provided by section 7410” under which each state must submit to the EPA a plan that establishes “standards of performance” for existing sources of certain air pollutants and provides for the implementation and enforcement of such standards. Under regulations
adopted in 1975, the EPA will promulgate a “guideline document” setting forth the factors to be considered in establishing standards of performance, states will develop SIPs establishing standards of performance based on the guidelines, and EPA will then approve or disapprove the plan or promulgate a federal implementation plan. This process is similar to that whereby the EPA reviews SIPs developed by states to implement NAAQS.

The President’s Memorandum incorporates these requirements relating to state participation. To ensure timely reductions that will assist in meeting the commitment made at Copenhagen to a 17 percent reduction in emissions from 2005, the president directs the EPA to “include in the guidelines addressing existing power plants a requirement that States submit to EPA the implementation plans required under section 111(d) of the Clean Air Act and its implementing regulations by no later than June 30, 2016.” Given the role of the states, the president directs that “EPA launch this effort through direct engagement with States, as they will play a central role in establishing and implementing standards for existing power plants” and engage other stakeholders.

The President’s Memorandum also includes guidance, consistent with the statute, on factors that the EPA should consider in developing guidelines both for the structure of the emissions standards and their stringency. The president directs the agency to consider costs and cost-effectiveness and to “develop approaches that allow the use of market-based instruments, performance standards, and other regulatory flexibilities.” He further directs the agency to assure that the standards enable reliance on a range of energy sources and “ensure . . . the continued provision of reliable and affordable electric power for consumers and businesses.” The EPA must also work with “the Department of Energy and other Federal and State agencies to promote the reliable and affordable provision of electric power through the continued development and deployment of cleaner technologies and by increasing energy efficiency, including through stronger appliance efficiency standards and other measures.”

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**Issues About Emissions Reductions Required and Form of Guidelines—Cap-and-Trade Plans**

These directions give only limited guidance to the EPA regarding the novel issues involving the form of the program to be described by the guidelines for modified and existing EGUs and the basis for determining what emissions reductions can be required, given the unique properties of the system for delivering wholesale electricity in the United States. The Clean Air Act defines “standard of performance” identically for new and existing units as “a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.” Section 111(d) further provides that, in applying a standard of performance to any existing source, a state may “take into consideration, among other factors, the remaining useful life of the existing source.”

Section 111(d)’s reference to Section 110 suggests that Congress contemplated a system similar to that applied to existing sources by states in their SIPs to meet NAAQS. Through SIPs, states apply emissions reduction standards to existing sources on a case-by-case basis to assure that the states meet air-quality-based standards. States consider the cost-eff-
The issue is made more complicated by the nature of the wholesale electricity system, where individual units are not isolated but act as a part of a system. In wholesale electricity markets, the regional transmission system operator must match electricity generation to electricity supply. This matching is done using a competitive bidding program, where each unit submits a bid representing the minimum price it will accept for supplying electricity. As electricity demand increases, the transmission operator will call on increasingly expensive generation sources to participate as suppliers, and all suppliers will be paid the same amount charged by the participant with the highest minimum bid. “Demand response” can also be bid into the system, where parties are paid to reduce their demand, potentially being paid for conservation or efficiency.

Owners bid their lowest marginal cost of operation. If any cost is imposed on pollutant emissions, this increases a supplier’s minimum bid amount and shifts the order of dispatch to other sources of electricity generation (or demand response), so that control of an individual source may just shift dispatch to another uncontrolled source. If that uncontrolled source does not need to pay a cost for its pollution, there may be no net emissions reduction. If a unit retires, it will not be replaced by another unit using the same fuel, but will be replaced by one or more of the following: a mix of renewable electricity that generates no creditable emissions (water, wind, biomass, geothermal, and similar sources), zero emissions nuclear (including nuclear updates), energy efficiency and conservation, natural gas–fired generation, and more efficient or controlled oil- and coal-fired generation.

Every time the EPA has developed a program to control interstate emissions from the electricity generation sector under either Section 111(d) or to reduce interstate emissions to meet NAAQS, the EPA has prescribed a cap-and-trade program. When the EPA (unsuccessfully) attempted to remove EGUs from the list of industries whose hazardous air pollutants are regulated under Section 112 and, instead, proposed to regulate utility emissions under Section 111(d), the EPA found that a market-based cap-and-trade program itself represented the “best system of emission reduction” that has been adequately demonstrated.25

State pro-
grams limiting power-sector GHG emissions employ a similar system.

The Clean Air Act authorizes cap-and-trade programs. Section 110(a)(2)(A) provides that all SIPs must "include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights)." The EPA may impose a federal implementation plan (FIP) where a state does not submit an adequate SIP, and, by definition, a FIP may include "enforceable emission limitations or other control measures, means or techniques (including economic incentives, such as marketable permits or auctions of emissions allowances)." These references to “marketable permits” and “auctions of emissions allowances” authorize emissions limitations in the form of cap-and-trade programs.

INTEGRATION OF FEDERAL GUIDELINES WITH EXISTING STATE PROGRAMS

Under Section 111(d), each state will be responsible for creating emissions standards deemed most appropriate for that state. Although SIPs are subject to EPA approval, states retain significant flexibility, and the EPA will generally approve SIPs that incorporate standards that are no less stringent than the EPA’s guidelines. In crafting guidelines for state programs under the Presidential Memorandum, the EPA will need to consider the guidelines’ impacts on existing state programs.

California, pursuant to the Global Warming Solutions Act, and the nine states participating in the Regional Greenhouse Gas Initiative (RGGI) have established programs to regulate greenhouse gas emissions from baseload and intermediate-load fossil-fuel-fired EGUs. These existing programs employ a cap-and-trade program.

These existing state programs distribute virtually all emissions allowances by way of an auction with a reserve price, with provision for distribution of additional allowances if allowance prices exceed a certain price. Thus, these systems are based on the price of allowances. The states use the revenues from the auction to fund programs for consumer energy efficiency, the capital costs of alternative electricity generation, and consumer rate relief, programs that have, in the case of RGGI, generated economic growth and job creation.31

These states have submitted comments to the EPA requesting that their programs automatically be deemed to satisfy the EPA’s SIP approval criteria. As long as the budgets or caps in these programs are consistent with the caps that the EPA would establish, it is likely that the guidelines will make these programs eligible for approval.

In crafting guidelines, the EPA will need to consider the interstate impacts of potentially inconsistent state programs. There is a danger that a neighboring state that imposes only rate-based GHG emission limits (i.e., tons per megawatt-hour), without annual limits on tons of GHG emissions, could undermine the existing state programs. If a state imposes a rate-based limit without imposing a cost per ton of GHG emitted and without capping actual emissions, a fossil-fuel-fired facility in that state might export emissions into states with cap-and-trade programs, displacing generation by less-polluting facilities that must bear the cost of allowances. This situation could result in net increases in emissions, while also depriving the states with existing programs of auction revenues currently devoted to investment in energy efficiency and alternative energy and rate relief.

The EPA will also need to consider the guidelines’ impacts on existing low- or zero-emission facilities. If a state crafts a program that does not impose pollution costs that are borne by the generator and are based on tons of GHGs emitted, this arrangement could impair the investments of existing low- and zero-emission generating facilities, which, for the most part, simply “take” the marginal price of electricity provided by fossil-fuel-fired facilities. Devoting pollutant auction revenues to new investment, rather than using a mechanism such as a renewable portfolio standard, which transfers costs to consumers rather than pollution generators, will better protect existing
investments. The statutory charge to consider the existing life of generation facilities arguably requires that issues such as this be considered in crafting guidelines.

CONCLUSION

In directing the EPA to develop GHG emissions standards for all EGUs, the president is executing the existing law, as constitutionally required. The Clean Air Act was passed by a large majority each time it was presented to Congress, and there are insufficient votes to change it. Thus, the Climate Action Plan and Presidential Memorandum can be characterized as furthering democratic and constitutional principles, rather than the opposite, as claimed by some pundits.

Regardless of what the EPA does, controversy and litigation will follow.

The EPA must resolve major issues regarding the form of the emissions guidelines it will adopt for existing and modified EGUs. It can look to state programs that have a track record in reducing emissions while generating economic growth. It must be careful not to impair these programs or existing investment in low- and zero-pollution generating facilities. Regardless of what the EPA does, controversy and litigation will follow.

NOTES

12. IPI, Petition for Rulemakings and Call for Information under Section 115, Title VI, Section 111, and Title II of the Clean Air Act to Regulate Greenhouse Gas Emissions (Feb. 19, 2013).
15. See American Petroleum Institute, et al. v. EPA, No. 08-1277 (DC Cir.).
17. 42 U.S.C. § 7411(b)(1)(B)
22. 40 C.F.R. Part 60, Subpart B.
23. The Clean Air Act authorizes the EPA to prescribe a plan for a state if a state fails to submit a plan or submits an unsatisfactory plan, and to enforce a plan if a state fails to enforce its plan. 42 U.S.C. § 7411(d)(2).
24. Ibid. § 7411(a)(1).
27. 42 U.S.C. §§ 7410(c)(imposition of FIP), 7602(y)(definition of FIP).
30. Where states have overestimated the cap, as the RGGI states did initially, the reserve price acts like an emissions tax. Thus, criticisms that the president’s Climate Action Plan is a command and control approach are unfounded. See Tepid, timid: The world will one day adopt a carbon tax—but only after exhausting all the alternatives, (2013, June 29). Economist, p. 14.