

**Testimony of Richard Revesz  
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Before the Subcommittee on Energy and Power  
House Committee on Energy and Commerce  
Hearing on “EPA’s CO<sub>2</sub> Regulations for New and Existing Power Plants: Legal  
Perspectives”  
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**Introduction**

Thank you for inviting me to testify before this subcommittee. I am Richard Revesz, the Lawrence King Professor of Law and Dean Emeritus at New York University School of Law. At NYU Law School, I also serve as the Director of the Institute for Policy Integrity, a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. In addition, I am the Director of the American Law Institute, the leading independent organization in the United States producing scholarly work to clarify, modernize, and otherwise improve the law. The views I will express today are my own and do not represent the views, if any, of New York University or the American Law Institute.

I have written nine books and more than 70 articles and book chapters on environmental law, administrative law, and regulatory policy, and have twice won the American Bar Association’s yearly award for the best article or book in the areas of administrative law and regulatory practice. In particular, my recent work has focused on the Clean Air Act and on the regulation of greenhouse gases. My forthcoming book, *Struggling for Air: Power Plants and the “War on Coal”* (co-authored with Jack Lienke) describes how the Clean Power Plan is simply the natural extension of decades of Clean Air Act policies under administrations of both

parties to correct for the broad grandfathering of existing sources, including existing power plants, from the regulatory requirements of the Clean Air Act of 1970. It is not an unprecedented power grab by the current administration, as opponents argue. My recent articles include “Rethinking Health-Based Environmental Standards” in the *New York University Law Review* (co-authored with Michael Livermore), which focuses on the setting of National Ambient Air Quality Standards under the Clean Air Act, a piece in *Nature* co-authored with Nobel Prize winner Kenneth Arrow and leading economists, climate scientists and legal scholars, which analyzes the models used to evaluate the damages from greenhouse gas emissions, and “Toward a More Rational Environmental Policy,” in the *Harvard Environmental Law Review*, which focuses on two major Clean Air Act decisions from the Supreme Court of the United States.

I am also a public member of the Administrative Conference of the United States and have served on the Science Advisory Board of the U.S. Environmental Protection Agency (EPA) and on committees of the National Academy of Sciences and of the National Research Council.

In conjunction with my colleagues at the Institute for Policy Integrity, I have also filed *amicus curiae* briefs in significant Clean Air Act litigation, including a brief supporting EPA in the premature D.C. Circuit challenge to the proposed Clean Power Plan earlier this year.

My testimony before this subcommittee explains that EPA’s Clean Power Plan is well-justified under the Clean Air Act and the Constitution.

## Summary

EPA's flexible, cost-minimizing approach to setting performance standards for existing power plants is consistent with the Clean Air Act and the Constitution. It is not, as opponents argue, an unprecedented approach raising the prospect of economic calamity, but rather just another example of EPA doing its job to ensure that polluters account for the cost of their pollution in a manner that will result in substantial net economic benefits to the public.

My testimony covers four main topics:

- (1) EPA has clear authority to implement the Clean Power Plan<sup>1</sup> under Section 111(d) of the Clean Air Act;
- (2) EPA's proposed approach to setting standards under Section 111(d) is authorized by the statute and based upon demonstrated approaches that power companies have already taken to reduce greenhouse gas emissions;
- (3) The Clean Power Plan does not give rise to any constitutional problems; and
- (4) The Clean Power Plan will result in substantial net benefits, including significant public health benefits, with reasonable costs and a great deal of flexibility.

### **I. EPA Has Authority to Promulgate the Clean Power Plan Under Section 111(d) of the Clean Air Act**

The Clean Power Plan firmly rests within EPA's authority under Section 111(d) of the Clean Air Act. Interpreting Section 111(d) presents an unusual

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<sup>1</sup> Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Aug. 3, 2015) (to be published in *Federal Register*), available at <http://www3.epa.gov/airquality/cpp/cpp-final-rule.pdf> [hereinafter "Clean Power Plan Final Rule"].

situation because, in the 1990 Amendments, the House and the Senate each used different language in amending the same statutory provision, and the two amendments were never reconciled in conference.<sup>2</sup> The customary consistency check was never performed, and both amendments to the same provision appeared in the final bill coming out of the conference committee. Both amendments were approved by both chambers and signed by the President, and both amendments appear in the Statutes at Large.<sup>3</sup> Both amendments are, therefore, the law of the land.<sup>4</sup>

Opponents argue that EPA must ignore the Senate-originated amendment, even though it clearly permits the Clean Power Plan,<sup>5</sup> and that the House-originated amendment forbids EPA from issuing the Clean Power Plan because EPA has already issued hazardous air pollutant standards for power plants.<sup>6</sup> EPA finds that, under

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<sup>2</sup> Pub. L. No. 101-549, § 108(g), 104 Stat. 2399, 2467 (1990) (House-originated amendment); Pub. L. No. 101-549, § 302(a), 104 Stat. at 2574 (Senate-originated amendment).

<sup>3</sup> *Id.*

<sup>4</sup> The remainder of this testimony will refer to the “House-originated amendment” and the “Senate-originated amendment,” but it is important to remember that both versions of the amendment were passed by both chambers and signed by the President.

<sup>5</sup> The Senate-originated amendment reads “Section 111(d)(1) of the Clean Air Act is amended by striking ‘112(b)(1)(A)’ and inserting in lieu thereof ‘112(b).’” 104 Stat. at 2574. Inserted into the text of section 111(d), this amendment alone would limit the scope of section 111(d) to any air pollutant “for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or 112(b) . . . .”

<sup>6</sup> The House-originated amendment reads “Section 111(d)(1)(A)(i) of the Clean Air Act (42 U.S.C. 7411(d)(1)(A)(i)) is amended by striking ‘or 112(b)(1)(A)’ and inserting ‘or emitted from a source category which is regulated under section 112.’” 104 Stat. at 2467. Inserted into the text of section 111(d), this amendment alone would limit the scope of section 111(d) to any air pollutant “for which air quality criteria have not been issued or which is not included on a list published under

the most reasonable reading, both the House- and the Senate-originated Amendments allow for the Clean Power Plan, and in any case, the courts cannot ignore the Senate-originated amendment, which was passed by both chambers and signed by the President and clearly permits the Clean Power Plan. In particular, EPA finds that in the context of this rule, both the House-originated amendment and the Senate-originated amendment should be read to mean that, even if a source category is regulated under section 112, the non-hazardous-air-pollutants (that are also not covered by the National Ambient Air Quality Standards program) can be regulated by section 111(d).<sup>7</sup>

Opponents of the Clean Power Plan argue that the House-originated amendment must be read to prevent EPA from promulgating the Clean Power Plan.<sup>8</sup> However, as EPA has thoroughly explained in the final Clean Power Plan, the House-originated amendment is ambiguous, but is most reasonably read to allow the promulgation of this rule.<sup>9</sup> EPA acknowledges that the House-originated amendment is subject to multiple reasonable interpretations, but, especially given the structure and purpose of section 111(d), the most reasonable interpretation of

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section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title . . . .”

<sup>7</sup> Clean Power Plan Final Rule at 247, 270.

<sup>8</sup> Opponents argue that a footnote in a Supreme Court case, *American Electric Power v. Connecticut*, supports their position, but the most straightforward reading of that footnote supports EPA’s position. The footnote states “There is an exception: EPA may not employ §7411(d) if existing stationary sources *of the pollutant in question* are regulated under the national ambient air quality standard program, §§7408–7410, or the ‘hazardous air pollutants’ program, §7412. See §7411(d)(1).” 131 S. Ct. 2527, 2537 n.7 (2011) (emphasis added). This footnote focuses on whether sources are already regulated with respect to a particular pollutant (in this case, carbon dioxide, which is previously unregulated for power plants).

<sup>9</sup> See Clean Power Plan Final Rule at 256-70.

the House-originated amendment allows for the regulation of greenhouse gases from power plants.<sup>10</sup> In particular, EPA interprets the House-originated amendment to mean that section 111(d) does not cover hazardous air pollutants that are regulated under section 112, but does cover other pollutants, regardless of whether the source category is subject to section 112 standards.<sup>11</sup>

In contrast to opponents' desired reading, EPA's interpretation is consistent with the structure of section 111(d). Statutory interpretation must consider not just the text, but also the structure of the statute.<sup>12</sup> With respect to how section 111(d) fits into the structure of the Clean Air Act, criteria pollutants are regulated under section 109, while hazardous pollutants are regulated under section 112. Section 111(d) serves as a "gap-filling" section for pollutants that do not fall into either category. Also, it is clear that even under the opponents' reading, EPA could regulate pollutants under both section 111(d) and section 112 as long as the section 111(d) regulation came first. There is no plausible reason why Congress would have intended to allow this situation but prohibit regulating under both sections if the section 112 regulation precedes the section 111(d) regulation. These strong

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<sup>10</sup> *See id.*

<sup>11</sup> Clean Power Plan Final Rule at 266. This interpretation "reads the phrase 'regulated under section 112' as modifying the words 'source category' . . . but also recognizes that the phrase 'regulated under section 112' refers only to the regulation of [hazardous air pollutant] emissions." *Id.* at 266-67.

<sup>12</sup> *Brown v. Gardner*, 513 U.S. 115, 118 (1994) (quoted by *Fed. Drug Admin. v. Brown & Williamson*, 529 U.S. 120, 132-33 (2000)) ("Ambiguity is a creature not of definitional possibilities but of statutory context."); *see also* *Loving v. I.R.S.*, 742 F.3d 1013, 1016 (D.C. Cir. 2014) (instructing that a court "must employ all the tools of statutory interpretation, including . . . structure, purpose, and legislative history") (internal quotation omitted).

structural arguments help resolve the ambiguities arising from the House amendment.

The Senate-originated amendment provides additional support for EPA's interpretation that it is permitted to regulate power plants' carbon pollution under section 111(d). Opponents do not dispute that the Senate-originated amendment would allow EPA to issue the Clean Power Plan. In order to get around this point, opponents argue that EPA and the courts should ignore the will of Congress by pretending that this amendment does not exist, even though it that was passed by both chambers and signed by the President.

Opponents make several arguments as to why courts should ignore the Senate-originated amendment, none of which passes muster. First, opponents argue that because the House-originated amendment appears in the U.S. Code, it should be the controlling version. However, it is well-established that when the Statutes at Large and the U.S. Code conflict, the text in the Statutes at Large controls.<sup>13</sup> Further, their interpretive approach would rely on the administrative decision of a staff member in the Office of Law Revision Counsel to include just the House-originated amendment in the U.S. Code. But this staff member cannot supplant the will of Congress. In fact, to follow the approach urged by the opponents of the Clean Power Plan would lead to a serious constitutional problem. Law would be made without

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<sup>13</sup> See 1 U.S.C. §§ 112 & 204(a); *Stephan v. United States*, 319 U.S. 423, 426 (1943) (“[T]he Code cannot prevail over the Statutes at Large when the two are inconsistent”); *Five Flags Pipe Line Co. v. Dep’t of Transp.*, 854 F.2d 1438, 1440 (D.C. Cir. 1988) (“[W]here the language of the Statutes at Large conflicts with the language in the United States Code that has not been enacted into positive law, the language of the Statutes at Large controls.”). The Statutes at Large trump the U.S. Code until Congress has enacted the title at issue into positive law, which has not occurred for Title 42.

following the constitutional requirements of bicameralism (passage by both the House and the Senate) and presentment (signature by the President or veto override by Congress). The Supreme Court has made clear in *Immigration & Naturalization Service v. Chadha* that such arrangements are unconstitutional.<sup>14</sup>

Opponents also argue that the House-originated amendment should take precedence over the Senate-originated amendment because the Senate-originated amendment was labeled as a “conforming amendment” in the Statutes at Large. However, the “conforming” label is irrelevant. A “conforming” amendment may be substantive or non-substantive, and the courts give full effect to conforming amendments.<sup>15</sup> Moreover, the House-originated amendment is labeled as “Miscellaneous Guidance,” which lends no more substantive weight than the “conforming” label.<sup>16</sup>

Opponents further argue that the Senate-originated amendment should be ignored because of a line from the legislative history stating that the Senate “recedes to the House.”<sup>17</sup> Opponents misinterpret the meaning of this language. The numerous problems with relying on this language include the fact that the Senate managers explicitly indicated that the statement “was not reviewed or approved by all of the [members of the conference committee]”<sup>18</sup> and the fact that the language at issue only pertains to the section of the bill where the House-originated amendment appears and does not address the section where the Senate-originated amendment

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<sup>14</sup> 462 U.S. 919 (1983).

<sup>15</sup> *Burgess v. United States*, 533 U.S. 124, 135 (2008);

<sup>16</sup> *Washington Hospital Center v. Bowen*, 795 F.2d 139, 149 (D.C. Cir. 1986).

<sup>17</sup> See S. 1631, 101st Cong. § 108 (Oct. 27, 1990), reprinted in 1 Leg. Hist. at 885.

<sup>18</sup> See 1 Leg. Hist. at 880.



appears.<sup>19</sup> Perhaps most significantly, regardless of this language, the Senate-originated amendment remained in the text of the bill and was ultimately approved by both chambers and signed by the President. A statement in a Senate Report cannot override express statutory language. Thus, both of the amendments are part of the law and must be given effect.<sup>20</sup>

And even if one decided that it were permissible to ignore to ignore the Senate-originated amendment that was passed by both chambers and signed by the President, one would need to argue that the House-originated amendment is subject to a single meaning and deprive EPA of the deference that it is owed under the Supreme Court's well-known *Chevron U.S.A. v. NRDC* precedent when it interprets ambiguous statutory provisions.<sup>21</sup> EPA's interpretation that section 111(d) allows for the promulgation of the Clean Power Plan is clearly reasonable and should be afforded deference.

In addition to the statutory interpretation issue, opponents also argue that EPA lacks authority to issue the Clean Power Plan because "energy regulation" is traditionally the domain of the Federal Energy Regulatory Commissions or state utilities commissions, not EPA. However, EPA is not regulating "energy" here. It is, instead, regulating harmful emissions from producing electricity, as the Clean Air Act instructs it to do, and as it has done for decades. Regulating pollution from electrical generators necessarily indirectly affects energy by affecting, for example, the costs of production and which kinds of generation are cost-justifiable. But that is

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<sup>19</sup> *See id.*

<sup>20</sup> *See* *Env'tl. Def. Fund v. EPA*, 82 F.3d 451, 460 n.10 (D.C. Cir. 1996) (explaining that a statement of Senate Managers "cannot undermine the statute's language").

<sup>21</sup> *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842-45 (1984).

true for regulations of power plants under the Clean Air Act, going back to 1971. Moreover, section 111(a)(1), in defining the standards of performance that EPA should apply under section 111(d), instructs EPA to consider “energy requirements,” thereby showing that Congress understood that controlling air pollution control can affect the energy sector and expressly giving EPA the authority to take this factor into account.

In summary, EPA clearly has authority to regulate carbon emissions from power plants through the Clean Power Plan.

## **II. EPA’s Proposed Approach to Setting Performance Standards Under Section 111(d) Is Consistent with the Statute**

Opponents of the Clean Power Plan also raise the specter of EPA overreaching in its determination of the scope of the standards. In particular, opponents argue EPA cannot consider emissions reductions occurring “outside the fenceline” of a power plant in setting the standards under section 111(d).

It is first important to underscore that the Clean Power Plan does not require any state or any power plant to undertake any particular approach to reducing carbon emissions. All the plan does is set carbon emissions targets for a state, which the state then has the discretion to decide how to meet.<sup>22</sup> So the plan does not require any power plant to reduce emissions that it cannot control. EPA instead set state level targets based on what is achievable through the best system of emission reduction that has been adequately demonstrated, in accordance with the statute.

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<sup>22</sup> 79 Fed. Reg. 34,830, 34,833 (June 18, 2014).

Section 111(d) instructs EPA to “prescribe regulations” that “establish a procedure” under which states submit plans that establish “standards of performance” for existing sources of air pollutants that would be subject to regulation under section 111(b) if they were new sources. EPA traditionally meets these requirements by prescribing levels of emissions—“emission guidelines”—that states’ plans must achieve in order for the states standards of performance to be deemed satisfactory.<sup>23</sup> EPA uses the definition of “standard of performance” in section 111(a)(1) to determine the level of emission guideline to set under section 111(d).

Section 111(a)(1) requires EPA to consider several statutory factors in setting standards of performance. First, the approach must reflect “the degree of emission limitation achievable through the application of the best system of emission reduction.” Second, the determination of the best system must take into account “energy requirements.” Third, the best system must take into account “the cost of achieving such reduction.” Fourth, the best system must take into account “any nonair quality health and environmental impact.” Fifth, the Administrator must determine that the system has been “adequately demonstrated.”

Here, EPA has determined that the “best system of emission reduction” is the “combination of emission rate improvements and limitations on overall emissions at affected [electric generating units] that can be accomplished” through three sets of “building blocks”: (1) “Improving heat rate” at coal plants; (2) “Substituting increased generation from lower-emitting existing natural gas combined cycle units

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<sup>23</sup> See 40 C.F.R. § 60.22(b)(5).

for reduced generation from higher-emitting affected steam generating units;” and (3) “Substituting increased generation from new zero-emitting [renewable energy] generating capacity for reduced generation from affected fossil fuel-fired generating units.”<sup>24</sup> EPA clarifies that the “best system of emission reduction” consists of “the measures that the sources, viewed together and operating under the standards of performance established for them by the states, can implement to reduce their emissions to an appropriate amount, and that meet the other requirements for the [best system of emission reduction] including, for example, cost reasonableness.”<sup>25</sup>

By its terms, the “best” system of producing electricity rules out “worse” systems. So, it is consistent with section 111(a)(1) for EPA to base its determination of the best system of emission reduction on a shift from more carbon-intensive forms of electricity generation to ones that are less carbon-intensive. Notably, the product here is electricity, not electricity from coal, and decades of agency practice have shown that standards of performance under section 111 can involve shifting from a dirtier method of producing a product to a cleaner method of producing the same product.<sup>26</sup> For example, EPA has issued standards and guidelines requiring the

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<sup>24</sup> Clean Power Plan Final Rule at 230.

<sup>25</sup> *Id.* at 312.

<sup>26</sup> D.C. Circuit case law also supports the proposition that the proper inquiry is whether the regulated *industry* (not necessarily individual sources) can achieve the standard at costs that are not excessive. *See, e.g., See Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 389 (D.C. Cir. 1973) (“The essential question is whether the mandated standards can be met by a particular industry for which they are set . . . .”); *Essex Chm. Corp. v. Ruckelshaus*, 486 F.2d 427, 434 (D.C. Cir. 1973) (noting that an achievable standard “need not necessarily be routinely achieved with the industry prior to its adoption”); *Portland Cement Ass’n v. Train*, 513 F.2d 506, 508 (D.C. Cir. 1975) (upholding standard because the administrator had determined that costs were not “greater than the industry could bear and survive”); *Nat’l Lime Ass’n v. EPA*, 627 F.2d 416, 431 (D.C. Cir. 1980) (concluding that a reviewing court should

owners of solid waste combustors to implement recycling and materials-separation programs designed to reduce the use of the combustors themselves. The 1997 standards and guidelines for medical waste incinerators required the units' owners to develop waste management programs that could include "paper, cardboard, plastics, glass, battery, or metal recycling" and were designed to "reduce the volume of waste to be incinerated, and thereby reduce the amount of air pollution emissions associated with that waste."<sup>27</sup> EPA has also instituted similar requirements for the owners of solid waste incinerators and "other" incinerators.<sup>28</sup> As in those instances, where EPA determined that a standard of performance could involve shifting from a dirtier production method to a cleaner one, here EPA acted consistently with the statute when it determined the standard by reference to less carbon-intensive ways of producing electricity, instead of basing its standard on the best system of emission reduction for electricity produced solely from coal.

EPA's approach to designating the "best system of emission reduction" satisfies the statutory factors in section 111(a). First, EPA assessed the range of possible emissions reduction options that could qualify as a "system of emission

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consider whether administrative record "support[s] the 'achievability' of the promulgated standards for the industry as a whole"); *Sierra Club v. Costle*, 657 F.2d 298, 364 (D.C. Cir. 1981) (EPA has "authority to hold the industry to a standard of improved design and operational advances").

<sup>27</sup> Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators, 62 Fed. Reg. 48,348, 48,359 (Sept. 15, 1997). The waste management plans under this rule were not challenged and remained in place in spite of a remand of the rule following a suit that challenged other parts of the regulation. *See* 72 Fed. Reg. 5510 (Feb. 6, 2007).

<sup>28</sup> *See* Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units, 65 Fed. Reg. 75,338, 75,353, 75,366 (Dec. 1, 2000). EPA voluntarily remanded this rule without vacatur, but the waste management plans remained in place as revised rules were being developed. *See* 75 Fed. Reg. 31,938 (June 4, 2010).

reduction,” meaning a “set of measures that work together to reduce emissions and that are implementable by the sources themselves.”<sup>29</sup> Next, EPA determined which of these emission reduction options are “adequately demonstrated” based on the statutory language, legislative history, and D.C. Circuit case law.<sup>30</sup> Finally, EPA assessed these “systems of emission reduction” based on the other statutory and case law factors (including “amount of emission reduction, cost, non-air quality health and environmental impact and energy requirements”) to determine which “system of emission reduction” is the “best system of emission reduction.”<sup>31</sup>

As discussed, EPA’s first step in setting the standards involved determining which types of actions might be part of the “best system of emission reduction.” Building block 1 (heat rate improvements at coal plants) is uncontroversial as an element of the “best system of emission reduction” because it involves on-site improvements that can be achieved at a reasonable cost and has been applied at many plants in the past. As EPA explains, however, building block 1 cannot constitute the “best system of emission reduction” on its own because the other building blocks can reduce emissions even more extensively, consistent with the statutory requirements, and because building block 1 on its own could even

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<sup>29</sup> Clean Power Plan Final Rule at 517-18 (citing Oxford Dictionary of English (3rd ed.) (2010), *available at* [http://www.oxforddictionaries.com/us/definition/american\\_english/system](http://www.oxforddictionaries.com/us/definition/american_english/system); American Heritage Dictionary (5th ed.) (2013), *available at* <http://www.yourdictionary.com/system#americanheritage>; and The American College Dictionary (C.L. Barnhart, ed. 1970).

<sup>30</sup> Clean Power Plan Final Rule at 520.

<sup>31</sup> *Id.*

increase emissions through a “rebound effect,” whereby—in the absence of other policies—the plant owners use the plant more because it is more efficient.<sup>32</sup>

Opponents object more strongly to building blocks 2 and 3 because they cannot necessarily be achieved on-site at an existing plant. However, as EPA explains, legislative history and case law demonstrate that reductions need not necessarily be achieved on site, but can be achieved by the owner or operator of the plant contracting with others to achieve emission reductions. For example, Congress contemplated that owners or operators of plants might contract with others to pretreat fuels before combustion.<sup>33</sup> Nowhere does Section 111(d) limit standards of performance to technological, end-of-pipe requirements,<sup>34</sup> and indeed, Congress specifically removed a requirement that performance standards be technologically based in its 1990 Amendments.<sup>35</sup> Given the uniquely interconnected nature of the electricity sector, adding electricity to the grid from a cleaner generator will instantaneously result in a reduction in electricity generation (and therefore a reduction of emissions) at a dirtier generator. Here, the owners and operators of fossil-fuel fired plants can cause the generation of increased amounts of cleaner power through contractual arrangements, investments, and purchase, which will

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<sup>32</sup> Clean Power Plan Final Rule at 428-29,

<sup>33</sup> See 1977 Clean Air Act Amendments, § 109(b)(2)(c)(1), 91 Stat. at 700 (discussing precombustion cleaning of fuels); see also 42 U.S.C. § 7411 (a)(7). Further, *Sierra Club v. Costle* instructs that EPA is permitted to evaluate “cost, energy, and environmental impacts in the broadest sense—at the national and regional levels and over time as opposed to simply at the plant level in the immediate present.” *Sierra Club v. Costle*, 657 F.2d 298, 330 (D.C. Cir. 1981).

<sup>34</sup> *Sierra Club v. Costle*, 657 F.2d 298, 372–73 (D.C. Cir. 1981).

<sup>35</sup> Clean Air Act Amendments of 1990, Pub. L. No. 101-549, § 403(a), 104 Stat. 2399, 2631; compare Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 109(c)(1)(A), 91 Stat. 685, 699-700.

result in lower emissions.<sup>36</sup> For example, fossil-fuel plant owners can invest in renewable energy projects directly or buy renewable fuel credits or carbon permits on a market.

After determining that blocks 2 and 3 can be considered part of a “system of emission reduction,” EPA explains that blocks 2 and 3 are “adequately demonstrated.” In particular, these building blocks satisfy the statutory requirement because “fossil fuel-fired [electric generating units] have long implemented, and are continuing to implement, the measures in building blocks 2 and 3 for various purposes, including for the purpose of reducing CO<sub>2</sub> emissions—and certainly always with the effect of reducing emissions.”<sup>37</sup> For example, power plants in many states have directly invested in renewable energy and purchased renewable energy credits to satisfy renewable portfolio standards, and have purchased carbon credits through carbon trading mechanisms like the Regional Greenhouse Gas Initiative.

In addition to these three building blocks, EPA identified other potential approaches that could be considered elements of the “best system of emission reduction.” After identifying the possible components of the “system of emission reduction” that have been “adequately demonstrated,” EPA assessed which of the possible components were “best” based on the statutory factors in section 111(a) and its case law.<sup>38</sup> By conducting this assessment, EPA eliminated certain possible approaches from the “best system of emission reduction.”

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<sup>36</sup> See Clean Power Plan Final Rule at 552-53.

<sup>37</sup> *Id.* at 556.

<sup>38</sup> *Id.* at 596-601.



Through this analysis, EPA found that its choice of “a system of emission reduction that will reduce the amount of [sources’] emissions without reducing overall electricity generation” properly incorporates the relevant statutory factors. In particular, this approach “takes into account costs by minimizing economic disruption as well as the nation’s energy requirements by avoiding the need for environmental-based reductions in the aggregate amount of electricity available to the consumer, commercial, and industrial sectors.”<sup>39</sup>

EPA also further considered the specific statutory factors under section 111(a) with respect to the individual building blocks. As part of this assessment, EPA considered costs in determining which elements to make part of the “best system of emission reduction.” Case law prohibits EPA from imposing excessive costs, but EPA has wide discretion with respect to the manner in which it considers costs.<sup>40</sup> Among other considerations, the agency assessed which building blocks could be applied at a reasonable cost—finding that blocks 1, 2, and 3 could be applied in this manner. The agency further set the stringency and timing of emission reductions for each block based upon what is achievable at a reasonable cost, rather than the maximum achievable amount.<sup>41</sup> Additionally, the combination of building blocks, as well as the combination of options for compliance, further lowers costs.<sup>42</sup>

EPA also considered energy requirements. Building block 2 is expected to use less energy than building block 1, since natural gas combined cycle plants consume

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<sup>39</sup> *Id.* at 601.

<sup>40</sup> *See* *Sierra Club v. Costle*, 657 F.2d 298, 330 (D.C. Cir. 1981).

<sup>41</sup> *Id.* at 443-44.

<sup>42</sup> *Id.* at 443-44, 445-59.

less fuel.<sup>43</sup> With respect to building block 3, the agency notes that fossil-fuel consumption will decrease through applying this building block and that renewables will be able to supplant the difference.<sup>44</sup> EPA notes that the variability in renewable energy needs to be addressed but explains that grid operators are becoming increasingly adept at handling such fluctuations and that the “reliability safety valve” addresses any remaining concerns.<sup>45</sup>

EPA also considered nonair quality health and environmental impacts. EPA found that building blocks 2 and 3 would likely have favorable effects on nonair quality health and environmental impacts by limiting water and solid waste pollution from coal plants.<sup>46</sup>

After assessing the relevant factors, EPA determined that a combination of the three building blocks—(1) improving heat rate; (2) substituting increased natural gas generation for higher-emitting coal generation; and (3) substituting increased renewable energy generation for higher-emitting fossil-fuel generation—would achieve greater emission reductions at a lower cost than the blocks separately and therefore constitutes the best system of emission reduction that is adequately demonstrated.<sup>47</sup> This determination is well-justified under the statute and the factual record before EPA concerning the particular source category and pollutant at issue.

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<sup>43</sup> Clean Power Plan Final Rule at 434-35.

<sup>44</sup> *Id.* at 441.

<sup>45</sup> *Id.*

<sup>46</sup> *Id.* at 434, 441.

<sup>47</sup> *Id.* at 460-61.

### **III. EPA's Clean Power Plan Passes Constitutional Muster**

Opponents of the Clean Power Plan argue that it gives rise to constitutional problems. Their most frequent complaint is that the Clean Power Plan runs afoul of the Tenth Amendment's prohibition against the commandeering of state institutions by the federal government. This argument is misguided and, if sustained, would invalidate many of the core provisions of the Clean Air Act, not only Section 111(d) on which the Clean Power Plan rests. The standard approach of the Clean Air Act is for the federal government to establish statewide pollution reduction requirements and for the states to then choose how to allocate the burden of this reduction among sources in their jurisdiction. And if a state declines to take action, the federal government imposes requirements directly on polluters within the state. As a result, no state institution is commandeered. The states are merely given the option of allocating the pollution burden among polluters. If they choose not to do so, EPA promulgates a federal plan, which it clearly has the constitutional power to do, and which does not raise any Tenth Amendment problem because it does not impose any requirements on state institutions. That, for example, is the approach under the National Ambient Air Quality Standards, which are the Clean Air Act's centerpiece. The relationship between states and EPA under section 111(d) is structured similarly to this approach for National Ambient Air Quality Standards laid out in section 110. In fact, section 111(d) instructs that "[t]he Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section [110]" for implementing regulations under section 111(d).

And, indeed, this cooperative federalism approach used for decades under the National Ambient Air Quality Standards program is the approach that the Clean Power Plan takes. States have a choice as to whether or not to submit a state plan, as well as which portions of the state plan to submit.<sup>48</sup> If a state fails to submit an adequate state plan, EPA will apply a federal plan to the sources in the state. If a state submits a partial state plan, the federal plan will apply to those portions of the plan that are inadequate.<sup>49</sup> EPA's recently proposed rule on federal plan requirements makes clear that the federal plan will be equivalently stringent to the state plans,<sup>50</sup> and that states will be able to take over control of the plan from the federal government once they institute an adequate state plan.<sup>51</sup>

The Clean Power Plan is not like the requirement invalidated in *New York v. United States*,<sup>52</sup> under which states either had to take title to nuclear waste or had to enact particular regulations. Nothing is required of the states under the Clean Power Plan; they are just given an option to act. Neither does the Clean Power Plan give rise to a situation like that in *National Federation of Independent Business v. Sebelius*, the first Supreme Court review of the Affordable Care Act.<sup>53</sup> There, the Court deemed the federal requirement "so coercive as to pass the point at which 'pressure

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<sup>48</sup> Federal Plan Requirements for Greenhouse Gas Emissions from Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations at 14-29 (Aug. 3, 2015) (to be published in *Federal Register*), available at <http://www3.epa.gov/airquality/cpp/cpp-proposed-federal-plan.pdf> [hereinafter "Proposed Federal Plan"].

<sup>49</sup> *Id.* at 18-19.

<sup>50</sup> *Id.* at 27-28.

<sup>51</sup> *Id.* at 33.

<sup>52</sup> 505 U.S. 144 (1992).

<sup>53</sup> 132 S. Ct. 2566 (2012).

turns into compulsion.”<sup>54</sup> One of the factors that the Court considered was that the program at issue threatened to withhold existing Medicaid funding from states if they failed to comply, potentially amounting to over 10 percent of a State’s overall budget.<sup>55</sup> Here, the Clean Power Plan explicitly provides that federal funding will not be withheld from states that decline to comply. Moreover, the proposed federal plan makes it clear that states will not be penalized in any fashion for failing to submit a state plan. The targets in the proposed federal plan are the same targets that states will have to meet under state plans.<sup>56</sup> The proposed federal plan provides for flexible trading options for states that become subject to a federal plan; the proposed federal plan is even designed to alternatively serve as an optional model trading rule for states that would like to adopt such flexible options under their state plans.<sup>57</sup>

Even before the final Clean Power Plan rule was released, a number of states indicated that they were considering not preparing state implementation plans in response to the Clean Power Plan, thereby acknowledging that they have a choice about whether to develop a state plan or instead be subject to a federal implementation plan.<sup>58</sup> Whatever else might be at issue here, it is definitely not the “compulsion” that was found problematic in *NFIB v. Sebelius*.

Instead, the Clean Power Plan, is a run-of-the-mill example of cooperative federalism that is common under the Clean Air Act and that is totally

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<sup>54</sup> *Id.* at 2604.

<sup>55</sup> *Id.* at 2604-05.

<sup>56</sup> Proposed Federal Plan at 15-16.

<sup>57</sup> *Id.* at 16-20.

<sup>58</sup> See, e.g., Emily Holden, *What Consequences Await States That “Just Say No” to EPA Carbon Rule?*, ENERGYWIRE (July 30, 2015).

unproblematical. The Clean Power Plan is not some unconstitutional invention of the Obama administration.

**IV. The Clean Power Plan is expected to create significant net benefits, including major public health benefits, with reasonable costs and a substantial flexibility**

By 2030, the Clean Power Plan is projected to result in \$26-\$45 billion in net benefits, including climate benefits of \$20 billion and health benefits of \$14-\$34 billion (compared to costs of \$8.4 billion).<sup>59</sup> As part of these benefits, in 2030 and every year after that, the Clean Power Plan is expected to avoid: 3,600 premature deaths; 1,700 heart attacks; 90,000 asthma attacks; and 300,000 missed days of work and school.<sup>60</sup> The Clean Power Plan will result in a substantial net benefit to society.

In contrast to the large benefits, the costs of the plan are expected to be manageable, especially given the flexibility and extended compliance period of the plan. The Clean Power Plan's targets are in line with the power sector's existing, ongoing downward trends in greenhouse gas emissions. The rule is expected to reduce emissions of carbon dioxide from the power sector to 32 percent below 2005 levels by 2030;<sup>61</sup> in comparison, the sector has already reduced emissions of carbon pollution to 15 percent below 2005 levels.<sup>62</sup> Thus the sector is already almost

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<sup>59</sup> Final Clean Power Plan at 92-95.

<sup>60</sup> U.S. Environmental Protection Agency, "Overview of the Clean Power Plan: Cutting Carbon Pollution from Power Plants," August 3, 2015, accessed October 19, 2015, <http://www.epa.gov/airquality/cpp/fs-cpp-overview.pdf>.

<sup>61</sup> *Id.*

<sup>62</sup> U.S. Energy Information Agency, "July 2015: Monthly Energy Review," July 28, 2015, accessed October 19, 2015, <http://www.eia.gov/totalenergy/data/monthly/index.cfm>.

halfway towards achieving the final Clean Power Plan target, even before federal standards have been put in place. In fact, from 2005 to 2012 alone, carbon dioxide emissions from the power sector declined by at least 25 percent in 16 states, and by more than 40 percent in nine states.<sup>63</sup>

In addition, the reductions called for in the Clean Power Plan are gradually phased in over the lengthy compliance timeframe laid out in the Clean Power Plan. The first compliance period does not begin until 2022, and full compliance is not required until 2030. States have substantial flexibility in determining their interim compliance targets, so long as the overall targets are met. For example, EPA's analysis shows that all states can meet their interim state goals by 2029 even if they do not require any emission reductions from their covered units in 2022.<sup>64</sup>

Technologies to achieve these carbon pollution standards are already available and highly cost-competitive. Since 2007, the price of solar photovoltaic modules has fallen by more than 80 percent.<sup>65</sup> A number of solar photovoltaic

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<sup>63</sup> U.S. Environmental Protection Agency, "State CO<sub>2</sub> Emissions from Fossil Fuel Combustion, 1990-2012", 2014, accessed October 19, 2015, [http://www.epa.gov/statelocalclimate/resources/state\\_energyco2inv.html](http://www.epa.gov/statelocalclimate/resources/state_energyco2inv.html).

<sup>64</sup> EPA, LEGAL MEMORANDUM ACCOMPANYING CLEAN POWER PLAN FOR CERTAIN ISSUES, 152 (August 2015) ("[T]he EPA notes that under this rulemaking, all states can meet their interim state goals by 2029 even if they do not require any emission reductions from their fossil steam EGUs or NGCC units in 2022. . . . In other words, states have the flexibility not to require any emission reductions on the front end of the compliance period, and more on the back end and still comply with the interim rate.").

<sup>65</sup> Bloomberg New Energy Finance and Business Council for Sustainable Energy, "Sustainable Energy in America: 2015 Factbook," February 2015, slide 51, accessed October 19, 2015, <http://www.bcse.org/wp-content/uploads/2015-Sustainable-Energy-in-America-Factbook.pdf>; *see also* David Feldman et al., "Photovoltaic System Pricing Trends," September 22, 2014, accessed October 19, 2015, <http://www.nrel.gov/docs/fy14osti/62558.pdf>.

projects are producing power at a cost of just 3.87 to 6.5 cents per kilowatt hour.<sup>66</sup> These prices are well below the cost of new coal generation, and some projects are comparable to the cost of new gas generation even without the Investment Tax Credit.<sup>67</sup> More generally, natural gas and renewables have in total accounted for 93 percent of all new generation since 2000.<sup>68</sup>

The flexibility in the Clean Power Plan allows states to select cost-effective options for compliance. EPA proposed federal plan includes two model rules illustrating two potential approaches that would allow states to harness the benefits of interstate trading by enabling trading among mutually compatible state plans. Adopting such “trading ready” plans would allow power companies and states to work together to achieve emissions reductions across the interconnected electric grid, without the need to formally adopt a joint compliance plan among multiple states. The feasibility and cost-effectiveness of market-based approaches to emission control is well-established and has been demonstrated by EPA programs, spanning Republican and Democratic administrations alike, to address acid rain and interstate air pollution transport, among others. The result is a plan that is expected

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<sup>66</sup> Herman Trabish, “NV Energy buys utility-scale solar at record low price under 4 cents/kWh,” July 9, 2015, accessed October 19, 2015, <http://www.utilitydive.com/news/nv-energy-buys-utility-scale-solar-at-record-low-priceunder-4-centskwh/401989/>; Eric Wesoff, “Solar at Grid Parity in Utah, A Coal State With No Renewable Standard,” June 23, 2015, accessed October 19, 2015, <http://www.greentechmedia.com/articles/read/Solar-at-Grid-Parity-in-Utah-a-Coal-State-With-No-RPS>.

<sup>67</sup> Nicholas Bianco *et al.*, “Seeing is Believing: Creating a New Climate Economy in the United States,” 12, 14, 29, October 2014, accessed October 19, 2015, <http://www.wri.org/publication/seeing-believing-creating-new-climate-economy-unitedstates>.

<sup>68</sup> U.S. Energy Information Administration, “2013 Form EIA-860 Data - Schedule 3, 'Generator Data' (Operable Units Only),” February 17, 2015, accessed October 19, 2015, <http://www.eia.gov/electricity/data/eia860/index.html>.



to involve an increase of only four percent in the cost of meeting electricity demand, while securing large public health and welfare benefits.<sup>69</sup>

## **Conclusion**

I am very grateful to have been invited to testify today and will be delighted to answer any questions you might have.

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<sup>69</sup> EPA, REGULATORY IMPACT ANALYSIS FOR THE CLEAN POWER PLAN FINAL RULE, 3-22 to 3-23 (2015), *available at* <http://www3.epa.gov/airquality/cpp/cpp-final-rule-ria.pdf>.