ENVIRONMENTAL PROTECTION AGENCY

REPEAL OF CARBON POLLUTION EMISSION GUIDELINES FOR EXISTING STATIONARY SOURCES: ELECTRIC UTILITY GENERATING UNITS

82 Fed. Reg. 48,035 (Oct. 16, 2017)

EPA-HQ-2017-0355

COMMENTS OF THE NATIONAL MINING ASSOCIATION

April 26, 2018

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OVERVIEW

The National Mining Association (NMA) appreciates the opportunity to submit these comments on EPA's proposal to repeal the Clean Power Plan (CPP).[1] NMA is a non-profit, incorporated national trade association whose members include the producers of most of America's coal, metals, and industrial and agricultural minerals; manufacturers of mining and mineral processing machinery, equipment, and supplies; and engineering and consulting firms that serve the mining industry.

NMA applauds EPA for proposing to repeal the CPP. The CPP is agenda-driven regulation devoid of a basis in Congressionally-enacted law. The history is familiar. Then President Obama decided the country should make dramatic reductions in greenhouse gas (GHG) emissions, he tried but failed to obtain legislation to implement his policy desires from Congress, and so he directed the Environmental Protection Agency (EPA) to adopt regulations that would achieve his aims anyway. But under our system of government, the President executes the laws; he does not make the laws. EPA's proposed repeal of the CPP is thus a welcome return to the way our constitutional system of government is supposed to work.

The CPP, moreover, is an impermissible intrusion into authority Congress preserved for the States. The Clean Air Act (CAA) created a system of shared authority by EPA and the States. Nowhere is this truer than in section 111(d), which provides for EPA to promulgate a "procedure" for States to adopt plans containing State-determined substantive standards of performance. But the CPP is far more than procedural; it seeks to dictate to States the substantive standards of performance they must adopt. And EPA deliberately set those standards

[1] Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035 (Oct. 16, 2017).

at levels that would force States to mandate the retirement of numerous coal-fueled electric generating units, even if the State thought that policy unwise. Indeed, the whole purpose of the CPP is to use States as tools to carry out EPA's objective of reengineering the entire electric grid by, in EPA's oft-repeated phrase, "shifting generation" from fossil fuels to renewable resources. But under section 111(d), and under the Constitution, States are not mere agents of the federal government. Repeal of the CPP thus also represents a welcome return to the federalist system set forth in the CAA based on the respective roles of the federal and State governments as prescribed in the Constitution.

If allowed to go into effect, the CPP would cause enormous harm to the United States. It is based on the misguided notion that the nation must stop using fossil fuels because these fuels are harmful to the public interest. In fact, the opposite is the case. As the new Administration recognized in Executive Order 13783, the United States is an energy-rich country and the use of domestically produced energy is an outcome the federal government should promote, not discourage. In particular, as the nation's most abundant supply of energy, coal has for many decades provided a low-cost and reliable source of electricity that benefits all Americans. It has also provided for hundreds of thousands of good-paying, blue-collar jobs. By the simple yet unalterable law of supply and demand, phasing out fossil fuels will limit the supply of energy and increase its price. And the dramatically increased energy prices that would thus result from the CPP are tantamount to a gigantic regressive tax, harming lower-income people most of all. At a time when the nation has become increasingly concerned about income inequality, and has begun to recognize the public health risk that comes with unemployment, economic dislocation, and low-paying jobs, the CPP was exactly the wrong government policy at the wrong time.

Indeed, from a public health and welfare perspective, the CPP can only be described as

heartless, even cruel. Coal has been the foundation of communities across the nation that are located in rural areas and do not have access to other sources of good-paying jobs. Coal industry wages and benefits are typically significantly better than other blue-collar jobs, and the industry creates much needed economic benefits and sorely needed tax revenue to fund state and local government services. Even with these benefits, coal communities, given their other disadvantages, typically have lower average incomes, higher poverty rates, and higher rates of illness and death than the nation as a whole. Yet the previous administration's policies acted like a scythe through the coal industry, resulting in large-scale layoffs, company and personal bankruptcies, and an increasing cycle of depression and despair. If a policy could have been designed to deliberately worsen the difficult conditions in coal communities across the nation, the CPP would be it.

From the beginning of the Obama EPA's anti-coal crusade, EPA deliberately lowballed its estimate of the impact its regulations would have on the coal industry, as if regulations intended to dramatically cut back the use of coal would not have that exact effect. In the Mercury and Air Toxics (MATS) rule, for instance, EPA predicted that rule would result in less than 5 gigawatts (GW) of coal retirements,[2] while the actual result turned out to be nearly ten times that high.[3] When EPA issued the CPP, EPA downplayed the number of units that the rule would force into retirement by burying in the mountain of supporting information its base case prediction of a large number of near-term coal unit retirements even without the CPP.[4] Those retirements had not been announced by utilities nor forecast by Energy Information

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[2] MATS Regulatory Impact Analysis at 3-17.

[3] *See* report of Energy Ventures Analysis entitled "Impact of the Clean Power Plan on the U.S. Power Sector" (EVA 2018 Report), attachment 1 hereto.

[4] Energy Ventures Analysis, "Evaluation of the Immediate Impact of the Clean Power Plan Rule on the Coal Industry," October 2015 ("EVA 2015 Report"), attachment 2 hereto, at 22-24.

Administration (EIA). EPA included these phantom retirements in its base case in order to minimize the number of coal unit retirements that could be attributed to the CPP. Also buried in this data was EPA's prediction that the CPP would cause a large number of additional retirements as early as 2016,[5] a conclusion that EPA then tried to divorce itself from when it was brought to light.[6]

But the true effect of EPA's regulatory agenda against coal cannot be hidden. Since the Obama administration took office, more than 100 GW of coal-fueled electric generation have either retired or converted to another fuel or announced their intention to do so in the near future.[7] This represents one-third of the coal fleet in existence in 2010.[8] Most of these retirements and conversions have been attributed by their owners to EPA regulation.[9] Power sector coal consumption has plummeted, from a near historical high of 1,040,600,000 tons in 2008 right before the Obama administration took office to 677,300,000 in 2016 as it departed.[10] The result has been layoffs and economic devastation throughout the small communities of coal country. Direct coal employment is now nearly half of what it was in 2011.[11]

Proponents of the CPP, who once trumpeted the rule as "historic" and "transformative" have more recently advanced the view that the CPP would not be particularly impactful at all because, they claim, coal is already in an irreversible decline. But government statistics belie

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5 EVA 2015 Report. Attachment 2 hereto, at 60-63.

6 Respondent EPA's Opposition to Motions to Stay Rule, *West Virginia v. EPA*, No. 15-1363 (D.C. Cir., filed Dec. 3, 2015) at 64-66.

7 American Coalition for Clean Coal Electricity, "Retirement of Coal-Fired Electric Generating Units, Status as of June 17, 2017," available at http://www.americaspower.org/issue/coal-fired-unit-retirements-2/.

8 *Id.*

9 *Id.*

10 Source: NMA statistics.

11 Mine Safety and Health Administration, *Mine Safety and Health at a Glance Fact Sheet* and Part 50 Quarterly Reports.

that assertion. NMA asked the consulting firm Energy Ventures Analysis (EVA) to examine the most recent Annual Energy Outlook (AEO 2018) to determine EIA's conclusions as to the impact the CPP would have if implemented. As detailed in the EVA report,[12] EIA concluded that, without the CPP, the years of declining coal use for electric generation under the previous administration would cease as the Obama EPA regulations are fully implemented. Coal use for electric generation would level off, ***except if the CPP goes into effect***. With the CPP, instead of coal use stabilizing, it would decline even more, by another 19% in 2030 (compared to the no-CPP case), growing to 20% by 2040. The cumulative reduction in coal burn for power generation over the 20-year period 2021-2040 would ***be 1.7 billion tons***, again in addition to the reductions resulting from the previous administration's regulations. And these reductions would be even higher under reasonable alternative scenarios of future power markets where, for instance, natural gas prices prove to be higher than EIA currently forecasts, economic growth exceeds the fairly anemic EIA forecasts, or the pace of nuclear retirements accelerates.

Indeed, the unavoidable uncertainty as to how power markets would develop in the coming decades without the CPP highlights the critical nature of that rule in defining the future of the American grid. The CPP is a hard cap on power sector CO_2 emissions and therefore a hard cap on the use of coal for electric generation. The rule thus imposes a significant constraint on the future power sector no matter how the grid would otherwise develop as a result of market forces. Market forces become irrelevant; government policy will have dictated the further significant decline of coal. That, of course, was the whole point of the CPP.

Losing more coal generation because of the CPP will inevitably result in higher electric rates for consumers, as new capital must be invested to build natural gas and renewable resources

[12] *See* EVA 2018 Report, attachment 1 hereto.

and associated infrastructure to replace fully depreciated coal plants. The total increase in retail power costs over the 20-year period 2021-2040 would be $148 billion in constant 2017 dollars. At the projected reduction in CO_2 emissions, the cost per ton of CO_2 emissions reduced would be $46.17 per metric ton, much higher than the social cost of carbon values that EPA used when adopting the CPP and even more so as compared to the values EPA used in the proposed repeal. These costs do not include the cost of energy efficiency programs that States will adopt to mitigate CPP compliance costs (estimated at about $35.9 billion) nor the likely even higher cost of the electric transmission build-out that will be needed by the new renewable resources that the CPP relies on. Again, these impacts could be even higher under further alternative scenarios.[13]

Concerns about global climate change do not counsel against repealing the CPP. As calamitous as the rule is for the U.S. economy in general and coal in specific, the rule creates virtually no climate benefit. While EPA chose not to inform the public of the forecasted climate impacts of the rule, that information can easily be estimated using models that assume the climate is as sensitive to CO_2 as EPA believes. Using these models, the CPP would avoid temperature increases of just a couple of a hundredths of a degree Celsius and sea level rise equal to no more than a couple of sheets of paper.[14] Undeterred by these numbers, EPA claimed that the CPP would create tens of billions of dollars of climate benefits by using inflated Social Cost of Carbon (SCC) numbers,[15] but it never explained how these high values can be assigned to such minuscule reductions in temperature and sea level rise. The reality is that the benefits of the

[13] *See* EVA 2018 Report, attachment 1 hereto.

[14] *See* discussion below at section VII.A.1.

[15] Regulatory Impact Analysis for the Clean Power Plan Final Rule (Aug. 2015) at ES-20 – ES-21.

CPP are vanishingly small, whereas the real-world cost of the rule is extremely high.[16]

Indeed, the United States has long ceased being a leading cause of the build-up of global atmospheric CO_2 concentrations. Domestic energy-sector carbon emissions, even without the CPP, have been declining since the recession of 2008. At the same time, developing country emissions have accelerated and now far exceed those of the United States. This is why climate models show the CPP will have so little real-world impact.

Moreover, even if the cost-benefit balance was not so decisively in favor of repeal, the fact remains that no amount of concern about global climate change can justify departing from the rule of law. In the end, like all administrative agencies, EPA is a creature of statute and has only those powers Congress specifically gives it.[17] And those who invoke *Massachusetts v. EPA*[18] as giving EPA some special mandate to regulate GHGs however it may choose ignore the high court's subsequent decision in *Utility Air Regulatory Group v. EPA*. As the Court found in this latter case, the fact that GHGs are "air pollutants" under the CAA (at least for some purposes) does not give the agency authority to depart from the language, context, and purpose of the particular CAA provision EPA is invoking and regulate any way it wants.[19] In the same vein, proponents of the CPP often point to the precatory language of the CAA, which defines the agency's primary goal as encouraging Federal, State and local actions that prevent pollution, but this language, as EPA points out in the preamble to the proposed repeal, requires these actions to

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[16] In addition to the Energy Ventures Analysis report, *see* NERA Economic Consulting, "Energy and Consumer Impacts of EPA's Clean Power Plan," November 7, 2015, available at http://www.nera.com/content/dam/nera/publications/2015/NERA_ACCCE_CPP_Results_Nov72015.pdf.

[17] *Louisiana Pub. Serv. Comm'n* v. *FCC*, 476 U. S. 355, 374 (1986) ("an agency literally has no power to act . . . unless and until Congress confers power upon it").

[18] 549 U.S. 497 (2007).

[19] 134 S.Ct.. 2427, 2442 (2014).

be "reasonable" and "*consistent with the provisions*" of the CAA.[20]

EPA unquestionably has legal authority to withdraw the rule, and it is typical for new administrations to make significant changes to its predecessor's regulatory policy. Certainly, the Obama administration made numerous policy changes from the prior administration.[21] From a legal standpoint, all that is required is that EPA provide a rational explanation justifying the change in policy.[22] As outlined above and discussed in more detail below, the policy reasons supporting repeal are readily apparent. Still, given the importance of the issues involved and the detail the previous EPA provided in support of the CPP, NMA urges EPA to provide an equally detailed record in support of repeal. Specifically, NMA urges EPA to justify repeal for three alternative reasons:

1. Repeal is legally mandated because section 111(d) does not clearly authorize the CPP;[23]
2. Under "*Chevron* step one," repeal is legally mandated because section 111(d) clearly prohibits the rule;[24]
3. Under "*Chevron* step two," even if the CPP is a permissible exercise of agency discretion under the statute, repealing it and replacing it with a rule that is consistent with how section 111 has been interpreted for the more than 45 years of its existence is inarguably also a permissible exercise of discretion.[25]

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[20] 82 Fed. Reg. at 48,038 (citing 42 U.S.C. § 7401(c) (emphases added).

[21] In the area of air quality regulation, for instance, one notable example was EPA's fundamental reinterpretation of CAA § 112(n)(1)(A) in the MATS rule, a change in policy that was upheld in *White Stallion Energy Ctr., LLC v. EPA*, 748 F.3d 1222, 1232 (D.C. Cir. 2014).

[22] *See* section II below.

[23] *See* section III.A below.

[24] *See* section III.B, IV, V and VI below.

[25] *See* section VII below. NMA also supports, for the reasons EPA states, the agency's proposal to rescind the "Legal Memorandum for Proposed Carbon Pollution Emission Guidelines for Existing Electric Utility Generating

COMMENTS

I. Introduction.

When President Obama took office, he announced his goal of severely reducing U.S. GHG emissions – by 17% by 2025 and stepping down to 83% by 2050, as compared with 2005 emissions.[26] The President first tried to achieve these goals through a comprehensive cap-and-trade bill, but Congress rejected the bill despite significant Democratic Party majorities in both the House and Senate, just as previous Congresses stretching back decades had rejected similar legislation. The President then decided to bypass Congress; he issued a Memorandum[27] directing EPA to issue what ultimately became the CPP, the Administration's signature program for achieving the steep GHG reductions the President wanted. If cap-and-trade could not be enacted into law through legislation, it would be imposed through administrative fiat.[28]

EPA seized on section 111(d) of the CAA as authority for the new program. While section 111(d) is a seldom used provision of the CAA – just five times since it was enacted in 1970 – it is part of the overall section 111 New Source Performance Standards (NSPS) program under which EPA has promulgated hundreds of performance standards for new sources in more

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Units" (in the docket for the proposed rule) and "Legal Memorandum Accompanying Clean Power Plan for Certain Issues" (a supplementary document in the docket for the final rule). For clarity, these documents should be rescinded in their entirety, not just "to the extent those memoranda are inconsistent with the statutory interpretation that the EPA has proposed in this notice." These documents serve no other purpose than supporting the CPP. 82 Fed. Reg. at 48,042.

[26] *See* White House Press Release, "President to Attend Copenhagen Climate Talks," November 25, 2009, available at http://www.whitehouse.gov/the-press-office/president-attend-copenhagen-climate-talks.

[27] Presidential Memorandum—Power Sector Carbon Pollution Standards, June 25, 2003, available at http://www.whitehouse.gov/the-press-office/2013/06/25/presidential-memorandum-power-sector-carbon-pollution-standards.

[28] As the President famously said, if Congress did not pass the legislation he was seeking, "I've got a phone, and I've got a pen and I can use that pen to sign executive orders and take executive actions and administrative actions" to achieve his agenda. cbsnews.com, "Obama Says He Won't Wait for Legislation: 'I've Got a Pen and I've Got a Phone'," January 15, 2014, https://www.cnsnews.com/news/article/susan-jones/obama-says-he-wont-wait-legislation-ive-got-pen-and-ive-got-phone.

than 70 source categories. There is thus a well-established understanding of how section 111 works.

In formulating the CPP, EPA quickly realized that achieving the President's goals required it to jettison this significant body of precedent and to "creatively" reinterpret section 111(d) to mean something other than what it plainly says. As EPA recognizes in its repeal proposal, without exception and in keeping with the clear statutory language, performance standards, both for new sources under section 111(b) and for existing sources under section 111(d), have *always* been based on technological or operational measures that can be implemented at individual sources to reduce emissions on a cost-effective basis, measures such as pollution control equipment or improved operational efficiency.[29] This approach, however, if applied to coal units, would not create the amount of CO_2 emission reductions the President's agenda demanded. As EPA recognized, there is no "end-of-the-pipe" technology that can cost-effectively reduce CO_2 emissions from coal units, as even the agency agreed that carbon capture and sequestration (CCS) technology does not fit the definition of the best system of emission reduction (BSER) for existing coal units.[30] The only technology available to reduce CO_2 emissions from coal units is efficiency improvements that reduce heat input and CO_2 output per unit of electric production. While this approach, if properly implemented, could yield meaningful emission reductions, the reductions would not nearly be enough to satisfy the Obama Administration's very aggressive goals.

To achieve those goals, an entirely new approach was needed. As the Obama EPA realized, the only way to obtain the desired level of power sector GHG reductions was to

[29] 82 Fed. Reg. at 48,037.

[30] 79 Fed. Reg. at 34,836.

significantly scale back the use of coal-fueled electric generation. To obtain that result under section 111(d), the CPP would have to set requirements that coal plants could not meet, forcing them to retire.[31]

EPA made two interpretative leaps to craft a rule that would ensure this outcome. First, instead of determining the best system of reducing emissions at individual facilities, as is plainly required by section 111 and as EPA had done over the entire history of that program, EPA now formulated what it thought would be the best system for reducing emissions by reengineering the *entire electric grid*. This system was based on "building blocks" that required not just measures at individual plants but what EPA frankly called "generation shifting," which is a euphemism for shuttering coal plants and substituting natural gas generation and renewable resources. In the proposed rule, EPA had four building blocks: (1) efficiency improvements at coal plants; (2) replacing coal generation with gas generation; (3) further replacing mostly coal and some gas generation with renewable generation; and (4) displacing even more mostly coal generation through demand-side efficiency programs. Based on EPA's application of these building blocks to each State's portion of the grid, EPA calculated the CO_2 emissions rate per MWh that each State's electric sector would produce if it were operated as EPA hypothesized through its building blocks. EPA then translated these figurers into what EPA euphemistically called state-by-state CO_2 emissions rate-based "goals" –in reality, they were binding, not-to-exceed budgets – that each State would be required to meet.[32]

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[31] President Obama presaged his goal of killing coal plants by imposing requirements these facilities cannot meet in his 2008 interview with the San Francisco Chronicle, where he said, "So if somebody wants to build a coal-powered plant, they can; it's just that it will bankrupt them, because they're going to be charged a huge sum for all that greenhouse gas that's being emitted." https://www.youtube.com/watch?v=DpTIhyMa-Nw.

[32] "Carbon Pollution Emission Guidelines for Existing Stationary Sources; Electric Utility Generating Units; Proposed Rule," 79 Fed. Reg. 34,830, 34,951 (proposed 40 C.F.R. § 60.5740 (June. 18, 2014). EPA also set forth a methodology for converting these rate-based goals into mass-based goals.

In the final rule, EPA evidently realized that it lacked authority under section 111(d) to directly subject States to power-sector CO_2 emission budgets or to include demand-side efficiency programs within its BSER. It also realized that section 111(d) provides that section 111 performance standards must apply to particular sources within the regulated source category, not to a State's power sector as a whole. EPA thus tried a somewhat different approach. It still insisted that it could promulgate a BSER that was a system for reducing grid-wide emissions through "generation shifting" building blocks, as opposed to a pollution-control system at individual sources, but it now eliminated the fourth building block. It also eliminated the binding State CO_2 "goals." Instead, it calculated the grid-wide CO_2 emissions rate that would result if the 2012 grid were reconfigured according to the three remaining building blocks. It then examined the grid as it actually existed in 2012 and determined the rate at which coal and natural gas units could emit CO_2 in order to achieve the same grid-wide emissions rate as would be produced by EPA's hypothetically reengineered grid. Those rates were 1,305 lbs. CO_2/MWh for coal units and 771 lbs. CO_2/MWh for natural gas units. In other words, the grid would not have to be reengineered according to the building blocks if coal and gas units could meet those rates. EPA then set those rates – which it termed "emission performance rates" – as the core requirements of the CPP: coal units were barred from emitting more than 1,305 lb. CO_2/MWh and gas units were barred from emitting more than 771 lbs. CO_2/MWh.[33]

Of course, these emission performance rates fooled no one as even EPA realized that no coal or gas unit could possibly meet them. The 1,305 lb. rate, for instance, is far below the coal fleet average for 2012 (2,127 lbs/MWh)[34]; even the newest, most efficient units without CCS

[33] 80 Fed. Reg. at Part V and at 64,953 (40 C.F.R. § 60.5855).

[34] GHG Mitigation Measures Technical Support Document at 3-4.

generally emit about 1,800 lbs. CO_2/MWh. Nor can the 1,305 lb. rate be achieved by pollution controls or operational improvements at any individual source, and simply reducing generation at the source does not reduce (and may actually increase) the source's emissions rate.[35] EPA's performance rates are even stricter than the emission rates established by EPA for *new* plants using what EPA considers to be the "best" available technology, partial CCS.[36]

Summary of Emission Performance Rates (lbs CO_2/MWh)

	EPA's New Unit Standard	EPA's Reconstructed Unit Standard	EPA's Modified Unit Standard	CPP Existing Unit Standard	Actual 2012 Avg. Emission Rates
Coal	1,400	1,800-2,000	1,800-2,000[37]	1,305	2,127[38]
Natural Gas	1,000	1,000	N/A	771	905[39]

EPA thus was forced to take its second interpretational leap in reimagining the section 111(d) program. Recognizing, as it must, that coal units cannot meet the 1,305 lb. standard, EPA maintained that it had authority to set standards not for regulated *sources* but for the *owners* of those sources. Since a coal plant owner could also invest in a renewable plant, EPA reasoned, EPA would deem the 1,305 lb. standard met if the coal plant owner acquired sufficient renewable power so that the combined coal/renewables emissions rate met that standard. The mechanism in the rule under which coal plant owners would demonstrate compliance with the

35 80 Fed. Reg. at 64,754,

36 As EPA acknowledges, coal plants that reduce operations actually are generally *less* efficient, and have *higher* emission rates. Greenhouse Gas Mitigation Measures Technical Support Document at 2-34 (Aug. 3, 2015). Conversely, gas plants can have higher emission rates when they *increase* operations. *See* 79 Fed. Reg. at 34,980 (EPA noting some gas plants "are designed to be highly efficient when operated as load-following units" but are less efficient at baseload),

37 Modified coal-fired units are subject to case-by-case standards that may not be more stringent than these levels.

38 GHG Mitigation Measures Technical Support Document at 3-4.

39 *Id*.

required emission performance rate are tradable "emission rate credits," or "ERCs," evidencing that the coal plant owner has made the necessary investments in renewable power.[40]

By requiring ERCs, EPA intended, in its phrase, to "pave the way" to the creation of either national, regional, or state cap-and-trade systems where the necessary ERCs would be generated.[41] To ensure that this result would come about, EPA established "reconstituted" State rate-based and mass-based CO_2 "goals" that were derived from the "emission performance rates" and were now deemed an alternative way for States to meet those performance rates.[42] Based on the State "goals," EPA also proposed, model cap-and-trade regulations that States could adopt or that EPA would impose as a Federal Implementation Plan for States that refused to go along with the CPP.[43] In this way, the cap-and-trade system that Congress had rejected would nevertheless become law. And as with the cap-and-trade legislation, significant coal retirements would result. Because coal units cannot meet the 1,305 lb. "emission performance rate," utilities will have no choice but to curtail coal generation and invest in renewable generation, which is precisely the result EPA wanted in the CPP.

Contrary to what some have claimed, while *some* coal unit owners could, under the CPP, continue to operate as they have in the past by buying emission credits, *most cannot*. This is not simply a matter of economics, where coal unit owners cannot afford to buy the necessary credits. The ability of all or most coal units to continue operating by buying credits would require that there be enough demand for electricity in the United States to accommodate current levels of

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40 80 Fed. Reg. at 64,949 (40 C.F.R. § 60.5790(c)(1).

41 80 Fed. Reg. at 64,667.

42 80 Fed. Reg., Part VII.

43 "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; Proposed Rule," 80 Fed. Reg. 64,966 (Oct. 23, 2015).

coal generation and the large amounts of new renewable power needed to "dilute" coal emissions to the 1,305 lb. level. That is a physical impossibility. Thus, large number of coal retirements are required by the CPP; that is its point.

Analysis confirms the CPP will devastate coal. As discussed, when EPA issued the CPP in 2015, it tried to minimize the rule's impact on coal by arbitrarily assuming a large number of coal unit retirements in its base case. NMA recently asked EVA to examine the impact of the rule by substituting EIA's contemporaneous reference case in AEO 2018 for EPA's base case and comparing it to the power sector that EPA forecast would emerge after the rule was implemented. The result was stark: without the CPP, EIA projects that the dramatic declines in coal use for generation caused by the previous administration will cease. With the CPP, according to EIA, the declines accelerate, amounting to a cumulative reduction in coal burn for power generation over the 20-year period 2021-2040 of ***1.7 billion tons***, in addition to the reductions resulting from the previous administration's regulations.[44]

No part of EPA's rationale for the CPP has any basis in the language, legislative history or administrative precedent of the section 111 program. It is manufactured out of whole cloth, as if EPA had Article I power tantamount to Congress' and were not merely an Executive Branch agency with no more authority than Congress granted it. The sheer complexity of the rule and the interpretive acrobatics that underlay it demonstrate how far EPA had to depart from the concise, clear, and specific language of section 111(d) to get the result it wanted. That no other section 111(d) or 111(b) rule even remotely resembles the CPP confirms the legally dubious nature of the rule. Indeed, the rule is so weak legally that the U.S. Supreme Court issued an unprecedented stay of it before the rule had even been considered on the merits by the D.C.

[44] EVA 2018 Report, attachment 1 hereto.

Circuit. Repeal is fully justified.

II. EPA Has Ample Power to Alter Its Interpretation of Section 111(d).

As an initial matter, the agency unquestionably has authority, both under the Administrative Procedure Act[45] and the CAA, to change its mind about whether the CPP represents a proper exercise of section 111(d) authority. As EPA pointed out in the preamble to the proposed repeal,[46] the Supreme Court in *Chevron* wrote that "[a]n initial agency interpretation is not instantly carved in stone. On the contrary, the agency . . . must consider varying interpretations and the wisdom of its policy on a continuing basis."[47]

As the preamble further pointed out, a change of administrations is a perfectly valid and indeed routine reason to reconsider agency policy.[48] Indeed, in *Chevron*, the high court upheld a regulatory revision made as a part of a new administration's general policy review.[49] The Obama administration certainly did not hesitate to change a number of Bush administration policies in the environmental area and was upheld in court.[50]

Of course, when an agency changes its interpretation of a statute, it must adequately explain its reasons for doing so.[51] But it is axiomatic that "the agency 'need not demonstrate to a

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[45] 5 U.S.C. § 551(5) (defining "rule making" as the "agency process for formulating, *amending*, or *repealing* a rule") (emphasis added); CAA § 307(d)(7)(B) (granting EPA power to reconsider rules, a power that is not limited to cases of mandatory reconsideration under section 307; *see Clean Air Council v. Pruitt*, 862 F.3d 1, 14 (D.C. Cir. 2017) ("Although EPA had no section 307(d)(7)(B) *obligation* to reconsider the … rule, it is free to do so as long as 'the new policy is permissible under the statute, there are good reasons for it, and the agency *believes* it to be better.'") (quoting *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 (2009)) (internal alterations omitted)).

[46] 82 Fed. Reg. at 48,039.

[47] *Chevron*, 467 U.S. 837, 863-864 (1984).

[48] 82 Fed. Reg. at 48,039 (citing *National Cable & Telecommunications Ass'n* v. *Brand X Internet Services*, 545 U.S. 967, 981 (2005).

[49] *Id*. at 857-59.

[50] For instance, the D.C. Circuit upheld EPA's fundamental reinterpretation of CAA § 112(n)(1)(A) in the MATS rule. *White Stallion Energy Ctr., LLC v. EPA*, 748 F.3d 1222, 1232 (D.C. Cir. 2014). *See also, e.g., Hermes Consol., LLC v. EPA*, 787 F.3d 568, 576 (2014) (renewable fuels standard).

[51] *National Cable*, 545 U.S. at 981.

court's satisfaction that the reasons for the new policy are *better* than the reasons for the old one.'"[52] Rather, "'it suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better."[53] "[N]o specially demanding burden of justification ordinarily applies to a mere policy change."[54]

The burden of justifying a policy change may be somewhat enhanced if a "'new policy rests upon factual findings that contradict those which underlay [an agency's] prior policy'" or if the agency's "'prior policy has engendered serious reliance interests that must be taken into account."[55] In these cases, "the agency 'must' provide 'a more detailed justification' for its action.'"[56] But there are no reliance interests here given the early Supreme Court stay, and the satisfactory explanation required for any changes in factual findings would be no more than would be required by *State Farm* [57] in any event. As a part of supplying "a rational connection between the facts found and the choice made," the agency must give "a reasoned explanation . . . for disregarding facts and circumstances that underlay or were engendered by the prior policy."[58]

In the end then, EPA is plainly authorized to repeal the CPP. In adopting that rule, EPA did not claim that section 111(d) compels generation shifting, only that generation shifting is a permissible interpretation of that provision and therefore entitled to deference under *Chevron* step two.[59] EPA is free to change this statutory analysis – either by concluding that the CPP

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[52] *White Stallion*, 748 F.3d at 1235 (quoting *FCC v. Fox Television Stations, Inc*., 556 U.S. 502, 515 (2009).

[53] *Id*.

[54] *Ark Initiative v. Tidwell*, 816 F.3d 119, 127 (D.C. Cir. 2016).

[55] *Mingo Logan Coal Co. v. EPA*, 829 F.3d 710, 718 (2016) (quoting *Fox* at 515).

[56] *Id*. (quoting *Fox* at 515).

[57] *Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 (1983).

[58] *Id*. (quoting *Fox* at 516).

[59] *See* Respondent EPA's Final Brief in *West Virginia v. EPA*, No. 15-1363 (D.C. Cir. April 22, 2016) at 43 defining the interpretive issue before the court as "whether EPA's interpretation is either unambiguously foreclosed or unreasonable").

must be repealed because it is not plainly authorized under the "plain statement" doctrine[60] or that it is plainly forbidden by section 111(d). And, as another alternative, EPA can maintain its view that the statute is ambiguous or grants EPA broad discretion, but it can also decide to exercise its discretion in a different way. In this scenario, the agency can make a different policy choice and claim judicial deference so long as it provides rational, well-explained reasons, supported by substantial evidence in the record. NMA urges EPA to repeal the rule based on each of these alternative bases.

III. The CPP Must Be Repealed Because It Regulates Beyond the Source.

A. The CPP's Regulation Beyond the Source Lacks a Clear Basis in the Statute.

It is not necessary to dissect the complicated statutory parsing that underpins the CPP to conclude that the program is unlawful. As a program that would both transform the agency's authority and intrude into an area of State sovereignty, the CPP requires a clear statutory basis. That basis does not exist.

1. A clear statutory basis is required for regulations like the CPP that represent an enormous and transformative expansion of EPA authority.

As the Supreme Court explained in overturning EPA's Tailoring Rule:

> EPA's interpretation is also unreasonable because it would bring about an enormous and transformative expansion in EPA's regulatory authority without clear congressional authorization. When an agency claims to discover in a long-extant statute an unheralded power to regulate a 'significant portion of the American economy … we typically greet the announcement with a measure of skepticism.[61]

As the Court stated, "[w]e expect Congress to speak clearly if it wishes to assign to an agency decisions of vast 'economic and political significance.'" *Id.* at 19 (citing *FDA v. Brown &*

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[60] *See* section III.A below.

[61] *Utility Air Regulatory Group v. EPA*, 134 S. Ct. at 2444 (citation omitted).

Williamson Tobacco Corp., 529 U.S. 120, 133 (2000)). The high court confirmed this "plain statement" doctrine in its subsequent decision in *King v. Burwell*, 135 S.Ct 2480 (2015). Had "Congress wished to assign [such an important] question[] to an agency, it surely would have done so expressly." *King v. Burwell*, 135 S.Ct 2480, 2489 (2015).

Unquestionably, the CPP, even more than the Tailoring Rule, represents an "enormous and transformative expansion in EPA's regulatory authority." In issuing the rule, the Administration and EPA not only conceded that the program would be transformative, it trumpeted that fact in press and summary material accompanying the final rule. According to the White House, the avowed purpose of the CPP was to "aggressive[ly] transform[] ... the domestic energy industry"[62] by "decarboniz[ing]"[63] power generation. In EPA's words, the Clean Power Plan sought to effect an "historic"[64] and comprehensive "transformation"[65] of the electric utility industry. With more than 4 million comments filed on the rule, the public certainly understood the transcendent importance of the rule.

Indeed, the breadth of the CPP is stunning. At EPA's direction, every State is required to completely alter the way its portion of the electric grid operates. In the Agency's formulation of the "best" system for meeting EPA's mandatory goals, States would "re-dispatch" power flow so that natural gas combined cycle generators would increase their capacity factors to up to 75%, even though EPA estimated that the average gas unit capacity factor in EPA's base case year of

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62 White House Fact Sheet, attached to State Pet'rs' Mot. for Stay as Ex. B in *West Virginia v. EPA*, No. 15-1363 (D.C. Cir., filed Oct. 23, 2015).

63 *President Obama's Clean Power Plan is a Strong Signal of International Leadership* (Aug. 5, 2015), https://climate.america.gov/clean-power-plan-strong-signal-international-leadership/.

64 *See* nine of ten EPA Fact Sheets describing the Rule, *available at* http://www2.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants.

65 "EPA Chief Lays Out Bold Vision for Power Plant Greenhouse Gas Rule," SNL Renewable Energy Weekly, Feb. 14, 2014.

2012 was only 46 percent, with only 15% of gas plants achieving a rate of at least 75 percent.[66] Renewable resource production would ramp up significantly, including in States that do not have access to those resources.[67] And even though EPA eliminated building block four in the final rule, EPA still projected that the CPP would induce an 11 percent reduction in electric consumption by 2030,[68] resulting in long-term electric consumption that is little changed from today. This despite the fact that the United States is expected to add about 2.5 million people per year[69] and presumably the country will grow economically.

Leading experts agreed that the rule would be transformative As the North American Electric Reliability Corporation (NERC) observed, EPA "proposes a very different mix of power resources than we have today."[70] Former Federal Energy Regulatory Commission (FERC) Commissioner Phillip D. Moeller testified that "[i]f it isn't already obvious, the title of the proposed rule, the Clean Power Plan, makes it clear that *EPA is creating national electricity policy*."[71] Similarly, former FERC Commissioner Tony Clark described the proposed rule as follows:

> More than any regulation I have seen during the time that I have been involved in the energy sector, *this EPA proposed rule has the potential to comprehensively reorder the jurisdictional relationship between the federal government and states as it relates to the regulation of public utilities and energy development.*

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66 CO2 Emission Performance Rate and Goal Computation Technical Support Document for CPP Final Rule at 14-15; "Greenhouse Gas Mitigation Measures Technical Support Document" at 3-6 – 3-9.

67 *See* EVA 2015 Report at 25 for overall increase in renewables.

68 RIA, Table 3-3, p. 3-17.

69 Census Bureau, https://www.census.gov/data/tables/2014/demo/popproj/2014-summary-tables.html.

70 NERC, Media Release, Reliability Review of Proposed Clean Power Plan Identifies Areas for Further Study, Makes Recommendations for Stakeholders, available at http://www.nerc.com/Pages/default.aspx,, at 1.

71 Written Testimony of Commissioner Philip D. Moeller, Federal Energy Regulatory Commission, Before the Committee on Energy and Commerce, Subcommittee on Energy and Power, United States House of Representatives, Hearing on FERC Perspective: Questions Concerning EPA's Proposed Clean Power Plan and other Grid Reliability Challenges, July 29, 2014, available at http://energycommerce.house.gov/hearing/ferc-perspectives-questions-concerning-epa%27s-proposed-clean-power-plan-and-other-grid, at 1 (emphasis added).

> Up until this point, utilities have been regulated through the influence of a number of governmental entities. State legislatures, governors, public utility commissions, state energy offices, state departments of environmental quality, EPA and FERC, to name some of the major players, all had a role to play. Any one entity could exert an influence on the process, but they each had their own niche.
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> EPA's proposed 111(d) regulations would dramatically alter these traditional lines of authority by creating a new paradigm of oversight of net carbon emission from a state.
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> * * *
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> *After an implementation plan is approved by the EPA, a state will have lost its ability to chart its own course as to how it regulates public utilities and its energy sector as a whole.* To use just one example, if a future legislature, decides that its renewable portfolio standard is not working for the citizens of its state, that legislature may effectively be prevented from changing course, because its "EPA-approved" RPS will still be in full effect; and likely enforceable by either the EPA or subject to a private party lawsuit. The same would apply to any future state utility commission action to the degree it implicates an EPA approved plan. *And because basically everything in the electricity sector affects carbon output in some manner, if a state "plays ball" with the EPA, the proposed rule could effectively lock a state into a comprehensive carbon integrated resource plan that can only be changed with the acquiescence of the EPA.*[72]

The CPP would not only transform the power grid, it would transform EPA's authority under the CAA. From being a little-known, little-used provision that required existing sources in very limited situations to install cost-effective pollution control equipment, section 111(d) would become a source of authority to reengineer the entire electric grid. Indeed, the precedent EPA's new interpretation set is not limited to just the power sector. It would apply to setting existing-source performance standards throughout the economy. Every source category that EPA regulates could, in theory, be forced to retire significant numbers of production facilities and shift the lost production to other facilities if EPA deemed it necessary. EPA would become a

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[72] Written Testimony of Commissioner Tony Clark, Federal Energy Regulatory Commission, Before the Committee on Energy and Commerce, Subcommittee on Energy and Power, United States House of Representatives, Hearing on FERC Perspective: Questions Concerning EPA's Proposed Clean Power Plan and other Grid Reliability Challenges, July 29, 2014, available at http://energycommerce.house.gov/hearing/ferc-perspectives-questions-concerning-epa%27s-proposed-clean-power-plan-and-other-grid, at 4-7 (emphasis added).

dominant economic regulator and not just an environmental regulator. No other CAA provision sets forth such sweeping authority. The notion that Congress plainly authorized that result under section 111(d) is fanciful at best.

2. A clear statutory basis is also required given the CPP's intrusion into a traditional State regulatory domain.

Clear congressional authorization is further required here because the CPP raises serious federalism concerns. It is a "well-established principle that it is incumbent upon the federal courts to be certain of Congress' intent before finding that federal law overrides the usual constitutional balance of federal and state powers."[73] "This principle applies when Congress 'intends to pre-empt the historic powers of the States' or when it legislates in 'traditionally sensitive areas' that 'affec[t] the federal balance.'"[74]

As the D.C. Circuit has said, "[f]ederal law may not be interpreted to reach" areas traditionally subject to State regulation "unless the language of the federal law compels the intrusion" with "unmistakably clear … language."[75] This "plain statement rule is nothing more than an acknowledgment that the States retain substantial sovereign powers under our constitutional scheme, powers with which Congress does not readily interfere."[76] Where "[t]he states have regulated [a sector] throughout the history of the country … it is not reasonable for an agency to decide that Congress has chosen" to entrust regulation of that sector to a federal agency.[77]

"[T]he regulation of utilities is one of the most important of the functions traditionally

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[73] *Bond*, 134 S. Ct. at 2089 (internal quotation marks omitted).

[74] *Raygor v. Regents of Univ. of Minn.*, 534 U.S. 533, 543 (2002); *see also Gregory*, 501 U.S. at 460-61.

[75] *Am. Bar Ass'n*, 430 F.3d at 471-72 (internal quotation marks omitted).

[76] *Id*. at 472 (citation omitted).

[77] *Id*.

associated with the police power of the States,"[78] which the Supreme Court has specifically recognized should not be "superseded" "unless that was the clear and manifest purpose of Congress."[79] Particularly relevant here, the "[n]eed for new power facilities, their economic feasibility, and rates and services, are areas that have been characteristically governed by the States"—indeed, the "franchise to operate a public utility … is a special privilege which … may be granted or withheld at the pleasure of the State."[80] Certain States' constitutions vest these powers in independent commissions whose members are elected,[81] while other States have exercised sovereign power to deregulate the electric sector.

Far from granting EPA authority over power generation with "'unmistakably clear … language,'"[82] Congress has clearly *confirmed* the States' plenary authority in this area and granted to a different agency—FERC—the limited federal jurisdiction in this sphere. In the Federal Power Act,[83] Congress drew "a bright line easily ascertained, between state and federal jurisdiction."[84] Under the Federal Power Act, "the States retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost, and other related state concerns."[85] Congress cabined the power of FERC "to those matters which

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78 *Ark. Elec. Coop. Corp.*, 461 U.S. at 377,

79 *PG&E*, 461 U.S. at 206 (internal quotation marks omitted).

80 *Id*. at 205 (internal quotation marks omitted); *see also Conn. Dep't of Pub. Util. Control v. FERC*, 569 F.3d 477, 481 (D.C. Cir. 2009).

81 For example, the Louisiana Constitution grants its Public Service Commission "broad and independent power and authority to regulate … public utilities." *La. Power & Light Co. v. La. Pub. Serv. Comm'n*, 609 So. 2d 797, 800 (La. 1992). The Arizona Constitution provides its Corporation Commission with "'full power' to regulate, set rates, and make reasonable rules for public service companies." *Ariz. Corp. Comm'n v. State ex rel. Woods*, 830 P.2d 807, 811 (Ariz. 1992). Commissioners in both States are elected. LA. CONST. art. IV, § 21(A)(1); ARIZ. CONST. art. XV, § 1. *See also* GA. CONST. art. IV, § 1 (providing for elected Public Service Commission in Georgia).

82 *Am. Bar Ass'n*, 430 F.3d at 471-72,

83 16 U.S.C. §§ 791a, *et seq.*,

84 *Fed. Power Comm'n v. S. Cal. Edison Co.*, 376 U.S. 205, 215 (1964).

85 *PG&E*, 461 U.S. at 205.

are not subject to regulation by the States,"[86] and disclaimed federal authority "over facilities used for the generation of electric energy."[87] Even FERC lacks power to interfere with "state authority in such traditional areas as the … administration of integrated resource planning and … utility generation and resource portfolios."[88] Indeed, the United States recently acknowledged to the Supreme Court that "promot[ion of] new generation facilities" is "an area expressly reserved to state authority."[89]

Nevertheless, the CPP seeks to usurp these important traditional State police powers. Until now, the States have determined for themselves the extent to which they should (or should not) mandate particular levels of renewable generation, balancing such generation's benefits against other considerations, including the risks that energy dependent on weather events (such as wind speed, cloudiness, and snow cover) often pose to the grid's reliability.[90]

But as explained, to achieve the CPP's emission reduction demands, States will be forced to shift vast amounts of generation from fossil fuel-fired plants to new renewable resources. The CPP thus mandates changes to the power generation mix in individual States, supplanting the States' traditional authority in this area. Indeed, the very reason EPA issued the CPP is that to date States have not sought to "decarboniz[e]" their economies to the extent favored by EPA. The CPP thus amounts to a takeover of power generation decisions in the States, despite

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86 16 U.S.C. § 824(a).

87 *Id.* § 824(b)(1); *see also id.* § 824*o*(i)(2) ("This section does not authorize … [FERC] to order the construction of additional generation or transmission capacity ….").

88 *New York v. FERC*, 535 U.S. 1, 24 (2002).

89 Pet. for Writ of Cert. at 26, *FERC v. Elec. Power Supply Ass'n*, No. 14-840 (U.S. Jan. 15, 2015).

90 U.S. Energy Information Administration, Today In Energy, Most states have Renewable Portfolio Standards (Feb. 3, 2012), https://www.eia.gov/todayinenergy/ detail.cfm?id=4850 (while Congress has rejected federal renewable portfolio standards, "30 States and the District of Columbia had enforceable [renewable portfolio standards] or other mandated renewable capacity policies," and seven had adopted voluntary renewable energy goals).

longstanding exclusive State jurisdiction—reaffirmed by Congress—over this field.

Moreover, to meet EPA's emission reduction demands, States will be forced to undertake many legislative and regulatory actions they would not have otherwise chosen. States will have to enact legislation and regulations restructuring their power systems, decommissioning coal-fired plants, and granting regulatory and siting approval to new renewable energy projects. In many States, regulatory proceedings will be needed to determine how the costs of prematurely-retired plants must be recovered from ratepayers. States may have to incentivize development of renewable resources previously found cost-prohibitive, while ensuring that the Rule's change in power generation does not adversely impact the grid's reliability. But EPA may not make these "decision[s] of the most fundamental sort" for the States without clear authorization from Congress.[91]

3. No clear statutory authority exists for the CPP.

No great volume of words is needed to conclude that the CPP is not clearly authorized by section 111(d). That provision is only four sentences long and EPA relied only on two sentences of it. That is a very small mouse hole for Congress to have hidden the sweeping authority EPA claimed in the CPP.[92] In fact, the volume of words EPA expended in trying to explain and justify its complicated reasoning, combined with the fact that EPA has never tried anything like the CPP in the long history of the section 111(d) program, provides all the evidence that is needed that the rule is not clearly authorized. Indeed, as discussed below, the statute clearly bars the CPP.

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[91] *Gregory*, 501 U.S. at 460.

[92] See *Whitman v. American Trucking Association*, 531 U.S. 457, 468 (2001) ("Congress ... does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions--it does not, one might say, hide elephants in mouse holes.")

Not surprisingly, in attempting to justify the CPP, EPA did not even attempt to make the case that the program is clearly authorized by the statute. Instead, EPA's view was that the statute was ambiguous and that its new interpretation of section 111(d) was reasonable and should be deferred to.[93] The agency thus tacitly conceded the lack of clear authorization, which fatally dooms the rule.

B. Even if the Plain Statement Rule Does Not Apply, Repeal Is Required Because the CPP Cannot Survive Traditional *Chevron* Step One Analysis.

The CPP must be repealed even if the clear statement rule does not apply here. Repeal is required at *Chevron* step one because the CPP clearly contradicts section 111(d) as interpreted using the "traditional tools of statutory construction," including the plain meaning of the statutory language, its statutory context, and its legislative and administrative history.[94]

1. EPA's reinterpretation of BSER contradicts the plain meaning of section 111(a).

a. The language of section 111 provides for the BSER and performance standards to be set for individual facilities within a regulated source category.

The establishment of performance standards under section 111 is a two-step process. First, EPA creates a list of "categories of stationary sources" which "cause[], or significantly contribute[] to, air pollution which may reasonably be anticipated to endanger public health or welfare."[95] EPA's regulations define the term "stationary source" to mean a "building, structure, facility, or installation."[96]

Once EPA lists a source category, it establishes standards of performance for new sources

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93 80 Fed. Reg. at 64,719 n.301.

94 *Chevron U.S.A. v. NRDC*, 467 U.S. 837, 843 n.11 (1984).

95 CAA § 111((b)(1)(A).

96 40 C.F.R. § 60.2.

within that category.[97] In other words, having listed a category of "building[s], structure[s], facilit[ies], or installation[s]," the Administrator must establish standards which apply to those sources. In the same vein, the statute defines "new source" to mean "any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance *which will be applicable to such source*."[98]

EPA establishes performance standards for new sources by formulating the BSER. A performance standard thus "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."[99] Since performance standards apply to individual sources within the regulated source category, the BSER is the best system, considering the statutory factors, for reducing emissions *at those specific sources*.

This structure is imported into section 111(d), except that States establish the performance standards. EPA's role is to formulate the BSER for existing sources and, based on that, States submit plans which establish standards "for any existing source for any air pollutant … (ii) to which a standard of performance under this section would apply if *such existing source were a new source* …."[100] Thus, although EPA can call for statewide plans, those plans must still contain standards of performance that apply specifically to *an individual "source"* within

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97 CAA § 111((b)(1)(B) (emphasis added).

98 CAA § 111((a)(2) (emphasis added).

99 CAA §111(a)(1).

100 CAA § 111(d).

the source category that EPA has listed and for which the Agency has set performance standards for new sources under section 111(b).

b. Reengineering the electric grid is not a "system" of emission reduction under section 111(a).

The BSER that underlies the CPP is obviously not a pollution control device, a more efficient means of operation, or any other system that could be incorporated into the design or operation of a coal plant. Instead, it is a grid-wide system for making wholesale changes to the way power is produced in this country. The second and third building blocks from which most of the expected emission reductions will result are based on EPA's macro calculations of how much coal power EPA thinks can be displaced by natural gas and renewable power in the entire U.S. power sector. Thus, whatever else EPA's convoluted calculations in its CO_2 Emission Performance Rate and Goal Calculation Technical Support Document may prove, they do not set forth a system of emission reduction that any specific facility within the regulated source category could actually adopt to reduce its emissions.

Section 111, however, does not give EPA authority to devise a system for reorganizing the electric grid. The "system" that EPA must formulate in the BSER is a system for reducing emissions at an individual "source," again at a "building, structure, facility, or installation."[101] The standards that States develop from the BSER under section 111(d) must be "*for* any existing source." (Emphasis added.) [102] Indeed, in the CPP, EPA conceded that, in the context of the statute, the phrase "best system of emission reduction" may only include "measures that can be implemented—'*appl[ied]*'—*by the sources themselves*."[103] But EPA's BSER demonstrably

[101] 40 C.F.R. § 60.2.

[102] CAA § 111((a)(2) (emphasis added).

[103] *Id*. at 64,720 (emphasis added).

cannot be applied by any particular source.

EPA's principal justification for why its grid-wide, generation-shifting system qualifies as BSER under section 111(a) was its claim that individual sources on the grid are more interconnected with each other than individual sources in other industries. EPA maintained that "the individual sources in the source category operate through a network that physically connects them to each other and to their customers, an interconnectedness that is essential to their operation under the status quo and by all indications is projected to be augmented further on a continual basis in the future to address fundamental objectives of reliability assurance and cost reduction."[104] But however interconnected the grid may be, no feat of interpretational gymnastics can transform the grid into a "source" under the CAA, which is where EPA's reasoning leads. And EPA was being disingenuous when it claimed that it was merely trying to set a BSER for a source category as opposed to an individual source.[105] The grid, in fact, contains both units within the regulated source category and units which are not within that category, including renewable resources that are not even sources at all. Nothing in the CAA and certainly not in section 111(d) gives EPA authority to establish a system of emission reduction premised on the actions of the owners of non-regulated facilities.

c. EPA does not have authority to regulate source owners under section 111(d), only sources.

EPA's concession that the phrase "best system of emission reduction" may only include "measures that can be implemented—'*appl[ied]' – by the sources themselves*" created what EPA called a "dilemma" for the agency in coming to an interpretation of section 111(d) that would

[104] 80 Fed. Reg. at 64,728.

[105] 80 Fed. Reg. at 64,725-26; *see also id.* at 64,723.

lead to the large emission reductions it sought.[106] While EPA wanted a truly impactful program, it also recognized that emission control measures that can be applied at coal- and natural gas-fired units either are not commercially or technologically feasible (in the case of carbon capture and sequestration systems) or will not achieve the desired emission reductions (in the case of efficiency improvements).[107]

To resolve this "dilemma," EPA redefined "source" to "*include[] the 'owner or operator'* of any building … for which a standard of performance is applicable."[108] On this basis, EPA established a BSER that encompasses "generation shifting" across the entire grid and set "emission performance rates" that cannot be met by *any* individual coal or gas-fired generating unit, even if it installs the type of state-of-the-art equipment that EPA has required for brand new units. To comply with the standard, the owner or operator must invest in lower- or zero-emitting generation, either directly or by purchasing emission allowances or credits,[109] and shift generation to this new lower- or zero-emitting generation.[110]

But section 111 could not be clearer: performance standards apply to sources, not owners and operators of sources that might take actions beyond the source itself. Under section 111(d), a State-established performance standard may be set for an existing source that would be regulated under section 111(b) "if such existing *source* were a new *source*."[111] State plans must "apply[] a standard of performance to any *particular source*."[112] And EPA's role is to establish a

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106 80 Fed. Reg. at 64,769.

107 80 Fed. Reg. at 64,751, 64,787-90.

108 *Id*. at 64,762 (emphasis added).

109 *Id*. at 64,720, 64,725-26, 64,728, 64,731.

110 *Id*. at 64,911 *see also id*. at 64,745-47 ("generation shifts").

111 CAA § 111(d)(1) (emphases added).

112 *Id*. (emphasis added).

"procedure" for States to submit plans "establish[ing] standards of performance *for any existing source*."[113]

Similarly, the statute expressly contemplates adjustments to a standard of performance as it applies to individual sources in varying conditions. States are directed to take into consideration "the remaining useful life of the existing *source*" when "applying a standard of performance" to "any particular *source*." *Id*. (emphasis added). If EPA promulgates a federal plan in lieu of an unsatisfactory state plan, EPA "shall take into consideration … [the] remaining useful lives of the *sources* in the category of *sources* to which [the applicable] standard applies."[114]

Finally, EPA cannot regulate existing sources under section 111(d) unless the agency first regulates under section 111(b), and Congress likewise made individual "sources" the focus of new source regulation under that section. To commence section 111(b) regulation, Congress requires EPA first to list categories of "stationary *sources*" to be regulated.[115] EPA then sets standards for new "*sources* within such [listed] category."[116]

Once again, for all of these section 111 provisions, "source" is defined as an individual physical "building, structure, facility, or installation."[117] It is not defined to include the "owner or operator" of the "building, structure, facility, or installation."

Indeed, section 111 makes this distinction explicit. Congress differentiated the term "owner or operator" from the term "source" by giving the former a distinct definition: "any

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[113] *Id*. (emphasis added).

[114] *Id*. § 111(d)(2) (emphases added).

[115] *Id*. § 111(b)(1)(A) (emphasis added).

[116] *Id*. § 111(b)(1)(B) (emphasis added); *see also id.* § 111(a)(2) (defining the term "new source" and discussing standards of performance "which will be applicable to such source").

[117] *Id*. § 111(a)(3).

person who owns, leases, operates, controls, or supervises a stationary source."[118] If Congress had intended to include a facility's owner or operator *within* the term "source," it would not have separately defined those terms. Section 111 further states that it is unlawful "for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source."[119] In fact, Congress had to adopt distinct definitions of "source" and "owner or operator" as well as a specific provision to hold an "owner or operator" of a new source liable precisely because, contrary to the CPP's central assumption, the owner or operator of a source is legally distinct from the "source" itself.[120]

EPA's sole rationale for why it can set standards for the owner or operator of a source is what it calls the "commonsense" proposition that, because sources are inanimate objects, it is the owner or operator of the source that must take action to comply with any standards, so the CPP is not unusual by requiring action from owners or operators.[121] But EPA overlooks that a standard of performance must be "for" a particular "source,"[122] not for the source's owner. It is one thing to recognize that the owner or operator must take steps at its source—e.g., installing new equipment or ordering more efficient operations—to implement a standard of performance that was set "for" the source. It is quite another to say that EPA may set a standard that requires owners or operators to construct, or subsidize generation at, other facilities. A rule that requires construction of or generation at a second facility is not a standard "for" the first source at all but

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[118] *Id.* § 111(a)(5).

[119] *Id.* § 111(e).

[120] *See Transbrasil S.A. Linhas Aereas v. Dep't of Transp.*, 791 F.2d 202, 205 (D.C. Cir. 1986) ("[W]here different terms are used in a single piece of legislation, the court must presume that Congress intended the terms to have different meanings.") (internal quotation marks and citation omitted).

[121] 80 Fed. Reg. at 64,767.

[122] CAA § 111(d)(1).

a standard for the owner or operator. Indeed, section 111(e) makes clear that the "owner or operator of any … source" may only be held liable for "violation of any standard of performance applicable to *such source*," not for violating standards that apply to any other facilities (including non-sources) the owner or operator may control or invest in.

This Court's decision in *ASARCO Inc. v. EPA*, 578 F.2d 319 (D.C. Cir. 1978), also squarely forecloses EPA's reading of section 111(d). As indicated, when the owner or operator of a source invests in lower-emitting generation to comply with the CPP—whether by building a plant, investing in someone else's plant, or buying credits from another plant—the source's emission rate is calculated by averaging the source's own emission rate with the rate of the lower-emitting plant so that the source can mathematically achieve the rule's rates.[123] Thus, the CPP's "generation shifting" mandate demands that two or more facilities *together* achieve the required rate—effectively treating distant and unrelated facilities, some of which may not even be regulated sources at all, as a single "stationary source" for purposes of meeting EPA's emission performance rates.

ASARCO, however, holds that EPA may not "embellish[]" the statutory definition of "stationary source" by "rewrit[ing] the definition of a stationary source."[124] According to the court, the statute "limit[s] the definition of 'stationary source' to one 'facility'" and not a "'combination of' facilities."[125] As a result, EPA cannot "change the basic unit to which the [standards] apply from a *single* building, structure, facility, or installation—the unit prescribed in the statute—to a *combination* of such units."[126] Certainly, EPA cannot treat as a single source

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[123] 40 C.F.R. § 60.5790(c)(1) (providing formula "to calculate an adjusted CO_2 emission rate to demonstrate compliance").

[124] 578 F.2d at 324, 327 n.24.

[125] *Id.* at 324.

[126] *Id.* at 327 (emphasis in original).

separate generating units that may be thousands of miles away, that may be owned by someone else, and that may not even be section 111 sources at all.

2. EPA's attempt to use section 111(d) to reengineer the grid is inconsistent with section 111 as a whole.

The CPP also contravenes the requirement that "reasonable statutory interpretation must account for both the specific context in which … language is used and the broader context of the statute as a whole."[127] EPA undermined this basic principle by mandating performance rates for existing sources that are far more stringent than the standards EPA contemporaneously set for existing sources that are "modified" or "reconstructed." Indeed, the CPP's performance rates cannot be met even if every coal- and natural gas-fired unit were closed and replaced with brand new units using what EPA has determined to be state-of-the-art technology.

Congress could not have intended this bizarre outcome, which stems from a fundamental flaw in EPA's statutory construction that undergirds the CPP: EPA's adoption of a definition of "standard of performance" for section 111(d) that is fundamentally inconsistent with EPA's understanding of the same statutory term in section 111(b). For both sections, the term "standard of performance" is defined by a *single* sub-section—section 111(a)(1). As noted above, in EPA's parallel rulemaking to establish standards of performance for *new* units under section 111(b), EPA determined that it could not read the term "best system of emission reduction" in section 111(a)(1) to set standards of performance based on shifts in generation from new plants to other sources with lower emissions but would consider only reductions that those plants could themselves achieve.[128] In the CPP, however, EPA gave a radically different reading to "best system of emission reduction" on the grounds that considering only those efficiency reductions

[127] *UARG*, 134 S. Ct. at 2442 (internal quotation marks omitted).

[128] 80 Fed. Reg. at 64,627.

that existing sources can achieve would not produce "enough" reductions to meet EPA's objectives.[129] As a basic textual matter, EPA cannot reasonably adopt two conflicting interpretations of the very same term.[130]

That is particularly true here because EPA's contrived and inconsistent reading of the phrase "best system of emission reduction" in the context of section 111(d) stands section 111 on its head: EPA has unlawfully required States to establish performance standards that are more stringent for *existing* coal and gas plants (which must retrofit controls) than the standards EPA itself established for *new* coal and gas plants (which can incorporate controls into their design). It makes no sense that the "best system of emission reduction," after consideration of cost and other relevant factors, would lead to a scheme in which existing plants face more stringent regulation than new plants. "[A]n agency interpretation that is inconsisten[t] with the design and structure of the statute as a whole" must be struck down.[131]

EPA recognized as much when it first published its section 111(d) implementing regulations in 1975, explaining that "the degree of control [for existing sources] … will ordinarily be less stringent than … required by standards of performance for new sources" based on the fact that "controls cannot be included in the design of an existing facility and … physical limitations may make installation of particular control systems [at an existing facility] impossible or unreasonably expensive in some cases."[132] Precisely because new plants can be designed to

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[129] 80 Fed. Reg. at 64,729.

[130] *See Brown v. Gardner*, 513 U.S. 115, 118-20 (1994); *see also Envtl. Def., Inc. v. EPA*, 509 F.3d 553, 560-61 (D.C. Cir. 2007).

[131] *UARG*, 134 S. Ct. at 2442 (alteration in original).

[132] 40 Fed. Reg. at 53,341, 53,344, JA4087, JA4090; *see also* Robert J. Martineau, Jr. & Michael K. Stagg, *New Source Performance Standards*, in THE CLEAN AIR ACT HANDBOOK 321 (Julie R. Domike & Alec C. Zacaroli eds., 3d ed. 2011) (Section 111 "reflects the basic notion that it is cheaper and easier to design emissions control equipment into production equipment at the time of initial construction than it is to engage in costly retrofits.").

accommodate new controls while existing plants cannot, EPA determined that carbon capture and storage technology is not the best system of emission reduction for existing coal plants,[133] while at the same time determining that this technology is the best system for new plants.[134] Reflecting the structure and purpose of section 111, EPA has never before adopted new source standards that were *less* stringent than the standards its existing source guidelines required States to adopt,[135] with only one very limited exception that does not support the CPP.[136]

Having effectively upended the section 111 regulatory paradigm, EPA then had to deploy *ad hoc* fixes to address the consequences of doing so.[137] Under the new source and existing source rules, overall emissions in a State could *increase* if the State encouraged construction of new sources to replace older, existing sources, because new sources—even though new coal units are required to use carbon capture and sequestration technology—are subject to less stringent standards than existing sources.[138] EPA thus ordered States to take steps to *prevent*

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133 80 Fed. Reg. at 64,751,

134 *See* 80 Fed. Reg. at 64,558.

135 *See* 61 Fed. Reg. at 9907 (same standards for new and existing landfills); 45 Fed. Reg. at 26,294 & Primary Aluminum Guidelines at 8-1 (recommended range of control technologies for existing primary aluminum plants and a maximum emissions rate of fluoride for new plants); 44 Fed. Reg. at 29,828 & EPA, Kraft Pulping: Control of TRS Emissions from Existing Mills, at 1-6 (Mar. 1979), http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000ZF3I.TXT ("the application of the best adequately demonstrated technology for new sources could result in excessive control costs at existing sources"); 42 Fed. Reg. 55,796 (Oct. 18, 1977) (emission guideline for existing sulfuric acid production units established in 1977 less stringent than the standard for new sources issued in 1971, 36 Fed. Reg. 24,876, 24,881 (Dec. 23, 1971)); EPA, Final Guideline Document: Control of Fluoride Emissions from Existing Phosphate Fertilizer Plants at 8-1 to 8-12 (Mar. 1977), http://nepis.epa.gov/Exe/ZyPURL.cgi? Dockey=2000UNFK.TXT.

136 In its brief in the *West Virginia v. EPA* litigation (Br. 72-73), EPA pointed to a single previous section 111(d) guideline under which "an occasional old plant may have a lower guideline fluoride emission rate than a new plant." 45 Fed. Reg. 26,294, 26,295 (Apr. 17, 1980). But EPA explained there that emerging designs for new aluminum plants caused those plants to have "much greater uncontrolled emission rates" than some old plants. *Id.* Accordingly, emissions from a few new aluminum plants were actually *more difficult* to control than emissions from some existing plants. EPA does not claim that such circumstances are present here.

137 80 Fed. Reg. at 64,821.

138 *Id.*

shifting generation from older plants to newer plants with more efficient technologies,[139] even though that appears to be exactly what Congress intended.

This "fix" again underscores that the CPP has enacted a regulatory program the *opposite* of what Congress conceived. Whereas Congress sought to ensure that emission reductions would be realized as existing sources were retired and replaced with well-controlled new sources, EPA has told States they must impose measures that will prevent this from happening.[140]

EPA's inconsistent interpretation of the term "best system of emission reduction" contradicts EPA's own understanding of Congress's intent, as discussed in section --- above. When EPA first adopted regulations interpreting and implementing that provision in 1975, it concluded that, because of the interrelationship of sections 111(b) and 111(d), "the general principle (application of best adequately demonstrated control technology, considering costs) will be the same in both cases."[141] As EPA explained, Congress's decision to make the existing source performance standard program part of section 111, and not a stand-alone provision, "reflected a decision in conference that a similar approach [to that applied to new sources] (making allowances for the costs of controlling existing sources) was appropriate for the pollutants to be controlled under section 111(d)."[142] EPA emphasized that both provisions require a "technology-based approach" and that EPA would be able to take advantage of its analysis of the "availability and costs of control technology" for new sources in determining the

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[139] *Id*. at 64,822-23.

[140] *Id*.

[141] 40 Fed. Reg. at 53,341.

[142] *Id*. at 53,342.

best "control technology" for existing sources.[143]

EPA had it right in its implementing regulations and in all of its prior section 111(d) rulemakings. Reading sections 111(b) and 111(d) as a part of a single program avoids conflicting interpretations of the very same statutory provision and the arbitrary result of standards that are more stringent for existing sources than for new sources—a result Congress could not have intended.

EPA tried to defend that the CPP imposed more stringent standards for existing units as compared with new units by arguing that compliance with the new unit standards was not due until 2022 and ultimately 2030 and that, in the interim, EPA *might* adopt more stringent new-source standards.[144] But, as EPA explains in the preamble to the proposed repeal, this is purely speculative.[145] The agency never found that technological developments would eventually justify making new-source standards as stringent as the existing-source rates. EPA's prognostication is simply the "'crystal ball' inquiry" that the D.C. Circuit has forbidden as a basis for setting section 111 standards[146]

The preamble to the CPP spent almost a full page of the Federal Register trying to prove that the existing source standards, because of "flexibilities," might actually be *less* stringent than the new source standards.[147] But try as it might, EPA cannot transform an existing source standard of 1,305/lb. CO_2/MWh into one that is less stringent than a new source standard of 1,400/lb. CO_2/MWh. While it is true that with allowance trading, *some* coal units might be able

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143 *Id.* at 53,342, 53,343.

144 80 Fed. Reg. at 64,785-76.

145 82 Fed. Reg. at 48,041, n. 16.

146 *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973).

147 82 Fed. Reg. at 64,786.

to continue operating at the roughly 2,100 lb. CO_2/MWh rate at which the average unit currently operates, this can occur only if the unit owner pays money to obtain the necessary allowances and another unit ceases operation to create those allowances. In no way can this scheme be described as less stringent than the new source standards.

Finally, the CPP's expansive definition of "BSER" makes little sense in statutory context for another reason pointed out in the preamble to the proposed repeal. As EPA points out, there is little question that "best available control technology" (BACT) under the Prevention of Significant Deterioration (PSD) program means at-the-source measures only and does not extend so far as to authorize beyond-the-source measures like generation shifting. Since section 111 performance standards have always been understood to establish the minimum BACT level under the PSD program – the so-called "BACT floor" – EPA's generation-shifting theory would lead to the absurd result of section 111performance standards set at a level that would be far more stringent than BACT standards.[148]

3. Reading section 111 in context of other CAA provisions confirms that EPA's new interpretation in the CPP contradicts Congress' intent.

Section 111(d) reflects a broader programmatic distinction Congress drew between control programs focused on a source's performance and air quality programs focused on the health and welfare impact of a source category's aggregate emissions. For control programs, including section 111(d), Congress required sources to incorporate available, low-emitting production processes or control technologies into their design and operations.[149] These programs

[148] 82 Fed. Reg. at 48,041-42.

[149] *See, e.g.*, CAA § 111 (new source performance standards); *id.* § 112(d) (maximum achievable control technology standards); *id.* § 165(a)(4) (best achievable control technology standards); Clean Water Act § 306, 33 U.S.C. § 1316 (standards of performance for source pollutant discharge).

do not limit a source's ability to operate but do require that the source limit emissions during operations.

In air quality-based programs, Congress gave EPA authority to pursue a particular air quality objective by capping overall levels of emissions and by using mechanisms such as trading that result in aggregate reductions from a category of sources.[150] Under section 110, for example, state plans implementing ambient air quality standards may include, in addition to "emission limitations" for individual sources, "other control measures," "means," or "techniques," like "marketable permits" to assure attainment and maintenance of ambient air quality standards.[151]

As explained above, the CPP expressly relies upon trading to establish its emission performance rates. As justification, the CPP points to several trading programs that were adopted as a "control measure[], means or technique[]" under section 110 to meet an air quality goal.[152] EPA's analogy overlooks Congress's decades-long distinction between those programs and programs limiting emissions from individual sources. Section 110 itself highlights that distinction: It provides for "emission limitations" (like section 111), but also (unlike section 111) "other control measures" including "marketable permits[] and auctions of emissions rights."[153] The Rule elides the distinction between "emission limitations" and "other control

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[150] *See, e.g.*, CAA §§ 108-110 (national ambient air quality standards); *id*. §§ 401 *et seq*. (acid rain cap-and-trade program); *see also Nat'l-Southwire Aluminum Co.*, 838 F.2d at 837 n.3 ("An ambient air quality standard differs from an emission or performance standard …. An ambient air quality standard specifies a maximum pollutant concentration in the ambient air, while a performance standard specifies the maximum rate at which an individual source may emit pollution.").

[151] CAA § 110(a)(2)(A).

[152] 80 Fed. Reg. at 64,696-97, 64,734 n.381, 64,735.

[153] CAA §§ 110(a)(2)(A), 111(a)(1).

measures" by adopting an emission limitation in which "marketable permits" and "auctions of emissions rights"[154] are "integral."[155]

EPA's reliance on the statutory Title IV cap-and-trade program was similarly misplaced.[156] In Title IV, Congress created a detailed statutory cap-and-trade program after more than a decade of debate. The statute specifically spells out how emission allowances are to be allocated[157] restricts how they may be traded[158] and sets parameters for the allowance tracking system, *id.* § 403(d), among other features. Title IV underscores that Congress knew how to design a grid-wide cap-and-trade program, and it did not do so when it called for EPA to provide for "standards of performance" under section 111.[159]

While the EPA that wrote the CPP may wish that Congress took the same approach in section 111 as it did in authorizing "other measures, means, or techniques" in section 110, or in spelling out a cap-and-trade program under Title IV, EPA's "preference for symmetry cannot trump an asymmetrical statute."[160]

4. Congress cannot be understood to have delegated broad authority to EPA to regulate outside its area of expertise.

Under EPA's longstanding approach to defining a "system of emission reduction," the agency acts within its area of expertise in determining how a facility can cost-effectively control air pollution. But the power EPA asserted with its new definition of "system" as encompassing the entire grid took it far afield of its area of expertise and required EPA to make judgments as to

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154 *Id*. § 110(a)(2)(A).

155 80 Fed. Reg. at 64,734.

156 *Id*. at 64,770.

157 CAA §§ 403(a), 404-406.

158 *Id.* § 403(b).

159 *See Meghrig*, 516 U.S. at 485.

160 *Michigan v. EPA*, 135 S. Ct. 2699, 2710 (2015) (internal quotation marks omitted).

how grid operations could be reordered to provide substitute sources of electricity for coal generation. These sorts of judgments would be daunting even for state and federal electric utility regulators. There is no reason to suppose that Congress would have delegated to EPA the authority to make these types of energy policy judgments given that EPA, as an environmental regulator, does not have the expertise to make them.[161] As the Kansas Corporation Commission, a true electric regulator, has pointed out, the rule reflects EPA's "understandable but serious lack of understanding of the electrical system, which is outside its area of expertise."[162]

Indeed, as interpreted by EPA, the guideposts that Congress established in the BSER definition become a virtually standardless grant of authority to the Agency. For instance, the term "adequately demonstrated" is an easily-understood limitation on EPA authority to establish traditional emissions standards for various types of facilities. EPA can examine (as it has many times in the past) performance levels of various types of pollution control equipment, test results and relevant literature. But there is no meaning in the term "adequately demonstrated" in the context of EPA's reimagined electric grid. Obviously, the grid has never operated the way EPA in the CPP desired it to operate nor has Congress supplied any factors EPA should examine in determining whether the grid has been "adequately demonstrated" to operate as EPA wanted in the CPP. Similarly, while EPA can easily consider the "cost" of pollution control equipment in making traditional BSER determinations, Congress has supplied EPA no basis to determine whether the cost of its reengineered grid is acceptable. Under EPA's conception in the CPP,

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[161] *See Adams Fruit Co., Inc. v. Barrett*, 494 U.S. 638, 650 (1990) ("Although agency determinations within the scope of delegated authority are entitled to deference, it is fundamental 'that an agency may not bootstrap itself into an area in which it has no jurisdiction,'" *quoting Federal Maritime Comm'n v. Seatrain Lines, Inc*., 411 U.S. 726, 745 (1973). *See also Natural Gas Pipeline Co. of America v. FERC*, 655 F.2d 1132, 1141-42 (D.C. Cir. 1980) (because agency interpretation was "virtually unprecedented" and no agency expertise is involved, "court has the preeminent responsibility to independently scrutinize and decide all jurisdictional issues").

[162] Comments on the proposed rule of the Kansas Corporation Commission at 23.

there would no governing principle that would guide the Agency in determining whether cost impacts of 2% or 200% were acceptable.

The lack of governing standards in EPA's view of BSER would pose an even more difficult problem for courts. Under normal principles of administrative law, Congress can delegate broad authority to expert administrative agencies, and courts can confidently defer to an agency's reasonable exercises of this broad authority because of the agency's expertise.[163] But here, because EPA is acting outside its area of expertise, a reviewing court would not defer to EPA's expert judgments,[164] and so the court would be left to its own devices in determining whether EPA's reengineering of the grid was consistent with the section 111(d) factors.

Thus, it makes no sense that Congress would have delegated authority to the EPA to define BSER as a comprehensive restructuring of the electric utility industry, with the myriad technical electric-system judgments that EPA made in formulating that system for each State.[165] As the D.C. Circuit has said, "grid reliability is not a subject of the Clean Air Act and is not the province of EPA,"[166] a conclusion EPA has assiduously advanced in other rulemakings and in court.[167] And as the Supreme Court said in *Burwell*, "[i]t is especially unlikely that Congress would have delegated" critical decisionmaking to an agency "which has no expertise" in the matter.[168] So too in *Adams Fruit*: "[a]lthough agency determinations within the scope of

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163 *See Tripoli Rocketry Ass'n v. BATFE*, 437 F.3d 75, 77 (D.C. Cir. 2006).

164 *Gonzales v. Oregon*. 546 U.S. 243, 269 (2006).

165 In reviewing the Rule and perusing the various technical supporting documents, it does not take long to realize that EPA asserted expertise in practically every nook and cranny of the national power grid—deciding how much natural gas and renewable generation can the system practicably handle, how much electricity can consumers be incented to save, what could cause the system to cease operating reliably, and many more similar judgments.

166 *Del. Dep't of Nat. Res. & Envtl. Control v. EPA*, 785 F.3d 1, 18 (D.C. Cir. 2015).

167 *Id.* at 18.

168 *Burwell*, 135 S. Ct. at 2483.

delegated authority are entitled to deference, it is fundamental 'that an agency may not bootstrap itself into an area in which it has no jurisdiction.'"[169]

5. The legislative history of section 111 confirms that standards of performance are technology-based emissions limitations or similar measures to be applied at the facilities being regulated.

The NSPS program was first adopted in the 1970 CAA. The structure of the program as adopted is the same as it is today. Congress directed EPA to create a list of categories of stationary sources that pose a significant health or welfare danger and to establish performance standards for those categories. The section 111(a) definition of "standard of performance" adopted in 1970 is the same as the definition in the current statute with one exception not relevant here.[170] Section 111(d) as adopted in 1970 is identical to the provision today with the one amendment relevant to the discussion in section V below.

As discussed in the preamble to the proposed repeal, both the Senate and House bills that became the 1970 CAA reflected the view that performance standards would be based on technology or operating systems at the facility being regulated.[171] The House bill provided that new sources must be "designed and equipped" to control emissions using "available technology."[172] The Senate bill provided that performance standards are based on the "application of the latest available control technology, processes, operating methods or other alternatives."[173] The phrase "other alternatives" does not evince an intent to authorize

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[169] *Adams Fruit Co. v. Barrett*, 494 U.S. 638, 650 (1990), *quoting Fed. Mar. Comm'n v. Seatrain Lines, Inc*., 411 U.S. 726, 745 (1973)).

[170] In 1977, the phrase "and any nonair quality health and environmental impacts and energy requirements" was added to the Section 111(a) parenthetical.

[171] 82 Fed. Reg. at 48,040.

[172] H.R. Rep. No. 91-1146 (Jun. 3, 1970), A LEGISLATIVE HISTORY OF THE CLEAN AIR ACT OF 1970 (1970 Leg. Hist.) at 900; *see also* H.R. 17255, 5, 1970 Leg. Hist. at 922.

[173] S. 4358, 6 (1970 Leg. Hist. at 55).

something fundamentally different from "technology processes" and "operating methods" at the regulated source for the reasons discussed in the preamble to the proposal.[174]

When the 1977 CAA Amendments were debated, Congress certainly understood that section 111 was limited to at-the-source measures. The House Report on the 1977 CAA Amendments repeatedly describes the standard as enacted in 1970 in terms similar to "best practical control technology." For instance, the House Report stated that:

> In enacting this provision [section 111], Congress was advised by the Department of Health, Education and Welfare, and understood that "the national emission standard implies *the application of * * * control technology*" to such sources. In the Congress [sic] view, it was only right that the costs of applying *best practicable control technology* be considered by the owner of a large new source of pollution as a normal and proper expense of doing business.[175]

Congress also described the standards as "best practicable control technology," "best control technology," and "best technology requirement."[176]

As EPA pointed out in promulgating the CPP, Congress substantively amended the definition in section 111(a) in 1977 and then repealed that amendment in 1990. EPA argued that these changes show that the current version of section 111(a) (and thus the version that Congress adopted in 1970) authorize the agency to require non-technology-based standards that require significant cutbacks in a facility's production.[177]

EPA had it wrong, however. Congress amended section 111(a) in 1977 because it concluded that the standards EPA had adopted could be met by switching to clean fuels and that the availability of clean fuels in certain parts of the country and not others was creating regional

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[174] 82 Fed. Reg. at 48,040.

[175] H.R. Rep. No. 95-294, at 183-84 (1977) (1977 House Report), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1262 (emphasis added).

[176] *Id*. at 186-87.

[177] "Legal Memorandum for Proposed Carbon Pollution Emission Guidelines for Existing Electric Utility Generating Units" at 55 and "Legal Memorandum Accompanying Clean Power Plan for Certain Issue" at 35-36.

advantages that the uniform national program had been adopted to prevent.[178] Congress thus amended section 111(a) to provide that, for new fossil-fuel-fired sources, EPA standards must (a) require a percentage reduction in emissions as compared with the emissions that would have resulted if the facility used untreated fuel and (b) reflect emissions reductions possible from the "best technological system of continuous emission reduction." This change did not modify the basic structure of the NSPS program under which emissions standards must reflect technology or operating practices used *at the regulated facility*. It merely eliminated one potential operating practice, the use of clean fuels.[179] And, in any event, the change did not apply under section 111(d).

Congress repealed these amendments in 1990 because Congress concluded that the amendments had only served to exacerbate regional advantages and because the provisions were no longer necessary given the national cap on emissions under the acid rain program.[180] Under section 111(b) as it exists today, thus, facilities have the option again of using clean fuels. In any event, there is nothing in this history that contradicts Congress' underlying intent that performance standards are based on methods for controlling pollution at the source and not on forcing facility retirements because EPA believes that the economy can produce substitutes.

Indeed, EPA's new interpretation undermines Congress' intent, expressed clearly in the legislative history, that the NSPS program would promote economic growth. As the D.C. Circuit has noted, the National Ambient Air Quality Standards (NAAQS) program, adopted in 1967, is "the centerpiece" of the CAA and ensures that the level of pollutants in the ambient air does not

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178 1977 House Report at 186-87.

179 *Id.* at 187-88.

180 S. Rep. No. 101-228, at 337-38 (1989), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3720-21.

exceed safe levels.[181] Congress was concerned, however, that the NAAQS system could "constrain economic growth" and "the NAAQS system of air quality regulation would place States with relatively cleaner air at an economic advantage, since these States could attract industry by setting less stringent emission limits."[182] As the court said, "[t]o remedy these problems created by the established system of health-based regulation, Congress amended the CAA in 1970 to require major new sources to meet performance standards reflecting the best system of adequately demonstrated emission reduction."[183]

The NSPS program thus, from its inception, was intended by Congress to harmonize the twin goals of clean air and economic growth by requiring new sources to install the "best" systems of "adequately demonstrated" emissions controls. As the 1977 House Report stated:

> *…the use of best technology in large new pollution sources was intended to enhance the potential for long-term economic growth.* Since the national ambient air quality standards (irrespective of the policy of prevention of significant deterioration under section 101(b) created an air quality ceiling in areas cleaner than the standards, it became clear that air was a finite resource. If each large new pollution source were required to use best practicable control technology, then more new sources could locate in any given area.
> This in turn would permit more jobs, more production, and greater possibilities for long-term economic growth than if major new sources were not as well-controlled.[184]

Indeed, "[t]he committee has designed this section and the entire bill, to encourage and facilitate the increased use of coal …."[185]

In sum, consistent with Congress' desire to promote economic growth, the NSPS program was intended to allow for the construction of new facilities so long as they adopted

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[181] *Sierra Club v. Costle*, 657 F.2d 298, 315, n.23 (D.C. Cir. 1981).

[182] *Id*.

[183] *Id*.

[184] 1977 House Report at 185.

[185] S*ee* H. Rep. No. 95-294 at 192.

modern, adequately demonstrated and affordable control technology. It was never intended, as EPA now contends, to force the wholesale unit retirements.

6. The administrative history of section 111(a) shows that a "system of emission reduction" is a system installed or operating at the regulated facility.

For the more than 45-year history of the NSPS program, EPA has consistently defined BSER as a system for reducing emissions at the regulated facility. Indeed, the label "BSER" is a relatively new EPA invention. For most of the history of the program, the label for the standard that EPA adopts was "Best Demonstrated Technology," or "BDT," reflecting the common understanding that the standard was based on technology installed at the source or work practice or similar activities undertaken at the source. A chapter of a leading CAA text book discussing the NSPS program, in a section entitled "Setting the Performance Standards," describes the standards in a subsection entitled "Best Demonstrated Technology Standards." After quoting section 111(a), the text book states that "[t]his is the BDT standard, which is yet another of the many *technology measures* found in federal pollution control statutes."[186] As the authors say, "section 111 establishes technology-based emission standards for industrial source categories…."[187]

EPA's section 111(d) implementing regulations plainly reflect EPA's understanding that performance standards must be based on measures at the regulated facility itself. The regulations provide for EPA to issue "Emissions Guidelines" that are based on the best system of emission reduction "for designated facilities," meaning facilities within the regulated source category.[188]

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[186] Julie R. Domike and Alec C. Zacaroli, THE CLEAN AIR HANDBOOK, American Bar Association Section of Environment, Energy and Resources 2001, at 328 (3d ed. 2011) (emphasis added).

[187] *Id.* at 32; *see also*, Ray S. Belden, CLEAN AIR ACT: BASIC PRACTICE SERIES, at 61 (American Bar Association Section of Environment, Energy and Resources 2001.

[188] 40 C.F.R. § 60.21(f) and (b).

State plans implementing these guidelines must include "legally enforceable increments of progress to achieve compliance for each designated facility or category of facilities."[189] Unless impracticable, these "increments of progress" "must include" all of the measures set forth in 42 C.F.R. § 60.21(h).[190] That provision defines "increments of progress" as measures to implement technologies "which must be taken by an owner or operator of a designated facility" itself: "(1) Submittal of a final contract plan for the designated facility to the appropriate air pollution control agency; (2) Awarding of contracts for emission control systems or for process modifications, (3) Issuance of orders for the purchase of component parts to accomplish emission control or process modification; (4) Completion of on-site construction or installation or emission control equipment or process change; and Final compliance."

Other provisions of EPA's section 111(d) implementing regulations are to the same effect. The regulations require that State plans contain "test measures and procedures" for demonstrating compliance with the performance standards.[191] In certain situations, States can adopt standards that are less stringent than EPA's guidelines, including "unreasonable cost of control resulting from plant age, location, or basic process design" and "physical impossibility of installing necessary control equipment."[192] All of these provisions reflect an understanding that standards must be based on feasible and cost-effective measures taken at the regulated facility, such as pollution controls.

As is shown by reviewing any one of the numerous NSPS that EPA has established throughout the history of the program, EPA has consistently promulgated performance standards

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189 *Id.*, § 60.24(e)(1).

190 *Id*.

191 *Id*. at 60.24(b)(2).

192 *Id*. at 60.24(f)(2).

in the same way. It has designated a source category, it has examined test data or other relevant information to determine the emissions performance of various types of control technologies, it has selected performance standards, typically as a rate of emission per unit of output, based on this information, and it has required monitoring and recordkeeping to assess whether the facility meets the performance standard.[193] The same is true for the "guidelines" that EPA has issued for existing source performance standards. They are each based on technology or similar measures for "designated facilities" within the source category.[194]

The regulatory history of EPA's adoption of its 1975 general section 111(d) regulations further supports this view. As EPA points out in the preamble to the proposed repeal,[195] the agency explained in the 1975 rulemaking that both State-established performance standards for existing sources and EPA-established performance standards for new sources would be established using the same principle – "application of best *adequately demonstrated technology*."[196] Nevertheless, EPA went on to explain that the standards for new sources would be expected to be more stringent than the standards for existing sources because "the costs of controlling *existing facilities* will ordinarily be greater than those for control of new sources." EPA further stated that Congress "intended the *technology-based approach* of [section 111] to extend (making allowances for the costs of controlling *existing sources*) to action sunder section 111(d)."[197]

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193 *See* EPA's NSPS regulations at 40 C.F.R.

194 *See* 40 C.F.R. Subparts Cb, Cc, Cd, and Ce.

195 82 Fed. Reg. at 48,042.

196 40 Fed. Reg. 53,340, 53,341 (Nov. 17, 1975) (emphasis added).

197 *Id*. at 55,342 (emphasis added). *See also id*. and *id*. at 53,343 (again describing section 111(d) as providing for a "technology-based approach").

It is no surprise then that EPA, in adopting the CPP, did not cite any precedent for defining a "system" of emission reduction as requiring facility owners to shift production from one type of unit to another, even those that are not regulated under the CAA. There is no such precedent. Indeed, the CPP is such a departure from EPA's long-established understanding of the basis for setting performance standards that the agency, even after it proposed the rule, immediately returned to its past practice in setting performance standards for oil refineries. In promulgating its refinery standards, EPA described the standards setting process as follows: "[t]he standard that the EPA develops, *based on the BSER achievable at that source,* is commonly a numerical emission limit, expressed as a performance level (*i.e.*, a rate-based standard)."[198] In other words, a standard is a maximum rate of emissions based on the performance of control systems at a source—it is not a limitation forcing the source's owner to invest in other facilities.

As noted, EPA took the same settled approach in promulgating its CO_2 standards of performance for *new* coal and gas plants. EPA based the standards on its examination of the level of emissions performance these plants could achieve by using control technologies and operating practices, not on the level that could be achieved on some combined basis if their owners also built or paid for a certain amount of new lower- or zero-emitting resources.[199]

In the CPP, EPA tried to analogize two of its previous regulations (out of a 45-year regulatory history) to its current proposal, but these analogies fall flat. In one example, the agency set technology-based emissions limits for individual emitting units at waste combustion plants and allowed the owners of these plants to average NO_x emissions from each unit together

[198] 79 Fed. Reg. 36,880, 36,885 (June 30, 2014) (emphasis added).

[199] 80 Fed. Reg. at 64,512-13, Tbl. 1.

to demonstrate compliance.[200] This is obviously a far cry from the CPP, where EPA did not set technology-based standards for coal EGUs and instead required them to shift generation to sources outside the source category and indeed to facilities like renewables that are not even sources at all.[201]

The second example EPA cited in the CPP is the Clean Air Mercury Rule (CAMR),[202] in which EPA set technology-based limits for utility mercury emissions and permitted utilities to comply through a voluntary cap-and-trade program.[203] This example is also off point because EPA determined the nationwide ceiling in the voluntary cap-and-trade program by adding up the total mercury reductions that units would make if they each complied with EPA's technology-based standards.[204] As EPA said in that rule, the cap-and-trade program was "based on control technology available in the relevant timeframe" that could be installed at each regulated source.[205] These "technologies" were sufficient to support CAMR's performance standards "[e]ven assuming, arguendo, that the term 'standard of performance' prohibited an emissions cap

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200 EPA Legal Memorandum Accompanying Clean Power Plan for Certain Issues at 113.

201 *See* 40 C.F.R. § 60.33b(d)(1).

202 "Legal Memorandum for Proposed Carbon Pollution Emission Guidelines for Existing Electric Utility Generating Units" at 105-06.

203 *See* "Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units," 70 Fed. Reg. 28,606 (May 18, 2005). When EPA adopted CAMR in 2005, EPA amended its generic Section 111(d) regulations to change the definition of "standard of performance" to include "establishing an allowance system." 70 Fed. Reg.28,606, 28,649 (May 18, 2005) (amending 40 C.F.R. § 60.21(f)). EPA also revised the first sentence of 40 C.F.R. § 60.24(b)(1) to provide that "[e]mission standards shall either be based *on an allowance system* or prescribe allowable rates of emissions except when it is clearly impracticable." *Id.* (emphasis added). EPA further adopted a new 40 C.F.R. § 60.21(k) defining "allowance system." *Id.* In *New Jersey v. EPA*, 517 F.3d 574, 583 (D.C. Cir. 2008), however, the United States Court of Appeals for the District of Columbia Circuit vacated CAMR. As a result, these regulatory changes became a nullity, even though.EPA did not remove these provisions from subsequent editions of the Code of Federal Regulations. Thus, EPA's regulatory definition of standard of performance as including an allowance system has no continuing legal effect.

204 70 Fed. Reg. at 28,619.

205 70 Fed. Reg. at 28,617.

and allowance trading program."[206] CAMR did *not* set rates that *no* source could meet, nor was it designed to force "generation-shifting." CAMR may well have gone too far legally in promulgating a cap-and-trade program, although not nearly as far as the CPP. It was challenged in court by States and environmental groups who argued that performance standards must require every individual source to continuously comply.[207] The court did not reach the merits of the case but otherwise vacated CAMR. Hence, CAMR is no longer an EPA regulation.[208]

In the proposed CPP, EPA also cited its CAA § 129 regulations for hospital/medical/infectious waste incinerators (HMIWI)[209] and for commercial and industrial solid waste incinerators[210] under which, among other requirements, the incinerators would adopt waste management plans. These plans required examination of the possibility of removing certain types of waste from the waste stream to reduce hazardous emissions. Apart from the fact that these requirements were adopted under section 129 rather than section 111, they do not provide precedent for EPA's approach because they also are not based on an EPA mandate that these facilities reduce operation in order to reduce emissions. Management of fuels input is an accepted practice under the NSPS program; certain EGUs use washed coal to meet NSPS requirements and many have switched from high to low sulfur coal for the same purpose. Moreover, EPA did not in either rulemaking mandate a limitation on what wastes could be burned or the ultimate amount of emissions that these facilities were required to avoid based on their plans. For instance, in the HMIWI rulemaking, EPA stated that waste management plans

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[206] *Id.* at 28,620 n.5.

[207] *See New Jersey*, 517 F.3d at 576.

[208] As discussed above, CAMR changed EPA's regulatory definition of "standard of performance" to include an "allowance system," but that definition is no longer in effect.

[209] 62 Fed. Reg. 48,348, 48,359 (Sept. 15, 1997).

[210] 65 Fed. Reg. 75,338, 75,341 (Dec. 1, 2000).

"should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and other environmental or energy impacts they may have."[211]

In sum, the CPP was unprecedented.

IV. The CPP Interferes with Authority Congress Delegated to the States.

A. EPA Cannot Require States to Meet EPA-Set Emission Reduction Requirements.

Section 111(d) provides, in pertinent part, that EPA "shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant…." Under this language, EPA may not set emission reduction requirements for States. The Agency may establish a procedure for States to submit plans containing State-established standards, and it may approve or disapprove those plans based on EPA's assessment of whether the plans are "satisfactory."[212] But EPA's power to disapprove a State plan is limited and cannot be used, as EPA attempted in the CPP, to dictate a substantive outcome, where coal plant emissions are limited to the EPA-dictated performance rate of 1,305 lbs. CO_2/MWh.[213]

To the contrary, Congress plainly granted States the substantive authority to promulgate standards of performance. Section 111(d) specifically provides that "each State shall submit to the Administrator a plan which (A) *establishes* standards of performance…." (Emphasis added.)

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[211] 62 Fed. Reg. at 48,359.

[212] *See* CAA § 111(d)(2)(A).

[213] *Am. Library Ass'n v. FCC*, 406 F.3d 689, 698 (D.C. Cir. 2005) (noting that an agency's "power to promulgate legislative regulations is limited to the scope of the authority Congress has delegated to it").

It is true that that the definition of standard of performance in section 111(a) provides that the "best system of emission reduction" is the system that, balancing the statutory factors, "*the Administrator* determines has been adequately demonstrated." (Emphasis added.) But EPA's authority to determine the BSER does not also give it authority to establish the standards of performance that are based on the BSER. EPA claimed throughout the preamble to the CPP that the "performance rate" each coal unit must meet is not actually the same thing as a "standard of performance" and that States are free to adopt any "standard of performance" they want so long as the result is that their coal units meet the "performance rate." But this is merely playing with language. Under the statute, a standard of performance is "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."[214] That is precisely what EPA's "emission performance rates" are.

B. Congress' Decision Not to Require States to Submit Section 111(d) Performance Standards as a Part of Formal Section 110 State Implementation Plans Confirms EPA's Limited Section 111(d) Role.

Section 110 provides for States to submit formal state implementation plans (SIPs) to meet a number of standards. Typically, where a section 110 SIP is required, Congress has adopted a separate provision authorizing EPA to set the applicable standards. For instance, section 109 provides for EPA to establish NAAQS, and section 110(a) provides that States must submit SIPs meeting those NAAQS.[215] In places, section 110 itself creates substantive requirements that State plans must meet. For instance, section 110(a)(2)(D)(i)(I) requires that State plans include measures to prevent significant contribution to nonattainment of the NAAQS

[214] CAA § 111(a).

[215] *See also* Section 1110(a)(2)(A) requiring SIPs to meet "other applicable requirements of this Act."

in downwind States.

Congress, however, did not require States to submit formal section 110 SIPs containing the performance standards that they adopt under section 111(d). Instead, section 111(d) provides that EPA is to establish a "procedure similar to that provided by" section 110 for States to submit plans. Congress' decision not to subject State section 111(d) plans to the full weight of the section 110 SIP review process indicates Congress' intent that EPA would play a lesser role in approving or disapproving State section 111(d) plans than would occur under the formal section 110 process.[216] This is understandable because, unlike formal section 110 SIPs, where States must meet congressionally- or EPA-established standards, Congress did not establish standards under section 111(d) nor did it authorize EPA to do so. It left that task to the States.

Of course, by requiring that EPA establish a "procedure similar to that provided by" section 110, and by giving EPA the authority to promulgate a federal plan if the State plan is not "satisfactory,"[217] Congress gave EPA a role to play in reviewing and potentially even disapproving State plans. But EPA's authority to disapprove an unsatisfactory State plan obviously cannot be transformed into EPA authority to set performance standards in advance that States must meet, which is what EPA did in the CPP. And although EPA could undoubtedly issue nonbinding guidance advising States of factors EPA would consider in finding a State plan unsatisfactory, the guidance may not intrude into the State's ultimate authority to "establish" the performance standards.

In this regard, it must be kept in mind that EPA's disapproval authority under section

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[216] *Cf. Russello* v. *United States*, 464 U.S. 16, 23 (1983) ("Where Congress includes particular language in one section of a statute but omits it in another . . . , it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.") (citation and internal quotation marks omitted).). This intent is underscored by Congress' use of the word "procedure," which, as noted, further demonstrates Congress' intent not to provide EPA with a substantive role in setting performance standards.

[217] CAA § 111(d)(2)(A).

111(d) is limited. As in other cases where the CAA delegates authority to States to determine emission standards in the first instance, EPA may disapprove a State determination only where the State acted "unreasonably."[218] In the PSD program, for which section 111 performance standards set the "BACT floor," the Supreme Court has stated that because the statute gives States "considerable leeway" and "places primary responsibilities and authority with the States," EPA must give "appropriate deference" to the State.[219] EPA may step in "[o]nly when a state agency's BACT determination is not based on a reasoned analysis" and is "arbitrary."[220] When it does step in, the Agency has "the production and persuasion burdens."[221]

Thus, although EPA ultimately could disapprove a State section 111(d) plan if it is unreasonable and therefore not "satisfactory," EPA would bear the burden of showing that the State acted unreasonably. It cannot, however, dictate substantive outcomes, as the CPP does, nor can it use its limited disapproval authority to eviscerate State authority under section 111(d) to establish performance standards.

C. The CPP Intrudes on State Authority Under EPA's Section 111(d) Regulations.

EPA's 1975 regulations establishing the procedures for section 111(d) State plans[222] recognize the important division of authority between EPA and the States. Under these regulations, when EPA issues a new source performance standard, the agency will also issue (for source categories that qualify under section 111(d)) a "guidance document" containing an

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[218] *See, e.g., Alaska Dep't of Envt'l Conservation v. EPA*, 540 U.S. 461, 484-89 (2004) ("*ADEC*") (EPA authority over state best available control technology determinations is limited "to ensur[ing] that a State's BACT determination is reasonably moored to the Act's provisions.").

[219] *Id.* at 490-91 (internal quotations omitted).

[220] *Id.* at 490-91 (internal quotations omitted).

[221] *Alaska*, 540 U.S. at 494 (emphasis added).

[222] *See* 40 C.F.R. pt. 60, subpt B.

"emission guideline" that "reflects the application of the best system of emission reduction."[223] States then are to submit plans establishing the standards of performance, which may be less stringent than the EPA emission guidelines if a State makes certain demonstrations, including infeasibility or unreasonable cost given a plant's age.[224] As EPA explained in 1975 when it promulgated these procedural regulations, "to emphasize that a legally enforceable standard is *not* intended, the term 'emission limitation' has been replaced with the term 'emission guideline,"[225]

But under the CPP, EPA assumed for itself power to establish legally enforceable emission standards. Though the CPP used the term emission "guidelines," EPA did in fact promulgate national performance rates that set the minimum stringency for standards of performance imposed by the States.[226] As EPA admitted, the CPP forbids the States to impose emission standards that are less stringent than EPA has mandated through the national performance rates.[227] By establishing a minimum stringency for emission standards imposed by States and then leaving only the work of implementation for the States, EPA has unlawfully disregarded its own implementing regulations that recognize that Congress gave States the authority to "establish[] standards of performance."[228]

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[223] 40 C.F.R. § 60.22(a), (b)(5).

[224] *Id.*, § 60.24(f).

[225] 40 Fed. Reg. at 53,341 (emphasis added). EPA has approved numerous state plans continuing standards of performance less stringent than EPA's guidelines. See, e.g., 49 Fed. Reg. 35,771 (Sept. 12, 1984) (approving Arkansas plan for kraft pulp mill total reduced sulfur emissions); 47 Fed. Reg. 50,868 (Nov. 10, 1982) (approving Georgia plan for same); 47 Fed. Reg. 28,099 (June 29, 1982) (approving California plan for phosphate fertilizer plant fluoride emissions).

[226] 40 C.F.R. pt 60, subpt UUUU, Tbl. I.

[227] 80 Fed. Reg. at 64,870 ("[C]onsideration of facility-specific factors and in particular, remaining useful life, does not justify a state making further adjustments in the performance rates … that the guidelines define for affect [units] in a state and that must be achieved by the state plan.").

[228] CAA § 111(d)(1).

D. The CPP Improperly Deprives States of Authority to Consider the Remaining Useful Lives of Regulated Sources.

Under section 111(d)(1)(B), "[r]egulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies." EPA implemented this requirement in its general section 111(d) regulations,[229] by providing that states may deviate from EPA-mandated guidelines for a specific facility based on, among other factors, "[u]nreasonable cost of control resulting from plant age."

In the CPP, EPA claimed that the ability of States to take into consideration the remaining useful life of a particular source was preserved, but the way the agency did so is plainly unlawful. Under the CPP, a State, based on remaining useful life, can adopt a standard that is less stringent than EPA's performance rate only if the State imposes a concomitantly more stringent standard on another unit.[230] But EPA does not have authority to require States to adopt a standard for any unit that is more stringent than the standard produced by the BSER; it follows that EPA cannot condition a State's authority to recognize remaining useful life for one source by requiring unlawful emission reductions from another source.

EPA also claimed that the CPP allows the recognition of remaining useful life by authorizing trading "because with trading, an affected EGU with a limited remaining useful life can avoid the need to implement long-term emission reduction measures and can instead purchase ERCs or other tradable instruments, such as mass-based allowances, thereby allowing

[229] 40 C.F.R. § 60.24(f).

[230] 80 Fed. Reg. at 64,719.

the State to meet the requirements of this rule."[231] But under the statute, a State's authority to consider remaining useful life is unlimited; EPA cannot glom on a separate requirement that a source's remaining useful life can be considered only if the source pays money to other facilities.

V. The Section 112 Exclusion Unambiguously Prohibits the CPP.

The Section 112 Exclusion invalidates the CPP irrespective of its contents. Under EPA's own longstanding reading of the text in the U.S. Code, the Exclusion prohibits EPA from employing section 111(d) to regulate a source category that is already regulated under section 112. And because it is undisputed that coal-fired generating units are already regulated under section 112,[232] the Exclusion prohibits EPA's attempt in the Rule to invoke section 111(d) to regulate those same plants.

A. EPA May Not Employ Section 111(d) To Regulate a Source Category That It Has Chosen To "Regulate[] Under Section [1]12."

The Exclusion's prohibition against employing section 111 to regulate "any air pollutant" emitted from a "source category … regulated under section [1]12" has a straightforward and unambiguous meaning. "Regulated" means "[g]overned by rule, properly controlled or directed, adjusted to some standard, etc."[233] Thus, if a source category is "governed by [a] rule" under section 112, EPA may not require States to set a standard of performance for sources in that category under section 111(d). Or, as the Supreme Court has said, "EPA may not employ [section 111(d)] if existing stationary sources of the pollutant in question are regulated under … § [1]12."[234] EPA has repeatedly agreed that this prohibition against regulating under section 111(d) any existing "source category … regulated under section [1]12" means what it says. In

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231 80 Fed. Reg. at 64,734-35.

232 *See* 77 Fed. Reg. 9304 (Feb. 16, 2012).

233 13 Oxford English Dictionary 524.

234 *AEP*, 131 S. Ct. at 2537 n.7.

five analyses spanning three different Administrations—in 1995, 2004, 2005, 2007, and 2014—the agency consistently concluded that this text means that "a standard of performance under CAA section 111(d) cannot be established for any air pollutant … emitted from a source category regulated under section 112," *repeatedly* describing this as the text's "literal" meaning.[235]

This "literal" reading of the Exclusion is, as EPA itself has explained, consistent with the statutory and legislative history of the CAA's 1990 Amendments. Before 1990, section 112 covered an extremely narrow category of life-threatening pollutants.[236] But in 1990, Congress greatly expanded the reach of the section 112 program, significantly broadening the definition of pollutants under section 112 to include those "which present, or may present … a threat of adverse human health effects … or adverse environmental effects," and increasing the stringency of regulation on those source categories subject to the section 112 program.[237] As EPA has said in the past, the House of Representatives (where the current text of the Exclusion originated) responded to this fundamental expansion in section 112 by "chang[ing] the focus of [the Exclusion and] seeking to preclude regulation of those pollutants that are emitted from a particular source category that is actually regulated under section 112."[238] That is, the House determined that existing sources, which have significant capital investments and sunk costs,

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[235] 69 Fed. Reg. 4652, 4685 (Jan. 30, 2004); *see* EPA, Air Emissions from Municipal Solid Waste Landfills—Background Information for Final Standards and Guidelines at 1-6 (Dec. 1995) ("1995 EPA Analysis"), http://www3.epa.gov/ttn/ atw/landfill/bidfl.pdf; 70 Fed. Reg. 15,994, 16,031 (Mar. 29, 2005); Final Br. of Resp't EPA, *New Jersey v. EPA*, No. 05-1097, 2007 WL 2155494 (D.C. Cir. July 23, 2007) ("2007 EPA Brief"); EPA Legal Memo at 26.

[236] *See* S. Rep. No. 91-1196, at 20 (1970), *reprinted in* 1 Clean Air Act Amendments of 1970 at i, 20 (Comm. Print 1970).

[237] CAA § 112(b)(2).

[238] 70 Fed. Reg. at 16,031.

should not be burdened by both the expanded section 112 program and performance standards under section 111(d).[239]

The House, EPA has also explained, was especially concerned about "duplicative or otherwise inefficient regulation" when it came to existing power plants, the source category at issue here.[240] In the 1990 Amendments, the House drafted a new provision that—similar to the provision now codified at section 112(n)(1)—gave EPA authority to decline entirely to regulate power plants under section 112.[241] The House revised the Exclusion also to work in tandem with this new provision, so that EPA had a choice between regulating existing power plants under the national standards of section 112 or under the state-by-state standards of section 111(d).[242]

B. EPA's Attempts in the CPP To Escape the Literal Reading of the Exclusion Are Unavailing.

In the CPP, EPA offered two arguments to avoid what it has consistently concluded is the "literal" meaning of the Section 112 Exclusion. *First*, the agency claimed for the first time in 20 years that the phrase "regulated under section [1]12" is ambiguous. *Second*, EPA exhumed an argument it advanced during its unsuccessful Clean Air Mercury Rule rulemaking that a second "version" of the Exclusion exists in the 1990 Statutes at Large. Neither argument withstands scrutiny.

1. EPA's assertions in the CPP that the applicable statutory language is ambiguous lack merit.

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239 *Id*. at 16,031-32.

240 *Id*. at 15,999

241 *Id*. at 16,031.

242 *See id*. ("[W]e believe that the House sought to change the focus of section 111(d) by seeking to preclude regulation of those pollutants that are emitted from a particular source category that is actually regulated under section 112."); *id*. ("[T]he House did not want to subject Utility Units to duplicative or overlapping regulation.").

Despite consistency over 20 years and three Administrations, EPA in the CPP claimed to find ambiguous the phrase "source category … regulated under section [1]12."[243] EPA admitted it could be read in the way the agency has always read it.[244] But EPA claimed the phrase could also be read "only [to] exclud[e] the regulation of [hazardous air pollutant] emissions under CAA section 111(d) and only when th[e] source category [at issue] is regulated under CAA section 112."[245]

EPA's belated attempt to "manufacture[] ambiguity" and rewrite the Exclusion is impermissible.[246] There is no ambiguity in the phrase "source category … regulated under section [1]12." Clearly, if a source category is subject to section 112's stringent national hazardous air pollutant standards, that source category is "regulated under" section 112. EPA's interpretation would read new words into the Exclusion's plain terms, turning the straightforward prohibition against regulating under section 111(d) any source category "regulated under section [1]12" into a prohibition against the regulation of any "source category which is regulated under section 112 *only where the air pollutant is included on a list published under section 112(b)(1)*." Those extra words are not in the statute.

EPA's new reading of the statute runs afoul of precedent of the D.C. Circuit and the Supreme Court. EPA attempted to "qualif[y] or restrict[]" the phrase "regulated under section [1]12" when "[n]othing in this language" does so.[247] Moreover, EPA's effort resembles its failed attempt in the *UARG* litigation to evade "a literal reading" of the CAA.[248] In that case, the

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243 80 Fed. Reg. at 64,713.

244 *Id*. at 64,714.

245 *Id*.

246 *W. Minn. Mun. Power Agency v. FERC*, 806 F.3d 588, 592 (D.C. Cir. 2015) (internal quotation marks omitted).

247 *Id*. at 592.

248 75 Fed. Reg. 31,514, 31,516 (June 3, 2010).

Supreme Court rebuked the agency for seeking to "rewrite clear statutory terms to suit its own sense of how the statute should operate."[249]

EPA attempted to bolster its statutory rewrite with a plea to legislative history, but this argument cuts against the agency's position. According to EPA, reading the Exclusion as prohibiting section 111(d) regulation of pollutants not listed under section 112(b)(1) that are emitted from a source category regulated under section 112 would create an impermissible "gap" in the CAA. Such a "gap," EPA asserted, is contrary to the intent of those who wrote the 1970 version of the Act.[250]

As a threshold matter, *UARG* forecloses such non-textual appeals to purpose or legislative history where a statute's literal terms are clear and unambiguous. The Supreme Court stated unequivocally that an agency's authority "does not include a power to revise clear statutory terms that turn out not to work in practice."[251]

In fact, since the 1990 Amendments, EPA has issued only two section 111(d) regulations, and both were consistent with the Exclusion's plain terms. In the first rule, the Clinton-era EPA expressly acknowledged the Exclusion's prohibition against regulating a source category under section 111(d) where that source category is already regulated under section 112, but explained that its section 111(d) regulation of municipal solid waste landfills was permissible because the landfills were not "actually being regulated under section 112." 1995 EPA Analysis at 1-6. The second rule was the Clean Air Mercury Rule, in which EPA sought first to delist power plants entirely under section 112 before regulating those plants under section 111(d).[252]

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[249] *UARG*, 134 S. Ct. at 2446.

[250] 80 Fed. Reg. at 64,714 (discussing legislative history from the 1970 CAA).

[251] 134 S. Ct. at 2446.

[252] 70 Fed. Reg. at 15,994 (delisting); 70 Fed. Reg. 28,606 (May 18, 2005) (imposing standards). In the Clean Air Mercury Rule, EPA attempted to use section 111(d) to regulate hazardous air pollutants from coal- and oil-fired

EPA further ignored that with respect to power plants in particular, the 1990 Amendments gave EPA an explicit choice between regulating existing power plants under the national standards of section 112 or under the state-by-state standards of section 111(d). *See supra* p. 64. What EPA claims to be a regulatory gap is a regulatory regime deliberately designed by Congress to avoid double regulation.

2. The failed clerical amendment is entirely irrelevant.

In the CPP, EPA's alternative avenue for avoiding the "literal" meaning of the Section 112 Exclusion, as it appears in the U.S. Code, was the argument that a second "version" of the Exclusion exists in the 1990 Statutes at Large and creates ambiguity. This theory derives from the fact that in 1990, Congress passed an erroneous "conforming amendment" that appears in the Statutes at Large but was not included in the U.S. Code.[253]

EPA's contention in the CPP was that the non-partisan Office of the Law Revision Counsel of the U.S. House of Representatives,[254] erred in compiling the U.S. Code. By law, the Code "establish[es] prima facie the laws of the United States."[255] It is controlling unless the Law Revision Counsel has made an error, such that the Code is "inconsistent" with the Statutes at Large.[256] The Law Revision Counsel did not err.

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electric generating units. In *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008), this Court held that EPA violated the CAA in the manner it delisted power plants under section 112, and vacated the section 111(d) regulation of those power plants based on the Section 112 Exclusion, *id*. at 582-83.

[253] EPA's claim that the Statutes at Large contains "two versions" of the Section 112 Exclusion can be traced to 2004, when EPA mistook for the Statutes at Large an unofficial compilation of the Clean Air Act littered with errors that was included in the Committee Print of the 1990 Amendments' legislative history. *See* 1 A LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1990 at 46 (Comm. Print 1993). This document renders the relevant section using brackets: "any air pollutant … which is not included on a list published under section 108(a) [or emitted from a source category which is regulated under section 112] [or 112(b)]." *Id.* In 2004, EPA quoted from this document in the Federal Register, identifying it as the Statutes at Large and, as a result of this error, stated incorrectly that "two amendments are reflected in parentheses in the Statutes at Large." 69 Fed. Reg. at 4685.

[254] *See* 2 U.S.C. §§ 285a-285g.

[255] 1 U.S.C. § 204(a).

[256] *Stephan v. United States*, 319 U.S. 423, 426 (1943) (per curiam).

The issue is the Law Revision Counsel's treatment of a "substantive amendment" and a "conforming amendment" that altered the same text in the Exclusion. As explained in Congress's official legislative drafting guides, there are "substantive amendments" and "conforming amendments," the latter of which make clerical adjustments to "table[s] of contents" and corrections to pre-existing cross-references that are "necessitated by the substantive amendments."[257]

Consistent with these official drafting manuals, the Law Revision Counsel follows a regular practice of first executing substantive amendments, then executing subsequent conforming amendments and excluding as "could not be executed" conforming amendments rendered unnecessary by previously executed substantive amendments.[258] And that is what happened here.

The Law Revision Counsel correctly executed first a substantive amendment that Congress made to the Exclusion in 1990 (the "Substantive Amendment"). Before 1990, the

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[257] *See* Office of the Legislative Counsel, U.S. Senate, Legislative Drafting Manual § 126(b) (Feb. 1997), https://www.law.yale.edu/system/files/documents/.pdf/Faculty/SenateOfficeoftheLegislativeCounsel_LegislativeDrafting Manual(1997).pdf ("Senate Manual"), *Accord* Office of the Legislative Counsel, U.S. House of Representatives, House Legislative Counsel's Manual on Drafting Style § 332(b) (Nov. 1995), http://legcounsel.house.gov/HOLC/Drafting_Legislation/ Drafting_Guide.html ("House Manual"). *Cf. Koons Buick Pontiac GMC, Inc. v. Nigh*, 543 U.S. 50, 60-61 (2004) (relying on drafting manuals); *United States v. O'Brien*, 560 U.S. 218, 233-34 (2010) (same).

[258] *See, e.g.*, Revisor's Note, 11 U.S.C. § 101; Revisor's Note, 12 U.S.C. § 4520; Revisor's Note, 15 U.S.C. § 2064; Revisor's Note, 18 U.S.C. § 2327; Revisor's Note, 21 U.S.C. § 355; Revisor's Note, 23 U.S.C. § 104; Revisor's Note, 26 U.S.C. § 1201; Revisor's Note, 42 U.S.C. § 1395u; Revisor's Note, 42 U.S.C. § 1395ww; Revisor's Note, 42 U.S.C. § 1396b; Revisor's Note, 42 U.S.C. § 3025; Revisor's Note, 42 U.S.C. § 9875; *see also* Revisor's Note, 7 U.S.C. § 2018; Revisor's Note, 10 U.S.C. § 869; Revisor's Note, 10 U.S.C. § 1407; Revisor's Note, 10 U.S.C. § 2306a; Revisor's Note, 10 U.S.C. § 2533b; Revisor's Note, 12 U.S.C. § 1787; Revisor's Note, 14 U.S.C. ch. 17 Front Matter; Revisor's Note, 15 U.S.C. § 2081; Revisor's Note, 16 U.S.C. § 230f; Revisor's Note, 20 U.S.C. § 1226c; Revisor's Note, 20 U.S.C. § 1232; Revisor's Note, 20 U.S.C. § 4014; Revisor's Note, 22 U.S.C. § 3651; Revisor's Note, 22 U.S.C. § 3723; Revisor's Note, 26 U.S.C. § 105; Revisor's Note, 26 U.S.C. § 219; Revisor's Note, 26 U.S.C. § 4973; Revisor's Note, 29 U.S.C. § 1053; Revisor's Note, 33 U.S.C. § 2736; Revisor's Note, 37 U.S.C. § 414; Revisor's Note, 38 U.S.C. § 3015; Revisor's Note, 40 U.S.C. § 11501; Revisor's Note, 42 U.S.C. § 218; Revisor's Note, 42 U.S.C. § 290bb–25; Revisor's Note, 42 U.S.C. § 300ff–28; Revisor's Note, 42 U.S.C. § 1395x; Revisor's Note, 42 U.S.C. § 1396a; Revisor's Note, 42 U.S.C. § 1396r; Revisor's Note, 42 U.S.C. § 5776; Revisor's Note, 42 U.S.C. § 9601.

Exclusion prohibited EPA from regulating under section 111(d) any air pollutant "included on a list published under … [1]08(a) … or [1]12(b)(1)(A)."[259] The reference to section 112(b)(1)(A) prohibited EPA from regulating under section 111(d) any listed hazardous air pollutants. The Substantive Amendment instructed:

> *strik[e] "or 112(b)(1)(A)" and insert[] "or emitted from a source category which is regulated under section 112."*[260]

As EPA previously explained to this Court, this amendment substantively "change[d] the focus of" the Exclusion from precluding the double regulation of listed hazardous air pollutants to prohibiting the double regulation of any "source category that is actually regulated under section 112."[261] This amendment was appropriately listed, in EPA's own words, "with a variety of substantive provisions." *Id*. at n.35.

The Law Revision Counsel then correctly looked to a list of "[c]onforming [a]mendments" to the CAA. Senate Manual, § 126(d); House Manual, § 332(b). As relevant here, one of those conforming amendments addressed the Exclusion and instructed:

> *strik[e] "112(b)(1)(A)" and insert[] in lieu thereof "112(b)."*[262]

This clerical update reflected the fact that certain other substantive amendments expanding the section 112 regime had renumbered and restructured section 112(b), rendering obsolete the pre-1990 cross-reference to "112(b)(1)(A)."

Having already executed the Substantive Amendment, the Law Revision Counsel properly found the Conforming Amendment to be extraneous. Because the Substantive Amendment had already deleted the reference to "112(b)(1)(A)," it was impossible to follow the

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[259] 42 U.S.C. § 7411(d) (1989).

[260] Pub. L. No. 101-549, § 108(g), 104 Stat. 2399, 2467 (1990) (emphasis added).

[261] 2007 EPA Brief, 2007 WL 2155494.

[262] Pub. L. No. 101-549, § 302(a), 104 Stat. at 2574 ("Conforming Amendments") (emphasis added).

instructions of the Conforming Amendment to "strik[e] '112(b)(1)(A)' and insert[] in lieu thereof '112(b).'" Following its regular practice in such circumstances, the Office of the Law Revision Counsel noted that the Conforming Amendment "could not be executed" and correctly excluded it as a clerical error.[263] Writing just five years after the amendments, the Clinton-era EPA agreed, explaining that the Conforming Amendment should be disregarded because it was a clearly erroneous clerical update: "a simple substitution of one subsection citation for another, [made] without consideration of other amendments of the section in which it resides."[264]

EPA contended in the CPP that the Law Revision Counsel erred in not somehow giving "effect" to both amendments.[265] But EPA identified, and Petitioners are aware of, no instances in which the Law Revision Counsel—or any court or even another agency—gave *any* meaning to a conforming amendment that could not be executed as a result of a previously executed substantive amendment. To the contrary, the D.C. Circuit has made clear that these routine errors—which are common in modern, complex legislation—do not create any statutory "ambiguity."[266] Indeed, if courts were to adopt EPA's approach to interpreting un-executable conforming amendments, then every one of the numerous instances of such amendments would become previously unnoticed versions-in-exile, causing severe disruptions throughout the U.S. Code.[267]

There are several other valid justifications for the Law Revision Counsel's treatment of the Conforming Amendment. To begin, it is well-established that amendments are to be

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263 *See* Revisor's Note, 42 U.S.C. § 7411.

264 1995 EPA Analysis at 1-5 to 1-6.

265 80 Fed. Reg. at 64,714 n.294.

266 *See Am. Petroleum Inst. v. SEC*, 714 F.3d 1329, 1336-37 (D.C. Cir. 2013).

267 *See supra* pp. 69-70 & n.36.

executed in order and that an amendment fails to execute if a prior amendment in the same bill removes or alters the text that the subsequent amendment purports to amend.[268] Moreover, even if the amendments were executed in reverse order, the result would be the same, as the Substantive Amendment would still strike out and replace the cross-reference. And finally, the legislative history of the 1990 Amendments shows that the Conforming Amendment, which had originated in the Senate, was passed in error. Records show that the Senate Managers specifically "recede[d]" to seven substantive changes in section 108 of the House bill, expressly including the section 108(g) provision "amending section 111 of the Clean Air Act relating to … existing stationary sources."[269]

In any event, even if one agreed with EPA's "second version" theory, that would not save the CPP. Assuming there are two "versions" of the Exclusion, EPA would need to give "effect" to "every word" of *both* Exclusions,[270] by prohibiting EPA from regulating under section 111(d) *both* any "source category which is regulated under Section [1]12" (the text in the U.S. Code), *and* any air pollutant listed pursuant to section 112(b)(1) (EPA's view of the Conforming Amendment). The CPP would still be unlawful because the prohibition in the U.S. Code against regulating under section 111(d) any "source category which is regulated under Section [1]12" would remain fully intact.[271]

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[268] *See* Senate Manual § 126(d) ("If after a first amendment to a provision is made … the provision is again amended, the assumption is that the earlier (preceding) amendments have been executed."); 5; House Manual § 332(d) ("The assumption is that the earlier (preceding) amendments have been executed.").

[269] 136 Cong. Rec. 36,067 (Oct. 27, 1990).

[270] *Reiter v. Sonotone Corp.*, 442 U.S. 330, 339 (1979),

[271] *Scialabba v. Cuellar de Osorio*, 134 S. Ct. 2191 (2014), on which EPA relies in the Rule, 80 Fed. Reg. at 64,715, thus provides no support for the agency's position. That case dealt with a situation where—unlike here—the U.S. Code contained two irreconcilable, substantive commands.

VI. The CPP Is Ultra Vires Because Congress Did Not Delegate Authority to the Agency to Regulate the Electric Grid.

In a section of the preamble to the proposed repeal entitled "Broader Policy Concerns," EPA asks for comment on "whether the CPP exceeded the EPA's proper role and authority" in energy regulatory matters.[272] Unquestionably, it does. The Federal Power Act grants authority to FERC to regulate the interstate sale and transmission of electricity,[273] while recognizing States' inherent police power to regulate the planning and development of electric generation and the provision of electricity to the public.[274] The CPP managed to intrude into both State and FERC electric regulatory authority.

A. The CPP Encroached on State Authority Over Electric Generation Planning and Development.

Under the Tenth Amendment, the federal government has only such powers as are enumerated in the Constitution; all other powers are reserved to the states. As a result, States, not the federal government, are the repository of the general police power to protect the public.[275] Among the police powers of the state is the regulation of public utilities. [276]

Of course, Congress has power under the Commerce Clause to regulate interstate commerce and did so regarding the interstate electric market first in the Federal Water Power Act of 1920 and then in the Federal Power Act of 1935 (FPA), as amended.[277] But while Congress gave the Federal Power Commission, now FERC, authority over interstate electric

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272 82 Fed. Reg. at 48,042.

273 16 U.S.C. § 824(b)(1).

274 *Id*., § 824(a).

275 *See, e.g.,* John E. Nowack & Ronald D. Rotunda, CONSTITUTIONAL LAW 138 (7th ed., 2004).

276 *Munn v. Illinois*, 94 U.S. 113, 124 (1877); *see also* Richard J. Pierce, Jr. and Ernest Gellhorn, REGULATED INDUSTRIES IN A NUTSHELL 78-83 (1999).

277 16 U.S.C. § 791a, *et seq.*.

transactions, this power "extend[s] only to those matters … not subject to regulation by the States."[278] Thus, FERC has jurisdiction over wholesale electric sales but lacks power to interfere with "state authority in such traditional areas as the authority over … administration of integrated resource planning and … utility generation and resource portfolios."[279] Thus, as Congress divided state and federal power, "the States retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost and other related concerns."[280]

When Congress explicitly reserves jurisdiction over a matter, "[t]hat places the matter off-limits to the FERC," which "has no business" attempting to regulate it.[281] Thus, for instance, while FERC may establish policies to encourage the development of new electric capacity, it may not mandate the type of resources that states may develop in response.[282] States thus have plenary authority to shape their generation portfolios, including "the right to forbid new entrants from providing new capacity, to require retirement of existing generators, to limit new construction to more expensive, environmentally-friendly units, or to take any other action in their role as regulators of generation facilities without direct interference from [FERC]."[283] This "other action" that States may take, of course, could include determining resource portfolios that might not favor the selection of higher cost resources over lower cost resources.

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[278] 16 U.S.C. § 824(a); *see also New England Power Generators Ass'n v. FERC*, 2014 U.S. App. LEXIS 12802 *17-18.

[279] *New York v. FERC*, 535 U.S. 1, 24 (citing FERC Order No. 888, FERC STATS. & REGS. PREAMBLES, Jan. 1991-June 1996, 31,782, n. 544; *Ameren Energy Mktg. Co*., 96 FERC ¶61,306, 62,189 (2001) ("whether a purchaser has prudently chosen from among available supply options … is generally a question that the state commissions address.").

[280] Pacific Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n, 461 U.S. 190, 205 (1983).

[281] *Altamont Gas Transmission Co. v. FERC*, 92 F.3d 1239, 1248 (D.C. Cir. 1996).

[282] *Me. Pub. Utils. Comm'n v. FERC*, 520 F.3d 464, 479 (D.C. Cir. 2008).

[283] *Connecticut DPUC v. FERC*, 569 F.3d 477 (D.C. Cir. 2009).

Thus, the dividing line between State and federal authority in regulating electricity has always been considered to be a "bright" one,[284] with authority over electric generating planning and development falling comfortably on the state side of the line. States have traditionally exercised their plenary power in this area through public service commissions.[285] Most State commissions superintend electric utility generation resource planning by requiring utilities to file Integrated Resource Plans (IRPs).[286] The purpose of an IRP is to enable utilities, through a public process, to develop long-term plans for matching electric demand with a portfolio of supply and demand-side resources that the State commission determines are compatible with the public interest.[287] The IRP planning process can vary from State to State, as can the results of that process, depending on the specific circumstances of each State and the relative weight individual State commissions assign to the relevant public policy factors.[288]

The CPP exceeds the Agency's authority by impinging on this well-established and longstanding State police power over electric generation planning and development. As discussed above, each State will now have to reorder its portion of the grid, shifting power generation sources to meet EPA's demands. Under the authorities cited above, however, not even FERC, much less EPA, has the authority to dictate resource outcomes to the States. As the Kansas Corporation Commission aptly put it:

> Of particular concern is the extent of the EPA's proposed regulatory reach into Kansas' mix of energy resources. The KCC-regulated electric utilities in Kansas are vertically integrated investor-owned public utilities subject to traditional rate

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284 *FPC v. Southern Cal. Edison Co.*, 376 U.S. 295, 215-16 (1964).

285 *See* National Association of Regulatory Commissioners website, http://www.naruc.org/Commissions/, listing commissions for all 50 states.

286 *See* Rachel Wilson and Bruce Biewald, BEST PRACTICES IN ELECTRIC UTILITY INTEGRATED RESOURCE PLANNING, Regulatory Assistance Project, June 2013, *www.raponline.org/document/download/id/6608*.

287 *Id.*

288 *Id.*

> of return economic regulation under which the KCC carefully balances the interests of the public utility against those of the public the utility serves. In its proposed Clean Power Plan, the EPA has inserted itself into a regulatory field occupied by the states for decades in which the states have proven expertise in public utility ratemaking and in understanding the complexity of the electric grid and electric reliability. The proposed rule will disrupt the carefully balanced, cost-effective delivery of electricity in Kansas and will lead to detrimental effects, both within the Kansas economy and with the states with which Kansas does business.[289]

EPA's intrusion into an area that the Constitution and Congress reserved for States cannot be justified by the notion that the CPP gives states "flexibility" to adopt whatever plan they want (one that by definition would not be what EPA considers to be the "best" plan) to meet the rule's requirements. Whatever flexibility may exist is severely circumscribed by the "generation shifting" that the rule demands. The whole point of the role is to compel a resource outcome that is very different than the grid today and that States might otherwise choose.

In sum, the CPP preempts the States' fundamental police power over electric generation by dictating—or at least severely constraining—State electric generation resource decisions. But the notion that Congress, even if it had constitutional authority to intrude on State control of this area, withheld this authority from FERC—the nation's electric regulator—but granted it to EPA is absurd. And the notion that Congress took this momentous action through section 111(d), without giving any indication that it was even aware it was doing so, is not credible.

B. The CPP Encroached on FERC Authority Over Interstate Electric Markets.

The CPP not only improperly dictated State electric resource portfolio decisions, it impinged on authority Congress gave FERC over wholesale electric transactions. Plainly, EPA cannot regulate in an area that Congress reserved for FERC.[290]

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[289] Comments on the proposed rule of the Kansas Corporation Commission.

[290] *Cf. Brian Hunter v. FERC*, 711 F.3d 155, 156 (D.C. Cir. 2013) (FERC cannot intrude on Congressionally-delegated jurisdiction of the CFTC).

FERC has broad authority under 16 U.S.C. § 824(b)(1) to set rates and terms of service for selling electricity at wholesale.[291] All FERC-regulated utilities[292] must have a FERC-approved tariff to sell electricity—either a market-based tariff for those utilities that FERC has deemed not to have market power or a cost-of-service tariff for a small number of utilities selling in areas where they do have market power. In addition, a number of regions of the United States (covering about two-thirds of the nation's population) have formed Regional Transmission Organizations (RTOs) or Independent System Operators (ISOs). These entities, through FERC-approved tariffs, operate organized regional power markets in which power is sold through what are essentially day-ahead and two-day-ahead auctions. Power is sold in the rest of the country through bilateral contracts under utilities' FERC-approved tariffs. Power is also traded throughout the country at regional hubs, again subject to FERC control.[293]

In virtually all of the United States, power is transmitted through an interstate grid that is also pervasively regulated by FERC. All utilities owning transmission have been required to file Open Access Transmission Tariffs guaranteeing non-discriminatory access by generators to transmission. RTOs and ISOs also operate the regional grids in their areas through FERC-approved tariffs.[294]

As noted by the Department of Energy (DOE) in a report to Congress, electricity in both organized and traditional regional markets is dispatched to serve load through the principle of "economic dispatch."[295] Congress in Section 1234 of the 2005 Energy Policy Act defined

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[291] *New York v. FERC*, 535 U.S. at 55-56.

[292] FERC does not have jurisdiction over sales by public power and cooperatively-owned utilities.

[293] *See* FERC, ENERGY PRIMER, A HANDBOOK OF ENERGY MARKET BASICS, available on FERC website at http://www.ferc.gov/market-oversight/guide/guide.asp.

[294] *Id*.

[295] Department of Energy, THE VALUE OF ECONOMIC DISPATCH, A REPORT TO CONGRESS PURSUANT TO SECTION 1234 OF THE ENERGY POLICY ACT OF 2005, Nov. 7, 2005, at 4 . available at http://energy.gov/oe/downloads/value-

economic dispatch as "the operation of generation facilities to produce energy at the lowest cost to reliably serve consumers, recognizing any operational limits of generation and transmission facilities." Congress expressed a strong policy preference for economic dispatch by authorizing DOE to conduct a study of the procedures currently used by electric utilities to perform economic dispatch, to identify possible revisions of those procedures to improve the ability of non-utility generation to offer their inclusion in economic dispatch, and to analyze the potential benefits of such inclusion.[296] The DOE report concluded that "[e]conomic dispatch benefits electricity users in a number of ways. By systematically seeking the lower cost of energy production consistent with electricity demand, economic dispatch reduces total electricity costs."[297]

Dissatisfied with the results that FERC regulation has produced, however, EPA in the CPP decided to make itself the master of the interstate grid by replacing the principle of economic dispatch with dispatch along principles dictated by EPA. As EPA stated in the preamble to the CPP, "the application of building blocks 2 and 3 to affected EGUs has a number of unique characteristics. Building blocks 2 and 3 entail the production of the same amount of the same product—electricity, a fungible product that can be produced using a variety of highly substitutable generation processes—through the cleaner (that is, less CO2-intensive) processes of *shifting dispatch from steam generators to existing NGCC units, and from both steam generators and NGCC units to renewable generators*."[298] And whether or not States and utilities exactly follow the building blocks or shift generation in some other manner, the central point of the CPP

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economic-dispatch-report-congress-pursuant-section-1234-energy-policy-act-2005. *See also* FERC, ENERGY PRIMER at 42.

296 *Id.*

297 *Id.* at 4.

298 80 Fed. Reg. at 64,777 (emphasis added).

is to ensure that the grid is not dispatched as it is today. However, EPA failed to discuss how it could possibly have authority, either directly or indirectly, to "redispatch" the power grid. Congress gave FERC, not EPA, control over interstate sales of electricity.[299]

VII. Alternatively, EPA Should Repeal the CPP under *Chevron* Step Two.

The above arguments all demonstrate that the language of section 111(d) *compels* EPA to repeal the CPP, either because section 111(d) does not plainly authorize EPA to mandate the shifting of generation across the grid or because that provision clearly bars EPA from mandating that result. But even if it is assumed *arguendo* that section 111(d) is ambiguous or as broad a grant of authority as EPA claimed in the CPP, and the analysis therefore moves to *Chevron* step two, EPA would clearly be justified in repealing the CPP. Under *Chevron*, in the face of ambiguous or broad statutory language, EPA may interpret section 111(d) in any way that is "permissible;" the agency may make "a reasonable policy choice."[300] *Chevron* step two inquiry "does not require the best interpretation, only a reasonable one."[301] Courts "are bound to uphold agency interpretations . . . regardless whether there may be other reasonable, or even more reasonable, views."[302]

Even assuming that the CPP was a permissible exercise of EPA discretion, certainly it is also permissible for EPA to interpret section 111(d) in the same way as it has for the entire history of the section 111 program, as providing only for at-the-source emission reductions. The fact that EPA's new source rule for coal and natural gas electric generating units interpreted

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[299] *Cf. Chao v. Cmty. Trust Co.*, 474 F.3d 75, 82 (3d Cir. 2007) ("It is axiomatic that the executive branch may not do indirectly what Congress has forbidden it to do directly….").

[300] *Chevron*, 467 U.S. at 845.

[301] *Van Hollen v. FEC*, 811 F.3d 486, 492 (D.C. Cir. 2016) (citing *Am. Forest and Paper Ass'n v. FERC*, 550 F.3d 1179, 1183, 384 U.S. App. D.C. 73 (D.C. Cir. 2008)).

[302] *Id*. (citing *Gentiva Healthcare Corp. v. Sebelius*, 723 F.3d 292, 296, 406 U.S. App. D.C. 269 (D.C. Cir. 2013).

section 111 in this way provides conclusive support that this more limited interpretation is, at least, permissible. Policy reasons justifying a return to the traditional way of construing section 111 abound. As discussed below, the benefits of keeping the rule in place are, at best, minimal, while the costs of doing so are high.

A. Repeal Is Justified Because the CPP Will Produce Far Lower Benefits than EPA Estimated.

1. The GHG emission reductions that EPA estimated do not translate into a meaningful improvement in the climate.

In adopting the CPP, EPA stated it was rejecting its historical interpretation of section 111(d) in favor of its new "generation-shifting" approach because the historical approach would not yield sufficient emission reductions.[303] In fact, a concern about climate change is the only possible reason NMA can think of that repealing the CPP might be an unreasonable exercise of discretion. Surely, interpreting section 111 as EPA always has must be permissible unless the need for dramatic emission reductions is so overwhelming that a new approach is required.

While it is undoubtedly true that the CPP would yield greater emission reductions than the historical approach, that distinction only matters if the CPP would improve the climate in some meaningful fashion. It will not. In adopting the CPP, EPA did not display for the public the results of modelling showing the asserted climate benefits the CPP's emission reductions would supposedly achieve. The reason it did not do so was because it wanted to avoid the embarrassment it caused itself when it estimated the climate impact of its first major GHG rule, the 2012 light-duty motor vehicle rule. EPA's RIA for that rule projected that the rule would reduce atmospheric CO_2 by one part per million in 2050, which EPA estimated would reduce

[303] *See* 80 Fed. Reg. at 64,751 ("Given EGUs' large contribution to U.S. GHG emissions, any attempt to address the serious public health and environmental threat of climate change must necessarily include significant emission reductions from this sector… Imposing only the lower cost reduction measures in building block 1 would not achieve sufficient reductions given the scope of the problem and EGUs' contribution to it.").

temperature by 0.006 degree Celsius and sea level rise by as much as 0.02 centimeters, or 0.2 millimeters.[304] It is not difficult, however, to project the climate impacts of the CPP using EPA's own views as to the sensitivity of the climate to CO_2 (which NMA does not share). Climatologists associated with the Cato Institute did so after the CPP was promulgated. Using the MAGICC model, which was developed, in part, with the support of EPA, they estimated that the CPP would reduce temperatures by a mere 0.02°C by 2100.[305] A consultant working with the Texas Commission on Environmental Quality used the DICE model to estimate that the CPP would reduce temperatures by a maximum of 0.003°C by 2030.[306] Another consultant, scaling the emission reductions projected for the CPP to the emission reductions projected for the 2012 light-duty vehicle rule, forecast that the CPP by 2050 would reduce (a) global CO_2 concentrations by 0.98 ppm, or about, 0.2%, in 2050; (b) global average temperature by 0.006°C (0.010°F); and (c) sea level rise by 0.20 mm — the thickness of one to two human hairs, two sheets of paper, or two $1 bills.[307]

These climate impacts are not sufficient to render repeal of the CPP in favor of a replacement rule of a more limited scope impermissible. The projected impacts are so minute, so distant, and so uncertain that EPA would remain firmly within the bounds of reasonableness in maintaining its traditional view of the scope of the section 111 program even if the CPP entailed low costs. The fact that, as discussed further below, CPP that has such high costs makes EPA's

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[304] U.S. EPA, *Regulatory Impact Analysis: Final Rulemaking for 2017-2025 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards* , August 2012, page 6-115.

[305] Paul C. Knappenberger and Patrick J. Michaels, "0.02 C Temperature Rise Averted: The Vital Number Missing from the EPA's 'By the Numbers' Fact Sheet," Cato At Liberty, June 11, 2014.

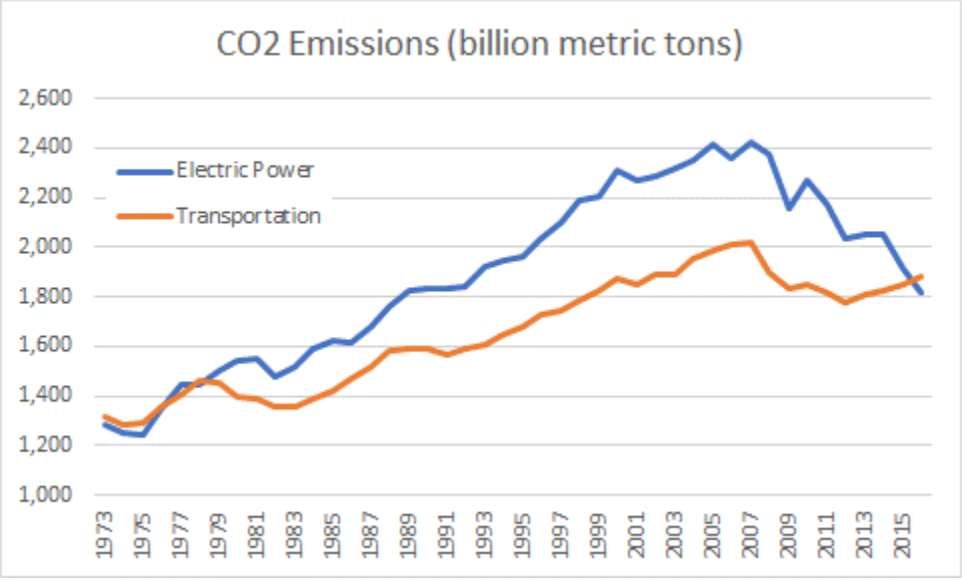
[306] Anne E. Smith, Ph.D., NERA Economic Consulting, "Technical Comments on the Regulatory Impact Analysis for the U.S. Environmental Protection Agency's Proposed Carbon Pollution Emissions Guidelines for Existing Power Plants," Prepared on behalf of the Texas Commission on Environmental Quality, November 10, 2014.

[307] The American Coalition for Clean Coal Electricity, "'Climate Effects' of EPA's Clean Power Plan," available at http://www.americaspower.org/wp-content/uploads/2015/09/Climate-Effects-Paper-August-6-2015.pdf.

to repeal the rule unassailable.

2. Increases in developing country emissions will swamp the emission reductions resulting from the CPP.

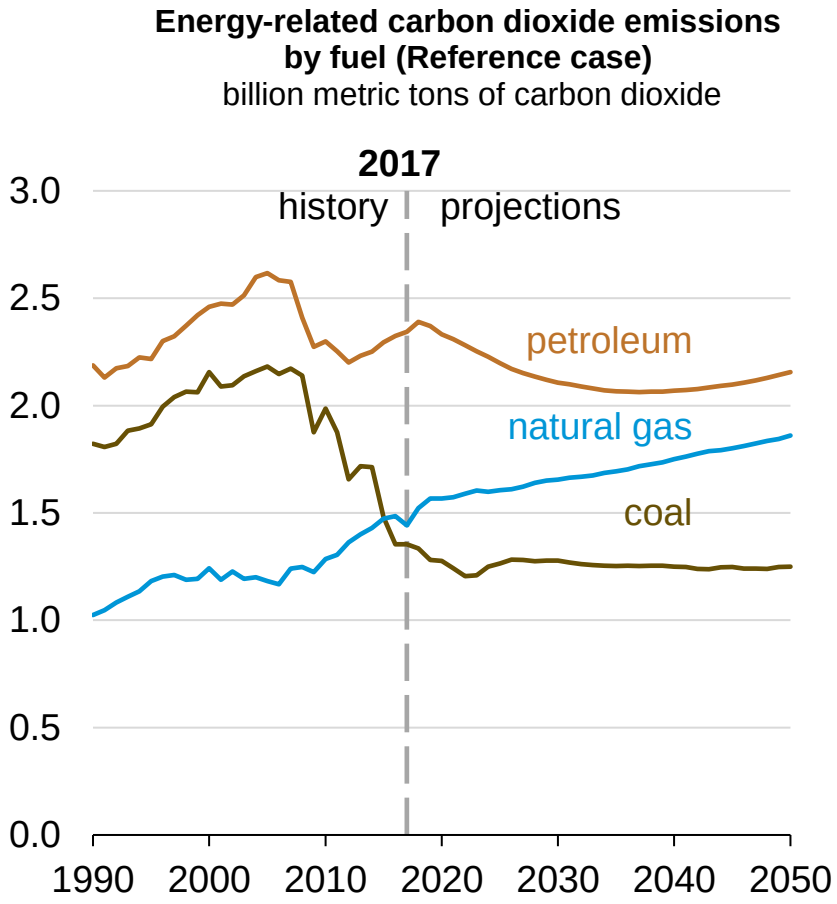
The emissions reductions concerns EPA used to justify the CPP diminish even more when the reductions that program would result in are compared with the significant emission increases that are occurring elsewhere in the world. In fact, even without the CPP, U.S. power sector CO_2 emissions have been *declining* since the Great Recession even as the economy has recovered. According to the EIA, U.S. energy-related CO_2 emissions declined by 1.4 percent between 2005 and 2016.[308] The decline is so pronounced that transportation-sector CO2 emissions have now surpassed power-sector emissions.



Comparing historical and projected CO_2 emissions from coal, natural gas and petroleum demonstrates that coal emissions have been cut dramatically and will continue to be well below

[308] AEO 2017 at 22.

the emissions of the other two fuels:[309]



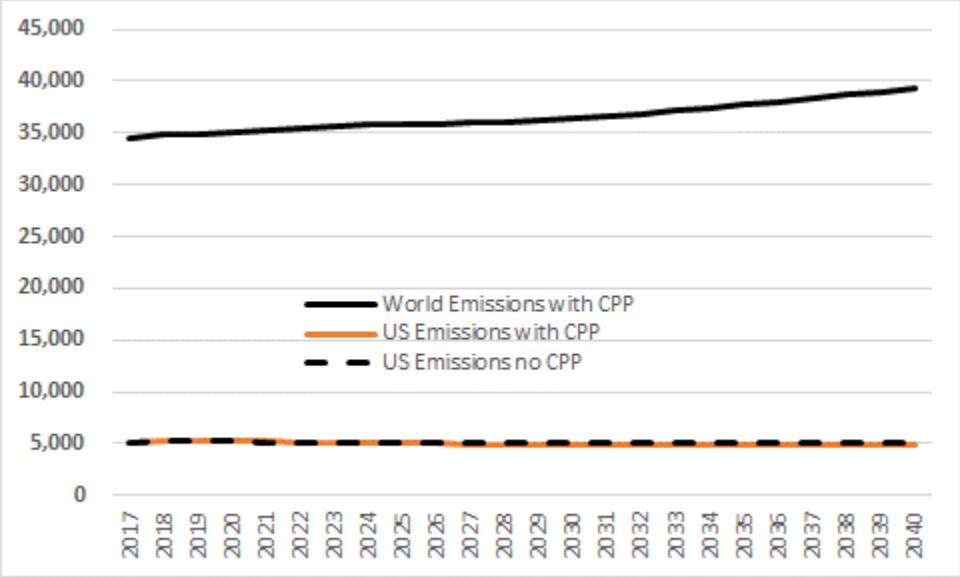
In contrast, other-country emissions are escalating rapidly. As EPA itself has recognized, "climate change presents a problem that the United States alone cannot solve. Even if the United States were to reduce its greenhouse gas emissions to zero, that step would be far from enough to avoid substantial climate change."[310] The EIA compared the impact the CPP would have on overall global emissions and concluded that the impact would be so small that it can barely be detected, as seen in the chart below. EIA projects that total world emissions of CO_2 in 2030 with

[309] Source: EIA AEO 2018.

[310] Interagency Technical Support Document "Update of the Social Cost of Carbon for Regulatory Impact Analysis under Executive Order 12866" (revised 2015) at 14.

the CPP would be 36.4 billion metric tons, 0.56% less than emissions of 36.6 billion metric tons without the CPP. Domestic. emissions are now only a small part of total global emissions and almost no part of the increase in global emissions that are projected in the coming years.

World Carbon Dioxide Emissions from All Sources (million metric tons)[311]



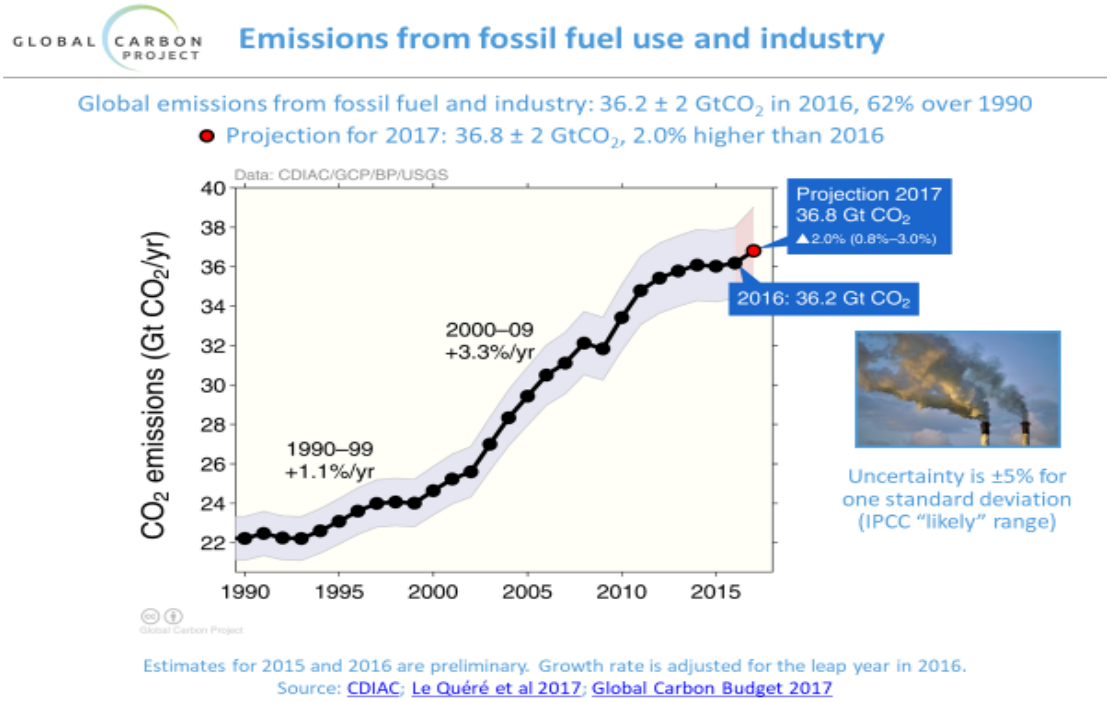
The following charts are from the Global Carbon Project,[312] a group of scientists who track the amount of carbon emitted by human activity, who published their results in three separate scientific journals — *Earth System Science Data*, *Environmental Research Letters* and *Nature Climate Change*. Collectively, these charts reinforce the conclusion that demanding costly CO_2 emission reductions under the CPP for insignificant climate benefit will accomplish virtually nothing in addressing the issue of rising *global* atmospheric GHG concentrations.

In the first place, global emissions are continuing to grow despite the fact that it has been 26 years since the Framework Convention on Climate Change was signed in Rio de Janeiro in

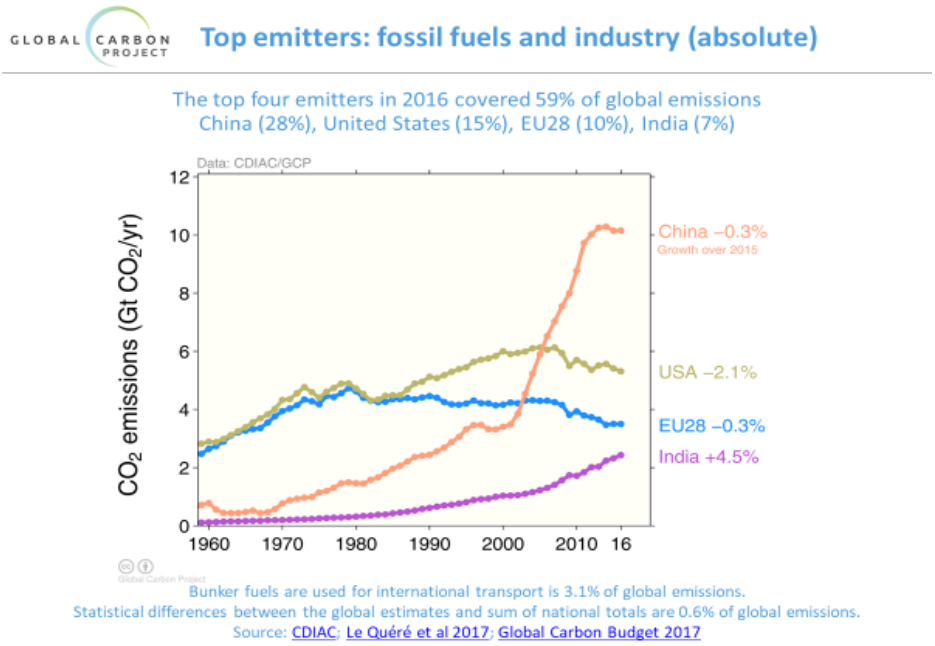
311 EIA, International Energy Outlook 2017 browser; World Carbon Dioxide Emissions.

312 *See* http://www.globalcarbonproject.org/index.htm.

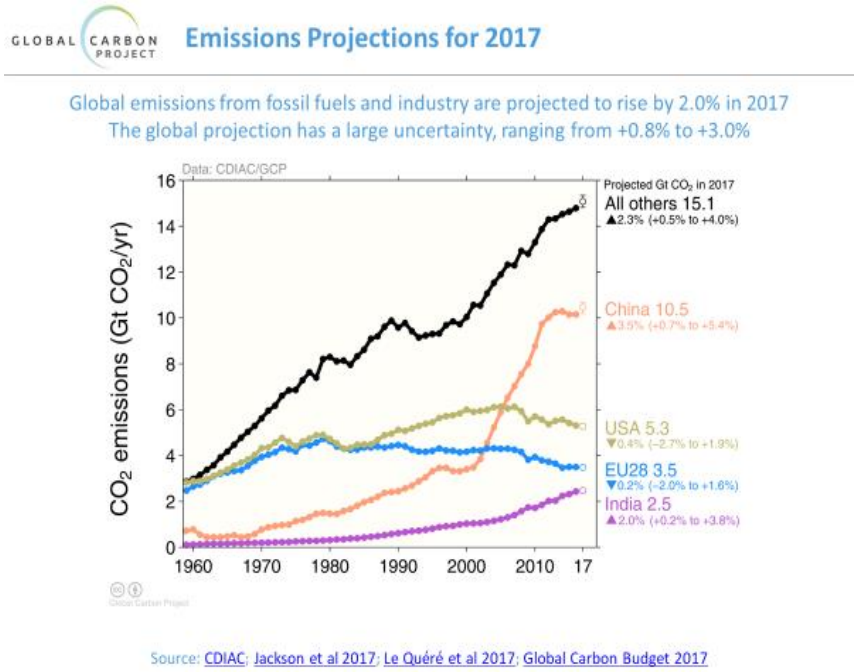
1992 and 21 years since emission targets were established in the 1997 Kyoto Protocol. This growth has continued over the two years since the agreement in Paris committed signatories to adopt country-specific "Intended Nationally Determined Contributions."



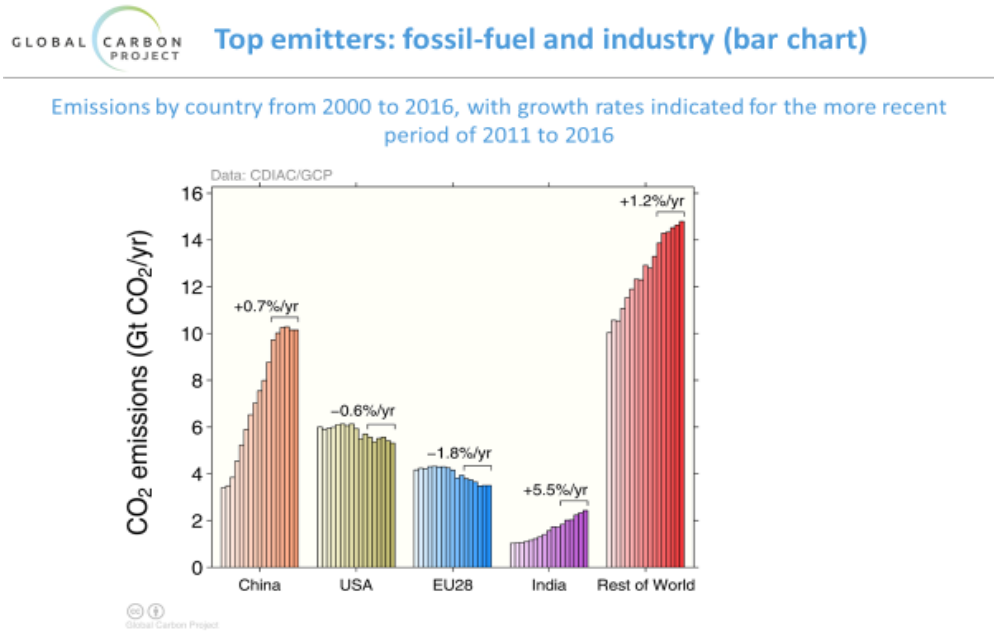
United States emissions, in contrast, have been falling for more than a decade, and this without the CPP. The major source of the continuing global increase is China and India.



This disparity between U.S. and developing country emissions holds true in analyzing emissions from fossil fuels and energy. The U.S. coal industry is not the reason why anthropogenic emissions continue to rise.



The following chart further graphically displays the disparity in emission growth rates between the developed world and the developing world.



Source: CDIAC; Le Quéré et al 2017; Global Carbon Budget 2017

This disparity is particularly noticeable for 2016, the last year for which data are available.

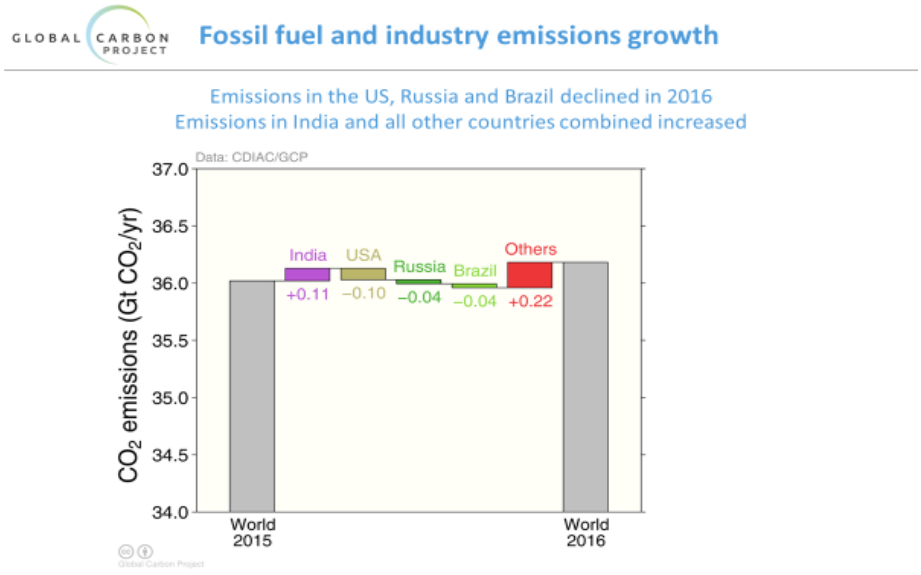
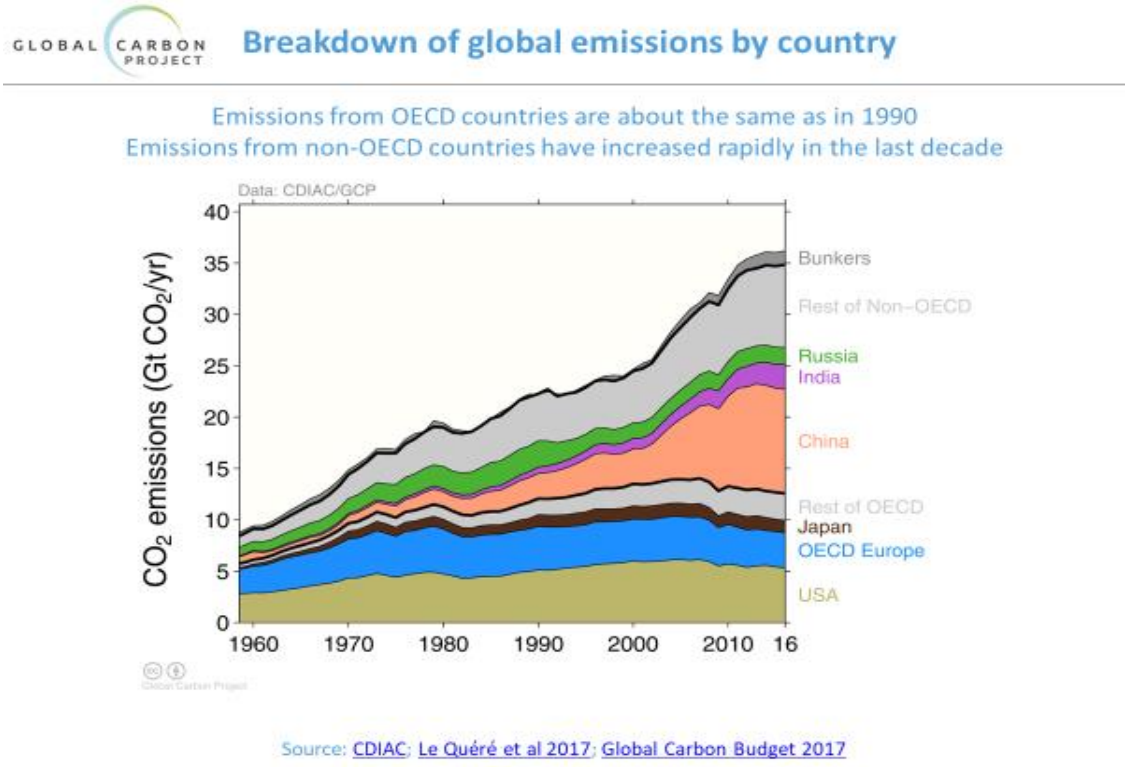


Figure shows the top four countries contributing to emissions changes in 2016
Source: CDIAC; Le Quéré et al 2017; Global Carbon Budget 2017

This final chart provides even further evidence that the U.S. is not the problem. As the authors note, emissions from OECD countries are about the same as they were in 1990, whereas developing country emissions have accelerated rapidly.



In sum, if the purpose of the CPP was to make a real impact on the growth of GHG emissions, it will not succeed.

3. EPA's social cost of carbon estimates were significantly inflated and cannot create climate benefits where none exist.

Instead of presenting the real-world climate changes that EPA believed the CPP would produce, the agency estimated large benefits using the Social Cost of Carbon (SCC), as much as $29 billion in 2030.[313] Left unexplained is how this much money can possibly be saved in

[313] RIA for final CPP at ES-21 (Table ES-8).

avoiding the vanishingly small climate changes set forth above.

NMA has participated with other groups in producing a critical analysis of the SCC that demonstrates how overstated EPA's SCC values were. We refer EPA to the February 26, 2014 letter by 15 trade associations, including NMA, on the Office of Management and Budget's Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis under Executive Order 12866, which is attached as Attachment 3 to these comments. The current EPA in its Regulatory Impact Analysis, consistent with Executive Order 13783, has already begun to reexamine the numerous faulty assumptions that went into the exaggerated values that the agency used to justify the CPP, including considering asserted international benefits contrary to OMB Circular A-4 and using an arbitrarily low discount rate. As EPA found in its new proposed RIA, limiting benefits to domestic benefits dramatically lowers the SCC values and, depending on the discount rate used, brings the present value of the climate benefits of the CPP to either less than $1 billion or, at most $2.74 billion.[314]

These benefits, however, are nevertheless still artificial and exaggerated, for the reasons explained in the trade association comments referred to above. For instance:

- They were derived in a nontransparent manner, without being subject to notice-and-comment rulemaking;
- The government's choice of inputs to the Integrated Assessment Models ("IAMs"), and the choice of IAMs themselves, that were used to derive the SCC estimates did not undergo peer review or public comment and are highly uncertain;
- There is no rational connection between the inputs and assumptions in the IAMs and the conclusions drawn from the results of the model runs;
- The IAMs and SCC cannot account for threshold effects or nonlinear changes that might be ascribed to additional emissions or emission reductions;

[314] "Regulatory Impact Analysis for the Review of the Clean Power Plan: Proposal" (Proposed RIA) at 44, Tables 3-7 and 3-8.

- The wide range of SCC values that the U.S. government developed is too broad to be useful, but still does not reflect the full range of uncertainty associated with measuring the impacts (both positive and negative) of climate change;

- There are serious questions regarding the usefulness of a single dollar amount to represent the asserted climate benefits of rulemakings, particularly given the severe limitations of climate science and the associated uncertainties with estimating the future costs and benefits of a regulation's impact on climate change;

- It is impossible to measure accurately the contribution of a regulation to climate change in isolation, as if one could realistically hold other emissions and change factors constant; and

- The IAMs do not recognize the possibility that we will adapt to climate change, or that a reduction in GHG emissions in the United States might result in an increase in GHG emissions elsewhere.

NMA also refers EPA to the study performed by NERA Economic Consulting that is included with the comments of the Utility Air Regulatory Group. NMA endorses the findings of that study.

In sum, as EPA now recognizes,[315] the methodology underlying the SCC is so fraught with uncertain and unprovable assumptions that the resulting values have little real-world use. Most importantly, the SCC is based on projecting societal development on a global scale hundreds of years into the future. But no one alive in 1900 could have predicted what the world would be like in 2000, just as we cannot predict today what the world will be like in 2100.

Still, given the reliance EPA placed on the SCC in adopting the CPP, NMA recommends that EPA provide an equally extensive analysis in repealing that rule. But this new analysis must inevitably lead to the conclusion that SCC values are likely small and, in any event, uncertain, and so do not counsel against repealing the CPP.

4. Asserted "co-benefits" of the CPP are little more than a mirage.

[315] Proposed RIA at 44-46.

EPA also justified the CPP by pointing to asserted large co-benefits that result from indirectly reducing the emission of other pollutants. Indeed, in EPA's analysis, these co-benefits exceed the supposed climate change benefits of the rule in most of the scenarios EPA ran, sometimes by a great deal.[316] But the relevance of these co-benefits in justifying the CPP is, at best, dubious. The purpose of the CPP is to reduce CO_2 emissions. EPA has other means under the CAA – indeed it is commanded by that statute – to reduce emissions of other pollutants to levels that are protective of human health and welfare.

In fact, the central premise behind EPA's estimate of large co-benefits was that EPA will fail to comply with its CAA obligations to provide for healthy air quality, with a margin of safety, for more than another decade, that is, during the 2022-30 CPP compliance period. And EPA assumed that it would fail not just in a small way but that it would be significantly derelict in its duty, given EPA's view that the co-benefits of the CPP would run into the tens of billions of dollars.

But air quality has been improving for decades, and EPA is well on its way to implementing programs that will ensure attainment of the latest NAAQS for all criteria pollutants. Given that EPA and the States will ultimately perform their obligations under the CAA to bring all areas of the country into attainment, the CPP results in *no* co-benefits. Certainly, EPA cannot continue to justify the CPP in large part based on the notion that the CPP is needed to improve air quality because the agency cannot be trusted to carry out its responsibility to produce clean air under the programs Congress designed for that purpose.

Even if EPA could consider co-benefits, the CPP's estimates were speculative and exaggerated, as EPA now recognizes. In its RIA for the proposed repeal, the agency focusses on

[316] RIA for final CPP at ES-21 (Table ES-8).

one of the key defects of the co-benefit estimates that accompanied the CPP, which was the assumption that PM2.5 health impacts occur in a linear fashion all the way down to zero. This assumption ignores the fact that EPA set the NAAQS for PM2.5 at a level that EPA determined, without considering compliance costs, was protective of human health with a margin of safety. Virtually all of the co-benefits that EPA hypothesized occur at levels below the NAAQS. One can argue that there might be particular individuals or groups of individuals that are not protected by the NAAQS, but again EPA's co-benefits ran to the tens of billions of dollars. That level of public health damage is in no way consistent with air quality standards that are protective of human health with a margin of safety.

EPA in the CPP was so extreme that it even assumed that impacts occur below the lowest measured level (LML) at which impacts on individuals have been observed. Again, this premise makes no sense in light of the large co-benefits that EPA estimated below that level. As the RIA for the proposed repeal found, eliminating assumed benefits of lowering ambient PM2.5 and ozone to concentrations below the LML or the level of the NAAQS significantly reduces the co-benefits of the CPP.[317]

The problems with the CPP's co-benefits analysis are greater than just the fact that EPA included benefits below the level of the NAAQS and LML. These problems are comprehensively explored by analyst Dr. Anne E. Smith in her article "Inconsistencies in Risk Analyses for Ambient Air Pollutant Regulations," September 28, 2016, and include methodological issues in how EPA estimates PM2.5 benefits even at the level of the NAAQS.[318] NMA also endorses the findings on this subject in the report by NERA Economic Consulting

[317] RIA accompanying proposed CPP at 93-98.

[318] Smith, Anne E., "Inconsistencies in Risk Analyses for Ambient Air Pollutant Regulations," *Risk Analysis* 36/9 (Sept. 2016).

that is attached to the comments in this docket by the Utility Air Regulatory Group.

In sum, it would be ironic indeed if EPA could convert the section 111(d) program into a vehicle for implementing regulations that are justified by benefits that are lower than the NAAQS. No CAA program directs EPA to improve air quality below that level, and section 111(d) specifically bars EPA from regulating criteria pollutants. It is therefore entirely permissible for EPA to conclude that the co-benefits the agency previously estimated do not justify maintaining the CPP in place.

B. Repeal Is Justified Given the CPP's High Costs.

1. EPA in the CPP far understated the true economic cost of the program.

In its RIA for the final CPP, EPA estimated that the rule in 2030 would cost between $5.1 and $8.4 billion.[319] This was a substantial underestimate, in part caused by EPA's manipulation of its base case to assume a host of coal retirements even without the CPP. According to a study done by NERA Economic Consulting after the rule was issued, the true cost of the CPP would be much higher:

- Energy sector expenditure increases range from $220 to $292 billion (spending from 2022 through 2033, brought to a present value in 2016).
    - Annual average expenditure increases of between $29 and $39 billion per year.
    - Expenditures include changes in electricity generation costs (including allowance costs), energy efficiency costs, and increased natural gas costs for non-electric consumers.
    - Expenditures do consumers not include potential increased costs for electricity transmission and distribution and natural gas infrastructure.
- Average annual U.S. retail electricity rate increases range from 11%/year to 14%/year (relative to baseline) over the same time period;
- For the overall economy, losses to U.S. consumers range from $64 billion to $79

[319] RIA accompanying final CPP at ES-9, Table ES-5.

billion on a present value basis over the same time period.[320]

In its proposed RIA for the repeal of the CPP, EPA indicates that recent trends towards reduced coal usage will result in lessened impacts if the CPP goes into effect. But it is important to keep in mind that the rule will still have an enormous impact. NMA recently commissioned a new, updated study of the rule's impacts by EVA based on the latest EIA analysis (AEO 2018), as well as under alternative future scenarios.[321] As this study concluded, *according to AEO 2018, there is no significant long-term drop in coal consumption without the CPP*. With the MATS and other EPA rules now either fully or partially complied with, coal has already experienced the worst of the impacts of EPA regulation and other anti-coal government policies, unless the CPP is implemented. Thus, EIA forecasts growth in coal consumption absent the CPP through about 2030 and then a slight decline. With the CPP, however, coal consumption for electric power generation will immediately begin to fall precipitously upon implementation of the rule after 2020. As EVA found:

1. AEO 2018 shows that the CPP will have a very significant effect on power markets:

    a. The CPP will cause additional retirements of existing coal-fired power plants (above the amount projected to occur without the CPP), rising from about MW in 2023 to 14,600 MW by 2030 and 17,000 MW by 2040.

    b. The CPP will cause a large shift in generation from existing coal-fired power plants to new natural gas combined cycle plants and new wind and solar plants. Without the CPP, even as there is some continued retirement of coal plants, coal *generation* would stay constant, while natural gas and renewable power generation would grow with the demand for electricity. But with the CPP, coal generation will drop by 19% in 2030 (compared to the No CPP case), growing to 20% by 2040, on top of the dramatic declines in coal generation that occurred during the previous Administration.

    c. The CPP would cause a significant increase in retail power prices paid by the

[320] NERA Economic Consulting, "Energy and Consumer Impacts of EPA's Clean Power Plan," November 7, 2015, available at http://www.nera.com/content/dam/nera/publications/2015/NERA_ACCCE_CPP_Results_Nov72015.pdf.

[321] *See* attachment 1 hereto.

consumer. By 2030, the CPP would cause the average retail power price to increase by 5.0% from 11.2 to 11.8 cents per kilowatt-hour (in constant 2017 dollars).

d. While the CPP will lower and cap power sector CO_2 emissions, the reduction is extremely small in the context of global emissions.

e. The total increase in retail power costs over the 20-year period 2021 – 2040 would be $148 billion in constant 2017 dollars. At the projected reduction in CO_2 emissions, the cost per ton of CO_2 emissions reduced would be $46.17 per metric ton, much higher than the social cost of carbon values that EPA used when adopting the CPP and even more so as compared to the values EPA used in the proposed repeal. These costs do not include the cost of energy efficiency programs that States will adopt to mitigate CPP compliance costs (which we estimate at about $35.9 billion) nor the likely even higher cost of the electric transmission build-out that will be needed by the new renewable resources that the CPP relies on.

f. The CPP will sharply reduce the demand for coal, with the amount growing steadily over time. By 2030, the projected impact on US coal burn would be a reduction of 121 million tons, or 16%. The cumulative reduction in coal burn over the 20 years 2021 – 2040 would be 1.7 billion tons. These amounts are in addition to the very significant reduction in coal production that has occurred since 2008, under the previous Administration.

g. The CPP will reduce the rate of retail electricity sales growth – from 0.78% annually without the CPP to 0.62% annually – for the period 2016 – 2030 due to investments in energy efficiency to comply with the CPP. This reduction will result largely from costly government-subsidized energy efficiency programs.

2. If economic growth is assumed to be 2.51% through 2040, as compared with the 2.07% figure in EPA's Reference case, the CPP will have an even greater impact on coal as, without the CPP, coal would share in supplying the nation's greater energy needs. Given 2.51% economic growth, the reduction of coal use in 2030 under the CPP scenario as compared with the No CPP scenario is a loss of 151 million tons (20% reduction in total coal production), again in addition to the significant reductions that have already occurred. Using the Treasury Department's economic growth forecasts, the impact on coal grows to a loss of 188 million tons (25% reduction).

3. If natural gas prices are assumed to be at the higher level EIA projected in its high natural gas price case, the CPP's impact on coal would be increased to a loss of 142 million tons, about 16% of total production. This calculation is based on the EIA's Reference case growth rate of 2.0%. The impact would increase if higher growth rates were used.

4. If more nuclear retirements occur than the EIA projected, the impact on coal would be a loss of coal production of nearly 186 million tons in 2030, an additional 63 million tons as compared with 123 million tons in the Reference case analysis. Again, this figure would increase if growth rates exceeded the EIA's Reference case growth rate of 2.0%.

2. By harming consumers economically, the CPP will damage the public health and welfare.

A well-established body of literature establishes the obvious link between a person's economic well-being and his or her health.[322] Having a good income means a person can pay for

[322] *See, e.g.*, Brenner, M.H., Unemployment and heart disease mortality in European countries, Report to the European Commission, Employment, Social Affairs and Inclusion DG: Analysis, Evaluation, External Relations, Social Analysis, December 2013; Brenner MH, Andreeva E, Theorell T, Goldberg M et al. Organizational downsizing and depressive symptoms in the European recession: The experience of workers in France, Hungary, Sweden and the United Kingdom, PLOS ONE, 1-18, May 2014; Brenner MH. Unemployment and heart disease mortality in European countries, Report to the European Commission, Employment, Social Affairs and Inclusion DG: Analysis, Evaluation, External Relations, Social Analysis, December 2013; Brenner MH. Influence of health care expenditures, GDP, employment and globalization on cardiovascular disease mortality: potential implications for the current recession. *International Journal of Business and Social Science*, 3 (20), 1-10, 2012; Brenner MH, Andreeva E. eds. *Development of Macro Level Indicators of Restructuring and Workers' Health*, Berlin: Berlin University of Technology, 2011; Brenner MH. *Explaining aggregate health status (mortality). Insights to the possible impact of the economic crisis*. Report to the European Commission, Directorate General, Employment, Industrial Relations, Social Affairs and Social Protection, 2009; Brenner MH. Commentary: economic growth is the basis of mortality rate decline in the 20th century – experience of the United States 1901-2000. *International Journal of Epidemiology* 34, 1214–1221, July 2005; Brenner, MH. *Unemployment and Public Health in Countries of the European Union*, Report to the European Commission, Directorate General, Employment, Industrial Relations and Social Affairs, 2002; Brenner, MH. *Estimating the Social Cost of Unemployment and Employment Policies in the European Union and the United States*, Report to the European Commission, Directorate General, Employment, Industrial Relations and Social Affairs, 2000; Brenner MH. Heart disease mortality and economic changes; including unemployment in Western Germany 1951-1989. *Acta Physiologica Scandinavica* 161(Suppl. 640), 149-52, November 1997; Brenner MH. Economic instability, unemployment rates, behavioral risks, and mortality rates in Scotland, 1952-1983. *International Journal of Health Services* 17(3), 475-484, 1987a; Brenner MH. Economic change, alcohol consumption and heart disease mortality in nine industrialized countries. Social Science and Medicine 25(2), 119-131, 1987b; Brenner MH and Mooney A. Economic change and sex-specific cardiovascular mortality in Britain 1955-1976. *Social Science and Medicine* 16,431-442, Spring 1982; Brenner MH. Mortality and the national economy: a review and the experience of England and Wales, 1936-1976. *The Lancet* 568-573, September 15, 1979; Brenner MH. Economic Changes and Heart Disease Mortality. *American Journal of Public Health* 61,606-61, March, 1971; Crombie IK, Kenicer MB, Smith WCS and Tunstall-Pedoe HD. Unemployment, socio-environmental factors, and coronary heart disease in Scotland. *Br Heart J* 61,172-7, 1989; Dave DM and Kelly IR. *How does the business cycle affect eating habits*? NBER Working Paper No. 16638, December, 2010; Dupre, M., George, L.K., Liu, G., Peterson, E. The Cumulative Effect of Unemployment on Risks for Acute Myocardial Infarction, *Archives of Internal Medicine*, 172(22):1731-7, 201; Frankel S, Smith GD, and Gunnell D. Childhood socioeconomic position and adult cardiovascular mortality: the Boyd orr cohort. *American Journal of Epidemiology* 150(10):1081-84, 1999; Gallo, W.T., Bradley, E.H., Falba, T., Dubin, J., Cramer, L., Bogardus Jr., S.T., Kasl, S.V. Involuntary Job Loss as a Risk Factor for Subsequent Myocardial Infarction and Stroke: Findings from the Health and Retirement Survey, *Am J Ind Med*, 45 (5):408-416, 2004; Gallo WT, Teng HM, Falba TA, Kasl SV, Krumholz HM and Bradley EH. The impact of late career job loss on myocardial infarction and stroke: a 10 year follow up using the health and retirement survey. *Occup Environ Med* 63:683-687, 2006; Galobardes B, Smith

a good diet, for heating and air-conditioning, and for adequate health care. Having a lower income makes it more difficult for people to pay for these necessities and, as important, job loss, economic dislocation and the resulting stress leads to heart and other diseases, personal depression, addiction and suicide. None of this was of the slightest interest to EPA when it determined that the CPP is necessary on public health and welfare grounds.

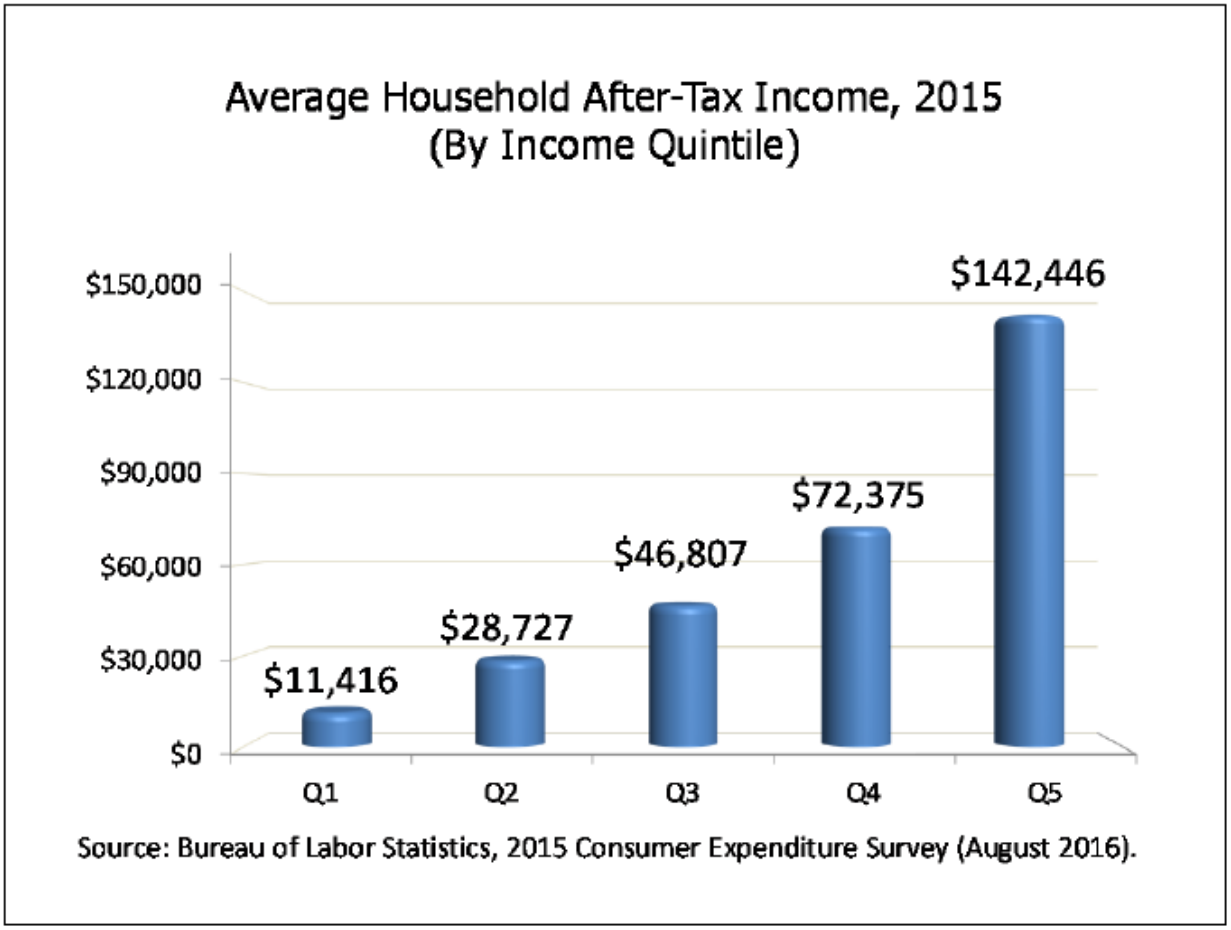
a. Higher energy prices resulting from the CPP would impair the health of lower income Americans.

Income inequality remains a serious and growing problem in the United States. In 2016 there were 40.6 million Americans in poverty.[323] In the same year, the average after-tax income

GD and Lynch JW. Systematic review of the influence of childhood socioeconomic circumstances on risk for cardiovascular disease in adulthood. *Ann Epidemiol* 16:91-104, 2006; Goldston K and Baillie AJ. Depression and coronary heart disease: A review of the epidemiological evidence, explanatory mechanisms and management approaches. *Clinical Psychology Review* 28, 288–306, 2008; Hallsten, L., Grossi, G., & Westerlund, H. Unemployment, labour market policy and health in Sweden during years of crisis in the 1990's. *International Archives of Occupational and Environmental Health*, 72 (Suppl), S28-30, 1999; Hammarstrom A and Janlert U. Unemployment and change of tobacco habits: a study of young people from 16 to 21 years of age. *Addiction* 89, 1691-1696, 1994; Henriksson KM, Lindblad U, Agren B, Nilsson-Ehle P and Rastam L. Associations between unemployment and cardiovascular risk factors varies with the unemployment rate: the cardiovascular risk factor study in Southern Sweden (CRISS). *Scand J Public Health* 31, 305-311, 2003; Hulme, D, Moore, K and Shepherd, A, Chronic Poverty: Meanings and Analytical Frameworks. Chronic Poverty Research Centre Working Paper No. 2, 2001 Available at SSRN: http://ssrn.com/abstract=1754546 or http://dx.doi.org/10.2139/ssrn.1754546; Kaplan GA and Keil JE. Socioeconomic factors and cardiovascular disease: a review of the literature. *Circulation* 88(4), 1973-1998, 1993; Kasl, SV and Jones, BA. The impact of job loss and retirement on health. In L.F. Berkman & I. Kawachi (Eds.), *Social Epidemiology* (pp. 118-136). New York: Oxford UP, 2000; McKee-Ryan FM, Song Z, Wanberg CR and Kinicki AJ. Psychological and physical well-being during unemployment: a meta-analytic study. *Journal of Applied Psychology* 90(1), 53–76, 2005; Morris JK, Cook DG, Shaper AG. Loss of employment and mortality. *BMJ* 308, 1135-9, 1994; Moser KA, Fox AJ, Goldblatt PO and Jones DR. Stress and heart disease: evidence of associations between unemployment and heart disease from the OPCS longitudinal study. *Postgraduate Medical Journal* 62, 797-799, 1986; Noelke, C, Beckfield J. Recessions, Job Loss and Mortality Among Older US Adults, *American Journal of Public Health*, Sep 11: e1-e9, 2014; Peterson C and Kim ES. Psychological interventions and coronary heart disease. *International Journal of Clinical and Health Psychology* 11(3), 563-575, 2011; Reeves, A., McKee, M., & Stuckler, D. Economic suicides in the Great Recession in Europe and North America. *British Journal of Psychiatry*. doi: 10.1192/bjp.bp.114.144766, 2014; Sorlie PD and Rogot E. Mortality by employment status in the national longitudinal mortality study. *American Journal of Epidemiology* 132(6), 983-992, 1990; Tausky, C. & Piedmont, E.B. The meaning of work and unemployment: Implications for mental health. *International Journal of Social Psychiatry*, 14(1), 44-9, 1967/8; The American Dietetic Association. Position of the American Dietetic Association: food insecurity in the United States. *J Am Diet Assoc* 110, 1368-1377, 2010; Whooley MA and Wong JM. Depression and cardiovascular disorders. *Annu Rev Clin Psychol* 9:327–54, 2013.

[323] U.S. Bureau of the Census, Income and Poverty in the United States: 2016 (Sept. 12, 2017).

of the two lowest income quintiles, representing more than 51 million households, was a mere $20,072.[324] This is equivalent to a take-home income of less than $1,700 per month.[325]



The real pre-tax incomes of American households have *declined* across the three lowest income quintiles since pre-recession 2007 levels, measured in constant 2015 dollars.[326] The largest losses of income are in the two lowest income quintiles, representing families with pre-tax incomes below $37,600.[327] In contrast, households in the top 5% of incomes experienced a

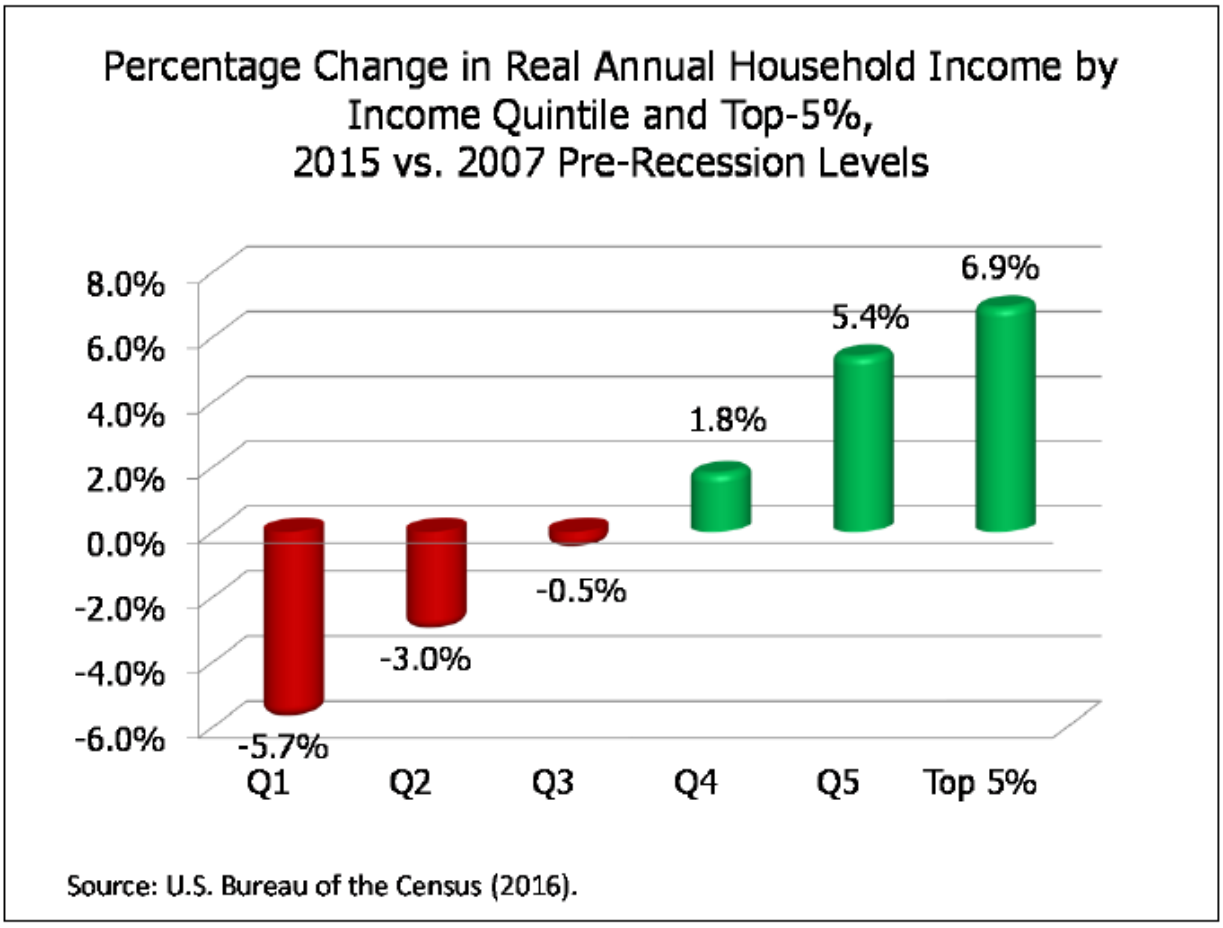
[324] Eugene Trisko, "Energy Expenditures by American Families" (Nov. 16, 2017) (attachment 4 hereto).

[325] *Id.*

[326] *Id.*

[327] *Id.*

7% increase in real median incomes between 2007 and 2015, an average increase per household of $22,570.[328]



Black and Hispanic households are disproportionately represented in the two lowest quintiles, accounting for 32% of households in those quintiles, compared with 14% in the top income quintile.[329] Senior citizens are also overrepresented in the lowest income quintiles.[330]

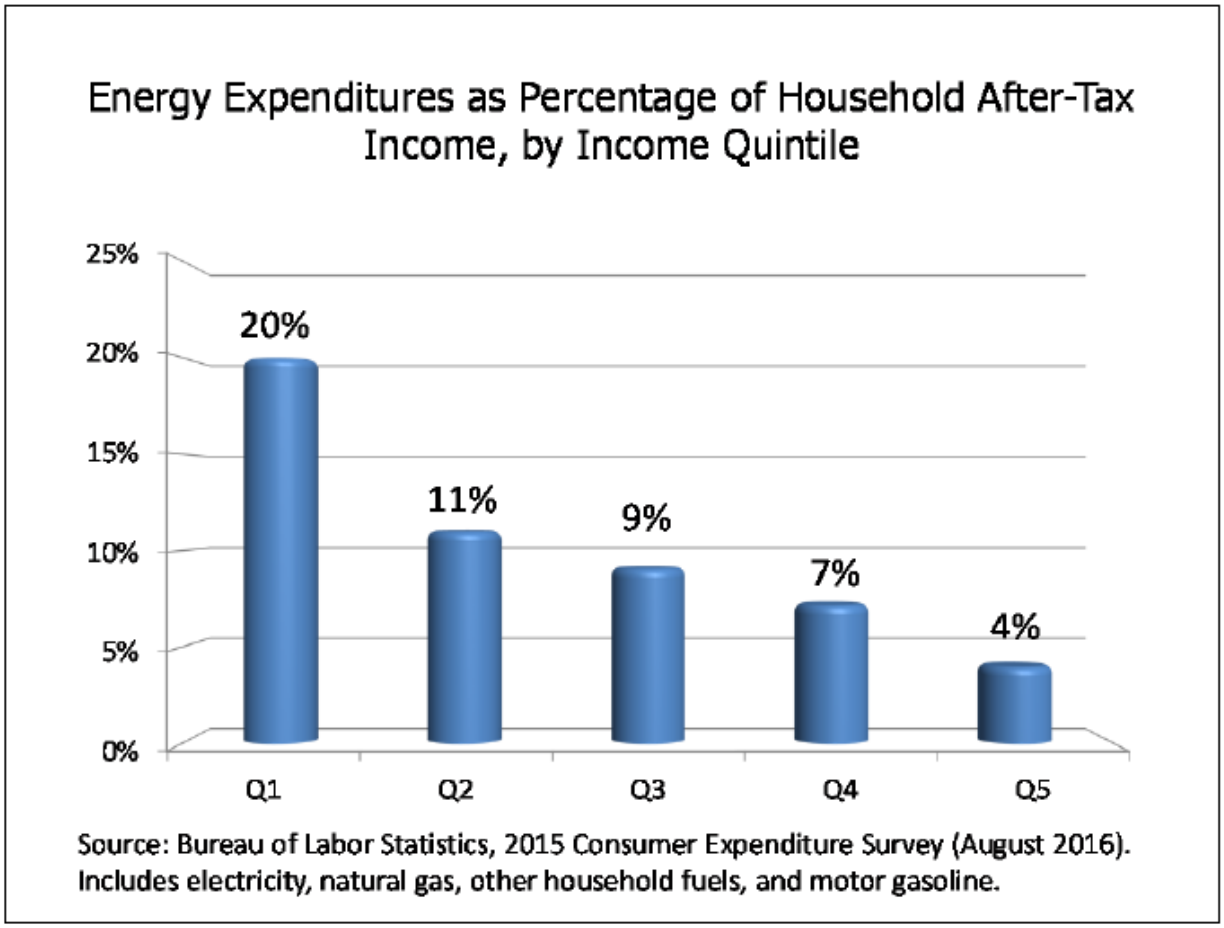
The electric rate increases that the CPP would cause act as a regressive energy tax, causing the most harm to the tens of millions of Americans least able to afford it. Lower income

[328] *Id.*

[329] *Id.*

[330] *Id.*

people pay a large percentage of their incomes on energy. For instance, households in the lowest income quintile, with an average after-tax income of $11,416, spend 20% of their after-tax income on residential utilities and gasoline, while households in the two lowest quintiles spend 16%.[331] This compares with 4% for households in the top income quintile, whose average after-tax income is $142,446.[332]



Increased energy costs to lower income people cause not just economic harm but harm to their health as well. Per the studies cited above, by reducing disposable income and increasing stress, the CPP will lead to worse health outcomes.

331 *Id.*

332 *Id.*

b. The CPP would have particularly egregious effects in coal communities.

As discussed, EPA policies have resulted in widespread layoffs in coal country, resulting in economic dislocation and devastation for tens of thousands of families. Coal communities are located in rural areas and tend to have lower average incomes and higher poverty rates than the United States in general. At the same time, coal jobs tend to be significantly better-paying than many other jobs in these communities. Eliminating these jobs has direct and material effects on the health and welfare of those who are laid off, as well as on the many other people in these communities whose livelihoods depend on coal mining.

The Appalachian Regional Commission (ARC) reports on Appalachian statistics such as poverty, income, and employment.[333] Their recent data illustrates the disparity between the coal region of Appalachia and the United States as a whole:[334]

	U.S.	All Appalachia	Central Appalachia
Mean Household Income 2011-15	$75,558	$60,525	$47,534
Median Household Income 2011-15	$53,889	$44,744	$39,105
% in Poverty (all ages)	15.5%	17.1%	24.4%
% in Poverty (under 18)	21.7%	24.4%	33.4%

[333] Appalachia consists of all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia.

[334] Appalachian Regional Commission, "The Appalachian Region: A Data Overview from the 2011-2015 American Community Survey" (March 2017), available at https://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=132.

Against this backdrop, coal jobs have been a critical source of income for these distressed communities. For instance, in Kentucky, coal mines paid wages of nearly $1 billion in 2016, resulting in an average annual wage of nearly $100,000 per miner. Coal workers thus are among the highest paid blue-collar workers in the Kentucky economy.[335] In West Virginia, coal industry direct wages in 2016 were more than $2.5 billion, with an average wage of $59,390, which is more than 40% above the median *household* income for the State of $41,043.[336] The same is the case in the major coal mining state of Wyoming, where the average take home pay in coal mining was more than $85,000 in 2016. As a point of comparison, the average wage per job in the State in 2016 was $46,840.[337]

Coal mining also spins off large economic benefits in coal communities and coal states. Coal mining is directly responsible for more than $1billion in government revenues in Wyoming and is used to fund a variety of government services, including environmental protection and education. In Kentucky, the figure is nearly $200 million. In Kentucky, coal produced almost $4.6 billion of revenues for the coal mines, much of which is re-spent in the local economy creating a multiplier effect of other induced and indirect benefits. Kentucky government authorities estimate that an additional $2.16 billion of spending was induced by coal production.[338] In West Virginia, the estimated aggregate value of 2016 coal sales was almost $4

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[335] Figures for Kentucky are from *Kentucky Coal Facts* (17th ed. 2017), prepared by the Kentucky Energy and Environment Cabinet and the Kentucky Department for Energy Development and Independence in partnership with the Kentucky Mining Association,

[336] Figures for West Virginia are from Coal Facts 2016, a publication of the West Virginia Coal Association based on information from the Energy Information Administration of the U.S. Department of Energy and the West Virginia Office of Miners' Health, Safety, and Training.

[337] Wyoming figures are provided by the Wyoming Mining Association.

[338] Information taken from *Kentucky Coal Facts*.

billion. All of these figures were materially higher before the previous administration's anti-coal policies took effect.

When these economic benefits are withdrawn because of anti-coal government policy, the impact is not just on family finances and government budgets, as devastating as those impacts are. The impact is on public health. The Appalachian Regional Commission has produced two recent reports demonstrating the link between lower incomes in Appalachia and poor public health. In its August 2017 report "Health Disparities in Appalachia,"[339] the Commission concluded that the region compares unfavorably to the rest of the nation on a large number of health measures. In a subsequent report, the Commission noted that the region also suffers from a disproportionate share of what it called "deaths of despair" or "diseases of despair" resulting from three main causes—alcohol, prescription drug and illegal drug overdose; suicide; and alcoholic liver disease/cirrhosis of the liver.[340] The Commission cautioned that its findings predate the emergence of the opioid crisis in 2015 and that the reality today in Appalachia is likely worse.[341]

Implementing the CPP would only exacerbate this situation. Given the EIA's forecast that implementing the CPP would result in the loss of 225 million tons of annual coal production,[342] NMA estimates that the result would be 27,000 lost mining jobs and almost 100,000 additional lost jobs throughout the supply chain. State and local government budgets would be hollowed out even more from the loss of tax revenue. The impact on public health in already impacted regions would be even worse.

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339 Available at https://arc.gov/research/researchreportdetails.asp?REPORT_ID=138.

340 Appalachian Regional Commission, "Appalachian Diseases of Despair" (August 2017), available at https://arc.gov/assets/research_reports/AppalachianDiseasesofDespairAugust2017.pdf.

341 *Id*. at 19.

342 EIA, AEO 2017 at 84.

3. The CPP failed to consider the environmental impacts of displacing coal generation with other generation sources.

EPA was so focused in the CPP on what it saw as the benefits of the rule that it entirely failed to examine the environmental impacts the rule will create.

a. Shale gas development.

EPA projected a dramatic expansion of natural gas generation that will need to be met with an equally dramatic increase in the supply of shale gas. There are a number of environmental effects of increased gas production that EPA ignored, including:

- Groundwater quantity and quality from increased shale gas development: Shale gas production is a highly water-intensive process, with a typical well requiring around 5 million gallons of water to drill and fracture, depending on the basin and geological formation. Even with increasing volumes of water being recycled, freshwater is still required in high quantities for the drilling operations as brackish water is more likely to damage the equipment and result in formation damage that reduces the chance of a successful well. With the increasing pressure to boost well efficiencies, shale gas development demand for water grows with the development of more wells. The potential impacts also relate to pollution of groundwater with the return of injected fluids after fracturing and surface waters with the growing volumes of waste water destined for disposal.

- Air quality impacts from shale development: Natural gas development, and in particular, shale gas development, present a range of air quality issues. Emissions occur at various stages of the natural gas supply chain and from various sources including the wells, trucks, drilling machinery, condensate tanks and compressor stations. Emissions include PM, ozone, NO_x and VOCs.[343] At least one study has linked fracking with low birth weight and lower scores in a standard index of infant health.[344]

- Earthquakes: A growing body of literature correlates earthquakes with hydraulic fracturing. Paul A. Friberga, Glenda M. Besana-Ostmanb, and Ilya Drickera, "Characterization of an Earthquake Sequence Triggered by Hydraulic Fracturing in Harrison County, Ohio," Seismological Research

[343] *See, e.g.*, Aviva Litovitz, et al., Estimation of regional air-quality damages from Marcellus Shale natural gas extraction in Pennsylvania, 2013 *Environ. Res. Lett.* 8 014017.

[344] Casey, Joan A.; Savitz, David A.; Rasmussen, Sara G.; Ogburn, Elizabeth L.; Pollak, Jonathan; Mercer, Dione G.; Schwartz, Brian S., Unconventional Natural Gas Development and Birth Outcomes in Pennsylvania, USA, Epidemiology: March 2016 - Volume 27 - Issue 2 - p 163–172.

Letters (Nov.-Dec. 2014) attributed earthquakes in Ohio to fracturing. The paper notes previous research correlating earthquakes with fracturing, with examples that include earthquakes felt by the general population in such areas as Blackpool, England, M_L 2.3 (de Pater and Baisch, 2011), Horn River Basin, Canada, M_L 3.8 (British Colombia Oil and Gas Commission [BCOGC], 2012), and Oklahoma M_L 2.9 (Holland, 2011, 2013) and more recently in Ohio (Skoumal *et al.*, 2014). The authors concluded that "it is fairly common knowledge that fracking can cause very minor earthquakes, but a number of the ones measured and reported on in the study were substantially greater than anticipated. Hydraulic fracturing has the potential to trigger earthquakes, and in this case, small ones that could not be felt, however the earthquakes were three orders of magnitude larger than normally expected."[345]

- Impacts from building out natural gas infrastructure to meet power sector demand for natural gas: Before EPA issued the CPP, a study by ICF projected that the United States and Canada will need more than 35,000 miles of additional natural gas transmission pipelines (both mainline and laterals) through 2035 to serve anticipated growth in natural gas demand.[346] Natural gas pipelines raise the full panoply of potential environmental effects, including impacts on land, flora and fauna, endangered species, water, etc. Most new pipeline construction that requires a federal approval will trigger a requirement for an environmental impact statement.

b. Renewable resource development.

Wind and solar projects are land-intensive. For instance, it has been calculated that an 1,800 MW nuclear station requires 1,100 acres (1.7 square miles), whereas an equivalent amount of wind capacity would require 108,000 acres (169 square miles) and an equivalent amount of solar capacity would require 13,320 acres (21 square miles).[347] These calculations understate renewable energy land needs since the nuclear unit will operate at a 90% capacity factor, whereas the wind and solar units will operate at much lower capacity factors. EPA projected that the CPP would lead to an additional 12,000 MW of renewable development by 2020, which

[345] SNL, "Research links fracking to Ohio earthquakes," October 15, 2014.

[346] INGAA Foundation, North American Midstream Infrastructure through 2035: Capitalizing on Our Energy Abundance, March 18, 2014, at 21.

[347] Entergy, Backgrounder, A Comparison: Land Use by Energy Source - Nuclear, Wind and Solar, www.entergy-arkansas.com%2Fcontent%2Fnews%2Fdocs%2FAR_Nuclear_One_Land_Use.pdf&ei.

would obviously entail the need to develop a great deal of land.[348] EPA, however, failed to examine the environmental impacts of this development.

c. Electric transmission development.

As discussed above, the development of renewable resources, as well as the development of new natural gas generation, requires thousands of miles of new transmission lines. This development will also cause obvious environmental impacts. EPA, however, did not address the issue.

4. The CPP would significantly worsen the challenges now facing the electric grid.

As the Department of Energy has pointed out in a recent report, the United States grid is facing serious challenges owing to the number of ongoing retirements of baseload generating units, particularly coal units but also nuclear units.[349] These concerns are important enough that DOE has taken the extraordinary action of exercising authority under the Department of Energy Organization Act to formally propose, "in light of these threats to grid reliability and resilience," that FERC take action to ensure that baseload resources like coal and nuclear are fully compensated for the benefit they provide the grid.[350] While FERC did not adopt the specific relief DOE proposed, it stated that recent changes to the power system make it a "priority" that the continuing reliability and resiliency of the grid be ensured and, towards that end, it established a new proceeding to examine that issue in more detail.[351]

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[348] RIA at 3-34, Table 3-12.

[349] *See* U.S. Department of Energy, "Staff Report to the Secretary on Electricity Markets and Reliability" (Aug. 2017) (DOE Staff Report) at 22.

[350] Department of Energy, Grid Resiliency and Pricing Rule, Notice of Proposed Rulemaking Before the Federal Energy Regulatory Commission, Docket No. RM17-3-000 (DOE NOPR).

[351] Federal Energy Regulatory Commission, *Grid Reliability and Resilience Pricing*, Docket No. RM18-1-000, *Grid Resilience in Regional Transmission Organizations and Independent System Operators*, Docket No. AD18-7-

A study performed for NMA by EVA[352] showed how important the existing coal fleet was in maintaining grid reliability during the Polar Vortex winter of 2014. EVA found that had units then scheduled to retire under the Mercury and Air Toxics rule not been available, the following would have resulted:

- There would have been 34 hours in PJM where the reserve margin was less than 5% and 4 hours where there would have been a negative reserve margin (insufficient supply) and would have forced power curtailments;
- The reserve margin for ISO-NE would have been negative for 16 hours in January 2014, which would have forced power curtailments;
- PJM wholesale power prices would have been 40% greater without the coal plants, while ISO-NE wholesale prices would have been 50% greater and other regions would also have experienced large increases in wholesale prices;
- Consumers would have experienced an additional $35 billion in natural gas heating costs;
- Similarly large impacts would have occurred had there been extreme weather this past summer.

These extreme market swings did not occur because the grid at that point was 50 percent coal-fired. As a result, consumers saved millions of dollars.

In its recent study, DOE examined the 2014 Polar Vortex with the benefit of hindsight and expressed continuing concern. As it said:

> Sixty-five million people within the PJM footprint could have been affected if these [coal] units were not available. The 2014 Polar Vortex was a warning that the current and scheduled retirements of fuel-secure plants could threaten the reliability of the grid.[353]

While the system is more resilient now, and the recent "Bomb Cyclone" event (December 27, 2017 through January 8, 2018) had a somewhat lesser impact on the grid than the Polar

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000, Order Terminating Rulemaking Docket, Initiating New Procedures, and Establishing Additional Proceedings (Jan. 8, 2018).

352 EVA, "The Impact of Early Coal Retirements on Key Power Markets," May 2014 (attachment 5 hereto).

353 DOE NOPR at 5.

Vortex, concerns remain high. Manufacturing and production in the U.S. right now are low compared with historical levels, and economic indicators show a strong potential for a surge in energy needs in response to accelerating economic growth rates brought on by tax reform and other administration policies. Based on the analysis done after the 2014 and 2017 weather events, the system is not likely prepared to address additional power demand that economic growth could produce. In essence, with the retirement of so much coal generation, the grid has lost its buffer against renewed load growth.

The NERC also recently highlighted that concerns as to insufficient electric capacity have not gone away:

> The North American electric power system is undergoing a rapid and significant transformation with ongoing retirements of fossil-fuel and nuclear capacity, as well as growth in natural gas, wind and solar resources … The changing resource mix is alternating the operating characteristics of the bulk power system (BPS). These changing characteristics must be well understood and properly managed in order to assure continued reliability and ensure resiliency.[354]

As NERC stated, "[c]oal-fired and nuclear generation have the added benefits of high availability rate, low forced outages, and secured on-site fuel. Many months of on-site fuel allow these units to operate in a manner independent of supply chain disruptions."[355] NERC went on to warn that "[p]remature retirements of fuel secure baseload generating stations reduces resilience to fuel supply disruption."[356] And even more recently, NERC expressed concern about the country's increased reliance on natural gas for power generation, given that gas generation typically has limited on-site storage and therefore is vulnerable to disruption during extreme events. NERC performed a power flow simulation that "demonstrated that 18 out of 24 groups

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[354] NERC Letter to Secretary of Energy Rick Perry, May 9, 2017, Attachment "Synopsis of NERC Reliability Assessments" at 1.

[355] *Id*. at 2.

[356] *Id*. at 3.

of gas-dependent generators studied experience transmission challenges during an extreme event."[357]

While the grid performed somewhat better during the recent Bomb Cyclone as compared with the Polar Vortex, it would not have done so without the current fleet of coal generators. With the surge in electric demand, coal was the leading electricity supplier in many of the markets exposed to the event. In the PJM region, coal accounted for 74 percent of the incremental energy needed during the event while other sources (e.g., natural gas, nuclear and wind) provided little or no surge capacity. Recently, DOE's National Energy Technology Laboratory (NETL) issued a report analyzing the resilience of different electricity resources — coal, oil, natural gas, nuclear and renewables — in six RTOs/ISOs during the Bomb Cyclone event.[358] To evaluate their resilience, NETL used the National Infrastructure Advisory Council's definition of resilience which says in part, "*... The effectiveness of a resilient infrastructure or enterprise depends on its ability to anticipate, absorb, adapt to, and/or rapidly recover from a potentially disruptive event.*" In this case, NETL evaluated resilience based on the contribution of each electricity source to meeting incremental electricity demand during the Bomb Cyclone. Incremental refers to the additional demand for electricity during the Bomb Cyclone as compared to a typical winter day. The report found that across all six of the independent system operators, coal was the most resilient form of generation, contributing 63 percent of the net increase in load. Natural gas supplied only 20 percent of the net increase in load while wind generation declined. According to the report:

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[357] NERC, "Special Reliability Assessment: Potential Bulk Power System Impacts Due to Severe Disruptions on the Natural Gas System" (Nov. 2017) at viii.

[358] *Reliability, Resilience and the Oncoming Wave of Retiring Baseload Units Volume 1: The Critical Role of Thermal Units During Extreme Weather Events,* March 13, 2018, DOE/NETL-2018/1881.

- "… across RTOs, coal is the most resilient form of generation …" (p. 18 of NETL report)

- "In PJM, the largest of the ISOs, coal provided the most resilient form of generation, due to available reserve capacity and on-site fuel availability, far exceeding all other sources … without available capacity from partially utilized coal units, PJM would have experienced … blackouts." (p. 1)

- "In PJM, of the three major sources of electricity generation, only coal-fired generation exhibited significant resilience in response to the extreme weather event." (p. 4)

- "The most prominent example of generation resilience occurred in PJM … some coal-fired units were suddenly brought on line and others ramped up to accommodate the rapid increase in PJM electricity demand … coal units in PJM were uniquely positioned to provide the resilience needed at this critical point in time." (p. 12)

The two charts below show the percentage contribution of electricity sources to meeting incremental electricity demand during the Bomb Cyclone. These charts are based on data in the NETL report.

Chart 1: Contribution to Meeting Incremental Electricity Demand in the Six RTOs

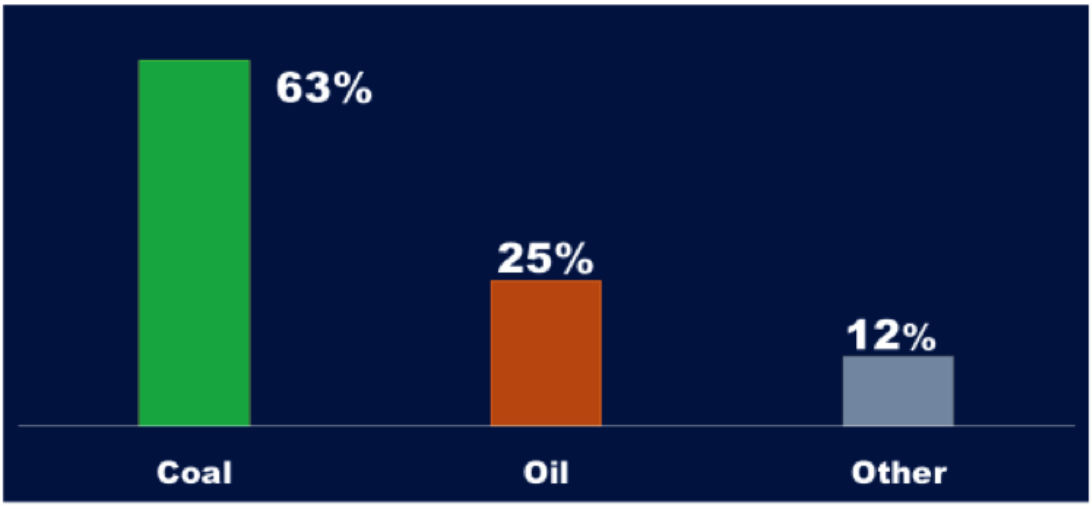
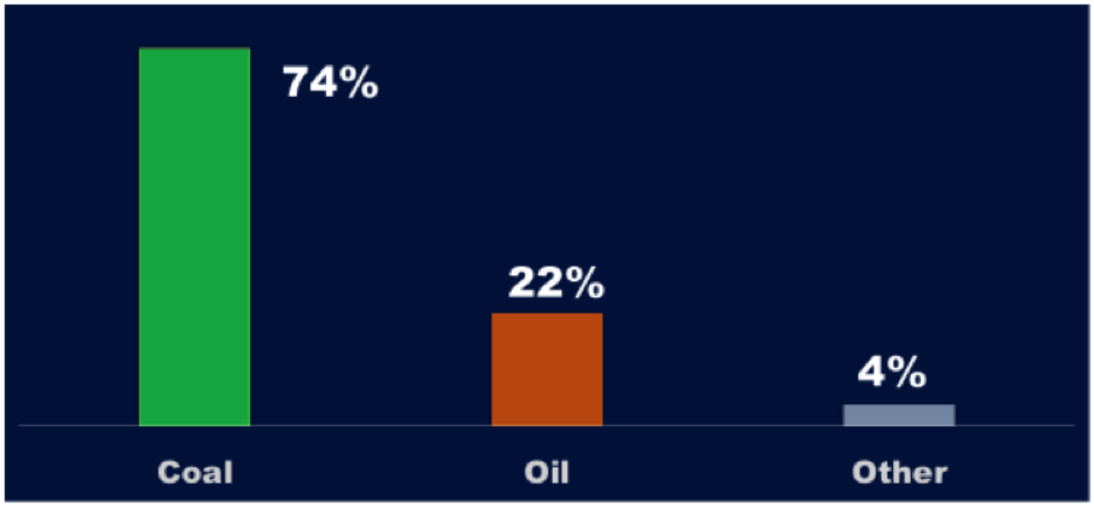


Chart 2: Contribution to Meeting Incremental Electricity Demand in the PJM Region



Two other conclusions of the NETL report also stand out. First, natural gas prices were very high:

- "… in eastern PJM, ISO-NE, and NYISO, gas and electric transmission were severely constrained, leading to all-time high gas prices in New York and elevated natural gas and electricity prices across each region." (p. 6)

- "… spot [gas] prices in New York reached $175/MMBtu …." (p. 8)

- "… natural gas prices in PJM spiked from a normal level near $3/MMBtu to $96/MMBtu at the Texas Eastern M3 interface … on January 5." (p. 14)

- Increases in spot gas prices for ISO-NE, PJM and NYISO were higher during the Bomb Cyclone than during the Polar Vortex. See Exhibit 1-20, p. 23.

Second, renewables were detrimental to resilience:

- "… cloud cover and wind speeds outside of operational parameters caused a reduction in average daily contribution from intermittent renewables … essentially imparting a resilience penalty to the system. This resulted in a need for dispatchable fossil generation to make up this generation in addition to its resiliency role in meeting the greater demand during the [Bomb Cyclone]." (p. 4)

- "Available wind energy was 12% lower during the Bomb Cyclone than for a typical winter day …." (p. 2)
- "Wind and solar had declines of 19% in MISO, 29% in SPP and 32% in ERCOT." (p. 5)

Similarly, the Department of Energy released figures showing actual generation by resource type on January 4 at 8:00 a.m, as compared with installed capacity.[359] These figures, shown below, demonstrate the degree to which coal was depended on during the weather event and the degree to which other resources could not be depended on.

	PJM		**ISO New England**		**SPP**	
	Installed	**Actual**	**Installed**	**Actual**	**Installed**	**Actual**
Coal	**30.9%**	**39%**	**2.6%**	**7%**	**30.9%**	**59%**
Gas	**35.6%**	**22%**	**52.1%**	**30%**	**37.5%**	**21%**
Wind	**17.1%**	**4%**	**12.2%**	**3%**	**2.3%**	**12%**
Nuclear	**4.1%**	**28%**	**4.2%**	**28%**	**20.1%**	**6%**
Oil	**1.2%**	**5%**	**2.9%**	**21%**	**N/A**	**N/A**
Solar	**1.1%**	**0%**	**3.5%**	**N/A**	**0.4%**	**0%**

As can be seen, in all markets, coal production considerably exceeded installed capacity. In contrast, in two markets (PJM and ISO New England), wind production collapsed. Natural gas generation, whether because of supply problems or because of significantly higher natural gas prices, was significantly less than installed capacity.

DOE followed up its concerns about coal retirements in testimony to the Senate Energy and Natural Resources Committee on January 23, in a hearing entitled "Hearing to Examine the Performance of the Electric Power System under Certain Weather Conditions, Focusing on the Northeast and Mid-Atlantic Regions." Bruce Walker, Assistant Secretary, Office of Electricity

[359] Department of Energy, *Power Generation Response to Extreme Cold* (January 4, 2018).

Delivery and Energy Reliability at DOE, testified that "[t]he grid's integrity is maintained by an abundant and diverse supply of fuel sources today, especially with onsite fuel capability. However, the real question is whether or not this diversity will be here tomorrow." He went on to say that "[w]hat was apparent during [the recent Bomb Cyclone] weather event was the continued reliance on baseload generation and a diverse energy portfolio. Without action that recognizes the essential reliability services provided by a strategically diversified generation portfolio, we cannot guarantee the resilience of the electric grid." And further: "[w]hen we start relying on natural gas and oil, we increase our exposure … [T]he critical infrastructure is not the coal sitting at a plant or a nuclear facility, now I've got to rely on thousands of miles of pipelines and oil deliveries."

Coal thus remains a critical component in the nation's power mix, as another recent report highlighted:

- ***Coal-fueled generation provides many attributes that are critical for grid reliability and resilience***. A variety of attributes are required to maintain a reliable and resilient grid, and no one technology can do it all. Different resources provide these attributes to varying degrees, and coal provides many critical attributes. As the electric sector becomes increasingly reliant on natural gas and as renewable penetration grows, market structure changes may be required to properly price and value the contribution of all types of generation to ensuring both reliability and resilience.

- ***Resource diversity is critical in maintaining a reliable and resilient electricity system*.** The coal fleet plays an important role in helping to maintain resource diversity. The impact of unpredictable low-probability, high-impact events that challenge grid resilience is magnified as the electricity system evolves. For example, natural gas has historically been prone to supply disruptions and price shocks, while intermittent renewable and demand response resources are generally not dispatchable1 to meet unforeseen fluctuations in electricity demand. The U.S. coal fleet benefits from stable commodity pricing, multiple means of delivery, and an ability to stockpile fuel. Diversity in fuel supply improves the resilience of the grid and mitigates the impact of fuel supply disruptions.

- ***The coal fleet provides stable pricing as a hedge against natural gas price volatility*.** The price of natural gas has an outsized impact on the price of electricity in most markets. Today's natural gas prices are at near-historic lows, which has resulted in

> natural gas-fired combined-cycle plants being *the* favored technology to replace retiring generation and meet expected load growth. Retaining existing coal-fueled power plants can help insulate ratepayers against rising and possibly volatile natural gas prices.[360]

The essential attributes provided by different resources to grid reliability, resilience and affordability are shown in the table immediately below. The comparison highlights two important facts: (i) all the attributes listed are needed for grid reliability and resilience; and (ii) no single resource by itself exhibits all the attributes needed for reliability and resilience—however, coal-fueled generation provides many of these attributes.

Qualitative Comparison of Grid Reliability and Resilience Attributes by Fuel Type[361]

Attribute	**Coal**	**Natural Gas**	**Wind/Solar**	**Nuclear**	**Demand Response**
Dispatchability	✓	✓		✓	
Inertia	✓	✓	✓ (wind)	✓	
Frequency Response	✓	✓	✓[362]		
Contingency Reserves	✓	✓			✓
Reactive Power	✓	✓		✓	
Ramp Capability	✓	✓			✓
Black Start		✓			
Resource Availability	✓	✓		✓	
On-Site Fuel Supply	✓			✓	✓
Reduced Exposure to Single Point of Disruption	✓		✓	✓	✓
Price Stability	✓		✓	✓	✓

In sum, by forcing further retirements of coal generation, the CPP will make the grid less diverse, less resilient, and less reliable.

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360 PA Consulting Group, "The Contribution of the Coal Fleet to America's Electricity Grid" (August 2017) (PA Report) at i, available at http://www.americaspower.org/wp-content/uploads/2017/08/PA-Coal-Fleet-Study.pdf.

361 PA Report at ii.

362 Although most wind does not provide frequency response, newer vintage wind resources with integrated storage can do so. Some solar depending on the type of inverter also supports frequency response.

VIII. In Repealing the CPP, EPA Should Not Retain Building Block One and Should Instead Repeal the Entire Rule.

As EPA points out in the preamble to the proposed repeal, the agency in the CPP concluded that building block one was not severable from the rest of the rule.[363] NMA supports EPA's decision, at least on this basis, to repeal the entire rule and not leave building block one in place.

At the same time, it is important to recognize that EPA was disingenuous in its reason for concluding that a rule comprised only of building block one was not workable. EPA said it was concerned about a "rebound effect" under which coal units with lower heat rates might operate more, thereby increasing their CO2 emissions, unless EPA required some mitigative action.[364] Yet EPA provided no data to indicate that this "rebound effect" would occur; it was simply an assertion. Nor did EPA even attempt to analyze what mitigation could be adopted to prevent this effect. "Severability" is a legal concept that would apply only if a court invalidated the CPP. The court would then ask whether any portion of the CPP was severable and could therefore survive the vacatur of the rest of the underlying rule. It was in this context that EPA claimed that building block one was not severable given the asserted rebound effect, because the agency did not want to present the court with an opportunity to invalidate the generation-shifting portion of the rule while leaving a program of at-the-source efficiency improvements in place. It wanted to force the court into a choice: generation-shifting or nothing.

In repealing the CPP, EPA should be careful not to endorse the CPP's reasoning about a "rebound effect." Certainly, if EPA in promulgating the CPP did not believe that building block one could stand alone, there is no reason the present EPA should leave it in place. But the more

[363] 82 Fed. Reg. at 48.038.

[364] 80 Fed. Reg. at 64,745, 64,751, 64,758, n. 443.

central reason for repealing the entire rule is that all three building blocks, in reality, were part of a single irretrievably intertwined program. As discussed, the central requirement of the rule is that coal and gas units meet certain emissions performance rates. Those rates were calculated based on a complex series of calculations involving all three building blocks. These emissions rates, in turn, led to what EPA was really after in the rule, state CO_2 budgets with trading as an alternative compliance mechanism. None of these concepts make sense in the context of building block one only. EPA would have to do a major overhaul, both in the preamble to the rule and, more importantly, in the specific regulatory language, in order to have a workable building block one rule. EPA would be well advised simply to repeal the entire rule and start over.

Additionally, as NMA and others will show in comments on the advance notice of proposed rulemaking, EPA's conclusion that efficiency at coal plants could be improved, on average, by 4 percent is far overstated. Many units are already operating as efficiently as possible given market pressure. A new look at workable efficiency measures is warranted.

IX. The CPP Is Barred Unless EPA Makes a New Endangerment Finding.

In adopting the CPP, EPA attempted to borrow the endangerment finding it had made when it adopted its 2009 light-duty motor vehicle standards.[365] But section 202(a) of the CAA, which governed the agency's 2009 finding, and section 111(b) of the CAA, which governs new and existing source performance standards, contain substantively different requirements for making endangerment findings. Under section 202(a), the Administrator may regulate if he or she finds that mobile sources "cause, or contribute to, air pollution which may reasonably be

[365] Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009).

anticipated to endanger public health or welfare." Under section 111(b), however, the Administrator may regulate a category of sources only if he or she finds that the category "causes, or contributes *significantly* to, air pollution which may reasonably be anticipated to endanger public health or welfare." (Emphasis added.) The standards are different, and so the Administrator's finding section 202(a) cannot substitute for a finding under section 111(b). Additionally, in any event, motor vehicles obviously are not the same as power plants; to regulate under section 111, the Administrator must make a power plant-specific endangerment finding.

In the CPP, EPA recognized that section 202(a) and section 111(b) contain different standards for making endangerment findings, but it was unwilling to actually perform the analysis required for a section 111 endangerment finding. EPA, therefore, as an alternative, argued that it could regulate CO_2 emissions under section 111 so long as the Administrator had a "rational basis" for concluding that power plant CO_2 emissions endanger the public health or welfare. EPA, however, is not free to invent a rational basis test for section 111 regulation. The statute provides specific language under which a section 111 endangerment finding must be made. Until EPA makes this statutorily required finding, it may not regulate CO_2 emissions under section 111,

CONCLUSION

EPA should repeal the CPP.