April 26, 2018

EPA Docket Center
U.S. EPA, Mail Code 28221T
1200 Pennsylvania Ave., NW
Washington, DC 20460

Submitted Electronically via Regulations.gov

Attn: EPA-HQ-OAR-2017-0355

RE: Comments of Environmental Defense Fund on EPA's Proposed Rule: Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035 (Oct. 16, 2017).

On behalf of its over two million members and supporters, the Environmental Defense Fund ("EDF") submits the following comments on the Environmental Protection Agency's ("EPA's" or the "Agency's") October, 16, 2017, proposed rule entitled "Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units" ("Proposed Repeal").[1] These comments are supplemental to three other comment letters that EDF is filing jointly with other public health and environmental organizations.[2]

EDF is a national non-profit, non-partisan organization dedicated to protecting human health and the environment by effectively applying science, economics, and the law. For well over a decade, EDF has engaged in litigation, administrative proceedings, and public outreach to ensure EPA fulfills its obligations under the Clean Air Act ("CAA") to protect Americans from

[1] EPA, Proposed Rule: Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035 (Oct. 16, 2017) [Hereinafter "Proposed Repeal" or "Proposal"].
[2] *See* Joint Comments of Environmental and Public Health Organizations Regarding the Proposed Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, Comments Specific to Climate Change (Apr. 26, 2018) (submitted via regulations.gov)[Hereinafter "Joint Comments Specific to Climate Change"]; Joint Comment of Health, Environmental, and Conservation Groups on EPA's Proposed Rule: Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, (Apr. 26, 2018) (submitted via regulations.gov); Joint Comments of Environmental and Public Health Organizations Regarding the "Proposed Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," Comments Specific to the "*Regulatory Impact Analysis for the Review of the Clean Power Plan Proposal*" (Apr. 27, 2018) (submitted via regulations.gov) [Hereinafter "Joint Comments Specific to Proposed Repeal RIA"]. EDF has also submitted a Joint Appendix in-person that contains most of the Attachments referenced in this comment. *See* Joint Appendix of Environmental and Public Health Organizations and States Regarding the Proposed Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Submitted in-person by John Bullock on Apr. 20, 2018) [Hereinafter "Joint Appendix"].

the vast quantities of harmful carbon pollution emitted by the nation's fossil fuel-fired power plants. Since the Clean Power Plan ("CPP") was finalized in August 2015, EDF and a broad coalition of States, municipalities, power companies, health and environmental organizations, and other allies have worked diligently to defend this vital protection in court.

For the reasons described in these comments, EDF urges EPA Administrator Scott Pruitt to abandon his reckless and unlawful effort to repeal the CPP. The CPP is the most important step our nation has taken to address the urgent and dire threat of climate change. Developed after years of public outreach and agency deliberation, and review of over four million public comments, the CPP establishes eminently achievable limits on carbon pollution that are based on proven, cost-effective measures used by the power sector for decades to mitigate carbon dioxide and other pollutants. At the same time, the CPP provides states and power companies with extensive flexibility to meet these limits in whatever ways are most cost-effective and best meet local needs and priorities—including through market-based emissions averaging and trading programs, and investments in customer-side energy efficiency that save money for families and businesses. The CPP will significantly reduce climate-destabilizing pollution from the power sector, avoid premature deaths and disease caused by power plant pollution, and drive broad-based investment and job creation in the nation's vibrant clean energy economy.

Eleven years after the Supreme Court first recognized EPA's authority and responsibility under the CAA to address the urgent threat of climate change, it is long past time for EPA to implement and strengthen the CPP. Instead, Administrator Pruitt seeks to repeal the CPP outright, without first preparing a replacement of any kind—let alone one that achieves comparable reductions in harmful pollution. And the Administrator has launched a protracted and unnecessary separate rulemaking process that is clearly designed to ensure that any "replacement" for the CPP, if it is completed at all, will deliver limited or no benefits for our climate or public health.

As explained in detail in our comments, Administrator Pruitt's effort to tear down the CPP fails to uphold the Agency's obligations under our nation's clean air laws or to adhere to basic principles of administrative law. The Administrator claims that repeal of the CPP is necessary because he has formulated an interpretation of the Clean Air Act that precludes the common-sense approach used to establish the emission reduction targets in the CPP. Yet the Administrator has failed to articulate this proposed interpretation in a clear and coherent manner, much less explain why the CPP is inconsistent with it. Moreover, the Administrator's legal arguments in support of his proposed interpretation are fatally flawed and reflect an egregious misreading of the text, structure, history, and purpose of the Clean Air Act. And the Administrator wholly disregards the massive administrative record supporting the CPP, including the voluminous evidence underscoring the urgency of mitigating climate pollution and the unique features of climate pollution and the power sector itself that support the reasonableness of the approach reflected in the CPP. In short, the Proposed Repeal demonstrates that the Administrator has set out to repeal the CPP without bothering to engage with the extensive legal and factual record that supported it.

Separate from these substantive flaws, our comments also point to fatal procedural shortcomings in the Proposed Repeal. As we argued in comments filed in this docket on January

29, 2018, the Administrator has demonstrated through a long history of actions and statements that he has an unalterably closed mind with respect to the repeal of the CPP and is incapable of fairly weighing comments and evidence filed in this rulemaking. We reiterate here that the Administrator must recuse himself immediately from this rulemaking and that his involvement to date has irredeemably tainted the Proposed Repeal. In addition, the Administrator claims the Proposed Repeal was occasioned by the President's Executive Order 13,783 on "Promoting Energy Independence and Economic Growth," yet fails to include *any* record information relating to the Agency's review pursuant to that Executive Order—in clear violation of section 307(d) of the Clean Air Act.

In separate joint comments, we also articulate in detail how additional issues render the administration's proposal unlawful: including the Proposed Repeal's failure to engage with the latest climate science, and the proposal's flawed approach to its regulatory impact analysis.

The Proposed Repeal of the CPP abdicates EPA's solemn responsibility to protect the health and well-being of all Americans. Administrator Pruitt must abandon this lawless and destructive course of action.

We appreciate EPA's careful consideration of these comments. Please direct any inquiries regarding these comments to Tomás Carbonell, Director of Regulatory Policy at EDF, at tcarbonell@edf.org or 202-572-3610.

Respectfully submitted,

Sean H. Donahue
Susannah Weaver

Donahue, Goldberg & Weaver, LLP
1111 14th St., NW
Suite 510A
Washington, DC 20005
Counsel for Environmental Defense Fund

Vickie Patton
Tomás Carbonell
John Bullock
Ben Levitan
Erin Murphy
Martha Roberts
Surbhi Sarang
Rama Zakaria

Environmental Defense Fund
1875 Connecticut Ave., NW,
Suite 600
Washington, DC 20009

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EXECUTIVE SUMMARY

The Clean Power Plan[3] is the most significant step the United States has taken to address the urgent threat of climate change, and it will have important public health and economic benefits for all Americans. EDF strongly opposes Administrator Pruitt's destructive and unlawful Proposed Repeal, and his evident intention to ensure that any "replacement" for the CPP, if it happens at all, will fail to protect our climate and public health.

1. *Repealing the Clean Power Plan would leave EPA in default of its statutory obligation to limit harmful climate pollution from existing power plants.*

In *Massachusetts v. EPA*, the Supreme Court held that "EPA has the statutory authority to regulate the emission of [greenhouse] gases" because they "fit well within the Clean Air Act's capacious definition of an 'air pollutant.'"[4] The Court made clear that EPA was required to determine—based on scientific factors, not policy preferences—whether climate pollution endangers public health or welfare. The Court then explained that if EPA made the requisite determination, the Agency was required to limit emissions of this dangerous pollution. EPA finalized this determination, or "endangerment finding," in 2009 based on extensive review of the scientific literature and an exhaustive public comment, and that finding has been upheld by the courts.[5] As EPA has also noted, the scientific literature that has emerged since 2009 only strengthens the conclusion that climate pollution poses a grave threat to human health and welfare.

Since 2009, EPA's legal authority and obligation to regulate climate pollution under the Clean Air Act ("CAA") have been affirmed twice more by the Supreme Court. In *American Electric Power v. Connecticut*, the Supreme Court found that section 111 of the CAA "speaks directly" to the regulation of climate pollution from existing power plants.[6] The Court again recognized EPA's authority and obligation to regulate climate pollution in a third decision, *Utility Air Regulatory Group v. EPA*.[7]

In 2015, after a comprehensive public process, EPA determined that it was appropriate to regulate carbon pollution from new, modified, and reconstructed power plants because of the significant contribution that these sources make to dangerous climate-destabilizing pollution and

[3] EPA, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662 (Oct. 23, 2015) [Hereinafter "CPP Final Rule"].
[4] *Massachusetts v. EPA*, 549 U.S. 497, 532 (2007).
[5] EPA, 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) [Hereinafter "Endangerment Finding"].
[6] *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 424 (2011).
[7] *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2448 (2014) (holding that greenhouse gas emissions from sources required to obtain Prevention of Significant Deterioration ("PSD") permits are subject to "best available control technology" ("BACT") limitations); *see also* Order, *West Virginia v. EPA*, 15-1363, ECF No. 1687838, at 2 (Aug. 8, 2017) (Circuit Judges Tatel and Millett, concurring) (recognizing that the endangerment finding "triggered an affirmative statutory obligation to regulate greenhouse gases").

finalized standards for those sources.[8] This triggered binding obligations under section 111 to issue emission regulations for carbon pollution from power plants.

Despite these clear obligations, the Proposed Repeal would do away with the CPP outright—leaving the public with no federal protection against carbon pollution from existing power plants. The Clean Air Act does not permit EPA to default on its obligation in this way. To be sure, Administrator Pruitt, like prior Administrators, may choose to review and modify the CPP if he is able to provide an adequate legal and factual justification for doing so. But the Clean Air Act does not allow the Administrator to withdraw statutorily required protections, leaving nothing in place for an indeterminate period while he mulls alternative policies. This is especially the case where, as here, the Administrator has failed to point to any valid reason why the CPP is *impermissible* under the CAA and must be withdrawn. To the extent that the Proposed Repeal actually reflects a mere change in view over which interpretation of the ambiguous language of section 111 should be preferred, the CAA forbids EPA from creating a regulatory vacuum while it crafts a new policy.

And even as it now seeks to revisit its "authority" to regulate, EPA has been urging the D.C. Circuit not to decide the same statutory issues in the pending litigation over the CPP. By avoiding judicial resolution of questions of statutory authority that the D.C. Circuit was poised to decide, EPA's strategy potentially sets up years of administrative process and litigation on matters that might otherwise have already been resolved.[9]

With EPA's obligation to regulate climate pollution from power plants firmly established, any action by EPA to repeal the CPP without simultaneously replacing it with a standard that satisfies section 111(d) is unlawful, arbitrary, and capricious.

2. *Administrator Pruitt's Proposal flouts basic administrative law requirements, including those governing agency policy changes*

EPA's Proposal to repeal the CPP represents an abrupt about-face, one that would throw out the product of years of exhaustive record-based policy making and public engagement. EPA's Proposal does not begin to satisfy the settled administrative law requirements for such reversals of policy. EPA has not addressed, let alone provided a reasoned analysis of why it is rejecting, the extensive, record-based determinations supporting its prior decision that the CPP's design, including the "best system of emission reduction" used to establish the CPP's emission reduction targets, best comported with the relevant statutory factors.

Instead, the Administrator's Proposed Repeal seeks to bypass any engagement with EPA's own findings in the CPP, instead relying upon abstract and faulty assertions that the CPP was beyond EPA's "authority." But EPA has not begun to make the showing that the CPP rested

[8] Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,510, 64,530 (Oct. 23, 2015) [hereinafter "GHG NSPS Final Rule"].

[9] According to the Administration's recent regulatory plan, EPA will not finalize its repeal of the Clean Power Plan until October 2018—more than two years after oral argument before the D.C. Circuit. *See* Ariana Skibell, *Trump Updates Agenda, Boasts Killing Hundreds of Rules*, E&E News (Dec. 14, 2017), https://www.eenews.net/stories/1060069079/.

on an impermissible reading of the statute, and has not even shown that its own proposed construction would be consistent with the statute (especially in so far as EPA appears headed toward an approach that the Agency itself has already determined would achieve no significant emission reductions). Nor has EPA considered, as case law requires, alternatives to its Proposed Repeal. The Proposal is inconsistent with basic requirements of reasoned decision-making.

3. Administrator Pruitt has failed to demonstrate that the CPP is inconsistent with his proposed interpretation of "best system of emission reduction."

The Administrator claims to be proposing a "source-oriented" interpretation of "best system of emission reduction" ("BSER") that excludes the common-sense measures in the CPP BSER. Given that the Proposed Repeal uses multiple and conflicting terms to describe the Administrator's proposed interpretation, it is difficult to say for certain what systems of emission reduction the Administrator would deem to be "source-oriented." But as a threshold matter, the Administrator has failed to demonstrate that his proposed interpretation *would actually require repeal of the CPP*. As EPA repeatedly explained in the CPP itself, the CPP BSER was deliberately designed to result in standards implementable by and applicable to each individual source and to achieve emission reductions from (and only from) regulated sources. And the Administrator ignores ample record findings from the CPP that clearly indicate that EPA previously viewed the CPP BSER—which contemplates that existing power plants would reduce their generation—as consisting of "operational" changes to affected sources themselves, a quintessentially "source-oriented" approach.[10] The Proposed Repeal's failure to acknowledge the "source-oriented" nature of the CPP BSER, much less engage with and provide a reasoned basis for rejecting EPA's prior findings to that effect, is a patent failure to engage in reasoned decision-making.[11]

4. The Proposed Repeal's basis for rejecting the CPP BSER and revoking the Clean Power Plan is unlawful.

If the Administrator were to interpret the term "best system of emission reduction" in a manner that clearly excludes the CPP BSER, such an interpretation would be unlawful. To begin, the Proposed Repeal lacks clarity on a central issue: whether the Administrator believes that EPA is legally *precluded* from retaining the CPP BSER, or if he instead merely *prefers* his proposed interpretation.[12] Either way, the Proposal is unlawful.

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[10] *See infra* section III.A.

[11] *See FCC v. Fox*, 556 U.S. 502, 537 (2009) (Kennedy, J., concurring) ("An agency cannot simply disregard contrary or inconvenient factual determinations that it made in the past.").

[12] *Compare* Proposed Repeal, 82 Fed. Reg. at 48,036 (noting that if the proposal is finalized "the CPP [would] exceed[] EPA's statutory authority and would be repealed"), *id.* at 48,038 (proposing that "the CPP is not within Congress's grant of authority to the Agency under the governing statute"), *id.* at 48,038/4 (describing the CPP as "not within the bounds of our statutory authority"), *id.* at 48,038/5 (describing the CPP as exceeding the agency's authority under the CAA), and *id.* at 48,038/6 (arguing that it is appropriate for the EPA to reconsider the CPP because it "exceed[s] the Agency's statutory authority"), *with id.* at 48,039 (acknowledging that there could be "expansive" and "narrow" interpretations of the phrase "best system of emission reduction"), *id.* at 48,039 ("The EPA believes that this is the *best construction* of CAA section 111(a)(1).") (emphasis added), *and id.* at 48,043 ("[T]he *best* reading of the statute is that the BSER does not encompass the types of measures that constitute the second and third 'building block' of the CPP.") (emphasis added).

a. The CPP BSER is plainly authorized under the Clean Air Act.

To the extent that the Administrator is arguing that the Agency is *legally precluded* from retaining the CPP, he is wrong. As detailed below in section III.B.i., the CPP BSER is an approach plainly authorized by the broad language of section 111(a)(1) of the CAA. The CPP BSER reflects the predominant approach to reducing power plant carbon dioxide ("CO_2") emissions employed by companies and states across the country and conforms to a long line of power sector regulations that take account of the unique characteristics of power plants and the pollutants they emit.[13] After consideration of the characteristics of CO_2 as a pollutant, and industry practice, EPA determined that the BSER for the affected sources consists of improving heat rate at affected coal-fired steam electric generating units ("EGUs"), and substituting increased generation from low- and zero-emitting sources for generation from higher-emitting affected sources.[14] The Agency found that these measures were available to all affected sources through direct investment, operational shifts or emissions trading.[15]

When developing the CPP BSER, EPA carefully considered and analyzed each of the required statutory factors. The record shows that EPA reviewed a wide range of measures and determined that the three building block measures were "adequately demonstrated," both independently and in combination.[16] EPA then determined the "best" system by assessing the required considerations:[17] cost,[18] non-air quality health and environmental impacts,[19] and energy requirements,[20] as specified in section 111(a)(1); and the amount of pollution reduced,[21] as case law has long deemed the statute to require.[22] Based on the BSER, EPA established an "achievable" degree of emission limitation for affected sources, and crafted corresponding rate- and mass-based emission guidelines that can be directly applied to individual sources.[23]

This common-sense approach fits well within the broad concept of a "system" of emission reduction that can be "applied" to existing power plants, as section 111(a)(1) requires. It is fully consistent with the text, history, structure, and purpose of the CAA and, as EPA explained at length in the CPP, it best satisfies the statutory factors that are supposed to drive the selection of the BSER under section 111 of the CAA. Moreover, as section 111(d) requires, it results in standards "for any existing source" that can be applied to and complied with by

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[13] *See EPA v. EME Homer City Generation*, 134 S. Ct. 1584, 1594 (2014) (regulators "must account" for the characteristics of the pollution problem they face).
[14] CPP Final Rule, 80 Fed. Reg. at 64,667. In these comments, we use the term "building block 1" to refer to the element of the CPP BSER that encompassed heat-rate improvements at existing steam EGUs; "building block 2" to refer to reduced generation at existing steam EGUs, matched by increased generation from existing natural gas combined cycle facilities; and "building block 3" to refer to reduced generation from all existing fossil EGUs, matched by increased generation from certain new renewable generating technologies.
[15] CPP Final Rule, 80 Fed. Reg. at 64,667.
[16] *Id.* at 64,745-48; *see also infra* section III.B.i.e.
[17] CPP Final Rule, 80 Fed. Reg. at 64,744-51.
[18] *Id.* at 64,801-02, 64,810-11.
[19] *Id.* at 64,746-48.
[20] *Id.* at 64,670-71, 64,693-94, 64,800, 64,874-81.
[21] *Id.* at 64,750-51.
[22] *Id.* at 64,719-20 (citing *Sierra Club v. Costle*, 657 F.2d 298, 326, 347 (D.C. Cir. 1981) and *Lignite Energy Council v. EPA*, 198 F.3d 930, 933 (D.C. Cir. 1999)).
[23] *Id.* at 64,741-42, 64,751-52.

individual power plants. The Administrator fails to provide any convincing arguments in the Proposed Repeal that would disturb these basic legal underpinnings of the CPP BSER.

b. Administrator Pruitt's arguments aimed at foreclosing the CPP BSER fail.

The Administrator's Proposed Repeal contains several deeply flawed legal arguments aimed at excluding the measures that comprised the CPP BSER. Each of these arguments fails.

First, EPA offers a cramped textual reading of section 111(d) to support its revised interpretation of the BSER. Specifically, the Agency argues "application"—as used throughout the CAA's standard-setting provisions, including section 111[24]—"signals a physical or operational change to a source."[25] But the word "application" implies no limitation based on physical attachment. The CAA sections EPA references discuss *application* of a broad range of measures including processes, methods, systems, techniques, technology, and controls,[26] and contain no language which implies that the measures must be limited to add-on technologies. To the extent that the other sections contain constraints on the types of emission reduction measures available, those constraints are noticeably absent from section 111.[27]

EPA additionally argues that because section 111(d) directs state plans to establish standards of performance "*for* any existing source," it is therefore "reasonable to expect that such standards would be predicated on measures that can be applied to or at those same individual sources."[28] The Administrator then argues that the CPP BSER utilizes measures that do not meet that requirement.

This reasoning is unpersuasive. That the statute requires the establishment of standards "for" any existing source says nothing about what systems of emission reduction those standards may be based on. Moreover, the chief regulatory requirement of the CPP—the emission performance rates—are expressed as emission limitations that are "for" and "applicable to" individual affected sources, just as section 111 requires. In crafting plans that establish, implement and enforce standards of performance under section 111(d), states may directly adopt those emission performance rates or apply equivalent rate- or mass-based standards that likewise reflect the BSER. Regardless of which form the standards in state plans take, no entities other than affected sources will be subject to these performance standards, and no outside entity can assume the compliance obligations of an affected entity. In cases where plants use emission credits in order to meet that target, the legal obligations—and the risks of non-compliance—fall entirely on each affected source. Further, the emission reductions are being secured at the regulated sources through the reduction in utilization of higher-emitting sources. The state plan and, where relevant, the trading program determines where the reductions in utilization occur, but the emission reductions are exclusively achieved by the regulated sources through changes to

[24] Proposed Repeal, 82 Fed. Reg. at 48,039.
[25] *Id*. at 48,040.
[26] *See* 42 U.S.C. §§ 7412(d)(2), 7479(e), 7521(a)(3)(A)(i), 7521(a)(3)(D).
[27] "[W]here 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." *Keene Corp. v. United States*, 508 U.S. 200, 208 (1993) (citation omitted).
[28] Proposed Repeal, 82 Fed. Reg. at 48,039 (citing 42 U.S.C. § 7411(d)) (emphasis added in Federal Register citation).

their operation. In short, nothing about the CPP offends the "for any existing source" provision of section 111(d).

Second, the Administrator argues that the CPP must be repealed on the basis of the legislative history of the CAA. However, contrary to the narrative in the Proposed Repeal, the legislative history of section 111 reveals that the terms "standard of performance" and "best system of emission reduction" authorize a broad array of measures, and do not in any way rule out the CPP BSER. The Administrator's proposed reading of the legislative history is implausibly narrow and convoluted and certainly does not establish that the CPP BSER is impermissible.

Third, the Administrator claims that the CPP was a departure from EPA's prior regulatory practice, and that the proposed interpretation reflects the Agency's historical interpretation of section 111. Even if the Administrator's claim were correct (which it is not), it would not follow that the CPP must be repealed: in the CPP, EPA developed a regulatory approach appropriate to the distinctive characteristics of the relevant pollutant and source category combination it had not regulated before. That evidence-based approach is a virtue, not a flaw. In any event, EPA's regulatory precedent—particularly as it pertains to the power sector—reflects a long history of including flexible measures analogous to building blocks 2 and 3 in the CPP BSER.

Likewise, the Administrator wrongly asserts that the CPP BSER is inconsistent with the carbon pollution standards for new, modified, and reconstructed power plants—reversing the Agency's prior position on this very issue without a reasoned explanation.[29] The Administrator further argues that CAA's Regional Haze Program under section 169A implicitly limits the scope of BSER under section 111. In so arguing, the Administrator confuses CAA section 169A with its implementing regulations and does nothing to advance his position that the BSER must be entirely constrained to measures integrated on-site at individual facilities.[30]

Fourth, the Administrator argues that statutory context forecloses the approach that is reflected in the CPP BSER—claiming in particular that the CPP BSER creates conflicts with the CAA's Prevention of Significant Deterioration ("PSD") program for new and modified sources.[31] Yet as the Administrator concedes in the Proposed Repeal, only new source performance standards issued under section 111(b) "apply" to the same sources that are subject to PSD: new and modified facilities.[32] Moreover, the Administrator fails to address EPA's well-reasoned explanation in the CPP as to why the BSER it chose was uniquely appropriate for existing sources, and was *not* applied to new sources. The Administrator has provided no reason to expect a conflict between the CPP and the PSD program.

Fifth, the Administrator points to a set of so-called "policy concerns" to support his restrictive reading of the statutory phrase "best system of emission reduction." These concerns include an assertion that the CPP BSER violates what the Agency calls the "clear statement

[29] Proposed Repeal, 82 Fed. Reg. at 48,041 n.16.
[30] *Id.* at 48,041 n.17.
[31] *See* 42 U.S.C. §§ 7470–7492.
[32] Proposed Repeal, 82 Fed. Reg. at 48,041 n.18.

rule." But whatever their merit and applicability elsewhere, no "clear statement rule" is applicable to the CPP, where EPA merely exercised broad authority that the Clean Air Act expressly provides (and that the Supreme Court has already confirmed the Agency possesses).[33] The broad, "best system of emission reduction" language is a clear delegation to EPA to make these decisions under section 111. And as explained above, the CPP BSER is clearly consistent with the text, history, structure, and purpose of section 111.

Even if the Agency's claimed "clear statement" rule had some relevance in this context, it is clear that the CPP does not result in the kind of transformative political or economic repercussions that would make its application appropriate. The costs of the CPP are well within line with other CAA protections, and the CPP was carefully designed to preserve the reliable and affordable operation of the electric grid.

The Administrator's "broader policy concerns" also include unfounded suggestions that the CPP illegally intrudes onto Federal Energy Regulatory Commission ("FERC") and state authorities. These concerns are meritless. The CPP is a textbook example of cooperative federalism that closely resembles prior CAA programs and in no way infringes on state authority.[34] And as former FERC Commissioners have explained in a submission to this docket, the CPP fully respects the distinct roles of EPA and FERC and does not pose any threat to reliability of the electric grid.[35] There is simply no basis for the Administrator to claim that a further "clear statement" from Congress was required in order for EPA to adopt the CPP. What is more, because the Administrator has done none of the hard work of actually identifying or evaluating a "system of emission reduction" that would be consistent with his proposed interpretation, he provides *no* reason to believe that his own proposed interpretation would result in economic or political consequences less significant than those he alleges the CPP would impose.

For all of these reasons, the Administrator's proposed justifications for repealing the CPP are meritless. And if EPA bases its repeal of the CPP on a flawed legal interpretation,"[36] then its action is unlawful, *even if* EPA could have adopted its preferred interpretation as a matter of discretion.[37]

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[33] *Am. Elec. Power Co.,* 464 U.S. at 426 (finding that Congress delegated the authority of "whether and how to regulate carbon-dioxide emissions from powerplants" to EPA); *see also United States Telecom Ass'n v. FCC*, 855 F.3d 381, 383 (D.C. Cir. 2017) (Srinivasan, J., concurring in denial of en banc review) (explaining that, assuming the existence of a clear statement rule, that rule is inapplicable where the Supreme Court has confirmed that Congress delegated authority to issue these kinds of regulations to the agency).

[34] *See infra* section III.B.ii.e(iv).

[35] *See* Comments of Former Commissioners Norman C. Bay, John Norris, and Jon Wellinghoff, (Mar. 27, 2018), EPA-HQ-OAR-2017-0355-19640 [Hereinafter "Former FERC Commissioner Comments]

[36] Proposed Repeal, 82 Fed. Reg. at 48,038.

[37] As the D.C. Circuit has recently explained "Where a statute grants an agency discretion, but the agency erroneously believes it is bound to a specific decision, we can't uphold the result as an exercise of discretion that the agency disavows." *United States v. Ross*, 848 F.3d 1134 (D.C. Cir. 2017). As in *Ross*, EPA here has "expressly—and erroneously—imputed to Congress 'a legislative judgment'" that prevents the agency from weighing the burdens and benefits of its proposed interpretation. *Id.* at 1134-35.

c. The Administrator's course here could not be upheld as an exercise of discretion.

If the Administrator instead concludes that he *prefers* his proposed interpretation to the CPP BSER as a matter of policy,[38] such a decision would be likewise arbitrary and capricious because the Administrator has not performed the requisite analysis that would justify that shift in interpretation.[39] This analysis would include analyzing possible policy alternatives[40] in light of the relevant statutory factors.[41] The Administrator has failed to consider, among other things, the amount of emission reductions available under his proposed interpretation and at what cost, both crucial factors under section 111 that EPA extensively evaluated in the CPP.[42] The central health- and welfare-protective mandate and purpose of CAA section 111 are likewise entirely missing from EPA's statutory analysis, which is driven instead by an effort to shirk EPA's obligations to control climate-destabilizing pollution from the largest stationary sources.

If the Administrator had properly considered the statutory factors—as he is legally required to do—he would have seen that the CPP BSER is not only the "system of emission reduction" that the industry predominantly relies upon to reduce carbon emissions, it would achieve reductions at lower costs than a proposed interpretation that rules out the CPP BSER.

The Administrator has not even performed the basic task, required by administrative law precedent, of explaining his departure from the record findings in the CPP.[43] That record evidence overwhelmingly demonstrates that the CPP BSER is aligned with current industry practice and satisfies the statutory criteria in section 111(a)(1). The record also explains that interpreting section 111(a)(1) to rule out the CPP BSER would result in emission guidelines that are either more costly to achieve or would secure fewer emission reductions—and that the power sector would seek to comply with such guidelines through the very same cost-effective measures that are in the CPP BSER (and that the Administrator claims are unlawful). Not only does EPA not explain why those findings are now irrelevant or incorrect, it never even acknowledges them. EPA's cavalier disregard for the record underlying the CPP is reflected in the docket for the

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[38] *See* Proposed Repeal, 82 Fed. Reg. at 48,039 (acknowledging that there could be "expansive" and "narrow" interpretations of the phrase "best system of emission reduction").

[39] *See PDK Labs v. U.S. DEA*, 362 F.3d 786, 798 (D.C. Cir. 2004) (explaining that where statute is ambiguous, "it is incumbent upon the agency not to rest simply on its parsing of the statutory language," and that the agency "must bring its experience and expertise to bear in light of the competing interests at stake") (citing *Chevron v. Nat. Res. Def. Council*, 467 U.S. 837, 865-66 (1984)).

[40] *See Delaware Dep't of Nat. Res. & Envtl. Control v. EPA*, 785 F.3d 1 (D.C. Cir. 2015) ("[A]lternative way of achieving EPA's objective. . . should have been addressed and adequate reasons given for its abandonment"); *Shieldalloy Metallurgical Corp. v. NRC*, 624 F.3d 489 (D.C. Cir. 2010) ("[A]gencies must evaluate parties' proposals of 'significant and viable' alternatives.") (citing *Farmers Union Cent. Exch., Inc. v. FERC*, 734 F.2d 1486, 1511 n. 54 (D.C. Cir. 1984)).

[41] *See Motor Vehicle Mfrs. Ass'n, v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (agency decision must be "based on a consideration of the relevant factors" and agency cannot have "relied on factors which Congress has not intended it to consider") (quoting *Bowman Transportation, Inc. v. Arkansas-Best Freight Sys. Inc.*, 419 U.S. 281, 286 (1974)).

[42] S*ee Sierra Club v. Costle*, 657 F.2d 298, 326 (D.C. Cir. 1981) ("[W]e can think of no sensible interpretation of the statutory words 'best technological system' which would not incorporate the amount of air pollution as a relevant factor . . . .").

[43] *Fox*, 556 U.S. at 515.

Proposed Repeal, which at the time it was published included virtually none of the materials from the CPP record.[44]

Additionally, the proposed interpretation of BSER would have far-reaching implications that the Administrator has not considered. It threatens to impose a rigid approach requiring that both EPA (in promulgating standards of performance for new sources under section 111(b)) and states (in promulgating standards of performance in accord with EPA guidelines under section 111(d)) forego emissions trading, averaging, and other compliance flexibilities that numerous parties supported in the original CPP rulemaking. And while the "physical and operational change at the individual source" constraint that the Administrator appears to favor may be reasonable for some source categories and pollutants, he has provided no explanation as to how it conforms to the realities of the source category at issue here. These were essential considerations underlying the CPP BSER, and the Administrator has provided no explanation as to why he is disregarding them or reaching a different conclusion here.

The Administrator also has given no consideration to the substantial reliance interests that would be undone were EPA to finalize its repeal as proposed. The CPP promised certain emission reductions and a clear, workable regulatory framework for reducing carbon dioxide emissions from the power sector—answering years of calls from states, nongovernmental organizations, and members of the public who raised concerns about the risk of climate change and who require the protection of the federal government to address these risks. State governments—several of which entered into a settlement agreement seven years ago requiring EPA to undertake rulemaking under section 111—have foregone other tactics for pursuing emission reductions at the federal level. Power companies have made strategic decisions based on an EPA legal interpretation that allows for flexible compliance. Most importantly, the CPP was a key factor in the United States' successful effort toward achieving worldwide action to combat climate change.

5. *EPA's opaque review under Executive Order 13,783 violates procedural and substantive requirements of the Clean Air Act.*

The Proposed Repeal states that it is "based upon the outcome of EPA's review of the CPP pursuant to Executive Order 13,783, which is entitled "Promoting Energy Independence and Economic Growth" and was signed by President Trump on March 28, 2017. However, the preamble to the Proposed Repeal and the record provide no information concerning the content of this review, including what documents EPA generated or relied on in performing the review; how EPA interpreted the Executive Order; or what provisions of the Executive Order EPA relied upon in deciding to propose to repeal the CPP.

[44] That EPA considered none of the vast evidentiary record supporting the CPP is confirmed by the absence of any of this material from the docket for the Proposed Repeal. *See* 42 U.S.C. § 7607(d)(3) (requiring that every proposed rule covered by section 7607(d) of the Act be accompanied by a summary of "factual data on which the proposed rule is based" and "policy considerations underlying the proposed rule," and that "[a]ll data, information, and documents . . . on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.").

This lack of information is unlawful. It violates the CAA's requirement that EPA place in the docket for a proposed rule the information and analyses the Agency relied upon in developing it,[45] and also violates general requirements of reasoned decision-making and meaningful public comment. Furthermore, EPA has failed to explain how it interpreted the substantive language in the Executive Order, and how reliance on such factors as promoting fossil fuel development is consistent with the CAA. Finally, the Agency has utterly failed to show why it determined that the CPP is inconsistent with (unspecified) requirements of the Executive Order, let alone address its own detailed determinations made in the CPP rulemaking concerning issues such as the economic effects of the CPP and effects upon electric system reliability.

6. *Administrator Scott Pruitt's participation in this rulemaking violates the due process clause, statutory requirements for administrative rulemaking, and federal ethics rules.*

As EDF and other NGOs demonstrated in prior comments specifically dedicated to this issue,[46] Administrator Pruitt's statements and actions with respect to the CPP demonstrate that he has repeatedly violated basic ethical requirements of impartiality and that he has an unalterably closed mind concerning the repeal of the CPP. The Administrator's participation in these proceedings is unlawful, and he must recuse himself from any future proceedings involving a proposed rollback of the CPP. Moreover, because it has been tainted by the Administrator's unlawful participation, the Proposed Repeal itself must be withdrawn. The public has a right to "fair and open" rulemaking proceedings, including the right to an "impartial decisionmaker."[47] Due process is violated if an agency decision-maker presiding over a rulemaking proceeding has "an unalterably closed mind on matters critical to the disposition of the [rulemaking]."[48]

Administrator Pruitt's remarkable behavior—including repeated statements as Administrator indicating that he believes the CPP has already been repealed—is so clearly improper that it violates even this (properly) demanding standard for improper prejudgment, which leaves ample room for administrators to have and express strong views about important matters of law and policy. Pruitt's behavior and statements as Administrator demonstrate contempt for the public rulemaking process and represent egregious departures from norms of respect for public process that have prevailed among EPA Administrators of both political parties during the Agency's entire history. In these circumstances, participation in this rulemaking flouts the procedures established in the CAA[49] and Administrative Procedure Act,[50] which require agency officials to adopt rules based on reasoned evaluation of the law, record evidence, and public comment. The rulemaking process fails to satisfy its statutorily required function when an official has already prejudged the matter before the public process is initiated

[45] 42 U.S.C. § 7607(d)(3).
[46] Comments of Environmental Defense Fund; Appalachian Mountain Club; Center for Biological Diversity; Clean Air Council; Clean Air Task Force; Clean Wisconsin; Conservation Law Foundation; Earthjustice; Environmental Law and Policy Center; National Parks Conservation Association; Sierra Club; and the Union of Concerned Scientists on EPA Administrator Scott Pruitt's Improper Prejudgment of Outcome of Proposed Repeal of Clean Power Plan, EPA-HQ-OAR-2017-0355 (Jan. 29, 2018).
[47] *Ass'n of Nat'l Advertisers v. FTC*, 627 F.2d 1151, 1174 (D.C. Cir. 1979).
[48] *Id.* at 1170, 1174; *Lead Indus. Ass'n v. EPA*, 647 F.2d 1130, 1179-80 (D.C. Cir. 1980).
[49] 42 U.S.C. § 7607(d).
[50] 5 U.S.C. §§ 551-53.

and completed.[51] As noted in our comments, additional evidence concerning Pruitt's ethical lapses that further support his bias and lack of basic fair-mindedness has emerged since we submitted our January 29, 2018 comments.

I. REPEAL OF THE CLEAN POWER PLAN WOULD LEAVE EPA IN DEFAULT OF ITS STATUTORY OBLIGATION TO LIMIT HARMFUL CLIMATE POLLUTION FROM EXISTING POWER PLANTS.

A. EPA Has an Affirmative Mandate Under the Clean Air Act to Limit CO_2 Emissions from Existing Power Plants.

The Administrator proposes to repeal the CPP without simultaneously issuing a lawful replacement to limit dangerous CO_2 emissions from existing fossil fuel-fired power plants—or even committing to issue such a replacement in the future. EPA has so far merely published a Federal Register notice saying it "considers proposing a future rule,"[52] which provides no certainty that the repeal of the CPP will coincide with the issuance of an immediate adequate replacement. This course of action is unlawful. In the absence of adequate substitute emission guidelines to limit carbon emissions from power plants, repealing the CPP without a replacement will put EPA in default of its affirmative obligation to protect Americans from this dangerous pollution.

The CAA requires EPA to regulate air pollutants emitted from major stationary sources. Section 111(b) of the Act directs EPA to identify categories of stationary sources that "cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare."[53] After listing a source category, EPA must set standards of performance (also known as New Source Performance Standards) covering new and modified sources under section 111(b). Power plants have been listed under this provision since 1971 as a source category that contributes significantly to dangerous air pollution.[54]

Section 111(d) directs EPA to issue regulations that establish a state implementation process for existing sources similar to the one applicable to the adoption of state implementation plans for criteria air pollutants under section 110 of the Act.[55] EPA issued its section 111(d)

[51] On January 9, 2018, a coalition of state and local governments submitted initial comments in this proceeding documenting in detail the actions and statements demonstrating that Administrator Scott Pruitt has improperly prejudged the Proposed Repeal. States of California, Delaware, Hawaii, Illinois, Maine, Maryland, New Mexico, New York, Oregon, Vermont, and Washington, the Commonwealth of Massachusetts, the District of Columbia, the County of Broward (Florida), and the Cities of Boulder (Colorado), Chicago (Illinois), New York (New York), Philadelphia (Pennsylvania), and South Miami (Florida), Comments on Administrator Scott Pruitt's Improper Prejudgment of Outcome of Proposed Repeal of Clean Power Plan, EPA-HQ-OAR-2017-0355-7861 (Jan. 9, 2018) [Hereinafter "State/Local Initial Comments"].

[52] Advance Notice of Proposed Rulemaking: State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 82 Fed. Reg. 61,507, 61,507-61,508 (Dec. 28, 2017) [Hereinafter "ANPR"].

[53] 42 U.S.C. § 7411(b)(1)(A).

[54] *See* Air Pollution Prevention and Control: List of Categories of Stationary Sources, 36 Fed. Reg. 5,931 (Mar. 31, 1971).

[55] 42 U.S.C. § 7411(d)(1).

framework regulations (40 C.F.R. Subpart B) in 1975.[56] These regulations provide that, after promulgation of a New Source Performance Standard for new sources in a listed category, EPA must issue an "emission guideline" that reflects the application of BSER that has been adequately demonstrated for existing sources, after which states submit to EPA for approval their plans establishing standards of performance (called "emission standards" in the regulations) that incorporate or that set more stringent standards than EPA's emission guideline.[57] EPA must issue a federal plan for any state that fails to submit a satisfactory state plan.[58]

EPA's obligation to protect the public from carbon dioxide emissions from existing power plants under this framework is beyond question. In *Massachusetts v. EPA*, the Supreme Court held that "EPA has the statutory authority to regulate the emission of [greenhouse] gases," because they "fit well within the Clean Air Act's capacious definition of an 'air pollutant.'"[59] The Court ordered EPA to make a science-based determination as to whether those pollutants endanger public health and welfare, determining that "the Clean Air Act requires the Agency to regulate emissions" of gases contributing to climate change if there is an endangerment finding.[60] The Supreme Court made clear that EPA was required to determine—based on a reasoned assessment of the scientific evidence, not policy preferences—whether climate pollution endangers public health or welfare. And if EPA so determined, the Court explained, the Clean Air Act prescribed that the Agency "shall" regulate emissions of that pollution.[61]

EPA concluded in 2009 that greenhouse gases, including carbon dioxide, "endanger human health and welfare," on the basis of a voluminous scientific record and an extensive public comment process.[62] On review, a panel of the U.S. Court of Appeals for the D.C. Circuit Court unanimously rejected all challenges to EPA's endangerment finding, concluding that EPA's body of evidence in support of its finding was "substantial."[63] As we discuss in the next section, and in detailed, separate joint comments, since 2009, the literature on climate change and evidence of *current* climate impacts adversely impacting human health and welfare has only increased, further buttressing the rigor of the endangerment finding and the urgency of the CAA's legal mandate that EPA limit CO_2 emissions from existing power plants, a major driver of climate change.

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[56] 40 Fed. Reg. 53,340 (Nov. 17, 1975).
[57] 40 C.F.R. §§ 60.22-60.24.
[58] *See* 42 U.S.C. § 7411(d)(2).
[59] 549 U.S. 497, 532 (2007).
[60] *Id.*
[61] *See id.* at 532 ("If EPA makes a finding of endangerment, the Clean Air Act requires the Agency to regulate emissions of the deleterious pollutant from new motor vehicles. *Ibid.* [42 U.S.C. § 7521(a)(1)] (stating that '[EPA] *shall* by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles').") (emphasis added); *see also* 42 U.S.C. § 7411(d)(1) (imposing "shall" duty on EPA to promulgate emission guidelines for existing stationary sources that would be subject to standards if they were new sources).
[62] 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).
[63] *Coal. for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 116-25 (D.C. Cir. 2012), *revd. in part on other grounds sub nom. Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427 (2014), and *amended sub nom. Coal. for Responsible Regulation, Inc. v. EPA*, 606 F. App'x 6 (D.C. Cir. 2015). The Supreme Court denied the petitions for certiorari that sought to challenge the D.C. Circuit's ruling upholding the endangerment finding. *Virginia v. EPA*, 571 U.S. 951 (2013), and *Pacific Legal Found. v. EPA*, 571 U.S. 951 (2013).

Meanwhile, EPA's legal authority and obligation to regulate climate pollution emissions under the CAA have been affirmed twice more by the Supreme Court. In *American Electric Power v. Connecticut*, the Supreme Court found that section 111 of the CAA "speaks directly" to the regulation of climate pollution from existing power plants.[64] (Even opponents of climate protections conceded that point during oral argument.[65]) The Court again recognized EPA's authority and obligation to regulate climate pollution under the CAA in a third decision, *Utility Air Regulatory Group v. EPA*.[66] (More recently, judges on the U.S. Court of Appeals for the D.C. Circuit noted that the 2009 endangerment finding "triggered [EPA's] affirmative statutory obligation to regulate greenhouse gases."[67])

Following these precedents, EPA proceeded to establish limits on carbon pollution from new, modified, and reconstructed power plants. In 2014, EPA proposed to regulate carbon pollution from new, modified, and reconstructed fossil fuel-fired power plants because of the extraordinary contribution that these sources make to dangerous climate-destabilizing pollution.[68] The Agency issued final carbon pollution standards for new, modified, and reconstructed power plants in 2015, and these standards remain fully effective and legally enforceable to this day.[69] The promulgation of these standards, which were supported by overwhelming record evidence, creates a binding obligation on EPA to issue emission guidelines for carbon pollution from existing power plants. Under section 111(d), EPA *must* issue emission guidelines covering any source "to which a standard of performance under this section would apply if such existing source were a new source."

The structure of section 111, combined with the listing of power plants as a regulated source category, the Agency's 2009 endangerment finding for greenhouse gases, and the uncontroverted fact that existing power plants are a major contributor of CO_2, a greenhouse gas, create a mandate under which EPA *must* limit carbon pollution from existing power plants. No aspect of that mandate is in question here. First, EPA may not, of course, alter the statutory framework established by Congress. Second, power plants are a listed source category, and the carbon pollution standards for new, modified, and reconstructed plants are were promulgated in 2015.[70] Third, the 2009 endangerment finding has been upheld by the D.C. Circuit in the face of an industry challenge and is not being reconsidered here.[71] Indeed, evidence since 2009 has only reinforced EPA's determination that greenhouse gases endanger public health and welfare by driving climate change, and power plants remain the largest stationary source of CO_2 pollution in the United States.

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[64] 564 U.S. 410, 424 (2011).
[65] *See Am. Elec. Power v. Connecticut*, No. 10-174, Oral Argument Transcript, 16:23–17:6 (Apr. 19, 2011).
[66] *Util. Air Regulatory Grp.*, 134 S. Ct. at 2448 (holding that greenhouse gas emissions from sources required to obtain Prevention of Significant Deterioration ("PSD") permits are subject to "best available control technology" ("BACT") limitations).
[67] Order, *West Virginia v. EPA*, No. 15-1363, Order, ECF No. 1687838, at 2 (Aug. 8, 2017) (Tatel and Millett, JJ., concurring in the order granting further abeyance).
[68] Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units; Proposed Rule, 79 Fed. Reg. 1,430 (Jan. 8, 2014).
[69] GHG NSPS Final Rule, 80 Fed. Reg. at 64,530.
[70] *See* GHG NSPS Final Rule.
[71] Proposed Repeal, 82 Fed. Reg. at 48,037 & n.3 (acknowledging the "Agency's assessment 'that [greenhouse gases] endanger public health, now and in the future").

Accordingly, with EPA's obligation to regulate power plant CO_2 emissions as an air pollutant firmly established, any action by EPA to repeal the CPP outright is a violation of the Agency's duty under section 111, and is unlawful, arbitrary, and capricious. Even if the Agency had a well-reasoned justification for its Proposed Repeal—which it does not—EPA's Proposed Repeal would still be unlawful because it would leave unfulfilled its affirmative mandate to limit carbon pollution from existing power plants.

B. EPA's Legal Obligation to Limit Carbon Pollution from Existing Power Plants Has Been Reaffirmed and Strengthened by the Scientific Information that Has Become Available Since the CPP Was Finalized.

As explained above, EPA has repeatedly recognized that a massive body of peer-reviewed scientific research on climate change firmly establishes that climate change poses an urgent, immediate threat to human health and welfare.[72] EPA has further recognized that, as the largest stationary source of energy-related CO_2 emissions in the United States, emissions from the power sector are a major contributor to anthropogenic greenhouse gas emissions driving climate change.[73] EPA thus has a legal obligation to act to limit these emissions. In the CPP final rule, EPA emphasized that new scientific assessments since 2009, when EPA made its endangerment finding,[74] have only reinforced these findings and "highlight the urgency of addressing the rising concentration of CO_2 in the atmosphere."[75] And as detailed in our separate joint comment, new scientific findings since the CPP was finalized similarly reinforce these findings.[76] The base of scientific and economic evidence supporting the CPP would have to be overturned, which EPA cannot reasonably do, in order for EPA to repeal the CPP without providing a lawful replacement.

The U.S. Global Change Research Program's most recent report—published in November 2017 and reviewed by EPA among other agencies—found that "there is no

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[72] Comments of Environmental Defense Fund on EPA's Advance Notice of Proposed Rulemaking on State Guidelines for Greenhouse Gas Emissions from Existing Sources, 82 Fed. Reg. 61,507 (Dec. 28, 2017), EPA-HQ-OAR-2017-0545 (Feb. 26, 2018) (submitted in Joint Appendix as Attachment C2) [Hereinafter "EDF ANPR Comments"].

[73] CPP Final Rule, 80 Fed. Reg. at 64,662, 64,677 ("[F]ossil fuel-fired EGUs are by far the largest emitters of GHGs, primarily in the form of CO_2. Among stationary sources in the U.S. and among fossil fuel-fired EGUs, coal-fired units are by far the largest emitters of GHGs."); EPA, DRAFT Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016 (Feb. 26, 2018) at 3-14, ES-18-ES-19, https://www.epa.gov/sites/production/files/2018-01/documents/2018_complete_report.pdf; *see also*, EIA, Monthly Energy Review 2018 (Mar. 28, 2018) (submitted separately in Joint Appendix as Attachment J22).

[74] In 2009, EPA, after reviewing the comprehensive body of scientific research, determined that heat trapping greenhouse gas emissions may reasonably be anticipated to endanger the public health and welfare of both current and future generations. 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).

[75] CPP Final Rule, 80 Fed. Reg. at 64,662, 64,677 (Citing to the May 2014 report of the National Climate Assessment, EPA acknowledged "increases in extreme weather and climate events in recent decades, with resulting damage and disruption to human well-being, infrastructure, ecosystems, and agriculture, and projects continued increases in impacts across a wide range of communities, sectors, and ecosystems.").

[76] *See* Joint Comments of Environmental Public Health Organizations Regarding the Proposed Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, Comments Specific to Climate Change, (Apr. 26, 2018) (submitted to regulations.gov).

convincing alternative explanation" other than human activities for the observed climate warming over the last century.[77] Global carbon dioxide emissions from fossil fuel use more than tripled from the 1960s to the period from 2007 to 2016,[78] and accounted for approximately 82 percent of the increase in the Earth's energy balance (i.e., "heat trapping") over the past decade.[79] The U.S. is expected with *high confidence* to warm by an additional 2.5°F, on average, over the next few decades.[80]

Recent scientific literature also affirms that anthropogenic climate change is already affecting the health of Americans, and will pose even more severe threats without action to dramatically limit greenhouse gases ("GHGs").[81] These impacts are likely to disproportionately impact already vulnerable populations including the elderly, the poor, the sick and low-income communities and communities of color that are already facing existing health disparities and inequities.[82] Among the ways climate change threatens human health are by increasing deaths and illnesses from heat;[83] lowering air quality by accelerating the formation of ground-level ozone pollution, increasing fine particle pollution and ozone pollution from wildfires, and making pollen and mold allergy seasons longer and more severe;[84] expanding the geographical range and seasonal timing of tick- and mosquito-borne diseases like Lyme disease and West Nile Virus;[85] and exacerbating water-and food-borne illnesses through rising temperatures, more extreme rainfall, and coastal storm surges.[86] Additionally, global sea levels have risen by more than seven inches since 1901, which increases the likelihood of flooding along the U.S. coast,[87] and recent projections predict that global sea level could rise by more than two feet by 2100.[88] Recent studies have linked climate change to an increase in the size and intensity of natural

[77] USGCRP, "Climate Science Special Report: Fourth National Climate Assessment, Volume I," Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.) (2017) at 10 (submitted separately in Joint Appendix as Attachment B69) [Hereinafter "USGCRP 2017"].
[78] Le Quéré, C. et al., *Global Carbon Budget 2017*, Earth Syst. Sci. Data Discuss. pre-print (2017) at 27, (submitted in Joint Appendix as Attachment B18).
[79] WMO and Global Atmosphere Watch 2017, "The State of Greenhouse Gases in the Atmosphere Based on Global Observations through 2016," WMO Greenhouse Gas Bulletin (2017) at 13 (submitted as Attachment B78).
[80] *Id.* at 11.
[81] USGCRP, "The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment," Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska (eds.) (2016) at 26 (submitted separately in Joint Appendix as Attachment K30) [Hereinafter "USGCRP Health Impacts"].
[82] Luber, G., K. Knowlton, J. Balbus, H. Frumkin, M. Hayden, J. Hess, M. McGeehin, N. Sheats, L. Backer, C. B. Beard, K. L. Ebi, E. Maibach, R. S. Ostfeld, C. Wiedinmyer, E. Zielinski-Gutiérrez, and L. Ziska, 2014: Ch. 9: Human Health. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., USGCRP, 220-256. doi:10.7930/J0PN93H5. 228-229 (submitted in Joint Appendix as Attachment B70).
[83] USGCRP Health Impacts, at 30, 44.
[84] USGCRP Health Impacts, at 70.
[85] *Id.*
[86] USGCRP Health Impacts, at 158, 190.
[87] USGCRP 2017, at 333.
[88] R. S Nerem et. al, *Climate-Change Driven Accelerated Sea Level Rise Detected in the Altimeter Era*, Proceedings of the National Academy of Sciences (Jan. 9, 2018) (submitted in Joint Appendix as Attachment B82).

disasters such as hurricanes[89] and wildfires.[90] Climate change and ocean acidification also harm biodiversity, ecosystem services, and public lands, and by one estimate, 4.3°C of additional global warming caused by continued high levels of GHGs could lead to the extinction of 1 in 6 of the world's species.[91]

Moreover, EPA and other federal agencies have recognized that climate change poses an enormous threat to the U.S. economy.[92] A Rhodium Group study evaluated by GAO in 2017 concluded that climate change will result in almost $55 billion in annual economic costs for the United States alone between 2020 and 2039, rising to $1.04 *trillion* in annual costs between 2080 and 2099.[93] The GAO report highlighted a 2015 study by EPA on the economic impacts of climate change, finding that the projected benefits of mitigation were substantial for many sectors.[94] Further, the costs of delaying climate change action are not only extremely steep but also potentially irreversible, with the costs rising exponentially as delay continues.[95]

Despite the imperative for EPA to take imminent action, and in stark contrast to the CPP record, the preamble and Regulatory Impact Analysis ("RIA") for EPA's Proposed Repeal not only fail to account for this overwhelming evidence, but include *no* discussion of climate change whatsoever apart from acknowledging that climate benefits would be sacrificed by repealing the CPP.[96] The Administrator's failure to consider central dimensions of the relevant health and environmental hazards in determining he can repeal the CPP outright is unlawful. EPA must fully consider materials in the docket for the CPP that provided robust factual, scientific, and economic documentation for why EPA has a legal duty to take imminent action to limit carbon emissions from the power sector. The great and growing body of evidence concerning climate change's urgent threats to public health and welfare make it imperative for EPA to strengthen—and not delay or weaken—regulatory protections.

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[89] Emanuel, K., *Assessing the Present and Future Probability of Hurricane Harvey's Rainfall 2017*, PNAS Early Edition (2017) (submitted in Joint Appendix as Attachment B8); Risser, M.D. and M.F. Wehner, *Attributable Human-induced Changes in the Likelihood and Magnitude of the Observed Extreme Precipitation During Hurricane Harvey*, Geophys. Res. Lett. In Press (submitted in Joint Appendix as Attachment B53); Van Oldenborgh, G.J., et al., *Attribution of Extreme Rainfall from Hurricane Harvey, August 2017*, 12 Environ. Res. Lett. 124009 (2017) (submitted in Joint Appendix as Attachment B73).

[90] In the western U.S., human-caused climate change accounted for more than half of the observed increases in forest fuel aridity from 1979 to 2015. USGCRP 2017, at 231. Drying of forest fuels has helped increase the number of large fires and has contributed to a doubling in the fire area since the early 1980s. *Id.* at 243.

[91] Urban, M.C., *Accelerating Extinction Risk from Climate Change*, 348 Science 571 (2015) (submitted in Joint Appendix as Attachment B68).

[92] A September 2017 analysis by the GAO evaluating recent studies and expert assessments of the economic impacts of climate change for the U.S. concluded that "climate change could result in significant economic effects in the United States, and the studies indicated that these effects will likely increase over time for most of the sectors analyzed." GAO, *Climate Change: Information on Potential Economic Effects Could Help Guide Federal Efforts to Reduce Fiscal Exposure*, 19 (Sept. 2017) (submitted in Joint Appendix as Attachment B65).

[93] *Id.* at 20 (citing Rhodium Group, *American Climate Prospectus: Economic Risks in the United States* (Oct. 2014) (submitted in Joint Appendix as Attachment B52)). The aggregate costs reported above reflect the sum of the individual costs presented in Table 1 of the GAO report.

[94] EPA, Climate Change in the United States: Benefits of Global Action, at 6.

[95] The White House, *Cost of Delaying Action to Stem Climate Change* at 2 (July 29, 2014) (submitted in Joint Appendix as Attachment B62).

[96] *See generally* Proposed Repeal, 82 Fed. Reg. at 48,035-49; EPA, Regulatory Impact Analysis for the Review of the Clean Power Plan: Proposal (Oct. 2017) [Hereinafter "Repeal Proposal RIA"].

Full consideration of these materials is crucial to any proposed delay or weakening of regulatory protections against climate change. For this reason, we are submitting, in a separate appendix, relevant materials from the CPP docket that pertain to the imminent threat of climate change.[97] In light of the massive, ever more compelling evidence concerning the hazards of climate change, no such delay or weakening could be justified. In light of this compelling record, and EPA's endangerment finding, then it is unlawful, arbitrary and capricious for EPA to propose to repeal the CPP and replace it with a weaker rule, let alone no regulatory protection at all. EPA's failure to address climate change and explain how its proposed action relates to that hazard is arbitrary and capricious and inconsistent with EPA's core duty to reduce dangerous emissions of air pollution.

C. <u>The Administrator Has Failed to Explain Why He May Rescind the CPP Without Simultaneously Adopting a Replacement.</u>

Given EPA's legal obligation to act, the Administrator has failed to explain why he may now repeal the CPP without simultaneously finalizing a lawful replacement. The Administrator now asserts that his proposed interpretation of section 111, and in particular, the "best system of emission reduction," "is the most appropriate reading of the statute."[98] But the Proposed Repeal does not make clear whether the Administrator views the CPP BSER as an *impermissible* interpretation of section 111, or merely a *less* "appropriate" one.[99]

In either case, repealing the CPP without a simultaneous replacement is unlawful. Since the Administrator is unable to demonstrate that the CPP BSER is *impermissible*, it is both contrary to the statutory mandate and arbitrary and capricious for EPA to repeal the CPP without finalizing a lawful replacement.[100] A decision to repeal the CPP without a lawful replacement based on the incorrect argument that the repeal *is* mandated cannot stand.[101] If the Administrator instead asserts that his proposed interpretation is *not* mandated, but is simply EPA's *preferred* interpretation, it would remain counter to EPA's statutory obligation to repeal a statutorily required clean air protection without simultaneously finalizing a replacement that likewise

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[97] *See generally* Joint Appendix Section B.

[98] Proposed Repeal, 82 Fed. Reg. at 48,038; *id*. at 48,041 ("The EPA believes that the Agency's historical interpretation … is the most appropriate reading of the statute.").

[99] Although the Proposed Repeal refers to EPA's proposed interpretation as the "most appropriate" or "best construction" of the statute, Proposed Repeal, 82 Fed. Reg. at 48,035, 48,039, it also says that the CPP "exceeds the bounds of the statute." *Id.* at 48,037.

[100] Indeed, even if EPA were able to show that the CPP BSER is impermissible (which, as explained below at __, it is not), EPA must still explain why it should *rescind* the CPP—leaving *no* protections in place, contrary to the statutory mandate—without first promulgating a lawful replacement. Where critical health protections mandated by the Clean Air Act are at stake, the D.C. Circuit has acknowledged that a rule should not be vacated while an agency revises it even where the court has found the rule unlawful. *See Nat. Res. Def. Council v. EPA*, 489 F.3d 1364, 1374–75 (D.C. Cir. 2007) ("Vacatur would be disruptive if it set back achievement of the environmental protection required by the CAA.").

[101] *See Prill v. NLRB.*, 755 F.2d 941, 947–48 (D.C. Cir. 1985) ("An agency decision cannot be sustained . . . where it is based on . . . an erroneous view of the law.") (citing *SEC v. Chenery Corp*., 381 U.S. 80, 94 (1947) ("an order may not stand if the agency has misconceived the law")).

fulfills that obligation, all based solely upon EPA's wish to someday promulgate a different policy.[102]

The Administrator points to no authority in the CAA that allows EPA to repeal a statutorily-mandated rule and thereby leave a statutory obligation unfulfilled. CAA section 301's "gap filling" provision, which the Administrator points to in the Proposed Repeal as providing authority for the action,[103] does not authorize EPA to create a regulatory vacuum by repealing the CPP without a simultaneous replacement. Section 301 provides that "[t]he Administrator is authorized to prescribe such regulations subject to section 307(d) [42 U.S.C. § 7607(d)] as are necessary to carry out his functions under this Act."[104] Importantly, section 301 does not authorize EPA to promulgate a rule that is inconsistent with the Act's "clear statutory command." Here, repealing the CPP without an alternative would conflict with section 111's "clear statutory command."[105] Moreover, here, there is simply no "gap" to fill. Section 111 clearly spells out the Agency's affirmative obligations.[106]

Indeed, the text of the CAA suggests that Congress did not authorize the Agency to allow a statutory mandate to go unfulfilled in order for the Agency to further deliberate about how best to fulfill that mandate—i.e., to take a statutorily required rule off the books, either temporarily or permanently, without replacing it. The CAA is quite clear that apart from limited exceptions under circumstances not present here, promulgated regulations shall go into effect even though they may be changed after agency reconsideration or even vacated as unlawful upon judicial review. Section 307(b)(1)—the Act's judicial review provision—mandates that "[t]he filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action . . . *and shall not postpone the effectiveness* of such rule or action.[107] And the Act's administrative reconsideration provision directs that "such reconsideration *shall not postpone the effectiveness* of the rule."[108] It is difficult to see how Congress could have been clearer that it intended duly promulgated rules that protect health and welfare to take effect—and stay in effect—even when under judicial review that may deem them unlawful, and even when under agency reconsideration proceedings that may result in their

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[102] *See, e.g., Pub. Citizen v. Steed*, 733 F.2d 93 (D.C. Cir. 1984).

[103] Proposed Repeal, 82 Fed. Reg. at 48,039. EPA also asserts that it has "inherent authority" to repeal the CPP. Courts have rejected similar "inherent authority" arguments in the past. *See Clean Air Council v. Pruitt*, 862 F.3d 1, 9 (D.C. Cir. 2017) (quoting *Nat. Res. Def. Council v. Abraham*, 355 F.3d 179, 202 (2d Cir. 2004). With good reason: Agencies are creatures of Congress and "an agency literally has no power to act . . . unless and until Congress confers power upon it." *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U. S. 355, 374 (1986); *see Am. Library Ass'n v. FCC*, 406 F.3d 689, 689 (D.C. Cir. 2005) ("It is axiomatic that administrative agencies may issue regulations only pursuant to authority delegated to them by Congress.").

[104] 42 U.S.C. § 7601(a)(1).

[105] *See Nat. Res. Def. Council v. Reilly*, 976 F.2d 36, 41 (D.C. Cir. 1992) (concluding that section 301 did not provide EPA with authority to suspend a regulation while it reconsidered it).

[106] *See Nat. Res. Def. Council v. EPA*, 749 F.3d 1055, 1064 (D.C. Cir. 2014) ("Those precedents establish a simple and sensible rule: EPA cannot rely on its gap-filling authority to supplement the Clean Air Act's provisions when Congress has not left the agency a gap to fill.").

[107] 42 U.S.C. § 7607(b)(1) (emphasis added).

[108] *Id.* § 7607(d)(7)(B) (emphasis added); *see also id.* § 7411(e) ("After the effective date of standards of performance promulgated under this section, it shall be 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.").

revision. That Congressional command applies with equal or greater force where, as here, EPA is revisiting a duly promulgated rule on its own initiative.

Finally, EPA's course of conduct in the legal challenges to the CPP and its subsequent rulemakings only reinforces its obligation to refrain from repealing the CPP until it is prepared to replace it. Although the CPP has been stayed *pending judicial review*, EPA has striven mightily to ensure that *no* court reaches the merits of the challenges to the CPP—even though those legal challenges raise many of the very same arguments that the Administrator recites in the Proposed Repeal.[109] If the Administrator's repeal of the CPP is based upon EPA's belief that the CPP is *unlawful*, then EPA should have welcomed the court's adjudication of the merits of the CPP. The fact that it did not, suggests that rather than believing that the CPP is unlawful, EPA merely believes that a different policy is *preferable*. And if that is the case, it is counter to the statutory text and arbitrary to repeal the CPP, leaving a long-neglected and statutory obligation to address greenhouse gas pollution from one of the largest sources in our country, while EPA mulls a potential replacement. In other words, EPA's course here is illogical: if the CPP is unlawful, EPA should allow the courts to say so secure in the knowledge that if they do no entity would be required to comply with an unlawful rule. But if the CPP is not unlawful, it is both contrary to the *statutory mandate* to protect human health and welfare from power plant pollution and arbitrary and capricious to repeal it without a replacement that fulfills the statutory mandate.

D. The Administrator Is Arbitrarily Claiming that He Is Bound By Legal Considerations that EPA Has Repeatedly Urged the D.C. Circuit Not to Resolve.

The Administrator states that he is proposing to repeal the CPP because "the Agency lacks authority to consider measures other than those that *apply at, to, and for* a particular source when determining the BSER."[110] The arguments supporting the Agency's repeal are closely similar to legal challenges brought against the CPP that were fully briefed and argued to the en banc D.C. Circuit. Consider the central challenge in petitioner's briefs: "The unambiguous requirement that standards of performance must be set '*for' and be 'applicable . . . to' individual sources* within a regulated source category forecloses EPA's claim to authority."[111] And in its Proposed Repeal, EPA now states that it is "proposing to interpret the phrase 'through the application of the best system of emission reduction' as requiring that the BSER be something that can be *applied to or at the source* and not something that the source's owner or operator can implement on behalf of the source at another location."[112] Indeed, there are numerous additional instances where the arguments in the petitioners' brief challenging the CPP are nearly identical to EPA's arguments supporting its Proposed Repeal.[113]

However, instead of allowing those legal challenges to run their course, which would have yielded authoritative guidance concerning the scope of the Agency's authority, EPA has

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[109] *See infra* section I.D.
[110] Proposed Repeal, 82 Fed. Reg. 48,035, 48,039 (emphasis added).
[111] *See* Petitioners' Opening Br. on Core Legal Issues, at 41, ECF No. 1610010, *West Virginia v. EPA* (D.C. Cir. No. 15-1363 Apr. 22, 2016) (emphasis added).
[112] *See* Proposed Repeal, 82 Fed. Reg. at 48,035, 48,039 (emphasis added).
[113] *Compare* Proposed Repeal, 82 Fed. Reg. at 48,038-42, *with* Petitioners' Opening Br. on Core Legal Issues, at 41-56, ECF No. 1610010, *West Virginia v. EPA* (D.C. Cir. No. 15-1363 Apr. 22, 2016).

repeatedly requested that the court not decide the case.[114] Allowing the D.C. Circuit to issue a decision in the fully briefed and argued case to rule would have prevented the delay and waste of resources that EPA's Proposed Repeal represents. As a result of the Agency's opposition to a decision in the CPP litigation, the Agency has now undertaken a six-month public comment period on many of the *very same* issues that are already fully briefed and argued in the D.C. Circuit; will invest additional Agency resources in responding to those comments and crafting a final rule; and is poised to launch a separate "replacement" rulemaking that is premised on an erroneously cramped view of the Agency's statutory discretion that unlawfully eliminates from consideration cost-effective pollution reduction and compliance measures that are in fact well within EPA's "authority." By avoiding judicial resolution of questions of statutory authority that the D.C. Circuit was poised to decide, EPA's strategy potentially sets up years of administrative process and litigation on matters that might otherwise have already been resolved.[115]

The Administrator's concern that the D.C. Circuit might *uphold* the CPP[116] could not justify EPA's evasive and dilatory course here. EPA is under a statutory duty to protect the public from serious hazards to public health and welfare—an unfulfilled duty that is already long overdue.[117] Forestalling a court ruling does not miraculously cure any defects that the court might have found in the Administrator's reasoning—it merely extends the uncertainty and expense for parties and the court. Moreover, even a judicial decision upholding the CPP would not have precluded the Administrator from changing course, provided he satisfied administrative law requirements.[118] The impact of EPA's strategy of averting a judicial decision on the CPP, disclaiming authority to regulate as the CPP did, and returning to the starting line with an "advance notice" on a potential replacement rule reveals an agency seeking not to meet but to shirk its obligations and to maximize delays in addressing power plant pollution. Removing a protective standard on the grounds of illegality, while at the same time asking a court not to rule on that very question, runs counter to the purpose and structure of the CAA, and neglects EPA's urgent statutory obligation to protect the public from threats to its health and welfare.

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[114] *See* EPA October 10, 2017 Status Report, *West Virginia v. EPA*, No. 15-1363 (D.C. Cir) (asking the Court to hold the case in abeyance until the conclusion of the CPP rulemaking); EPA July 31, 2017 Status Report, *West Virginia v. EPA*, No. 15-1363 (D.C. Cir); EPA Notice Of Executive Order, EPA Review Of Clean Power Plan And Forthcoming Rulemaking, And Motion To Hold Cases In Abeyance, *West Virginia v. EPA*, No. 15-1363 (D.C. Cir Mar. 28, 2017).

[115] According to the Administration's recent regulatory plan, EPA will not finalize its repeal of the Clean Power Plan until October 2018—more than two years after oral argument before the D.C. Circuit. *See* Ariana Skibell, *Trump Updates Agenda, Boasts Killing Hundreds of Rules*, E&E News, (Dec. 14, 2017), https://www.eenews.net/stories/1060069079/.

[116] Speaking in March 2016 at the Conservative Political Action Committee conference, then-Oklahoma Attorney General, now-EPA Administrator Scott Pruitt indicated that he expected the CPP to be upheld: "We are not terribly optimistic that at the [U.S. Court of Appeals for the District of Columbia Circuit] that we are going to win as a collection of states," Emily Holden, *Okla. AG: 'We must have another Justice Scalia' to fight EPA*, E&E News (March 4, 2016), https://www.eenews.net/stories/1060033465.

[117] *See infra* section III.

[118] *Id.*

E. The Administrator's Advance Notice of Proposed Rulemaking Does Not Cure the Legal Flaws of His Proposed Repeal.

On December 28, 2017, the Administrator issued an ANPR soliciting comments on a potential replacement to the CPP.[119] Notably, the EPA did not commit to issuing a replacement rule,[120] and the ANPR does not contain any acknowledgment of EPA's duty to regulate CO_2 from this existing EGUs.[121] Nor does EPA attempt to explain how it can repeal the CPP without issuing a replacement consistent with its obligations under the CAA. Additionally, EPA wrongly assumes the legal correctness of its Proposed Repeal by soliciting comment only on "systems of emission reduction" that comport with the interpretation of BSER that it has advanced in the Proposed Repeal.[122]

As explained below,[123] EPA's interpretation and legal analysis in the Proposed Repeal are unlawful, and should not be relied upon in any replacement rulemaking for the CPP. And as we explained in our comments on the ANPR, it is inappropriate for EPA to foreclose consideration of more flexible emission reduction measures by relying on legal interpretations in a *proposed* rule.[124] EPA's reliance on the Proposed Repeal in the ANPR means that EPA has either prejudged the outcome of this repeal rulemaking unlawfully, or it has arbitrarily and unreasonably constrained its inquiry in the ANPR. And if EPA moves forward with a replacement rule that limits its consideration of systems of emission reduction to the measures outlined in the Proposed Repeal, it would be unlawful as a result of the same legal flaws that are inherent to the Proposed Repeal and that are discussed in these comments.

Moreover, the "repeal first, analyze later" approach that the Administrator has taken in the Proposed Repeal and the ANPR undermines the purpose of the statute and prevents EPA from making a reasoned decision as to the future of the CPP. As we discussed in our ANPR comments, Congress envisioned that when EPA was developing guidelines under section 111(d), the Agency would consider many possible systems of emission reduction, and then select the "best" system based on the Agency's expert judgment, and its evaluation of the statutory factors.[125] EPA's charted course here flips that process on its head. The Agency is blindly determining which systems of emission reduction it prefers as an abstract legal matter in this Proposed Repeal, while ignoring the practical realities of the sector and pollutant or the consequences of its new legal interpretation.[126] Then, only after arbitrarily limiting the world of permissible systems of emission reduction for its consideration, will the Agency presumably engage in a policy analysis that is artificially narrow, in an entirely separate rulemaking.

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[119] ANPR, 82 Fed. Reg. at 61,507.
[120] *Id.* at 61,512.
[121] *Id.*
[122] *Id*.
[123] *See infra* section III.B.
[124] EDF ANPR Comments at 46-47.
[125] *Id.*; *see also* Joint Comments of Environmental and Public Health Organizations on Advance Notice of Proposed Rulemaking Regarding Emission Guidelines for Existing Electric Utility Generating Units, EPA-HQ-OAR-2017-0545-0298, at 3-4 (Feb. 26, 2018) (submitted in Joint Appendix as Attachment C4); *see infra* section III.C.
[126] *See infra* section III.D.

This approach thwarts the reasoned consideration of all relevant factors that is supposed to underlie any change in regulation or policy. So long as the CPP BSER is not *unambiguously* precluded by the CAA—and the Administrator has utterly failed to show that this is the case—then EPA's decision to repeal the CPP is a shift in policy that, like all changes in agency policies, must be supported by "good reasons" and based on a review of all relevant considerations.[127] Moreover, because the legal and technical foundations of the CPP themselves rested on a massive administrative record, basic principles of reasoned decision-making require EPA to explain why it is departing from its prior record findings in abandoning the CPP.[128] EPA, among other things, must explain why its new approach better achieves the purposes of section 111 and better satisfies the statutory BSER criteria than the highly cost-effective, environmentally effective approach in the CPP. That analytical task is impossible so long as EPA proposes to repeal the CPP without having done the work to determine what might replace it. Lacking any concrete idea as to what consequences his proposed interpretation of the CAA would have for emissions reductions, cost-effectiveness, or other relevant section 111 criteria, the Administrator simply *cannot* make a reasoned determination to repeal the CPP.[129]

Even if the Administrator were to finalize its repeal and a replacement simultaneously, those actions—if based on the deficient legal theories presented in this Proposed Repeal—would still be unlawful. Under that scenario, he would not have adopted a replacement consistent with the Agency's statutory obligations, including to achieve emissions reductions consistent with the best system of emission reduction considering cost and other relevant factors and the Agency's procedural obligations to provide a reasoned basis for rejecting the extensive record findings underlying the development of the CPP (as discussed further in Section III).

II. EPA'S PROPOSAL FLOUTS BASIC ADMINISTRATIVE LAW REQUIREMENTS, INCLUDING THOSE GOVERNING AGENCY POLICY CHANGES.

A. Legal Requirements for Changes in Agency Policy.

Rulemaking under the CAA is subject to the general requirements of statutory conformity and reasoned decision-making derived from the Administrative Procedure Act and basic principles of administrative law.[130] Among other requirements, CAA rules cannot be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right," or "without observance of procedure required by law."[131]

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[127] *Fox*, 556 U.S. at 515-16 (2009); *State Farm*, 463 U.S. at 43-44.

[128] *Fox*, 556 U.S. at 516 (more detailed justification required when "new policy rests upon factual findings that contradict those which underlay its prior policy," because a "reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy.").

[129] *See Pub. Citizen v. Steed*, 733 F.2d 93, 102 (D.C. Cir. 1984) ("Without showing that the old policy is unreasonable, for NHTSA to say that no policy is better than the old policy solely because a new policy *might* be put into place in the indefinite future is as silly as it sounds.").

[130] *See* 42 U.S.C. § 7607(d)(9); 5 U.S.C. 706(1); *Catawba County v. EPA*, 571 F.3d 20, 41 (D.C. Cir. 2009) (discussing CAA and APA review standards).

[131] 42 U.S.C. § 7607(d)(9)(A, C, D).

These requirements fully apply to decisions to modify or repeal existing regulations such as the CPP.[132] Agencies, including EPA, must adhere to basic standards of reasoned decision-making when they propose to change existing policy by repealing regulations. For example, agencies cannot ignore the policies they propose to abandon, disregard the factual record underlying those policies, adopt new policies that violate the law, or leave changes in policy inadequately explained.

Agencies must justify changes in course—with the particular burden of justification depending upon the circumstances. Among other things, an agency seeking to repeal existing policy must:

(1) Acknowledge the change in policy;[133]

(2) Provide a "reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance;"[134]

(3) Demonstrate that the new policy is itself consistent with the governing statute;[135]

(4) Ensure that the new policy is itself supported by substantial record evidence, "based upon a consideration of the relevant factors," and supported with "rational connection[s] between the facts found and the choice made;"[136]

(5) Provide a reasoned explanation for "disregarding facts and circumstances that underlay" the prior rule;[137]

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[132] *See Fox*, 556 U.S. 502, 514-15 (2009); *Motor Vehicle Mfrs. Ass'n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *Nat'l Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1038 (D.C. Cir. 2012).

[133] *See Fox*, 556 U.S. at 514-15 (agency must "display awareness that it is changing position," and show that there are "good reasons" for the new policy). *See Verizon v. FCC*, 740 F.3d 623, 636 (D.C. Cir. 2014) (agency must "acknowledge" and "explain the reasons for a changed interpretation").

[134] *State Farm*, 463 U.S. at 42 (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)). *See also AMB Onsite Services-West v. NLRB*, 849 F.3d 1137, 1146 (D.C. Cir. 2017) ("It is well-settled that NLRB. . . cannot 'turn[] its back on its own precedent and policy without reasoned explanation.'") (quoting *Dupuy v. NLRB*, 806 F.3d 556, 563 (D.C. Cir. 2015)); *Pub. Citizen*, 733 F.2d at 98; *Verizon*, 740 F.3d at 636.

[135] *See Fox*, 556 U.S. at 514-15 (new policy must be "permissible under the statute"); *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 981 (2005); *Chevron USA v. Nat. Res. Def. Council*, 467 U.S. 837, 865-66 (1984); *Pub. Citizen v. Fed. Motor Carrier Safety Admin*., 374 F.3d 1209 (D.C. Cir. 2004).

[136] *See State Farm*, 463 U.S. at 43 (agency decision must be "based on a consideration of the relevant factors" and agency cannot have "relied on factors which Congress has not intended it to consider") (quoting *Bowman Transportation, Inc. v. Arkansas-Best Freight Sys. Inc.*, 419 U.S. 281, 286 (1974)); *Pub. Citizen v. Fed. Motor Carrier Safety Admin*., 374 F.3d 1209 (D.C. Cir. 2004); 42 U.S.C. § 7607(d)(9). An agency acts arbitrarily when it takes action that is not supported by substantial evidence. *E.g.*, *Cablevision Sys. Corp. v. FCC*, 597 F.3d 1306, 1310 (D.C. Cir. 2010); *Florida Gas Transmission Co. v. FERC*, 604 F.3d 636, 639 (D.C. Cir. 2010); *Ass'n of Data Processing Serv. Orgs. v. Bd. of Governors*, 745 F.2d 677, 683-84 (D.C. Cir. 1984).

[137] *Fox*, 556 U.S. at 516 ("when . . . [a] new policy rests upon factual findings that contradict those which underlay its prior policy" agency must provide "a more detailed justification than what would suffice for a new policy created on a blank slate"; agency must supply adequate grounds "for disregarding facts and circumstances that underlay or were engendered by" prior rule); *id.* at 537 (Kennedy, J. concurring); *Pub. Citizen*, 733 F.2d at 98 (agency must "'cogently explain'" basis for suspending rule) (quoting *State Farm*, 463 U.S. at 48); *AMB Onsite Servs.-West v. NLRB*, 849 F.3d 1137, 1146 (D.C. Cir. 2017).

(6) Consider those relevant alternatives reflected in the prior rule's record and those raised by commenters, and explain why the agency is not adopting them in the new rule;[138] and

(7) Address "serious reliance interests" grounded on the prior policy.[139]

B. EPA's Proposal Fails to Satisfy these Basic Requirements.

As EDF details in these comments, the Administrator's Proposal to repeal the CPP disregards these constraints. The Administrator proposes to repeal in its entirety a carefully crafted rule designed to achieve significant reductions of dangerous pollutants in a cost-effective and readily attainable manner, replacing it with *nothing*, or something far less effective at reducing pollution—in stark defiance of EPA's own statutory obligation to regulate pollutants that EPA, based on a scientific consensus, has found to endanger public health and welfare.[140]

As discussed in section III, so far as the notice of proposed rulemaking and the record supporting it reveal, EPA has given no consideration whatsoever to the impact of power plant emissions and the Proposed Repeal on exacerbating the climate crisis.[141] The central health- and welfare-protective mandate and purpose of CAA section 111 are missing from EPA's statutory analysis, which is driven instead by an effort to shirk and avoid EPA's obligations to control climate-destabilizing pollution from the largest sources.[142]

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[138] *State Farm*, 463 U.S. at 51 (finding that NHTSA had arbitrarily failed to explain its rejection of option of requiring airbags despite its prior finding "that airbags are an effective and cost-beneficial life-saving technology"); *id*. at 40, 42. *Pub. Citizen v. Steed*, 733 F.2d 93, 100 (D.C. Cir. 1984) (setting aside suspension of rule because NHTSA "failed to explain why alternatives, which the rulemaking record indicates were available to the agency, could not correct" problem agency relied on as basis for suspending rule); *Int'l Ladies' Garment Workers' Union v. Donovan*, 722 F.2d 795, 816 (D.C. Cir. 1983) (agency impermissibly failed to consider alternatives to repeal "raised in [the] original notice and the comments"); *Office of Commc'n of United Church of Christ v. FCC*, 707 F.2d 1413, 1439 (D.C. Cir. 1983) (agency improperly eliminated programming logs requirements without giving due consideration to the benefits of retaining a modified form of logs); *Delaware Dept. of Nat. Res. and Envtl. Control v. EPA*, 785 F.3d 1 (D.C. Cir. 2015) ("alternative way of achieving EPA's objective . . . should have been addressed and adequate reasons given for its abandonment"); *Shieldalloy Metallurgical Corp. v. NRC*, 624 F.3d 489 (D.C. Cir. 2010) ("[A]gencies must evaluate parties' proposals of 'significant and viable' alternatives") (citing *Farmers Union Cent. Exch., Inc. v. FERC*, 734 F.2d 1486, 1511 n. 54 (D.C. Cir. 1984))).

[139] *E.g.*, *Encino Motorcars v. Navarro*, 136 S. Ct. 2117, 2126 (2016) (quoting *Fox*, 556 U.S. at 515); *see also Smiley v. Citibank South Dakota*, 517 U.S. 735, 742 (1996); *U.S. Telecom Ass'n v. FCC*, 825 F.3d 674 (D.C. Cir. 2016).

[140] *See supra* Section I.B.

[141] As noted elsewhere in these comments, the assessment of climate and health impacts of the Proposed Repeal that appears in the Repeal Proposal RIA does not mean that EPA gave consideration to such factors in its decision. The Proposed Repeal does not refer to or rely on the Repeal Proposal RIA in justifying the decision to repeal the CPP, but instead relies entirely on abstract (and unconvincing) legal arguments in support of the Administrator's proposed interpretation of the CAA. Moreover, the Repeal Proposal RIA considers only the impacts of *repealing the CPP*—without evaluating any of the consequences associated with the Administrator's proposed interpretation, including its impact on statutorily required considerations such as emission reduction and cost.

[142] S*ee Sierra Club v. Costle*, 657 F.2d 298, 326 (D.C. Cir. 1981) ("[W]e can think of no sensible interpretation of the statutory words 'best technological system' which would not incorporate the amount of air pollution as a relevant factor . . .").

Just as in *State Farm*,[143] the Administrator's casual approach to deregulation here betrays scant consideration to the urgent public hazard before him. He is proposing to wholly repeal the CPP, so that there will be no federal protections in place against carbon dioxide emissions from this major source category. The Administrator has issued an ANPR, but that document simply considers a potential new rule without ever describing what might be in it or actually committing to issue any rule. The highly uncertain and remote prospect does not substitute for the required full consideration of the consequences and alternatives before finalizing the repeal.[144] The lack of protection that will result from EPA's Proposed Repeal is obviously in direct tension with the Agency's exhaustive findings concerning the urgent and growing threat of carbon pollution, and with the text and purpose of the CAA.[145]

The CPP was based upon unprecedented outreach to affected parties as well as an exhaustive review of the facts concerning the power sector's operations, the interconnectedness of the electric grid, and how carbon dioxide emissions from this sector are reduced. If EPA is to repeal the CPP, the Agency has an obligation to explain why it is departing from the exhaustively documented determinations made in the CPP rulemaking. Yet, in the Proposed Repeal, EPA wholly ignores the massive and detailed record and the myriad determinations on which it originally based the CPP, as discussed in section III.C.ii. Instead, EPA has relegated any and all consideration of the factual record regarding systems for reducing power plant emissions to a possible *future* proceeding, which may or may not even occur, and has issued an ANPR dedicated to abstract discussions about whether to do anything at all. In this discussion, the repeal of the CPP is treated as a *fait accompli*.

The Administrator's approach here—repeal first, analyze later—is structured to *avoid* confronting the factual record and to avoid consideration of alternative interpretations that call into question its determination to repeal the CPP.[146] That is unlawful; the Agency must provide a justification for suspending a rule "*before* engaging in a search for further evidence."[147] Nor may EPA avoid its obligation to confront the evidence developed and determinations made in the CPP rulemaking by claiming that the Proposed Repeal is dictated by statute.[148] The Act directs the Agency to identify the "best system of emission reduction" that is "adequately demonstrated," a responsibility that requires review of the evidence on the relevant pollutant and source

[143] *State Farm*, 463 U.S. at 52-53 (noting undisputed evidence that use of seat belts would save many lives).
[144] *State Farm*, *Fox*, and the other precedents on change of policy require that the agency provide the requisite explanations *before* effecting the change, not in some later proceeding. *See also Nat. Res. Def. Council, Inc. v. EPA*, 683 F.2d 752, 767 (3d Cir. 1982) ("We hold that the period for comments after promulgation cannot substitute for the prior notice and comment required by the APA") (quoting *Sharon Steel Corp.*, 597 F.3d at 381).
[145] *See supra* section I.B.
[146] The Proposed Repeal and its docket indicates that EPA did not consider the factual findings underlying the CPP in developing a proposal to repeal it. *See* CAA § 307(d)(3), (requiring that the EPA include a summary of "the factual data on which the proposed rule is based" and that "[a]ll data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule"). The docket entries for the Proposal contain virtually none of the massive amount of factual data and analyses from the CPP record.
[147] *State Farm*, 463 U.S. at 51 (emphasis added); *see also Pub. Citizen*, 733 F.2d at 98 (agency's decision to suspend its program while it "further studied" an alleged problem with the program was arbitrary and capricious).
[148] Proposed Repeal, 82 Fed. Reg. at 48,038-43.

category.[149] The Agency cannot evade its obligation to employ its "experience and expertise"[150] to look at the CPP's massive and detailed factual record and explain how and why, if at all, EPA now views the facts and circumstances differently.

The statutory determination question—identifying the "best system of emission reduction"—necessarily involves making factual determinations, and cannot be decided based on abstract legal reasoning alone.[151] The relevant statutory provisions require EPA to examine the specifics of the particular source category in question, including methods for reducing harmful emissions from that category, and to determine, in light of the evidence, whether each potential system of emission reduction is the "best" that has been "adequately demonstrated."[152] It is not possible to devise a proper interpretation of such terms in a factual vacuum,[153] and, in framing the BSER concept broadly, Congress certainly intended the EPA Administrator to take a careful look at the factual record concerning particular source categories. Congress intended section 111 to cover a wide range of pollutants and source categories, and drafted it in broad terms so that EPA could most effectively reduce pollution using the "best" measures, so long as they are "achievable" and "adequately demonstrated," accounting for "cost" and "energy requirements."

Similarly, EPA cannot rationally choose among alternative interpretations of the CAA without considering what the practical consequences of those alternative interpretations would be. The CPP record exhaustively explains why the EPA's approach to the BSER in the 2015 rule represents the most logical and cost-effective approach to reducing carbon dioxide emissions from existing power plants—one that achieves meaningful reductions while hewing closely to established, well-demonstrated means of reducing pollution and ensuring flexibility for power plant owners and operators and reducing costs.[154] The Proposed Repeal does not even address any of the factual and policy judgments underlying that choice. Nor does the Proposed Repeal explain or demonstrate why some *other* approach to defining BSER is preferable to the CPP in light of the factors set out in the statute. Indeed, the Administrator has made no effort to identify an alternative BSER. But by spurning a careful review of the CPP record and the policy judgments EPA made therein—and refusing to identify any alternative regulation with which the CPP could be meaningfully compared—the Administrator has left himself unable to make a defensible decision to rescind the CPP.

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[149] *See Peter Pan Bus Lines, Inc. v. Federal Motor Carrier Safety Admin.*, 471 F.3d 1350, 1354 (D.C. Cir. 2006) ("'[D]eference to an agency's interpretation of a statute is not appropriate when the agency wrongly believes that interpretation is compelled by Congress'") (quoting *PDK Laboratories, Inc. v. DEA*, 362 F.3d 786, 798 (D.C. Cir. 2004) (other citations omitted)); *Peter Pan*, 471 F.3d at 1354 ("As we explained in *PDK*, *Chevron* step 2 deference is reserved for those instances when an agency recognizes that the Congress's intent is not plain from the statute's face. 'In precisely those kinds of cases, it is incumbent upon the agency not to rest simply on its parsing of the statutory language'—'[i]t must bring its experience and expertise to bear in light of competing interests at stake.'") (quoting *PDK*, 362 F.3d at 797–98 (citing *Chevron*, 467 U.S. at 865–66); *Prill v. N.L.R.B.*, 755 F.2d 941, 947–48 (D.C. Cir. 1985) (agency commits reversible error when agency concludes that particular regulatory action is mandated by statute, rather than based on its "own judgment").

[150] *Peter Pan*, 471 F.3d at 1354.

[151] *See infra* section III.B.

[152] 42 U.S.C. § 7411(a)(1).

[153] *See Chevron v. Nat. Res. Def. Council*, 467 U.S. 847, 863 (1984), (noting that agency interpretation occurs "not in a sterile textual vacuum, but in the context of implementing policy decisions in a technical and complex arena.").

[154] *See e.g.*, CPP Final Rule, 80 Fed. Reg. at 64,677-78, 64,745/1; *see infra* section III.B.

The one place where the Proposed Repeal makes a gesture toward considering facts and evidence only confirms just how single-mindedly the Administrator seeks to avoid confronting EPA's own exhaustive findings and analysis in the CPP rulemaking. The Proposed Repeal seeks comment on a subset of "broader policy concerns" raised by opponents of the CPP that the Administrator now believes support the Proposed Repeal.[155] The Proposed Repeal states that:

> The EPA seeks comment on whether the interpretation proposed today, by substantially diminishing the potential economic and political consequences of any future regulation of CO_2 emissions from existing fossil fuel-fired EGUs, has the advantage of not implicating [the "clear statement" rule], in that it would avoid potentially transformative economic, policy, and political significance in the absence of a clear Congressional statement of intent to confer such authority on the Agency."[156]

The Administrator simply asserts, but has not demonstrated any basis for determining, that the CPP would, in fact, have "transformative economic, policy, and political significance" and that the proposed interpretation of the CAA would "diminish" that significance. Any such determination is not based on substantial evidence, and hence invalid.[157] Indeed, by rejecting what EPA previously found to be the most readily available, cost-effective way to reduce emissions, EPA's Proposed Repeal would exacerbate the economic "consequences" of regulating carbon dioxide. Furthermore, EPA's claims are contrary to the facts showing that, since the CPP was finalized, carbon dioxide reductions in the power sector have been occurring more rapidly and at lower cost than was forecast in the CPP.[158]

As explained in detail in section III, in the Proposed Repeal, EPA does not engage at all with its own record showing that the CPP in fact is structured to reduce dangerous pollution while minimizing disruption and burdens by, among other things, (1) building on well-established industry trends, (2) using the same state implementation framework that is employed for other air pollution rules under the CAA, (3) providing a host of compliance flexibilities to states, and (4) allowing for emissions reductions at more reasonable cost than other possible approaches. Nor has EPA considered the degree to which unabated climate change itself will have consequences far more dire for the country's economy—not to mention public health. Furthermore, because EPA has not identified or assessed what alternative carbon dioxide regulations it will impose under section 111(d) (or whether it will impose any at all), it has no basis for deciding what the "economic, policy, or political" effects of any such rule might be.

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[155] Proposed Repeal, 82 Fed. Reg. at 48,042.
[156] *Id*.
[157] *See, e.g.*, *Cablevision Sys. Corp. v. FCC*, 597 F.3d 1306, 1310 (D.C. Cir. 2010); *Florida Gas Transmission Co. v. FERC*, 604 F.3d 636, 639 (D.C. Cir. 2010); *Ass'n of Data Processing Serv. Orgs. v. Bd. of Governors*, 745 F.2d 677, 683-84 (D.C. Cir. 1984).
[158] *See infra* section III; EPA, *Basis for Denial of Petitions to Reconsider and Stay the Clean Power Plan*, at 22-26 (Jan. 11, 2017) (submitted in Joint Appendix as Attachment F8) [Hereinafter "Reconsideration Denial"]; EPA, *Basis for Denial of Petition to Reconsider and Stay the Clean Power Plan Appendix 1 — Power Sector Trends* (Jan. 11, 2017) (submitted in Joint Appendix as Attachment F5) [Hereinafter "Power Sector Trends Appendix"].

In sum, the Administrator's Proposed Repeal badly flunks basic administrative law requirements applicable to policy changes. Rather than addressing the extensive record EPA assembled in the CPP proceedings, and the detailed determinations that supported EPA's choices as to how to design its emission guidelines, the Proposed Repeal ignores that record and those determinations. The Administrator has not examined the consequences of the Proposed Repeal for the CAA's core public health and welfare objectives and has not examined alternatives to the Proposed Repeal. Nor has he identified or explored the consequences for public health or welfare of the alternative reading that is the basis for rejecting the CPP, or shown that that alternative is consistent with the CAA—including EPA's obligation to reduce dangerous air pollution. The Administrator now proposes to toss out the CPP—the product of years of careful, evidence-based policy making, without considering the substantial public reliance on this policy and the impact of throwing the power sector into uncertainty concerning how, if at all, carbon control under the CAA is to proceed. EPA's Proposed Repeal represents a basic and comprehensive failure of reasoned decision-making and must be withdrawn.

III. THE PROPOSAL'S INTERPRETATION OF THE "BEST SYSTEM OF EMISSION REDUCTION" IS UNLAWFUL AND ARBITRARY.

Clean Air Act section 111 and its longstanding implementing regulations require EPA to issue emission guidelines reflecting the degree of emission reduction achievable by existing power plants through *application of the best system of emission reduction* that the Administrator determines is adequately demonstrated, considering costs, energy requirements, and other enumerated factors.[159] In light of the statutory purpose and context, legislative history, agency practice, and after a thorough factual investigation of current industry practice and careful consideration of the those statutory factors, EPA previously concluded that the "best system of emission reduction" is a set of measures that work together to reduce emissions, limited to those measures that can be implemented by the sources themselves.[160] EPA further concluded that the CPP BSER, which includes shifting of generation from high-emitting sources to low- and zero-emitting sources, comports with this interpretation of the statute and is most consistent with the statutory factors.

The Administrator now appears to propose that the phrase "best system of emission reduction" should be limited to emission reduction measures that are "based on a physical or operational change to a building, structure, facility, or installation at that source, rather than measures that the source's owner or operator can implement on behalf of the source at another location."[161] Given that the Proposed Repeal uses multiple and differing terms to describe the Administrator's proposed interpretation, it is not clear what systems of emission reduction would ultimately be permissible under the Administrator's view of the law.[162] Nevertheless, the

[159] *See* 42 U.S.C. § 7411(a)(1), 7411(d)(1); 40 C.F.R. § 60.22(b)(5).
[160] *See* CPP Final Rule, 80 Fed. Reg. at 64,720.
[161] Proposed Repeal, 82 Fed. Reg. at 48,039.
[162] In the Proposed Repeal, the Administrator employs a variety of terms to characterize his preferred interpretation of "best system of emission reduction," including "source-oriented" (82 Fed. Reg. at 48,039, 48,040); "implementable at the level[] of the individual source" (*id.* at 48,040); "physical or operational change to the source," (*id.* at 48,040, 48,041, 40,042, 40,043); "technological or operational" (*id.* at 48,037); "retrofit technology" (*id.* at 48,037); "something that can be *applied to* or *at* the source" (*id. at* 48,039; *see also id.* at 48,037); and "something . . . that is taken at or applied to individual, particular sources" (*id.* at 48,041). Even though these terms

Administrator asserts in conclusory fashion that that his proposed interpretation requires repeal of the CPP, because he believes that building blocks 2 and 3 of the CPP BSER do not conform to that interpretation. In contrast to the final CPP, this conclusion is supported only by flawed legal considerations and unsupported speculations that are contradicted by the CPP record, and omits analysis of the relevant statutory factors. As such, the Proposed Repeal is unlawful, arbitrary, and unreasonable.

As a threshold matter, the Administrator has failed to demonstrate that the CPP is actually inconsistent with his proposed interpretation of "best system of emission reduction." The Administrator ignores ample record findings from the final CPP that clearly indicate that EPA previously (and correctly) viewed the BSER as consisting of "operational" changes to affected sources themselves.[163] The Proposed Repeal's failure to acknowledge those findings, much less engage with and provide a reasoned basis for rejecting them, is a patent failure to engage in reasoned decision-making.[164]

Even if the Administrator were to demonstrate that his interpretation of the statute precludes the CPP (something he has failed to do in the Proposed Repeal), that interpretation would be unlawful, arbitrary and capricious. To begin, the Proposed Repeal lacks clarity on a central issue: whether the Administrator believes that he is legally *precluded* from retaining the CPP BSER, or instead merely prefers his proposed interpretation.[165] Either way, the Proposed Repeal is unlawful.

To the extent that the Administrator is arguing that the CPP's BSER interpretation is *legally precluded*, he is wrong. As detailed below, the CPP BSER is an approach plainly authorized by the text of section 111(a)(1), and the Administrator's strained statutory arguments aimed at restricting the Agency's authority to interpret the BSER are legally flawed. If the Administrator bases a repeal of the CPP on the incorrect premise that "the CPP is not within Congress's grant of authority to the Agency under the governing statute,"[166] then his action is unlawful, *even if* EPA could have adopted this interpretation as a matter of discretion.[167]

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have significantly different scopes, the Proposal fails to distinguish among them, or elaborate on the practical implications of the variously expressed formulations.

[163] *See infra* section III.A.

[164] *See Fox*, 556 U.S. at 537 (Kennedy, J., concurring) ("An agency cannot simply disregard contrary or inconvenient factual determinations that it made in the past.").

[165] *Compare* Proposed Repeal, 82 Fed. Reg. at 48,036 (noting that if the proposal is finalized "the CPP [would] exceed[] EPA's statutory authority and would be repealed"), *id.* at 48,038 (proposing that "the CPP is not within Congress's grant of authority to the Agency under the governing statute"), *id.* at 48,038/4 (describing the CPP as "not within the bounds of our statutory authority"), *id.* at 48,038/5 (describing the CPP as exceeding the agency's authority under the CAA), and *id.* at 48,038/6 (arguing that it is appropriate for the EPA to reconsider the CPP because it "exceed[s] the Agency's statutory authority"), *with id.* at 48,039 (acknowledging that there could be "expansive" and "narrow" interpretations of the phrase "best system of emission reduction"), *id.* at 48,039 ("The EPA believes that this is the *best construction* of CAA section 111(a)(1)") (emphasis added), and *id.* at 48,043 ("[T]he *best* reading of the statute is that the BSER does not encompass the types of measures that constitute the second and third 'building block' of the CPP.") (emphasis added).

[166] *Id.* at 48,038.

[167] As the D.C. Circuit has recently explained "Where a statute grants an agency discretion, but the agency erroneously believes it is bound to a specific decision, we can't uphold the result as an exercise of discretion that the agency disavows." *United States v. Ross*, 848 F.3d 1134 (D.C. Cir. 2017). As in *Ross*, the Administrator here has

Given that the CPP's BSER interpretation is not legally precluded, if the Administrator merely *prefers* his proposed interpretation,[168] he has failed to provide "good reasons"—taking all relevant factors into account—for abandoning the CPP in favor of his proposed interpretation. As detailed below, the Administrator has not performed the requisite policy analysis that would justify that exercise of discretion,[169] which would include analyzing possible policy alternatives[170] in light of the relevant statutory factors.[171] Among other things, the Administrator has given no weight whatsoever to the impact of his proposed interpretation on climate change—the greatest environmental threat of our time. The Administrator has given no consideration to how the proposed interpretation would affect the level of emission reduction or cost associated with future emission guidelines under section 111, or whether it would align with the unique characteristics of the power sector and of carbon dioxide pollution. The central health- and welfare-protective mandate and purpose of CAA section 111 are missing from EPA's statutory analysis, which is driven instead by an effort to shirk EPA's obligations to control climate-destabilizing pollution from the largest stationary sources.[172]

Each of these reasons why the Proposed Repeal is arbitrary, capricious and unlawful is explored in greater detail below.

A. The Administrator Has Failed to Demonstrate that the CPP Is Inconsistent with His Proposed Interpretation of "Best System of Emission Reduction."

As a threshold matter, the Administrator has failed to demonstrate that his proposed interpretation of the CAA is incompatible with—and requires the repeal of—the CPP. Indeed, the Administrator ignores ample record findings from the CPP itself that clearly indicate that EPA viewed the BSER as consisting of "operational" changes to affected sources themselves. The Administrator's refusal to acknowledge those findings, much less provide a reasoned basis for rejecting them, constitutes a patent failure to engage in reasoned decision-making.[173]

"expressly—and erroneously—imputed to Congress 'a legislative judgment'" that prevents the Agency from weighing the burdens and benefits of its proposed interpretation. *Id.* at 1134-1135.

[168] *See* Proposed Repeal, 82 Fed. Reg. at 48,039 (acknowledging that there could be "expansive" and "narrow" interpretations of the phrase "best system of emission reduction").

[169] *See PDK Labs v. U.S. DEA*, 362 F.3d 786, 798 (D.C. Cir. 2004) (explaining that where statute is ambiguous, "it is incumbent upon the agency not to rest simply on its parsing of the statutory language," and that the agency "must bring its experience and expertise to bear in light of the competing interests at stake.") (citing *Chevron v. Nat. Res. Def. Council*, 467 U.S. at 865-66).

[170] *See Delaware Dep't of Nat. Res. & Envtl. Control v. EPA*, 785 F.3d 1 (D.C. Cir. 2015) ("[A]lternative way of achieving EPA's objective … should have been addressed and adequate reasons given for its abandonment"); *Shieldalloy Metallurgical Corp. v. NRC*, 624 F.3d 489 (D.C. Cir. 2010) ("[A]gencies must evaluate parties' proposals of 'significant and viable' alternatives.") (citing *Farmers Union Cent. Exch., Inc. v. FERC*, 734 F.2d 1486, 1511 n. 54 (D.C. Cir. 1984)).

[171] *See State Farm*, 463 U.S. at 43 (agency decision must be "based on a consideration of the relevant factors" and agency cannot have "relied on factors which Congress has not intended it to consider") (quoting *Bowman Transportation, Inc. v. Arkansas-Best Freight Sys. Inc.*, 419 U.S. 281, 286 (1974)).

[172] S*ee Sierra Club v. Costle*, 657 F.2d 298, 326 (D.C. Cir. 1981) ("[W]e can think of no sensible interpretation of the statutory words 'best technological system' which would not incorporate the amount of air pollution as a relevant factor . . . .").

[173] *FCC v. Fox*, 556 U.S. 502, 515-16 (2009).

The Proposed Repeal states that the Administrator intends to "return to a reading of the CAA section 111(a)(1) . . .as being limited to emission reduction measures that can be applied to or at an individual stationary source. That is, such measures must be based on a physical or operational change to a building, structure, facility, or installation at that source, rather than measures that the source's owner or operator can implement on behalf of the source at another location."[174] The Administrator goes on to claim that the CPP BSER rests on "actions that owners or operators take on behalf of an affected source that might lead only indirectly to emissions reductions from the source," such as purchasing "emissions credits" or "power from qualifying lower-emitting generators."[175] Stating in conclusory fashion that "none of these options involves a physical or operational change applicable to the source itself,"[176] the Administrator asserts that the CPP must be repealed.

The Administrator, however, ignores EPA's prior record findings demonstrating that the CPP BSER *does* consist of "physical or operational change applicable to the source itself." As the Administrator himself acknowledges in passing in the Proposed Repeal, building blocks 2 and 3 are based on substituting increased generation at lower- and zero-emitting generation sources for *decreased generation from affected fossil-fuel fired units.*[177] Decreased generation is, of course, a quintessential "operational change" applicable to individual affected sources. And in the CPP, EPA explains at length that the CPP BSER can be implemented through precisely this pathway:

> Because of the integrated nature of the electricity system, combined with the system's high degree of planning and reliability safeguards, as well as the long planning horizon afforded by this rule, individual affected EGUs can *implement the building blocks by reducing generation to achieve their emission performance standards*. *Individual affected steam EGUs can reduce their generation in the amounts of building blocks 2 and 3, while individual affected NGCC units can reduce their generation in the amount of building block 3*. With emission limits for the source category as a whole in place, the resulting reduction in supply of higher-emitting generation will incentivize additional utilization of existing NGCC capacity, the resulting reduction in overall fossil fuel-fired generation will incentivize investment in additional RE generating capacity, and the integrated system's response to these incentives will ensure that there will be sufficient electricity generated to continue to meet the demand for electricity services."[178]

Elsewhere in the CPP, EPA observes that "reduced generation is one of the set of reasonable and well-established actions that an affected EGU can implement to achieve its emission limits."[179] EPA further explains that building blocks 2 and 3 were carefully designed to ensure that any reductions in generation from high-emitting generating sources are achieved in a

[174] Proposed Repeal, 82 Fed. Reg. at 48,039.
[175] *Id.* at 48,043.
[176] *Id*.
[177] *Id*. at 48,037.
[178] CPP Final Rule, 80 Fed. Reg. at 64,732-33 (emphasis added).
[179] *Id.* at 64,782.

way that preserves electric reliability and the overall cost-effectiveness of the CPP. Moreover, EPA notes that because of the interconnected nature of the electricity system, decreasing generation at higher-emitting sources necessarily and automatically results in substituting that generation with zero- or low-emitting generation through the operation of the grid:

> *Reduced generation by affected EGUs, in the amounts that affected EGUs may rely on to implement the selected building blocks, will not have adverse effects on the utility power sector and will not reduce overall electricity generation.* In light of the emission limits of this rule, because of the availability of the measures in building blocks 2 and 3, and because the grid is interconnected and the electricity system is highly planned, *reductions in generation by fossil fuel-fired EGUs in the amount contemplated if they were to implement the building blocks, and occurring over the lengthy time frames provided under this rule, will result in replacement generation that generally is lower- or zero-emitting.* Mechanisms are in place in both regulated and deregulated electricity markets to assure that substitute generation will become available and/or steps to reduce demand will be taken to compensate for reduced generation by affected EGUs. As a result, reduced generation will not give rise to reliability concerns or have other adverse effects on the utility power sector and are of reasonable cost for the affected source category and the nationwide electricity system.[180]

As EPA also discussed at length in the CPP, reducing generation is a well-established and congressionally recognized measure for individual power plants to take in order to comply with the CAA.[181] Indeed, reduced utilization falls squarely within Congress's original intent, which "provided that standards of performance reflect achievable limits 'through application of the latest available control technology, processes, operating methods, or other alternatives.'"[182] For all these reasons, EPA concluded in the CPP that reduced generation meets all the section 111 criteria for a system of emission reduction.[183]

The Administrator's scant discussion of why his proposed interpretation of the CAA requires repeal of the CPP ignores these findings, mentioning only that the CPP BSER contemplates that owners of affected EGUs might implement building blocks 2 or 3 by means of emission credits or cross-investment in low-emitting generation. But the preamble to the CPP clearly explains that emissions credits and cross-investment are only *some* of the mechanisms—

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[180] *Id.* (emphasis added); *see also* CPP Final Rule, 80 Fed. Reg. at 64,731 ("Viewing the BSER from the perspective of an individual EGU, there are several ways that affected EGUs can access the measures in building blocks 2 and 3, thanks to the integrated nature of the electricity system, coupled with the system's high degree of planning and reliability mechanisms. The affected EGUs can . . . reduce their generation, which in the presence of emission reduction requirements applicable to the source category as a whole will have the effect of increasing demand for, and thereby incentivize investment in, the measures in the building blocks elsewhere in the integrated system . . . .").

[181] *See, e.g.* CPP Final Rule, 80 Fed. Reg. at 64,780-81 (describing the role of reduced generation in Title IV, BART, and permit limitations for various CAA sections).

[182] S. 4358, 6, 1970 CAA Leg. Hist. at 555.

[183] CPP Final Rule, 80 Fed. Reg. at 64,782 n.602 ("[R]educed generation is 'adequately demonstrated' as a method of reducing emissions (because Congress and the EPA have recognized it and on numerous occasions, power plants have relied on it); it is of reasonable cost; it does not have adverse effects on energy requirements at the level of the individual affected source (because it does not require additional energy usage by the source) or the source category or the U.S.; and it does not create adverse environmental problems.").

albeit highly cost-effective ones—available to implement building blocks 2 or 3. Among other things, EPA observed that a mass-based standard that reflects the CPP BSER can be implemented *without* an emissions trading system of any kind,[184] and that individual EGUs can comply with such a standard by directly reducing their own generation with *no further action* from the owner of the affected source.[185]

Of course, under some forms of a rate-based standard of performance reflecting the CPP BSER, the affected unit would need to comply by acquiring credits or undertaking cross-investment for increased generation at lower-emitting sources.[186] This is arguably a feature of that particular *standard of performance*, rather than the underlying BSER itself. But even if the Administrator found that the use of credits in a rate-based standard of performance offended his proposed interpretation of section 111(a)(1), a repeal of the CPP would not be justified. No state is *required* to adopt a rate-based standard under the CPP—and as described above, EPA's mass-based compliance method would enable the implementation of a standard of performance reflecting the BSER through reduced generation alone, without requiring *any* source to obtain credits or undertake cross-investment in other generating sources.

In the Proposed Repeal, the Administrator claims that the CPP "depends on the employment of measures that cannot be applied at and to an individual source"[187] without engaging with the CPP's finding that a source need only reduce its own generation to achieve the requisite emission reductions. Further, the Administrator claims that the rule "is formulated in reliance on and anticipation of actions taken across the grid, rather than actions taken at and applied to individual units,"[188] without acknowledging the CPP finding that an individual source can reduce generation and take no further action to comply with the BSER.

To be sure, as EPA explained in the Final CPP, the Agency did not ultimately adopt reduced *overall* generation alone as the BSER.[189] There, EPA explained that this was because, "reduced generation by itself is about changing the amount of product produced rather than producing the same product with a process that has fewer emissions."[190] However, as explained in this section, EPA repeatedly made clear that reduced generation was a primary *measure* by which the emissions reductions contemplated by building blocks 2 and 3 would occur.[191] Indeed,

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[184] *Id.* at 64,754 (observing that a "state could choose to impose specific mass-based limits that each EGU would be required to meet on a physical basis," even though such limits have typically been implemented by means of emission trading systems).

[185] *Id.* ("The owner/operator of an affected EGU can reduce its generation, thereby lowering the unit's CO_2 mass emissions. Any type of owner/operator can take advantage of this measure. Although some action or combination of actions to increase lower-carbon generation or reduce electricity demand somewhere in the interconnected electricity system of which the affected EGU is a part will be required to enable electricity supply and demand to remain in balance, the affected EGU does not need to monitor or track those actions in order to use its reduction in generation to help achieve compliance with the mass-based standard.").

[186] *Id.* at 64,753-54.

[187] Proposed Repeal, 82 Fed. Reg. at 48,037.

[188] *Id*.

[189] CPP Final Rule, 80 Fed. Reg. at 64,780 ("We are not finalizing our proposal that reduced overall generation of electricity may by itself be considered the BSER.")

[190] *Id.*

[191] *Id.* at 64,709 ("Building blocks 2 and 3 may be implemented through a set of measures, including reduced generation from the fossil fuel-fired EGUs.").

the Agency went on to say because reductions in generation is how many of these sources would comply with the target requirements, reduced generation may fairly "be understood as part of the BSER."[192] And, importantly, as discussed above, reductions in generation—which are an operational change at the plant—are the only action a source needs to take to secure compliance under the simplest forms of compliance under the CPP. For example, a state measures plan could involve simple limits on generating hours or limits on emissions achieved by limiting generating hours. That EPA provided other means of compliance that a state could choose that involve the owner or operator a source obtaining credits from lower-emitting generation to reflect the generation shifting that had already occurred on the grid, and that EPA in blocks 2 and 3 analyzed the potential for lower-emitting generation sources to replace higher-emitting generating sources in order to ensure that the system was adequately demonstrated considering cost does not alter the fundamental fact that the emission reductions achieved under blocks 2 and 3 result from reduced generation of regulated sources in the context of a grid that will ensure the replacement of that generation with lower-emitting generation.

EPA's determinations about reduced generation are relevant for this current discussion because building blocks 2 and 3 simply acknowledge the current reality of the grid, in which reduced utilization necessarily leads to an increase from cleaner sources of generation, and because EPA had to analyze generation replacement potential of other sources to ensure that the BSER was adequately demonstrated considering costs and impacts on energy, as well as emission reduction outcomes.[193] In the context of the current grid, reduced generation of higher emitting sources and generation shifting from higher emitting sources to lower emitting sources are one and the same—and it is the reduction in generation that achieves the emission reductions. As such, the Administrator's conclusion that the CPP should be repealed on the basis of his proposed interpretation is unjustified and arbitrary.

In proposing to repeal the CPP, EPA may not simply ignore its earlier findings supporting the rule. In fact it must "provide a more detailed justification than would suffice for a new policy," since its Proposed Repeal rests on factual findings (or, more accurately, mere factual *assumptions* and conclusory assertions) that contradict its earlier findings.[194] To ignore its earlier findings and fail to explain why they were incorrect would be arbitrary and capricious.[195] "An agency cannot simply disregard contrary or inconvenient factual determinations that it made in the past."[196] The Administrator's failure to engage with record findings indicating that the CPP is, in fact, consistent with his proposed interpretation of section 111(a)(1) fails to meet these standards of reasoned decision-making.

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[192] *Id.* at 64,744.
[193] *Id.* at 64,782 ("Moreover, reduced generation, as applied to affected EGUs in this rule, is limited in a number of respects. The amount of reduced generation is the amount of replacement generation that is lower- or zero-emitting, that is of reasonable cost, that can be generated without jeopardizing reliability, and that meets the other requirements for the BSER. As discussed, that amount is the amount of generation in building blocks 2 and 3").
[194] *FCC v. Fox Television Stations*, 556 U.S. 502, 515-16 (2009) (internal citation omitted).
[195] *Id.*
[196] *Id*. at 537 (Kennedy, J., concurring).

B. The Proposed Repeal Would Unlawfully Cabin the Administrator's Interpretation of the "Best System of Emission Reduction" Based on a Flawed Legal Interpretation.

As shown above, the CPP BSER is consistent with both the CPP's interpretation of "best system of emission reduction" and the Administrator's proposed interpretation. But that is a separate question from whether the proposed interpretation is lawful. In this section, we show that the Administrator's interpretation—to the extent it actually precludes the CPP BSER—is fundamentally unlawful as a matter of statutory interpretation. First, we explain that the CPP's interpretation of the term "best system of emission reduction" fully complies with the requirements of section 111 of the CAA. Next, we detail the many legal flaws in the Administrator's proposed interpretation—flaws that would render that interpretation arbitrary and capricious if it were adopted in a final rule. Finally, we explain that, because the Administrator's flawed interpretation is premised on illusory legal constraints rather than a reasoned change in policy based on the relevant factors, the interpretation could not survive even if reviewed as an exercise of the Administrator's discretion to choose among permissible interpretations of section 111.

i. The Clean Power Plan Is Lawful and Implements the Statutory Requirements in a Reasonable and Evidence-Based Manner.

a. The statutory requirements of Clean Air Act section 111.

CAA section 111(d) directs EPA to "prescribe regulations which shall establish a procedure similar to [section 110] under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source" of pollutants not regulated under certain other programs, "and (B) provides for the implementation and enforcement of such standards of performance." 42 U.S.C. § 7411(d)(1). A "standard of performance" is defined as:

> a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

42 U.S.C. § 7411(a)(1).

The CPP BSER that is reflected in the CPP carefully adheres to these statutory requirements. In the CPP, EPA identified "system[s] of emission reduction" that are "adequately demonstrated" for carbon pollution from EGUs; determined the BSER based on the amount of emission reduction, costs, any nonair health and environmental impacts, and energy impacts; and, based on that system, determined an "achievable" performance rate for the affected sources.[197] This performance rate was carefully designed to reflect the "application" of building

[197] CPP Final Rule, 80 Fed. Reg. at 64,720.

blocks 1, 2, and 3 to existing power plants. The Agency found that these measures are available to all affected sources through direct investment, operational shifts or emissions trading.[198]

Under the CPP, states may either apply the performance rates directly to individual existing power plants or establish equivalent standards of performance for existing power plants that reflect state-wide rate- or mass-based targets consistent with the BSER.[199] Affected sources then have the flexibility to meet their standard of performance through a wide variety of measures, as permitted by state plans—including reducing generation at the source, directly implementing the building blocks, utilizing non-BSER measures to reduce emissions, or acquiring emission reduction credits or allowances.[200]

b. The Clean Power Plan adheres to a permissible construction of the capacious terms in section 111.

The Proposed Repeal repeatedly claims that the CPP "exceeds the EPA's statutory authority," and therefore *must* be repealed.[201] Although the Proposed Repeal also includes statements suggesting that the Administrator merely views his interpretation as a *preferred* reading of the statute,[202] the Proposed Repeal does not attempt to show that the Administrator's proposed interpretation better fulfills the purposes of the statute or the statutory BSER factors.

"One does not need to open up a dictionary to realize the capaciousness of"[203] the relevant terms here: "system" and "application." "Congress" uses "capacious terms when it wishes to enlarge [] agency discretion."[204] As we demonstrate in this section, the CPP is a reasonable interpretation of these broad terms. The failure to recognize both the ambiguity inherent in section 111 and the CPP's permissible interpretation is fatal to the Proposed Repeal.

"An agency decision cannot be sustained, . . .where it is based not on the agency's own judgment but on an erroneous view of the law."[205] EPA cannot defend its faulty legal premise that its hands are tied by the plain language of the CAA and that it therefore must repeal the CPP.[206]

c. The Clean Power Plan's chief regulatory requirement and BSER.

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[198] *Id.*
[199] *Id.* at 64,726.
[200] *Id.* at 64,727.
[201] Proposed Repeal, 82 Fed. Reg. at 48,036-38, 48,048.
[202] *See* Proposed Repeal, 82 Fed. Reg. at 48,039 (explaining that the Administrator sees his proposed interpretation as the "best construction of CAA section 111(a)(1)").
[203] *Michigan v. EPA*, 135 S. Ct. 2699, 2705 (2015).
[204] *City of Arlington v. FCC*, 569 U.S. 290, 296 (2013).
[205] *Prill v. NLRB.*, 755 F.2d 941, 947 (D.C. Cir. 1985); *see also Peter Pan Bus Lines, Inc. v. Fed. Motor Carrier Safety Admin.*, 471 F.3d 1350, 1354 (D.C. Cir. 2006) ("'[D]eference to an agency's interpretation of a statute is not appropriate when the agency wrongly believes that interpretation is compelled by Congress'") (quoting *PDK Laboratories, Inc. v. DEA*, 362 F.3d 786, 798 (D.C. Cir. 2004)) (other citations omitted).
[206] *See SEC v. Chenery*, 318 U.S. 80, 95 (1943) ("[A]n administrative order cannot be upheld unless the grounds upon which the agency acted in exercising its powers were those upon which its action can be sustained.").

The CPP's "chief regulatory requirement" consists of two national emission performance rates—one for fossil steam plants (primarily coal units) and one for combined cycle natural gas plants—expressed in pounds of CO_2 emissions per megawatt-hour of generation, and phased in gradually between 2022 and 2030.[207] These emission guidelines reflect EPA's determination of the carbon dioxide emission reductions achievable applying the BSER taking into account cost and the other factors enumerated in section 111(a)(1). Consistent with the statute, these guidelines were expressed as standards that could be applied to and achieved by individual sources. As discussed above, the CPP also provides for states to apply equivalent standards of performance consistent with the BSER—such as mass-based emission targets—that can be met entirely through changes in the operation of individual power plants, without reliance on cross-investment in power plants or emissions trading systems (which the Administrator seems to view as the chief legal defect in the CPP).[208]

d. The CPP BSER reflects the most common-sense approach to reducing carbon pollution from existing power plants.

The CPP BSER reflects the predominant approach to reducing power plant CO_2 emissions that is actually and regularly employed by companies and states across the country. The CPP also conforms to a long line of power sector regulations that take account of the unique characteristics of power plants and the pollution they emit.[209] Because power plants are interconnected and the amount of electricity needed is fixed by market demand, decreasing emissions from higher-emitting regulated units by reducing their generation increases generation from lower- or zero-emitting facilities.[210] And because carbon pollution spreads evenly throughout the atmosphere, each incremental reduction in emissions provides equal climate benefit, wherever it occurs.[211] EPA's BSER determination takes into account these characteristics of the power sector and carbon pollution, and reflects demonstrated trends and practices.[212]As EPA explained:

> [A]s a matter of common sense, where interconnected sources operate in concert to produce the same product (electricity) using processes that have vastly different air-pollution impacts, with supply and demand in constant balance, it is reasonable to consider that sources may cost-effectively address their emissions through arrangements that incorporate cleaner forms of power generation.[213]

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[207] CPP Final Rule, 80 Fed. Reg. at 64,811-12.
[208] *See* Proposed Repeal, 82 Fed. Reg. at 48,043.
[209] *See EPA v. EME Homer City Generation*, 134 S. Ct. 1584, 1594 (2014) (regulators "must account" for the characteristics of the pollution problem they face).
[210] CPP Final Rule, 80 Fed. Reg. at 64,677-78.
[211] *Id.* at 64,725-26.
[212] *Id.* 64,728-29.
[213] Final Brief of Respondent EPA, *West Virginia v. EPA*, No. 15-1363, ECF 1609995 (Apr. 22, 2016) (submitted separately in Joint Appendix as Attachment A7) [Hereinafter "EPA Brief"]; *see also* Comment by Electricity Grid Experts Benjamin F. Hobbs, Brendan Kirby, Kenneth J. Lutz, James D. McCalley, and Brian Parsons on Docket ID No. EPA-HQ-OAR-2017-OAR-0355, Proposed Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (submitted Apr. 25, 2018), ("It is our position that the Clean Power Plan, respects and harnesses what grid experts recognize as the defining feature of the U.S. electric grids: their operation as a single interconnected system.") [Hereinafter "Grid Experts Comment"].

Thus, the CPP BSER is premised on the way the electricity grid operates, and how the power sector uses the grid to respond to emission limits by shifting generation. Under either mass-based or rate-based trading compliance frameworks, by causing power plants to take regulatory responsibility for the pollution they emit, the CPP raises the operating costs of higher-emitting power plants, incentivizing the use of cleaner sources.[214]

Shifting generation toward lower-emitting electricity production has been the regular effect—and often deliberate objective—of numerous CAA programs.[215] EPA has previously promulgated several rules under authority of various CAA provisions, that used generation-shifting, emissions trading, and other measures as expected methods of compliance when setting emissions limitations.[216]

And indeed, as described in section III.C.ii.b.(iii)-(v), the CPP rulemaking record shows that industry trends predating the CPP are driving cleaner electricity generation, moderating electricity demand, and reducing use of old, uneconomical coal plants.[217] EPA designed the rule after extensive outreach and finalized the performance rates that moderately build upon the pace of emission reductions the power industry is already achieving. The Agency found that "lower-emitting [natural gas combined cycle] generation and renewable generation have increased, and projected future trends are for continued increases."[218] From 2005 to 2014, "coal-fired generation declined at a rate that was greater than the rate of reduced coal-fired generation . . . expect[ed] from this rulemaking from 2015 to 2030."[219] EPA also found that zero-emitting generation is expanding rapidly as costs are declining,[220] and that state- and company-based carbon pollution reduction initiatives are reinforcing these market trends.[221] State programs such as the Regional Greenhouse Gas Initiative and California Cap and Trade Program are designed to achieve carbon pollution reductions using measures similar to the CPP BSER.[222]

By drawing upon the measures that power plant owners have long preferred for achieving emission reductions, the CPP BSER represents the most approach for reducing carbon pollution that best meets the statutory factors—scale of emission reductions, considering costs and impacts on energy, as required by the CAA.

e. The CPP BSER best comports with the statutory factors.

In determining the CPP BSER, EPA carefully analyzed each of the required statutory factors. The record shows that EPA reviewed a wide range of measures and determined that the

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[214] *See* CPP Final Rule, 80 Fed. Reg. at 64,693, 64,734.
[215] *See, e.g., id.* at 64,772, 64,780-81; EPA, *Legal Memorandum Accompanying Clean Power Plan,* at 62-82 (Aug. 2015) (submitted in Joint Appendix as Attachment F18) [Hereinafter "CPP Legal Memorandum"].
[216] CPP Final Rule, 80 Fed. Reg. at 64,770-73; *see also infra* section III.B.ii.d.
[217] *See, e.g.,* CPP Final Rule, 80 Fed. Reg. at 64,694-96.
[218] *Id.* at 64,725.
[219] *Id.* at 64,785.
[220] *Id.* at 64,803-04.
[221] *Id.* at 64,725.
[222] *See, e.g.,* Joint State Comments in Response to EPA's Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources at 15-24 (Dec. 1, 2014), Docket No. EPA-HQ-OAR-2013-0602-23597 (submitted in Joint Appendix as Attachment D3).

three building block measures were "adequately demonstrated," both independently and in combination.[223] EPA then determined the "best" system by assessing the required considerations:[224] cost,[225] non-air quality health and environmental impacts,[226] and energy requirements,[227] as specified in section 111(a)(1); and the amount of pollution reduced,[228] as case law has long deemed the statute to encompass.[229] Based on the BSER, EPA established an "achievable" degree of emission limitation for affected sources.[230] As we demonstrate in section III.C., *infra*, Administrator Pruitt's proposed interpretation ignores these statutory factors and fails to explain why the CPP interpretation is inferior.

ii. The Administrator's Legal Arguments for Deeming the CPP Unlawful Are Deeply Flawed.

The Administrator proposes to interpret the BSER "as being limited to emission reduction measures that can be applied to or at an individual stationary source. That is, such measures must be based on a physical or operational change to a building, structure, facility, or installation at that source, rather than measures that the source's owner or operator can implement on behalf of the source at another location."[231] Although there is ample uncertainty about what this formulation means, the Administrator clearly believes it precludes building blocks 2 and 3 of the CPP BSER. However, as we demonstrate below, each of the Administrator's rationales for interpreting the CAA to preclude building blocks 2 and 3 fails.

a. The Administrator's textual argument for reinterpreting the BSER fails.

The Administrator reads non-existent textual constraints into the CAA to support his proposed interpretation that section 111 precludes the measures in the CPP BSER. Specifically, he argues that because section 111(d) directs state plans to establish standards of performance "*for* any existing source," it is therefore "reasonable to expect that such standards would be predicated on measures that can be applied to or at those same individual sources."[232] If a standard of performance for an individual source were to be predicated in part on the ability of low- and zero-emitting generation to substitute generation at affected sources (the Administrator's argument goes), it would not be entirely "for" that individual source, but would be, at least in part, "for" those off-site entities as well. In further support of its argument, EPA also cites section 111(b)(1)(B)'s parallel directive that the Administrator establish federal standards of performance "for new sources," as well as the CAA's overarching Congressional

[223] CPP Final Rule, 80 Fed. Reg. at 64,745-48; *see also infra* section III.C.
[224] CPP Final Rule, 80 Fed. Reg. at 64,744-51.
[225] *Id.* at 64,801-02, 64,810-11.
[226] *Id.* at 64,746-48.
[227] *Id.* at 64,670-71, 64,693-94, 64,800, 64,874-81.
[228] *Id.* at 64,750-51.
[229] *Id.* at 64,719-20 (citing *Sierra Club v. Costle*, 657 F.2d 298, 326, 347 (D.C. Cir. 1981) and *Lignite Energy Council v. EPA*, 198 F.3d 930, 933 (D.C. Cir. 1999)).
[230] *Id.* at 64,741-42, 64,751-52.
[231] Proposed Repeal, 82 Fed. Reg. at 48,039.
[232] *Id.* (citing 42 U.S.C. § 7411(d)) (emphasis added in Federal Register citation).

finding that "air pollution control *at its source* is primarily the responsibility of States and local governments."[233]

These strained attempts to read section 111 to bar the CPP BSER are unconvincing. Contrary to the Administrator's claim, the statutory language requiring the establishment of standards of performance "for any existence source" says nothing about what systems of emission reduction can be contemplated as the basis for such standards. In fact, the chief regulatory requirement of the CPP emission guidelines—the emission performance rates—are "for" and "applicable to" individual affected sources, just as the statute requires. Further, states must set standards of performance, based on these rates, which are "for" and "applicable to" each individual power plant—no entities other than affected sources will be subject to these performance standards, and no outside entity can assume the compliance obligations of an affected entity.

That the performance rates may be complied with using emission reduction credits generated by facilities other than an affected source does not alter the conclusion that the standards of performance are "for any existing source." In cases where plants use emission credits in order to meet that target, the legal obligations—and the risks of non-compliance—fall entirely on each affected source, and are defined by the scale of emissions at a specific source. The fact that credits may be derived from third parties for compliance purposes does not alter the fact that the standards of performance themselves are for and applied to each existing power plant. Indeed, the Administrator's proposed interpretation would imply that EPA's decades-old NSPS for sulfur dioxide from coal plants is unlawful because it incorporates credits for coal cleaning undertaken by third parties.[234]

In the CPP, EPA recognized that "because the affected EGUs must be able to achieve their emission performance rates through the application of the BSER, the BSER must be controls or measures that the EGUs themselves can implement."[235] EPA found the measures are indeed "for" the affected sources "based in part on observed decades-long behavior of EGUs, show[ing] that all types and sizes of affected EGUs in all locations are able to undertake the actions described as the BSER, including investor-owned utilities, merchant generators, rural cooperatives, municipally-owned utilities, and federal utilities."[236] Individual sources can undertake the BSER measures by reducing their own generation, investing in zero- or low-emitting generation, or purchasing credits representing increased low- or zero-emitting generation.[237] Due to the interconnected nature of the grid, all of these actions will lead to emission reductions at the affected sources. Under a mass-based approach, which EPA declined to impose upon states but did make available as a compliance option, regulated sources need only to reduce their generation to comply, or to obtain allowances representing the total emissions cap for the state's sources from other regulated sources that had reduced their utilization.

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[233] *Id.* (citing 42 U.S.C. §§ 7411(b)(1)(B), 7401(a)(3)) (emphasis added in Federal Register citation).
[234] *See* CPP Final Rule, 80 Fed. Reg. at 64,765.
[235] *Id.* at 64,776.
[236] *Id.* at 64,735.
[237] *See id.* at 64,746 (describing means by which an individual source can access lower-emitting NGCC generation to substitute for higher-emitting generation); *see also id*. at 64,747 (describing means by which an individual source can access zero-emitting RE generation to substitute for higher-emitting generation).

Additionally, EPA's argument confuses the related but distinct concepts of "emission guidelines" and "standards of performance." Under section 111(d), EPA itself does *not* establish performance standards for sources in their emission guidelines; rather, it is the states that establish standards *for* affected sources.[238] In arguing that the word "for" prohibits consideration of off-site measures in the BSER, EPA wrongly conflates state-designated performance standards with the BSER itself. While EPA's determination of the BSER in its emission guidelines determines the quantitative stringency that state-based emission standards must achieve in the aggregate, EPA's consideration of generation shifting in the BSER neither forces a state plan to include any specific measures or practices in its performance standards, nor permits a state to impose federally enforceable emission reduction obligations on any entity apart from an affected source.

Therefore, any state-designated performance standards issued under a plan that is consistent with the CPP—or, for that matter, with *any* section 111(d) emission guidelines—will necessarily be "for . . . existing sources" for the simple reason that they will impose emission limits to which those sources will be subject.[239] As noted above, only individual affected sources are and can be responsible for complying with performance standards. For example, although building block 3 is premised on generation shifting between affected fossil fuel-fired EGUs and new renewable generators, a state plan could not decline to impose federal compliance obligations on an existing coal-fired EGU and instead impose federally enforceable generation requirements on a new solar plant. The plan *could*—under a rate-based compliance framework—require the coal plant to obtain a certain number of emission reduction credits from new solar or wind generation in order to show compliance, but the federally enforceable legal obligations to comply with the standard—and the threat of penalties for non-compliance—are and must always remain with the affected source and not with any other entities.

Accordingly, the CPP emission performance rates, as well as the state-implemented standards of performance, will by definition be "for" affected sources. However, the fact that standards are set "for" sources does not limit the scope of BSER measures to those that can be implemented within the four walls of any single power plant and which must be blind to the consequences of those measures outside of the four walls of the power plant. Indeed, it would be arbitrary and capricious for EPA to select as "best" system of emission reduction that reduced emissions within the walls of a single plant but broadly led to emissions increases—EPA cannot ignore the sector-wide impacts of systems of emission reduction. There is not any language within the definition of "standard of performance" requiring such a limit.[240] The Administrator may consider it "reasonable to expect that"[241] performance standards designed "for" affected sources would be premised on a BSER that consists only of the narrow set of measures contemplated by the Proposal, but that expectation is not rooted in the text or structure of section 111, and the presence of the word "for" in section 111(b)(1)(B) does not alter this fact. Nor is that expectation self-evidently "reasonable" in the context of this source category and pollutant:

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[238] 42 U.S.C. § 7411(d)(1).
[239] *See* 40 C.F.R. § 60.5740(a)(2)(i) (state plan required to "impose[] emission standards on [sources]"); CPP Final Rule, 80 Fed. Reg. at 64,826.
[240] 42 U.S.C. § 7411(a)(1).
[241] Proposed Repeal, 82 Fed. Reg. at 48,039.

as EPA explained in the CPP, the measures contained in the CPP BSER represent "business as usual" for owners and operators of EGUs,[242] and it was entirely reasonable for EPA to design the CPP BSER around the widely-utilized, widely-available, common-sense measures in building blocks 2 and 3.

Finally, EPA explains, the word "application" is used throughout the CAA's standard-setting provisions, including section 111.[243] But contrary to EPA's claim that "application" "signals a physical or operational change to a source,"[244] the word itself implies no limitation based on physical attachment. The CAA sections EPA references discuss *application* of a broad range of measures including processes, methods, systems, techniques, technology, and controls,[245] and contain no language which implies that the measures must be limited to add-on equipment at each affected source. To the extent that the other sections reference controls bolted on to each source, those limitations are noticeably absent from section 111. "[W]here 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."[246]

b. The Clean Power Plan's "system of emission reduction" fully accords with the legislative history of section 111.

The legislative history of section 111 demonstrates that Congress deliberately rejected terms that were more restrictive than "best system of emission reduction," and that it was especially important to Congress for EPA to have flexibility in identifying solutions to reduce emissions from existing sources. EPA's strained parsing of the legislative history to preclude building blocks 2 and 3 of the CPP BSER is inconsistent with Congress's intention to provide EPA with the tools to tailor the "best system of emission reduction" to the unique characteristics of each source category and pollutant.

(i) The legislative history of section 111.

The legislative history of section 111 reveals that the terms "standard of performance" and "best system of emission reduction," as they appear in that provision, rely on broad concepts beyond mere add-on technologies and other steps taken at the source. Section 111 was first

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[242] *See, e.g.*, CPP Final Rule, 80 Fed. Reg. at 64,677 ("Pollution control standards, which focus on each source in a non-utility industrial source category, have reflected the standalone character of individual source investment decision-making and operations. In stark contrast, the utility power sector comprises a unique system of electricity resources, including the EGUs affected under these guidelines, that operate in a complex and interconnected grid where electricity generally flows freely . . . . That grid is physically interconnected and operated on an integrated basis across large regions. . . . The approach we take in the final guidelines—both in the way we defined the BSER and established the resulting emission performance rates, and in the ranges of options we created for states and affected EGUs—is consistent with, and in some ways mirrors, the interconnected, interdependent and highly regulated nature of the utility power sector, the daily operation of affected EGUs within this framework, and the critical role of utilities in providing reliable, affordable electricity at all times and in all places within this complex, regulated system.").
[243] Proposed Repeal, 82 Fed. Reg. at 48,039.
[244] *Id*. at 48,040.
[245] *See* 42 U.S.C. §§ 7412(d)(2), 7479(e), 7521(a)(3)(A)(i), 7521(a)(3)(D).
[246] *Keene Corp. v. United States*, 508 U.S. 200, 208 (1993) (citation omitted).

adopted in the CAA Amendments of 1970,[247] and because the current definition is almost identical to the 1970 definition,[248] the 1970 legislative history informs our understanding of the phrase "standard of performance."

To understand the 1970 legislative history, it is necessary to distinguish between provisions in the precursors to section 111 related to new sources and those related to existing sources.

In the House bill (H.R. 17255), proposed section 112 would have added a new section to the CAA titled Emission Standards for New Stationary Sources.[249] That provision used the phrase "emission standards," which was not defined anywhere in the bill. The House bill only focused on these emission standards for new sources; it did not provide for emission standards for existing sources. The Senate bill (S. 4358), by contrast, called for federal regulation of both existing sources (proposed section 114) and new sources (proposed section 113).[250] For existing sources, the bill provided for "emission standards"—an undefined term. For new sources, the bill provided for "standards of performance"[251]—the phrase later codified in section 111.

The Senate bill included broad language describing what a "standard of performance" would entail. The "standards of performance" called for by proposed section 113 for new sources were to "reflect the greatest degree of emission control which the Secretary determines to be achievable through application of the *latest available control technology, processes, operating methods, or other alternatives*."[252] Plainly, the Senate contemplated that standards of performance would be based on more than add-on technologies alone.

Moreover, the Senate report accompanying the bill revealed that the standards of performance should be viewed expansively: "[P]erformance standards should be met through application of the latest available emission control technology or through *other means of preventing or controlling* air pollution."[253]

The report went on to emphasize how innovative this new concept of a "standard of performance"—the same term that was later incorporated into § 111(d)—was, noting that this was "a term which has not previously appeared in the Clean Air Act" and that it "refers to the degree of emission control which can be achieved through process changes, operation changes, direct emission control, or other methods."[254]

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[247] Clean Air Act Amendments of 1970, Pub. L. No. 91-604, § 4(a), 84 Stat. 1676, 1683.
[248] The only difference between the current definition of "standard of performance" and the 1970 definition is that the current language specifies that EPA must consider "any nonair quality health and environmental impact and energy requirements." 42 U.S.C. § 7411(a)(1). The additional language was added in 1977. *See* Pub. L. No. 95-95 § 109(c), 91 Stat. 685, 700 (1977).
[249] H.R. 17255, 91st Cong., 2d Sess. § 5, 116 Cong. Rec. 19,225 (1970) (proposing a new section 112 for the Clean Air Act).
[250] S. 4358, 91st Cong., 2d Sess. § 6(b) (1970).
[251] *Id.*
[252] *Id.* (emphasis added).
[253] S. Rep. No. 91-1196, at 16 (1970) (emphasis added).
[254] *Id.* at 17.

The Senate's broad, innovative definition of a "standard of performance" was incorporated into the version of section 111 proposed by the Conference Committee and ultimately signed into law and codified. Although the definition of "standard of performance" in section 111(a)(1) of the Conference bill did not define that phrase exactly as the Senate had with reference to "latest available control technology, processes, operating methods, or other alternatives," the Conference bill used an equally broad and equally innovative phrase—"best system of emission reduction."[255]

The Conference bill did not define "best system of emission reduction" and the Conference Committee report did not discuss that phrase, but the Senate deliberations after the Conference Committee confirmed that the final version of the bill reflected the Senate's broad understanding of the basis for the standards. The Senate stated: "The [Conference] agreement authorizes regulations to require new major industry plants . . . [to] achieve a standard of emission performance based on the latest available control technology, processes, operating methods, and other alternatives," reflecting the same capacious language the Senate originally used to describe a "standard of performance."[256] This broad inquiry, well beyond mere add-on technology, would be accomplished by the federal government looking to the "best system of emission reduction" as the basis for the section 111 standards.

The Senate also contributed something else very important to the Conference bill: the idea of regulating existing sources. Section 114 of the Senate bill was the only provision in either chamber that required existing source standards. The Conference bill then took that concept and included it as subsection (d) of section 111.[257] Section 111(d) in the final bill is identical to today's version in all pertinent respects except one: in 1970, existing sources were subject to "emission standards," an undefined term, rather than "standards of performance."[258] In 1977, Congress amended section 111(d) to provide specifically that existing sources, like new sources, would be subject to "standards of performance."[259] Thus, the legislative history of the phrase "standard of performance" from 1970—emphasizing a broad inquiry into processes, operating methods, and other alternatives to reduce and prevent pollution—is entirely relevant to interpreting the present version of the existing source standards under section 111(d), and supports the flexible approach undertaken by EPA in the CPP.

Changes to the definition of "standard of performance" made in the 1977 Amendments to the CAA required section 111 standards for new sources to reflect "the best technological system

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[255] H.R. 17255 (Conf. bill), 91st Cong., 2d Sess. § 4(a) (as reported by Senate-House Conf. Comm., Dec. 17, 1970) (enacted); H.R. Rep. No. 91-1783 (1970).

[256] 116 Cong. Rec. 42,384 (1970) (Senate Agreement to Conference Report on H.R. 17255). That same Senate statement also noted that the "conference agreement, as did the Senate bill, provides for national standards of performance on emission from new stationary sources," again confirming the analogy to the prior Senate version. *Id.* at 42,385.

[257] H.R. 17255 (conf. bill), 91st Cong., 2d Sess. § 4(a) (1970) (enacted); H.R. Rep. No. 91-1783 (1970); Pub. L. No. 91-604, § 4(a), 84 Stat. 1676, 1684. The Senate version of the existing source provision (proposed section 114) and the final version differed in this respect: The Senate would have required EPA to set and enforce the standards for existing sources, with the states having an option to take over enforcement. *See* S. 4358, 91st Cong. § 6(b) (1970). The final bill, rather than simply offering an opportunity to the states, required the states to submit plans, along the lines of section 110, for EPA approval. H.R. 17255 (Conf. bill), 91st Cong., 2d Sess. § 4(a) (1970) (enacted).

[258] 42 U.S.C. § 1857c-6(a)(1) (1970).

[259] *See* Pub. L. No. 95-95, § 109(b), 91 Stat. 685, 699 (1977).

of continuous emission reduction."[260] In contrast, the section 111 standards for existing sources were to reflect the "best system of continuous emission reduction,"[261] which, as clarified by the Conference Report, did not need to be a "technological" system.[262] In 1990, Congress removed from section 111 the requirement that standards for new sources be based on "technological" systems (as well as the requirement that systems for both new and existing sources achieve "continuous" reductions), restoring the use of the broad "system" language for both new and existing source standards.[263] Thus, the 1990 version of section 111 that Congress adopted was strikingly similar to the 1970 version, calling for "standards of performance" for both new and existing sources that would reflect the "best system of emission reduction." It is noteworthy that even during the period when Congress determined that a more specific "technological" definition of "standard of performance" was advisable for new sources, it did not take this approach for existing sources. The current text of the CAA reflects both Congress's more recent decision to allow EPA to select a non-technological system of emission reduction when promulgating standards for new sources under section 111 as well as Congress's longstanding policy of allowing that approach for existing sources.[264]

In furtherance of the CAA's purposes, section 111 gives EPA wide discretion to identify an emission reduction system that relies on solutions such as generation-shifting to maximize environmental performance and enhance cost-effectiveness.

(ii) The Administrator's proposed interpretation of the Senate's 1970 language is implausibly narrow.

The Proposed Repeal acknowledges that the 1970 Senate bill "provided that standards of performance reflect achievable limits 'through application of the latest available control technology, processes, operating methods, or other alternatives,'" but asserts that broad terms like "'[c]ontrol technology,' 'processes,' and 'operating methods' are properly read to denote measures applied at or to, and implementable at the level of, the individual source."[265] EPA's Proposed Repeal further claims that, by the canon of *ejusdem generis*, "'other alternatives' should be read in the same fashion."[266]

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[260] Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 109(c)(1)(A), 91 Stat. 685, 699-700.
[261] *Id.*
[262] The Conference Committee explained that the amendments "make[] clear that standards adopted for existing sources under section 111(d) of the act are to be based on available means of emission control (*not necessarily technological*)." H.R. Rep. No. 95-564, at 129 (1977) (Conf. Rep.) (emphasis added).
[263] Clean Air Act Amendments of 1990, Pub. L. No. 101-549, § 403(a), 104 Stat. 2399, 2631.
[264] Congress's use of the broad term "system" in section 111 of the CAA is also consistent with its use of that term in other sections of the CAA and other federal environmental laws. *See, e.g.*, 42 U.S.C. § 7412(d)(2) (emissions standards for hazardous air pollutants must reflect the maximum degree of reductions achievable "through application of measures, processes, methods, systems or techniques," including pollution reduction through process changes or substitution of materials, operational standards, and other measures); *id.* § 7412(r)(7)(A) (EPA's regulations for preventing the accidental release of hazardous air pollutants may make distinctions between various "devices and systems," signaling that devices and systems are not coextensive); 33 U.S.C. § 1292(2)(B) (Clean Water Act's definition of "treatment works" includes any "method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste").
[265] Proposed Repeal, 82 Fed. Reg. at 48,040 (quoting S. 4358, 6, 1970 CAA Legis. Hist. at 555).
[266] *Id.*

This claim suffers from two serious defects. First, the Agency offers no justification for why its highly restrictive reading of "control technology, processes, [and] operating methods" is "proper[]." Its reading does not accord with the Senate Committee's intent for sources to meet performance standards "through application of the latest available emission control technology *or through other means of preventing or controlling air pollution*."[267] Moreover, by arguing that the references to "control technology," "processes," and "operating methods" imply a source-specific system of emission reduction, the Proposed Repeal contradicts its own acknowledgment—just a few paragraphs later—that "whether a control technique or emission reduction system is or is not 'technological' is a distinct question from whether it applies at and is limited to the level of the individual source."[268] Simply put, there is nothing in the Senate's broad references to "control technology," "processes," or "operating methods" that would rule out the generation-shifting approach in the CPP BSER. Indeed, reducing the operations of emissions-intensive power plants and increasing generation from cleaner sources can be reasonably described as a "process" or "operating method" that reduces emissions.

Second, the Proposal effectively tries to erase "or other alternatives," leaving the phrase with no meaning whatsoever. As a threshold matter, the Administrator's use of a canon of statutory interpretation to interpret non-statutory language here is questionable. To the extent that EPA reads out "or other alternatives" by invoking *ejusdem generis,* its interpretation runs afoul of a different canon of statutory construction—the rule to avoid surplusage—by depriving certain language of effect or consequence.[269] EDF recognizes the limited applicability of canons of statutory construction to legislative history. We rely on the rule to avoid surplusage only to demonstrate that the canon that EPA invoked is not controlling, and to emphasize that "other alternatives" should be taken seriously. This language highlights the breadth of the options that EPA is authorized to consider, and ensures that those options are not strictly limited to the categories that the bill enumerated.

The Proposal's reliance on the word "system" as it is used in Title II of the CAA is also misplaced. EPA asserts that "system" as it appears throughout the CAA must have a "source-specific scope" because section 202 references "vehicles and engines . . . as complete systems," section 203 references "[the] emission control device or system of such vehicle[s]," and section 206 references "emission control system incorporated in a motor vehicle or motor vehicle engine."[270] Ironically, in fashioning this argument, EPA overlooks its own history of applying averaging approaches extensively in setting emission standards for mobile sources and fuels specifically in the context of Title II.

Under Title II, EPA has long interpreted its authority to establish "emission standards" for motor vehicles to allow for *average* standards that apply to broad categories of vehicles and engines.[271] In promulgating its first particulate matter and NO_x emission standards for heavy duty

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[267] S. Rep. No. 91-1196, at 16 (1970) (emphasis added).
[268] Proposed Repeal, 82 Fed. Reg. at 48,040.
[269] *See* Antonin Scalia & Bryan A. Garner, *Reading Law: The Interpretation of Legal Texts* 174 (2012) ("If possible, every word and every provision is to be given effect . . . None should be ignored. None should needlessly be given an interpretation that causes it to duplicate another provision or to have no consequence.").
[270] Proposed Repeal, 82 Fed. Reg. at 48,040 n.12.
[271] *See* Control of Air Pollution from New Motor Vehicles and New Motor Vehicle Engines; Gaseous Emission Regulations for 1987 and Later Model Year Light-Duty Vehicles, and for 1988 and Later Model Year Light-Duty

vehicles in 1985, EPA defended the averaging concept as "fully consistent with the technology-forcing mandate of the Act" and essential to establishing rigorous standards for a diverse group of sources.[272] The D.C. Circuit specifically upheld EPA's use of averaging in those standards—noting the "absence of any clear evidence that Congress meant to prohibit averaging" and the reasonable policy arguments EPA advanced in favor of the approach.[273] Similarly, EPA's regulations phasing out lead in gasoline took the form of an average standard for the "total pool" of gasoline produced by each refiner; EPA's assumption that refiners would participate in a yet-to-be created inter-refinery credit trading system—which was integral to the stringency of the standard—was likewise upheld by the D.C. Circuit.[274] Thus, far from constraining the kinds of systems EPA may select as BSER in the context of section 111(d), Title II reinforces the appropriateness of the CPP's BSER.

(iii) EPA's narrative of the 1977 and 1990 amendments misrepresents Congressional intent and cannot cure its flawed interpretation of the 1970 language.

As explained above, Congress's requirement in 1977 that systems of emission reduction for *new* sources be technological—and the removal of that requirement in 1990—is evidence that Congress deliberately *never* subjected systems of emission reduction for *existing* sources to that requirement. That limitation does not now and never did apply to section 111(d) standards. More importantly, as the Proposed Repeal acknowledges,[275] "technological" measures are *not* limited to those that can be applied within the four walls of a source. For example, Congress specifically

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Trucks and Heavy-Duty Engines; Particulate Emission Regulations for 1988 and Later Model Year Heavy-Duty Diesel Engines, 50 Fed. Reg. 10,606 (Mar. 15, 1985) (describing averaging system and noting that it is similar to the averaging system established for light-duty vehicles and trucks in 1983).

[272] *Id.* ("Private and state sponsored environmental groups, as well as the Manufacturers of Emission Controls Association (MECA), claimed that averaging as proposed was inconsistent with EPA's responsibility under section 202(a)(3)(A)(iii) of the Act to set standards that require use of the best technology that is expected to be available at the time the standards are implemented. . . . The Agency finds the averaging concept, as applied by the standards promulgated, to be fully consistent with the technology-forcing mandate of the Act. Particulate trap technology is heretofore untried on the fleet level. EPA believes that the 0.25 g/BHP-hr standard which, through averaging, effectively requires use of traps on 70 percent of all heavy-duty vehicles will significantly reduce the risk of widespread noncompliance while allowing manufacturers to gain valuable experience with this new technology. To promulgate this standard without allowing averaging. . . would increase the technological risk associated with the standard because traps would have to be used in even the most difficult design applications.").

[273] *See Nat. Res. Def. Council v. Thomas,* 805 F.2d 410, 425 (D.C. Cir. 1986) ("Lacking any clear congressional prohibition of averaging, the EPA's agreement that averaging will allow manufacturers more flexibility in cost allocation while ensuring that a manufacturer's overall fleet still meets the emissions reduction standards makes sense.").

[274] *See Small Refiner Lead Phase-Down Task Force v. EPA,* 705 F.2d 506, 536 (D.C. Cir. 1983). Note that although section 211(g) of the Clean Air Act placed numerical limits on average lead standards for small refiners, that section made no mention of inter-refinery trading for purposes of standard-setting or compliance. *See* Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 223, 91 Stat. 685, 764 (1977). In addition, EPA's pre-1977 regulations for refiners established "total pool" average lead standards despite the absence of explicit authorization for such standards in the Act. *See* Clean Air Act Amendments of 1970, Pub. L. No. 91-604, § 211, 84 Stat. 1676, 1698 (1970). Those early standards were also upheld by the D.C. Circuit, *see Ethyl Corp. v. EPA,* 541 F.2d 1 (D.C. Cir. 1976), and Congress effectively ratified EPA's approach in 1977 by enacting a special provision for small refiners prescribing maximum levels of stringency for average lead limits.

[275] *See* Proposed Repeal, 82 Fed. Reg. at 48,040 ("The question of whether a control technique or emission reduction system is or is not 'technological' is a distinct question from whether it applies at and is limited to the level of the individual source.").

sanctioned precombustion fuel cleaning—which regularly occurs offsite—for use in systems of emission reduction even when the statute required the systems to be "technological," suggesting that the availability of emission-control measures under the current iteration of section 111 is at least that broad.

The Proposal now asserts that "the addition of the word 'technological' . . . was not an indication that CAA section 111 previously authorized beyond-the-source controls."[276] But that misses the point, which is that the text of section 111(a) did not prohibit flexible measures even when systems of emission reduction *were* required to be "technological." When the "technological" requirement is not in place, the allowable measures must be even broader.

EPA next addresses the particular measure that Congress sanctioned under the 1977 Amendments: "precombustion cleaning or treatment of fuels." In the CPP, EPA explained the significance of this measure:

> Congress understood that these fuel cleaning techniques would not necessarily be accomplished at the affected source and, in revising CAA section 111(a)(1), wanted to ensure that such techniques would not be overlooked. For example, the 1977 House Committee report indicates that an assessment of the best technological system of continuous emission reduction for fossil fuel-fired power plants would include off-site or third-party pre-combustion techniques for reducing emissions at the source (''*e.g.,* various coal-cleaning technologies such as solvent refining, oil desulfurization *at the refinery*''). Thus, the standard of performance reflecting the best technological system implementable by an affected source could be based, in part, on technologies used at off-site facilities owned and operated by third-parties.[277]

In the Proposed Repeal, the Administrator proffers three arguments attempting to undermine the significance of fuel cleaning, none of which has merit or even directly rebuts EPA's prior position.

First, the Proposal claims that Congress added a reference to fuel cleaning because it "also redefined 'standard of performance' to require fossil fuel-fired power plants to achieve 'a percentage reduction in the emissions . . . which would have resulted from the use of" uncleaned fuels.[278] In other words, sources could no longer meet the emission standards simply by using low-sulfur coal. Instead, sources had to reduce emissions beyond what would be produced through uncontrolled burning, regardless of the sulfur content of the coal, and Congress mentioned fuel cleaning as a way to achieve those reductions. But this simply provides a reason that Congress mentioned fuel cleaning; it does not support the exclusion of other flexible measures. Indeed, EPA does not—and cannot—provide evidence that Congress considered fuel cleaning to be an exception to any general rule.

[276] Proposed Repeal, 82 Fed. Reg. at 48,040.
[277] CPP Final Rule, 80 Fed. Reg. at 64,765-66 (parenthetically quoting H.R. Rep. No. 95–294 (May 12, 1977), 1977 CAA Legis. Hist. at 2655 (emphasis added by EPA)).
[278] *Id.* n.13.

Second, EPA states that "precombustion cleaning or treatment of fuels is integral to the operation of a regulated source and does not necessarily occur offsite."[279] That fuel cleaning "does not necessarily" occur offsite fails to advance EPA's argument. The important point is not that fuel cleaning *must* occur offsite, but rather that its geographic location is irrelevant for the purposes of section 111. Furthermore, even if fuel cleaning "does not necessarily" occur offsite, the fuel pretreatment program was premised entirely on a system of certified credits, which, by their very nature, award a plant operator for compliance measures that have occurred at some place other than the source itself.[280] As the D.C. Circuit explained in *Sierra Club v. Costle*, this program expected each operator to contract with a coal supplier for a certain quantity of fuel for each compliance period.[281] This supplier would then process the coal at a separate washing facility and deliver the pretreated coal to the plant operator, along with a certificate showing a sulfur analysis of a coal input and output for the washing plant, the quantity of coal delivered, its heat content, and the calculation of pretreatment credit.[282] If the plant operator failed to receive unwashed coal, it could comply with the standard by "(1) not burning the coal, (2) enforcing their supply contracts, or (3) burning the coal realizing that when averaged with other quarterly supplies the credit needed to comply will be obtained."[283] In describing and upholding the program, the court did *not* include as one of the plant operator's compliance options the opportunity to wash the coal itself on-site.

Moreover, EPA does not explain why fuel pretreatment either offsite or onsite is "integral" to the operation of a regulated source—or why it is more "integral" than the measures in the CPP BSER. As explained in section III.A., the CPP BSER consists of measures that owners and operators can implement at the sources themselves. If a source complies with the CPP's emission limits by reducing its utilization (while lower-emitting resources increase generation elsewhere, which requires no action by the higher-emitting source), such reduced utilization is fully "applicable to and performed at the level of, and at or within, the bounds of an individual source" as much as the use of fuel that may have been—and almost certainly was—cleaned by a different party, and at a different location.

Third, the Proposed Repeal states, "[T]o the extent that fuel cleaning does occur offsite, this demonstrates that Congress understood CAA section 111 to be limited to source-specific measures unless specific authorization was otherwise provided."[284] Neither the statutory text nor the legislative history supports EPA's reading. As noted above, Congress nowhere suggested that fuel cleaning was permitted despite, or notwithstanding, a general prohibition of offsite measures. To the contrary, the 1977 Amendments specifically describe fuel cleaning as "includ[ed]" within—not an exception to—the definition of "technological system of continuous emission reduction."[285] The Amendments' legislative history reflects Congress's intent to give the term "best technological system of emission reduction" an expansive scope, and to ensure that EPA did not overlook offsite measures for reducing emissions where such measures are cost-effective and appropriate. In adding express statutory language on fuel pretreatment in 1977,

[279] *Id.*
[280] *Sierra Club v. Costle*, 657 F.2d at 372 (describing mechanics of fuel pretreatment program).
[281] *Id.*
[282] *Id.*
[283] *Id.*
[284] 82 Fed. Reg. 48,040 n.13.
[285] Pub. L. 95-95 § 109(c)(1)(B), 91 Stat. at 700 (1977).

Congress was merely stamping its approval upon an emission-reduction measure that EPA had already considered when setting standards under the 1970 language.[286]

Moreover, the Proposed Repeal describes specific policy reasons that Congress mentioned fuel cleaning in particular.[287] Those policy reasons bear no connection to overcoming a purported general ban on offsite measures. Rather, Congress simply wanted to prohibit sole reliance on a different technique—use of low-sulfur coal—that sources had been using. The Administrator's attempt to read additional limitations into the statute is unmerited, and is particularly inappropriate in the context of a broad statutory provision that is intended to give EPA the remedial tools to address a diverse range of source categories and pollutants. Indeed, EPA has not provided any reasoned grounds for reading such limitations into section 111—particularly when the purported effect (according to the Administrator) would be to render illegal measures that industry has found the best means to control emission cost effectively.

Turning to the CAA Amendments of 1990, the Proposal states that Congress did not at that time "expand the phrase 'system of emission reduction' beyond a physical or operational change to the source."[288] But these Amendments did not need to "expand . . . 'system of emission reduction'" because they returned section 111 to the original, expansive language of 1970—even more expansive than the version under which Congress had sanctioned fuel cleaning in 1977. EPA is therefore left once again to rely on its implausibly narrow interpretation of the 1970 Amendments.

c. The CPP BSER determination is consistent with the Agency's prior rulemakings under section 111.

In the Proposed Repeal, the Administrator claims that the CPP was a departure from EPA's prior regulatory practice, and that the proposed interpretation reflects the Agency's historical interpretation of section 111.[289] Even if the Administrator's observation had merit (and it does not), the mere fact that a regulation departs from prior administrative precedent does not alone demonstrate that it is unlawful. The CPP represents the first time that EPA has established carbon pollution limits for existing power plants, and it appropriately reflects an evidence-based approach that carefully accounts for the unique characteristics of this source category and pollution. But in any event, the Administrator's characterization of prior administrative precedent is wrong. EPA's regulatory precedent does not constrain the Agency to the Administrator's strained interpretation, and supports the inclusion of flexible measures such as those in building blocks 2 and 3 as part of a system of emission reduction.

In issuing the final CPP, EPA fulfilled the requirements of section 111 of the CAA and its Implementing Regulations in a manner consistent with its prior regulatory practice under this

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[286] *See* EPA, Background Information for Proposed New-Source Performance Standards 7 (Aug. 1971) ("In developing performance standards for steam generators . . . [t]he major considerations [included] . . . [t]he desirability of setting sulfur dioxide standards that would allow the use of low-sulfur fuels as well as fuel cleaning, stack-gas cleaning, and equipment modifications.") (submitted in Joint Appendix as Attachment F2). *See also* CPP Final Rule, 80 Fed. Reg. at 64,765-66.

[287] Proposed Repeal, 82 Fed. Reg. at 48,040.

[288] *Id.*

[289] *Id.* at 48,041.

section of the Act.[290] Over the last forty years, the Agency has issued emission guidelines to regulate various air pollutants from five source categories: acid mist from sulfuric acid plants, fluorides from phosphate fertilizer plants and primary aluminum plants, total reduced sulfur from Kraft pulp plants, and landfill gases from municipal solid waste landfills.[291] EPA followed the applicable statutory and regulatory requirements in every rulemaking it has issued under section 111(d), including in the CPP.[292] For decades, EPA's section 111(d) regulations have considered the characteristics of the pollutants and the source categories being regulated.[293] In the CPP, EPA recognized that the global nature of CO_2 and the interconnectedness of power plants provide opportunities for emission reduction measures that may not be relevant to or available for every rule issued under section 111(d).[294]

Insofar as the Administrator sees the CPP BSER as improperly relying on technologies and other actions that may occur off-site or be taken by a third party, past section 111 rulemakings have reflected analogous approaches. For example, the emission guidelines for waste combustors, issued jointly under sections 111(d) and 129, allow affected sources to average their nitrogen oxides emissions, requiring additional reductions from combustors that engage in averaging.[295]

(i) EPA mischaracterized the Agency's interpretation in the Implementing Regulations.

In the proposed repeal, Administrator Pruitt further seeks to justify his proposed interpretation that the BSER must be based on technologies implementable at the source by quoting a passage from the preamble of EPA's final Implementing Regulations to suggest that Congress "'intended the *technology-based approach* of that section to extend (making allowances for the costs of *controlling existing sources*) to action under section 111(d). In this view, it was unnecessary . . . to specify explicit substantive criteria in section 111(d) because the intent to require a technology-based approach could be inferred from placement of the provision in section 111.'"[296] From this, the Administrator concludes that EPA "clearly interpreted the phrase 'system of emission reduction' to be technology-based and source-focused." But as the Administrator himself concedes elsewhere in the Proposed Repeal, the "question of whether a . . . emission reduction system is 'technological' is a distinct question from whether it applies at and is limited to the level of the individual source." As explained below, the Administrator also provides no explanation as to why the changes in generation that are at the heart of the CPP

[290] 40 Fed. Reg. 53,340 (Nov. 17, 1975).
[291] Phosphate Fertilizer Plants; Final Guideline Document Availability, 42 Fed. Reg. 12,022 (Mar. 1, 1977); Standards of Performance for New Stationary Sources; Emission Guideline for Sulfuric Acid Mist, 42 Fed. Reg. 55,796 (Oct. 18, 1977); Kraft Pulp Mills, Notice of Availability of Final Guideline Document, 44 Fed. Reg. 29,828 (May 22, 1979); Primary Aluminum Plants; Availability of Final Guideline Document, 45 Fed. Reg. 26,294 (Apr. 17, 1980); Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, Final Rule, 61 Fed. Reg. 9905 (Mar. 12, 1996).
[292] CPP Final Rule, 80 Fed. Reg. at 64,666, 64,703, 64,758.
[293] 40 Fed. Reg. at 53,340.
[294] CPP Final Rule, 80 Fed. Reg. at 64,703; *see infra* section III.C.ii.b.(iii).
[295] Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources, 60 Fed. Reg. 65,387, 65,402 (Dec. 19, 1995).
[296] Proposed Repeal, 82 Fed. Reg. at 48,041 (citing 40 Fed. Reg. 53,341 (Nov. 17, 1975)) (omission and emphasis as presented in Proposed Repeal).

BSER are not "technology-based" systems of emission reduction within the meaning of the Implementing Regulations.

In addition, the Administrator distorts the context of the Agency's 1975 interpretation in the Implementing Regulations, which focused on the pollutant to be regulated rather than the technology to control it, as well as on the Agency's duty to determine the BSER and the emission limitation that reflects this determination. In context, it is clear that the preamble of the Implementing Regulations neither narrowed the broad concept of the BSER as it is reflected in the text and legislative history of section 111, nor ruled out the approach to the BSER that is reflected in the CPP.

To explain this context further, in the final 1975 Implementing Regulations, EPA addressed two relevant sets of comments from stakeholders. First, some commenters suggested that action under section 111(d) of the Act was not necessary because existing facilities should be regulated only under either section 110 or 112. If a pollutant emitted by existing stationary sources were demonstrated to endanger health and welfare, these commenters suggested that the Agency should respond only by issuing a national ambient air quality standard (NAAQS) under section 109 and regulating existing sources under section 110, or by regulating the pollutant as a hazardous air pollutant under section 112 of the Act.[297] In effect, these commenters urged EPA to read section 111(d) out of the Act. Second, other commenters contended that EPA's authority under section 111(d) was limited to establishing procedural requirements for adoption and submittal of state plans, and that states had discretion to establish standards of performance for existing sources on any basis they deemed appropriate.[298]

EPA provided a detailed analysis of the language, purpose, and legislative history of section 111(d) to address these comments. In response to the first set of comments, the Agency clarified that section 111(d) applies to dangerous pollutants that are neither criteria pollutants nor hazardous air pollutants—that Congress specifically recognized the need for a program to control this third category of harmful pollutants. As a result, regulations under section 111(d) were necessary to establish a framework for their control.[299]

In response to the second set of comments, EPA explained that Congress's adoption of the implementation plan process provided under section 110—including the requirement for EPA to approve or disapprove state plans based on whether they are "satisfactory," and the requirement that EPA issue federal plans where states do not submit "satisfactory" plans—means that the Administrator must apply substantive criteria, not merely procedural ones, in reviewing and approving or disapproving state plans.[300]

The Agency described in some detail the legislative history of section 111(d) to explain the relationship between the regulated pollutant, EPA's authority to set emission guidelines, and

[297] 40 Fed. Reg. at 53,341.
[298] *Id.* at 53,342. Relying on its interpretation of section 111(d) in the Implementing Regulations, EPA addressed this issue at length in the final Clean Power Plan and the Legal Memorandum, in response to similar comments. *See* EDF ANPR Comments, section VII.
[299] 40 Fed. Reg. at 53,341.
[300] *Id.* at 53,342.

the technology-based approach under section 111. As noted above, section 111(d) was enacted as part of the CAA Amendments of 1970. The House bill did not contain such a provision, and the Senate bill contained a section 114 that would have required EPA to establish national emission standards for "selected air pollution agents."[301] Section 114, EPA explained, was designed to reduce emissions of pollutants that are or may be harmful to health but could not be controlled under other sections of the Act as criteria pollutants or as hazardous pollutants. The pollutants to be regulated under section 111 were different from criteria pollutants "in that much less information was available concerning their effects on public health and welfare. For that reason, it would have been difficult—if not impossible—to prescribe legally defensible standards designed to protect public health or welfare for these pollutants until more definitive information became available."[302]

Section 114 was rewritten in conference as part of section 111, which required "maximum feasible control of pollutants from new stationary sources through technology-based standards (as opposed to standards designed to assure protection of health or welfare or both)."[303] EPA believed that, "given the relative lack of information on their health and welfare effects, a technology-based approach (similar to that for new sources) would be more feasible than one involving an attempt to set standards tied specifically to protection of health; and . . . that the technology based-approach . . . was a reasonable means of attacking the problem until more definitive information became known."[304] EPA thus interpreted that Congress must have intended to regulate this third category of pollutants under a technology-focused program because their health and welfare effects were not fully known at the time.

Recognizing that EPA did not have enough information about the health and welfare effects of this third category of pollutants, the Agency concluded that a technology-based approach provided some substantive criteria on which to base the required emission guidelines and review and approve state plans. Such an approach, said EPA, "would not only shift the criteria for decision-making to more solid ground (the availability and costs of control technology) but would also take advantage of the information and expertise available to EPA from its assessment of techniques for the control of the same pollutants from the same types of sources under section 111(b)."[305] EPA's interpretation of the legislative history in its Implementing Regulations thus focused on the pollutants being regulated and the Agency's role under this section of the Act.

Never in the preamble to the Implementing Regulations did EPA state that Congress intended that the technologies forming the basis of EPA's emission guidelines and its review of state plans must be exclusively implementable at the site of the sources themselves. The Administrator's proposed view that the use of the term "technology-based" in the Implementing Regulations limits EPA to a "source-focused" BSER[306] blatantly misconstrues the language. In context, the Implementing Regulations unambiguously use "technology-based" *as a contrast to*

[301] *Id.*
[302] *Id.*
[303] *Id.*
[304] *Id.*
[305] *Id.*
[306] Proposed Repeal, 82 Fed. Reg. at 48,041.

health- or welfare-based standards, such as ambient air quality standards based on the amount of a pollutant acceptable in the atmosphere.[307] A "technology-based" standard, in other words, was a general reference to standards based on the pollution-reduction measures available to sources—and was not intended to specify which measures may be utilized.

Moreover, as noted above, EPA has failed to explain why the CPP is *not* a "technology-based" approach as that concept is used in the Implementing Regulations and described in the legislative history to section 111. The legislative history makes clear that EPA is *not* limited to bolt-on control technologies in establishing standards under section 111, but must instead look broadly at means for preventing or controlling air pollution including changes in "processes," "operating methods," and other alternatives.[308] Insofar as it contemplates reduced operation from high-emitting existing power plants and increased generation from cleaner power plants, the CPP BSER is clearly a change in "processes" or "operating methods" and a "means of preventing or controlling air pollution" from existing power plants.

What is more, in the Implementing Regulations, EPA recognized that the Agency's knowledge of section 111(d) pollutants had yet to evolve. So would the measures needed to control them. Even if Congress "might not have appreciated the possibility that burning fossil fuels could lead to global warming, they did understand that without regulatory flexibility, changing circumstances and scientific developments would soon render the . . . Act obsolete. The broad language of [the CAA] reflects an intentional effort to confer the flexibility necessary to forestall such obsolescence."[309] EPA's attempt to read the 1975 Implementing Regulations to create a static, extra-statutory, and artificially narrow view of what can comprise the BSER for all sectors and all pollutants is inconsistent with that overriding statutory purpose and an unwarranted interpretation of the Implementing Regulations.

(ii) EPA's assertion that the CPP BSER is more stringent than the NSPS BSER is unwarranted and irrelevant.

In the proposed repeal, EPA wrongly asserts that section 111 precludes the CPP BSER because the stringency of the CPP BSER is inconsistent with what EPA now asserts (reversing its own prior position on this issue) to be the lesser stringency of the BSER for the New Source Performance Standards (NSPS).[310] To support this interpretation, the Agency cites to a passage from the Implementing Regulations that addresses comments from stakeholders inquiring about the degree of control to be reflected under a Section 111(d) emission guideline compared to a Section 111(b) performance standard. There, the Agency explained that "the degrees of control represented by EPA's emission guidelines will ordinarily be less stringent than those required by standards of performance for new sources because the cost of controlling existing facilities will ordinarily be greater than those for control of new sources."[311]

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[307] 40 Fed. Reg. at 53,343.
[308] *See supra* section III.B.ii.b.
[309] *Massachusetts v. EPA*, 549 U.S. at 532; *see also In re Permian Basin Area Rate Cases*, 390 U.S. 747, 784 (1968) ("[A]dministrative authorities must be permitted, consistently with the obligations of due process, to adapt their rules and policies to the demands of changing circumstances.").
[310] Proposed Repeal, 82 Fed. Reg. at 48,041 n.16.
[311] 40 Fed. Reg. at 53,341.

In response to similar concerns raised by stakeholders during the CPP comment period, EPA fully explained why the stringency of the CPP cannot be directly compared with the NSPS for power plants. First, states set the standards of performance under section 111(d), and can elect from multiple ways of expressing those standards so long as the degree of emission reduction achieved is consistent with the BSER. By contrast, new source performance standards apply directly to affected sources and are expressed uniformly on a nation-wide basis. Because the emission guideline can ultimately be translated into section 111(d) standards of performance in a multitude of ways, there is no grounds for directly comparing the CPP's emission guidelines to the standards of performance for new sources.

In addition, these two regulations are applicable at different points in time and have different compliance periods. Affected sources under the NSPS are required to comply with a single emission rate immediately upon construction, modification or reconstruction, while affected sources under the CPP are not required to begin compliance until 2022. Pursuant to Section 111(b) of the CAA, the Agency is required to review and, if appropriate, revise the NSPS by 2023.[312] In contrast, under the CPP affected sources will be subject to interim compliance targets, and final targets will not be due until 2030. Thus, the stringency of the regulations are simply not directly comparable.[313] Another reason why these two regulations are not comparable is that the CPP provides for flexible compliance options that are not available under the NSPS. The CPP authorizes compliance through emission credits or trading, while the NSPS does not permit those compliance options.[314]

In any event, the relative stringency of the BSER for new and existing sources is simply irrelevant in considering the appropriateness of the CPP BSER. EPA's use of the word "ordinarily" in the Implementing Regulations implies recognition on the part of the Agency that there may be instances where existing source emission guidelines are more stringent than new source performance standards for a given air pollutant emitted from stationary sources.[315] For example, in the final emission guidelines for primary aluminum plants, issued just a few years after the Implementing Regulations, EPA explained that "an occasional old plant may have a lower guideline fluoride emission rate than a new plant subject to NSPS; but such a rate will not be unreasonable to attain."[316]

Fundamentally, EPA is required to separately determine the BSER for sources regulated under sections 111(b) and 111(d), not set one BSER by comparison with the other. In the CPP, EPA reasonably explained why it arrived at different BSER determinations for existing power plants and for new, modified, and reconstructed power plants.[317] EPA determined the BSER for new, modified, and reconstructed power plants based on an independent evaluation of the statutory factors as applied to those sources, including (among other things) the uncertain availability of building block measures and access to emission trading markets for sources that

[312] 42 U.S.C. § 7411(b)(1)(B).
[313] CPP Final Rule, 80 Fed. Reg. at 64,786.
[314] *Id.*
[315] EPA noted this during briefing of the legal challenges to the CPP before the D.C. Circuit. *See* EPA Brief at 72.
[316] 45 Fed. Reg. 26,294, 26,295 (Apr. 17, 1980).
[317] *See* CPP Legal Memorandum at 2-5.

have yet to be constructed and whose operating characteristics are unknown. EPA also took into account legislative history supporting the appropriateness of ensuring that new, modified, and reconstructed sources are inherently low-emitting at the time of construction. This individualized approach to BSER determinations is both reasonable and consistent with EPA's approach to standard-setting generally under section 111.[318]

(iii) Emission Guidelines and Best Available Retrofit Technology.

The Administrator argues that the CAA's Regional Haze Program under section 169A implicitly limits the scope of BSER under section 111 to "technology-based" and "source-focused" systems.[319] In so arguing, EPA confuses CAA section 169A with its implementing regulations and does nothing to advance its position that the BSER must exclude the CPP BSER.

The CAA provides that, in order to limit haze pollution affecting visibility in national parks, certain sources of emissions "shall procure, install, and operate…the best available retrofit technology [BART]…for controlling emissions."[320] This language requiring sources to "procure, install, and operate" a "retrofit technology" strongly suggests that Congress intended a technology-based, source-specific emission limitation to mitigate haze pollution. This language is noticeably absent from section 111, which, by contrast, distinctly requires EPA to establish standards of performance that reflect the "best system of emission reduction."[321]

When EPA promulgated regulations to implement BART, it defined this standard as an emission limitation based on the "best system of continuous emission reduction."[322] Based on the similarity between this language and "best system of emission reduction," the Administrator now theorizes that the geographic or spatial constraints of BART must also apply to section 111's BSER. However, the next sentence of EPA's definition of BART directly incorporates the statutory limitations of that term and requires that the regional haze standard "tak[e] into consideration the technology available…pollution control equipment in use or in existence at the source….and the degree of improvement in visibility…anticipated to result from the use of such technology."[323] No such additional constraining language appears either in the statutory definition of BSER or any of the regulations implementing it. Thus, the Administrator is incorrect in asserting that the Agency historically "equate[d] the phrase 'best system of emission reduction' with the CAA's 'best available retrofit technology,'"[324] since even the regulatory definition of BART includes limitations stemming from section 169A that do not apply under section 111. Further, if it were clear, as EPA suggests, that the BSER is intrinsically source-

[318] *Cf. Sierra Club v. EPA*, 353 F.3d 976, 986-87 (D.C. Cir. 2004) ("This court has adopted an 'every tub on its own bottom' approach to EPA's setting of standards pursuant to the CAA, under which the adequacy of the underlying justification offered by the agency is the pertinent factor—not what the agency did on a different record concerning a different industry.") (citing *Portland Cement Ass'n v. EPA*, 486 F.2d 375, 389 (D.C. Cir. 1973); *National Lime Ass'n v. EPA*, 627 F.2d 416, 447 n.108 (D.C. Cir. 1980)).
[319] Proposed Repeal, 82 Fed. Reg. at 48,041 n.17.
[320] 42 U.S.C. § 7491(b)(2)(A).
[321] *Id.* § 7411(a)(1).
[322] 40 C.F.R. § 51.301.
[323] *Id*.
[324] Proposed Repeal, 82 Fed. Reg. at 48,041 n.17.

specific and limited to technological solutions, the word "technology" would be redundant in the second sentence defining BART.

Despite the statutory description of BART as a technology-based and source-specific emission limitation, when EPA proposed the Regional Haze Rule, pursuant to section 169A, it allowed states to develop "an emissions trading program or other alternative measure rather than require sources subject to BART to install, operate and maintain BART" where such an expectation to the source-specific control requirements met programmatic objectives in achieving gains in visibility proven to do better than BART.[325] Federal appellate courts have upheld this approach, finding that alternative measures would promote the purposes of the statute by "produc[ing] greater visibility improvement at a lower cost."[326]

Thus, BART supports a broad reading of section 111, in that section 111 includes no source-specific or technological limitations and therefore must be *more* flexible than section 169A. Furthermore, courts have looked favorably upon EPA designing pragmatic and flexible approaches to produce additional emission reductions at lower costs, just as it did in the CPP.[327]

Even if the Administrator's assertions regarding BART were correct (which they are not), the Proposed Repeal provides no basis to conclude that the CPP BSER is *not* a "technology-based" or "source-focused" system. As we discuss above in the context of the Administrator's flawed reading of the Implementing Regulations, the CPP BSER reduces emissions through *operational changes* to each and every affected EGU, and is expressed in terms of performance rates that can be applied to and achieved by every individual affected source. Asserting that such a system is not "technology-based" or "source-focused" does not make it so, and indeed the Administrator's failure to explain exactly *why* the CPP BSER offends his view of the CAA only points to the fundamental arbitrariness of his legal theory for repealing the CPP.

d. Other provisions of the Clean Air Act support EPA's original interpretation of BSER in issuing the Clean Power Plan.

In the Proposed Repeal, the Administrator wrongly asserts that section 111's placement in the broader statutory context of the CAA *forecloses* the inclusion of more flexible measures in any BSER under section 111(d). As we discuss in this section, the Administrator's claims that the current BSER creates irreconcilable conflicts with the PSD provisions of the statute are misplaced. Moreover, the Administrator does not adequately consider other CAA programs—including the Acid Rain Program, Cross-State Air Pollution Rule, and the NOx SIP Call—that utilize systems of emission reduction analogous to those in the current BSER, and that support

[325] 40 C.F.R. § 51.308(e)(2).
[326] 64 Fed. Reg. 35,715, 35,739 (July 1, 1999) (citing *Cent. Ariz. Water Conservation v. EPA*, 990 F.2d 1531 (9th Cir. 1993); *see also EPA v. EME Homer City Generation*, 134 S. Ct. at 1607 ("The Agency has chosen, sensibly in our view to reduce the amount easier, *i.e.* less costly, to eradicate and nothing in the text of the [statute] precludes that choice").
[327] CPP Final Rule, 80 Fed. Reg. at 64,784 ("[H]ad some type of add-on control such as CCS been identified as the BSER for coal-fired EGUs, sources that complied by installing that control would incur higher costs. As a result, generation from coal-fired EGUs would be expected to decrease and be replaced at least in part by generation from existing NGCC units and new renewables because those forms of generation would see their competitive positions improved.").

the reasonableness of the interpretation of the BSER reflected in the CPP. Contrary to the Administrator's claims in the Proposed Repeal, these other provisions of the CAA *support* the use of flexible measures in the specific context of carbon pollution from the power sector, and reinforce the lawfulness of the CPP BSER.

(i) There is no conflict between the Clean Power Plan and the PSD program.

The Administrator's primary claim regarding statutory context focuses on the Act's PSD program.[328] Under section 165, every new or modified major emitting facility must obtain a preconstruction permit that requires the use of the best available control technology ("BACT") to limit each regulated pollutant emitted by that source.[329] Section 169 further specifies that the emissions permitted at a particular source under BACT may be no greater than those allowed by an applicable section 111 performance standard.[330] The Administrator then argues that, because the Agency has always interpreted BACT to permit source-specific measures only, BSER must also be limited to source-specific measures. According to the Administrator, considering more flexible measures in BSER but not BACT might result in section 111 standards that are more stringent than the corresponding BACT limitations, in contravention of the statute's requirement that PSD limitations be no less stringent than applicable section 111 standards.

This argument in the Proposed Repeal is misplaced, for several reasons. First, section 169 states that BACT standards shall not "result in emissions of any pollutants which will exceed the emissions allowed by any *applicable* standard established pursuant to section 7411 . . . ."[331] As EPA concedes in the Proposal, only new source performance standards issued under section 111(b) "apply" to the same sources that are subject to BACT: new and modified facilities.[332] Section 111(d) emission guidelines, such as the CPP, pertain only to existing sources, so they are generally not "applicable" within the meaning of section 169(3).[333]

Accordingly, it is not the CPP that establishes a floor for power plant carbon emissions under BACT, but EPA's section 111(b) Carbon Pollution Standards for New, Modified and Reconstructed Power Plants.[334] The BSER for these standards is based solely on source-specific measures, and these standards can (and have) been fully reflected in the BACT requirements for

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[328] *See* 42 U.S.C. §§ 7470–7492.
[329] *Id.* § 7475(a)(4).
[330] *Id.* § 7479(3); *see also* 40 C.F.R. § 52.21(b)(12), 51.165(a)(1)(xiii).
[331] 42 U.S.C. § 7479(3) (emphasis added).
[332] Proposed Repeal, 82 Fed. Reg. at 48,041 n.18.
[333] *See United States v. Minnkota Power Co-op., Inc.*, 831 F. Supp. 2d 1109, 1127 (D.N.D. 2011) (in the context of section 169(3), section 111 standards that set a floor for BACT "only apply to newly constructed or modified sources"). Notably, EPA carefully evaluated the interactions between the Clean Power Plan and PSD permitting requirements in the final rule. The agency determined that states and power companies have multiple options for complying with the Clean Power Plan without prompting PSD review, and that as a result "a limited number of affected sources would trigger [New Source Review] when states implement their plans." CPP Final Rule, 80 Fed. Reg. at 64,920. Nothing in the Proposed Repeal indicates that any significant number of affected sources will become subject to BACT limits for carbon pollution—or demonstrates that those BACT limits would somehow be in conflict with applicable section 111 standards.
[334] 40 C.F.R. Subpt. TTTT; *see also* GHG NSPS Final Rule, 80 Fed. Reg. at 64,631 (discussing relationship between new source Carbon Pollution Standards and subsequent BACT determinations for new coal- and gas-fired power plants).

PSD permits granted to new power plants.[335] And contrary to the suggestion in the Proposed Repeal that the BSER for new and existing sources *must* have identical scope,[336] EPA's decision to treat the BSER differently with regard to its Carbon Pollution Standards for New and Modified Sources (on the one hand) and the CPP (on the other hand) is fully justified on both legal and policy grounds. Nothing in section 111 indicates that EPA must make the *same* determination for what constitutes the BSER for the section 111(b) and 111(d) programs for a given source category. On the contrary, the Supreme Court has held that the appearance of the same term in different sections of the CAA (and of statutes in general) does not compel identical constructions of that term.[337]

EPA also reasonably explained in the CPP why the BSER for carbon pollution from new and modified power plants does not rely on the same measures as the CPP BSER. Unlike section 111(b), section 111(d) directs EPA to create a state plan submission program "similar to that provided by section [110] of this title."[338] Section 110, in turn, expressly permits state plans to achieve emission limitations through the use of such flexible measures as "fees, marketable permits, and auctions of emissions rights."[339] Hence, setting aside the question of whether section 111(b) standards may or may not be premised on flexible measures, the statutory evidence strongly suggests that section 111(d) emission standards *may*, indeed, incorporate such measures into their BSER determinations when warranted by the characteristics of the source category and/or the particular pollutant at issue. And EPA's regulatory history bears this out: EPA's existing source emission guidelines for large municipal waste combustors, issued in 1995 under the authority of sections 111(d) and 129, authorize sources to use two different flexible mechanisms for compliance: averaging emission rates of several units within a facility, and trading emission credits for nitrogen oxides.[340]

In addition to this legal rationale, policy considerations strongly support EPA's decision to premise its emission source guidelines for existing power plants partially on the building block approach, while considering a more limited set of add-on measures in its BSER for its new source standards for power plants. In the preambles for the CPP and new source Carbon Pollution Standards, the Agency adequately explained why the building block approach was well-suited for the former program while different measures were best adapted to the latter program. For instance, whereas measures such as carbon capture and sequestration and natural gas co-firing at coal plants could reduce carbon emissions from existing sources, similar emission reductions could be achieved at a much lower cost through application of the building blocks.[341] By contrast, because new power plants would have longer lives than existing units, they could amortize the costs of carbon capture and sequestration technology over a much longer

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[335] *See e.g.*, ESC Brooke County Power I, LLC, Revised Air Permit Application Combined-Cycle Power Plant Project Colliers, Brooke County, West Virginia, at 78 (May 2017) (describing compliance with NSPS subpart TTTT) (submitted in Joint Appendix as Attachment J64).
[336] Proposed Repeal, 82 Fed. Reg. at 48,041 n.18.
[337] *Envtl. Def. v. Duke Energy Corp.*, 549 U.S. 561, 576 (2007) (permitting EPA to interpret "modification" differently in the section 111 and PSD programs and cautioning that "[statutory] context counts").
[338] 42 U.S.C. § 7411(d).
[339] *Id.* § 7410(a)(2)(A).
[340] Standards of Performance for Municipal Waste Combustors, 60 Fed. Reg. 65,382, 65,386 (Dec. 19, 1995); 40 C.F.R. § 60.3b(d)(1)–(2).
[341] CPP Final Rule, 80 Fed. Reg. at 64,662, 64,727–36.

period (resulting in lower annualized costs).[342] On the other hand, brand new units would have a much more limited opportunity to improve their heat rates and would have a significantly smaller (and at the time of the standard setting, unknown) universe of sources with which to trade emission credits, significantly curtailing the opportunity to utilize the building blocks specified in the CPP BSER.[343]

As explained above in section III.B.i., the Agency provided reasonable legal and policy rationales for making different BSER determinations for new and existing power plants in its respective section 111 rules for these sources. Nothing the Administrator has argued in the Proposed Repeal repudiates or even undermines its earlier logic. By now raising the specter that its previous interpretation of BSER in the context of section 111(d) may hamstring future BACT determinations, EPA conjured a statutory conflict that simply does not exist. The fact that the Agency *might*, at some point in the future, find it appropriate to include more flexible measures in its BSER for a new source performance standard under section 111(b), leading to potential tension with the corresponding BACT requirements, is pure speculation and does not remotely provide an adequate basis for altering the Agency's earlier determination of BSER for the CPP.

Perhaps even more fatal to EPA's argument is its faulty assumption that the particular measures considered in the BSER for the CPP could never correspond to a workable BACT standard for new sources.[344] This premise is simply incorrect. Even if EPA *had* predicated its new source carbon pollution standards on precisely the same BSER as the CPP, new power plants subject to BACT could *still* meet those standards. Building blocks 2 and 3 of the CPP entail shifting generation from higher-emitting units to lower- and zero-emitting units. As we explain above, although the Administrator characterizes these practices as taking place outside the sources themselves, the emission reductions from the building blocks take place entirely within the four walls of each affected power plant: high-emitting units simply operate less frequently, reducing the aggregate pollution that they emit. As a result, a greater share of overall electricity demand must be met by generation from cleaner resources. This stands in contrast to (for example) the creation of carbon sinks, in which the actual emission reductions themselves occur off-site.[345] We explain this concept in greater detail in section III.A.

Not only is reduced utilization a permissible element of BACT under the PSD program, permitting authorities have included such measures in sources' PSD permits for years. In 2010, the Wisconsin Department of Natural Resources issued a PSD permit to the Rockgen Energy Center that required each of the turbine processes to operate no more than 3,800 hours in any 12 consecutive months, while also limiting the number of hours that these turbines fired with distillate fuel.[346] More recently, in 2014, EPA Region 6 issued a PSD permit for the Antelope

[342] *Id.* at 64,510, 64,626–28.
[343] *Id.*; *see also* CPP Legal Memorandum at 2-3.
[344] Proposed Repeal, 82 Fed. Reg. at 48,042 ("Accordingly, the EPA proposes to determine that the statutory scheme is appropriately read to harmonize these provisions.").
[345] *See* CPP Final Rule, 80 Fed. Reg. at 64,776.
[346] CPP Legal Memorandum at 69 n. 163 ("Each of the three combustion turbine processes (P01, P02, and P03) may not be operated more than 3800 hours in any 12 consecutive months of which not more than 800 hours in any consecutive 12-month period shall be on distillate fuel oil with less than 0.05% sulfur by weight. This condition is necessary to meet the BACT emission limits for sulfur dioxide, carbon monoxide, nitrogen oxides, particulate

Elk Energy Center that limited the turbine to 4,572 operational hours on a 12-month rolling basis in order to achieve a BACT standard of 1,304 lbs of CO_2/MWh.[347] The Legal Memorandum provides many additional examples of PSD permits that have involved limits based on reduced utilization.[348] The Proposed Repeal fails to acknowledge reduced utilization as a legal and historically supported element of BACT, and its argument for reinterpreting section 111 based on BACT considerations simply falls apart in light of these examples.

Lastly, EPA provides no explanation as to why a BACT limitation based on add-on measures would *necessarily* "result in emissions of any pollutants which will exceed the emissions *allowed* by any applicable standard established pursuant to section 7411. . . ." as the CAA provides.[349] Indeed, because PSD limitations and standards adopted under the CPP can both take a variety of forms, it is impossible to say *ex ante* that a CPP standard would "allow" fewer emissions than a particular PSD permit. As EPA is aware, the CPP provides states with significant flexibility to determine the form and stringency of standards of performance for carbon pollution from existing power plants: states may adopt either rate-based or mass-based standards; apply different standards to different affected sources, provided that the state's overall fleet meets the applicable rate or mass-based limit; and adopt market-based emissions trading programs that enable any individual power plant to emit at essentially any level, so long as that plant obtains the requisite compliance instruments. Similarly, EPA's greenhouse gas permitting guidance for the PSD program makes clear that permitting authorities (whether EPA or the state fulfills that role) *also* enjoy flexibility to determine how to craft an enforceable limitation that reflects BACT. Permitting authorities can express emission limitations in terms of input, output, or even in terms of aggregate emissions per year.[350]

In light of these flexibilities, the Administrator has provided no reason to think that there is an inherent and unavoidable reason why a BACT limitation based on "source-specific" measures would "result in emissions … which will exceed the emissions *allowed*" by a section 111(d) standard. In fact, a rate- or mass-based standard with trading under the CPP "allows" practically any level of emissions from a particular affected source—so long as the unit obtains requisite allowances or emission rate credits, which ensures that the overall emission reductions from the fleet are achieved. This underscores the arbitrariness of EPA's argument that a supposed conflict between the PSD program and the current BSER requires the repeal of the CPP.

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matter, volatile organic compounds and sulfuric acid (mist).") (citing Title V Renewal Permit for Rockgen Energy Center, LLC, Permit No. 113308030-P10 (Wis. Dept. Nat. Res., 2/4/2010), Condition I.C.1(1) at p. 29 of 55).

[347] EPA Region 6, PSD Permit for Antelope Elk Energy Center, Permit No. PSD-TX-1358-GHG, Condition III.A.2.d at 7 (June 2, 2014) (submitted with these comments as Attachment B).

[348] *See* CPP Legal Memorandum at 62-81.

[349] 42 U.S.C. § 7469 (emphasis added).

[350] *See* EPA, PSD and Title V Permitting Guidance for Greenhouse Gases 45 (2010) ("The permitting authority is also responsible for defining the form of the BACT limits, and making them enforceable as a practical matter…For example, a final permit may include a limit based on pounds of emissions on a 24-hour rolling average or a limit representing a percentage of pollutant per weight allowed in the fuel.") (submitted in Joint Appendix as Attachment F34).

(ii) Other sections of the Clean Air Act provide persuasive evidence that flexible measures are permissible elements of BSER under section 111(d) emission guidelines.

Just as the Administrator wrongly cites the PSD program as a basis for rejecting the CPP's building block approach, he improperly disregards other CAA programs that *support* the use of such flexible measures as a lawful and reasonable system of emission reduction under section 111. The Proposed Repeal wrongly asserts that the CPP cited to Title IV and interstate transport rulemakings as "evidence of the viability of cap-and-trade programs for the power sector."[351] To the contrary, the Agency's past use of more flexible emission reduction measures, including emissions trading systems that are premised on generation-shifting, is relevant not only to the question of achievability, but also to the kinds of systems that Congress and prior EPA Administrators thought constituted a reasonable "system" of emission reduction for the power sector.[352] That EPA has for decades, during both Democratic and Republican administrations, interpreted the CAA to include more flexible measures shows that "its interpretation is reasonable."[353] Accordingly, as EPA recognizes in the CPP, prior agency decisions provide valuable authority indicating that EPA's earlier interpretation of BSER was proper, and that its Proposal to reinterpret that statutory term in the Proposed Repeal is incorrect and misguided.

Air Transport Rules

The various Air Transport Rules that EPA has issued to implement section 110(a)(2)(D) of the CAA provide persuasive evidence that more flexible measures such as those incorporated into the CPP BSER are appropriate in the context of section 111(d). Under section 110(a)(2)(D) of the statute, the Agency has adopted a series of rulemakings that limit interstate transport of electric sector emissions of NO_x and SO_2 by establishing state-wide emission budgets based on state or regional application of pollution control measures. In the case of the 1998 NO_x SIP Call, for instance, these budgets were based on Integrated Planning Model ("IPM") modeling of a multi-state emissions trading system designed to achieve an average emission rate expressed in pounds-per-unit of heat input, taking into account changes in dispatch and other measures available to reduce aggregate NO_x emissions from the power sector.[354] The use of dispatch changes and emissions averaging to establish emission limitations in the NO_x SIP Call bears distinct similarities to the CPP BSER.

Similarly germane is EPA's 2011 Cross-State Air Pollution Rule, which the Supreme Court upheld against an industry challenge as a "permissible, workable, and equitable interpretation" of section 110.[355] The Cross-State Rule established state-wide budgets for NO_x and SO_2 that were based on power sector modeling of emission reductions achievable through "increased dispatch of lower-emitting generation" and fuel-switching, among other compliance options. Like the NO_x SIP Call, the Cross-State Rule used changes in generation levels across the

[351] Proposed Repeal, 82 Fed. Reg. at 48,042.
[352] *See Van Hollen, Jr. v. FEC*, 811 F.3d 486, 493 (D.C. Cir. 2016).
[353] *Entergy Corp v. Riverkeeper, Inc.*, 556 U.S. 208, 224 (2004).
[354] *See* 63 Fed. Reg. 57,356, 57,400-401 (Oct. 27, 1998) [Hereinafter "NO_x SIP Call"] (explaining approach to developing cost curves and state emission budgets).
[355] *EPA v. EME Homer City Generation*, 134 S. Ct. 1584, 1610 (2014).

fleet of regulated sources to determine achievable, aggregate emission reductions from the power sector.[356]

Like Title IV, the Transport Rules offer strong evidence that EPA's incorporation of more flexible measures into the CPP's BSER determination was legally permissible. These rules, which were promulgated in the years and decades after Title IV's enactment, reiterate and reinforce the fundamental principle of that program: that power plants are particularly well-suited to rely on more flexible measures to reduce their emissions, and that sector's capacity for generation-shifting affords emission reduction opportunities at low cost. That EPA should be subsequently *proscribed* from relying on such measures to reduce power plant carbon pollution under section 111(d) defies both common sense and the logic and structure of the statute, as reflected in the Transport Rules.

Furthermore, as noted above, to provide guidance on how EPA should structure its emission guidelines that states then use to issue their own implementation plans, section 111(d) explicitly cross-references section 110, which expressly permits the use of "fees, marketable permits, and auctions of emissions rights."[357] The Transport Rule not only incorporates these elements, but applies them to fossil fuel-fired power plants to achieve NO_x and SO_2 reductions. The CPP merely adopts the same common-sense system of emission reduction that is reflected in the Transport Rules to address carbon pollution. EPA's proposed interpretation of section 111(a)(1), by contrast, would unreasonably preclude the Agency from adopting the same techniques for reducing carbon pollution that have proven to be successful and cost-effective—and have been upheld by the courts—under section 110(a)(2)(D).

Title IV

Title IV also provides persuasive evidence that Congress understood the power sector's unique ability to reduce emissions through generation shifting approaches similar to the CPP BSER. That program, which was added to the statute as part of the 1990 Amendments, creates (among other things) an emission trading program for sulfur dioxide emissions from fossil fuel-fired power plants.[358] Under certain conditions during its initial phase, Title IV allowed units covered under the program to purchase allowances from other units and thus reassign their emission reduction obligations to those units, ensuring that the quantity of emission reductions for the sector as a whole remained constant.[359] It also established a reserve pool that set aside up to 300,000 emission allowances to energy conservation measures of renewable resources in order

[356] *See also* CPP Legal Memorandum at 95-102 (explaining that measures equivalent to building blocks 2 and 3 were an integral part of EPA's evaluation of the NO_x SIP Call, the Clean Air Interstate Rule, and the Cross-State Air Pollution Rule); CPP Final Rule, 80 Fed. Reg. at 64,772, 64,778 (same).
[357] 42 U.S.C. § 7410(a)(2)(A). Although the statutory text of section 110 may be read to suggest that "fees, marketable permits, and auctions of emission rights" are "control measures" as opposed to "enforceable emissions limitations," this distinction is not meaningful for purposes of interpreting the BSER in section 111(a). There is no reason to believe that Congress would not have considered "control measures" acceptable under section 110 to be reasonable components of a "system of emission reduction" under section 111, particularly for existing sources subject to state plans modeled on section 110 state implementation plans.
[358] 42 U.S.C. § 7561 *et seq.*; *see also* CPP Final Rule, 80 Fed. Reg. at 64,696 (describing history of program).
[359] 42 U.S.C. § 7651c(b), (d).

to encourage cleaner generation and thus reduce pollution.[360] The program expanded in 2000 to encompass a much larger universe of sources into its trading program,[361] and annual auctions are held to provide new units with a certain portion of tradable credits.[362]

Title IV thus takes advantage of the unique, interconnected nature of the electric grid and its resultant capacity for achieving significant emission reductions at a low cost through the use of trading and generation-shifting. Indeed, Congress specifically provided that one purpose of Title IV is to "encourage energy conservation, use of renewable and clean alternative technologies, and pollution prevention as a long-range strategy…for reducing air pollution and other adverse impacts of energy production and use."[363] These particular provisions of Title IV, along with the accompanying statements in the legislative history, make clear that Congress considered measures in building blocks 2 and 3 of the CPP as appropriate and cost-effective methods for reducing emissions from fossil fuel-fired power plants. Congress was also clear that these tools could be used "in combination"[364] and, in many cases, these measures would also reduce emissions of CO_2.[365]

In the Proposed Repeal, the Administrator asserts that Title IV has no relevance to section 111 because Congress explicitly incorporated emissions trading into the former, and did not do so in the latter.[366] This assertion misses the point. Section 111 is designed to apply to many different sources and pollutants, and directs EPA broadly to identify the "best system of emission reduction" for particular circumstances. When Congress, in 1990, looked specifically at reducing pollution from power plants it recognized that they are uniquely situated for achieving emission reductions through more flexible measures by virtue of the fact that they provide a fungible project—electricity—to a centralized network—the electric grid. In enacting Title IV, Congress created a program through which plants would meet emission reduction obligations via measures such as emission trading and "least-emission dispatching" that take particular advantage of the unique features of the electric sector.[367] These provisions highlight Congress's preferences for cleaner and cost-effective measures to "reduce emissions of acid rain precursors and global warming gases."[368] Moreover, there is strong legislative history indicating that "conservation and renewables" were intended to become "a central part of the nation's clean air policies immediately."[369]

Title IV thus provides strong evidence that EPA was fully within its authority by including building blocks 2 and 3 into its emission guidelines for existing power plants.[370]The

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[360] *Id.* § 7651c(f), (g).
[361] *Id.* § 7651d
[362] *Id.* § 7651o.
[363] *Id.* § 7651(b).
[364] *Id*.
[365] *See* CPP Final Rule, 80 Fed. Reg. at 64,696, 64,699, 64,725, 64,731, 64,734 (discussing the operation and logic of Title IV as informing the development of the CPP).
[366] *See* Proposed Repeal, 82 Fed. Reg. at 48,042.
[367] *See* CPP Final Rule, 80 Fed. Reg. at 64,771 (citing S. Rep. No. 101-228, 316 (1989)).
[368] Sen. Fowler, Sen. Debate on S. 1630 (Apr. 3, 1990), 1990 CAA Legis. Hist. at 7106.
[369] Additional Views of Rep. Markey and Rep. Moorhead, H.R. Rep. No. 101-490, at 674 (May 17, 1990).
[370] *See Van Hollen, Jr. v. FEC*, 811 F.3d 486, 493 (D.C. Cir. 2016) ("That Congress codified the very approach [the agency] now adopts in a similar context is highly persuasive in demonstrating that the [agency's] construction of [the provision] does not reflect an unreasonable interpretation of the statute.") (internal quotations omitted).

Administrator's assertions to the contrary are not persuasive, and do not properly support his Proposal to repeal the CPP.

Motor Vehicle Standards

EPA's motor vehicle standards are another example of technology-based pollution limitations issued under the CAA that incorporate flexible measures for emission reduction. Under Title II, EPA has long interpreted its authority to establish "emission standards" for motor vehicles to permit average standards that apply to broad categories of vehicles and engines, rather than to each and every individual vehicle,[371] effectively permitting shifting of the emission reduction obligation across different vehicle models. In promulgating its first particulate matter ("PM") and NO_x emission standards for heavy duty vehicles in 1985, EPA defended the averaging concept as "fully consistent with the technology forcing mandate of the Act" and essential to establishing rigorous standards for a diverse group of sources.[372] The D.C. Circuit specifically upheld EPA's use of averaging in those standards against industry challenges, noting the "absence of any clear evidence that Congress meant to prohibit averaging" and the reasonable policy arguments EPA advanced in favor of the approach.[373]

EPA's rationale for issuing vehicle PM and NO_x standards based on the expectation of fleetwide averaging applies even more strongly to regulations limiting power plant CO_2 emissions. As EPA recognized in the CPP, such flexible measures are widely utilized by owners and operators of power plants to meet existing emission standards under the CAA—and were broadly supported in the CPP rulemaking process.[374] EPA's successful history of using such measures to establish standards in the context of motor vehicles supports the reasonableness and lawfulness of the CPP BSER, which similarly implements broad statutory language.

Lead Standards for Gasoline

Administrator Pruitt omits from his discussion of statutory context another significant precedent under the CAA incorporating more flexible measures: EPA's section 211(g) regulations requiring the phase-out of lead in gasoline. These regulations took the form of an average standard for the "total pool" of gasoline produced by each refiner. The Agency's assumption was that refiners would participate in a yet-to-be created inter-refinery credit trading system, which was integral to the stringency of the standard. While reviewing the rule, the D.C.

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[371] *See* 50 Fed. Reg. 10,606 (Mar. 15, 1985) (describing averaging system and noting that it is similar to the averaging system established for light-duty vehicles and trucks in 1983).

[372] *Id.* ("Private and state sponsored environmental groups, as well as the Manufacturers of Emission Controls Association (MECA), claimed that averaging as proposed was inconsistent with EPA's responsibility under section 202(a)(3)(A)(iii) of the Act to set standards that require use of the best technology that is expected to be available at the time the standards are implemented. . . . The Agency finds the averaging concept, as applied by the standards promulgated, to be fully consistent with the technology-forcing mandate of the Act. Particulate trap technology is heretofore untried on the fleet level. EPA believes that the 0.25 g/BHP-hr standard which, through averaging, effectively requires use of traps on 70 percent of all heavy-duty vehicles will significantly reduce the risk of widespread noncompliance while allowing manufacturers to gain valuable experience with this new technology. To promulgate this standard without allowing averaging . . . would increase the technological risk associated with the standard because traps would have to be used in even the most difficult design applications.").

[373] *See Nat. Res. Def. Council v. Thomas*, 805 F.2d at 425.

[374] CPP Final Rule, 80 Fed. Reg. at 64,733 n.380.

Circuit upheld this assumption as reasonable,[375] explaining that "[a]lthough lead-credit trading was a new idea, EPA had sufficient reason to believe that a market for lead credits would develop" and that "small refiners will be able to buy blending components, lead credits, or both."[376] The court thus recognized that a regulatory approach requiring some entities to purchase physical product or compliance instruments from their competitors was a permissible, lawful construction of the statute. Such an approach is at least as appropriate in the power plant context, given the prevalence of generation shifting as a means of reducing CO_2 and that fact that many states (such as California and the states in the Regional Greenhouse Gas Initiative) already have functioning trading markets for power plant CO_2 emissions.[377]

e. EPA's "policy concerns" do not support or justify its proposed interpretation.

The Administrator points to what he calls "broader policy concerns"[378] in a weak attempt to support his proposed interpretation of the best system of emission reduction,[379] including an assertion that the CPP BSER violates what the Administrator calls the "clear statement rule," and a claim that the CPP illegally intrudes onto Federal Energy Regulatory Commission ("FERC") and state authority. To the extent that EPA is arguing these concerns present legal constraints that prevent the Agency from retaining the CPP BSER, its arguments are without merit. The CPP simply executes the core CAA function of setting pollution limits for power plants. The CPP BSER is firmly grounded in the express statutory factors and in past EPA practice, reflects how the power sector actually operates, and is not a transformative assertion of regulatory authority. Nor did the CPP, a textbook example of cooperative federalism, intrude illegally into FERC or state authority.

To the extent that the Administrator is claiming that these disparate concerns constitute adequate consideration of the relevant policy issues more generally, the Agency's analysis here is legally insufficient. As discussed in greater detail in section III.C., any legally adequate consideration of "policy concerns" for a proposed interpretation of the BSER must include an examination of all relevant factors, including (among others) the amount of pollution reduction achievable under the new system, the potential costs that will be imposed upon ratepayers and utilities, the statutory purpose of the section 111,[380] and any possible impacts to reliability of the

[375] *See Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 536 (D.C. Cir. 1983).
[376] *Id.* at 535-36. Note as well that although section 211(g) placed numerical limits on average lead content from fuels produced by small refineries, that section made no mention of inter-refinery trading for the purpose of either standard-setting or compliance. *See* Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 223, 91 Stat. 685, 764 (1977). In addition, EPA's pre-1977 regulations for refiners established "total pool" average lead standards despite the absence of explicit authorization for such standards in the Act. *See* Clean Air Act Amendments of 1970, Pub. L. No. 91-604, § 211, 84 Stat. 1676, 1698 (1970). Those early standards were also upheld by the D.C. Circuit, *see Ethyl Corp. v. EPA*, 541 F.2d 1 (D.C. Cir. 1976), and Congress effectively ratified EPA's approach in 1977 by enacting a special provision for small refiners prescribing maximum levels of stringency for average lead limits.
[377] *See* CPP Legal Memorandum at 131.
[378] "Policy concerns" is a misnomer here, as the group of issues EPA identifies to are actually disparate legal concerns such as federalism issues, legal issues raised by a pair of Supreme Court cases, *Brown and Williamson* and *UARG*, and concerns about displacement by the Federal Power Act. As explained in detail below, a proper consideration of policy concerns is done through analysis of the relevant statutory factors.
[379] Proposed Repeal, 82 Fed. Reg. at 48,042.
[380] *See Safe Food and Fertilizer v. EPA*, 350 F.3d 1263, 1269 (D.C. Cir. 2003), *on rehearing*, 365 F.3d 46 (D.C. Cir. 2004); *Northpoint Technology v. FCC*, 412 F.3d 145, 151 (D.C. Cir. 2005).

electricity grid.[381] Absent analysis of these factors, EPA cannot plausibly claim that its proposed interpretation better accords with its obligations under the law.

(i) The CPP reflects ongoing trends in the power sector and would not have extraordinary political and economic consequences.

The Administrator now asserts, without any supporting analysis, that the CPP is a regulation that has enormous political and economic consequences, and the Agency needs a clear statement from Congress before retaining the CPP BSER.[382] The two cases EPA cites here to support its position—*Brown and Williamson* and *UARG*—are readily distinguishable. Both involved an Agency interpretation of one statutory provision that created a clear and unworkable conflict with another part of the statute.[383] In *Brown and Williamson*, the FDA had claimed authority to regulate a previously unregulated industry.[384] Because of the statutory structure of the Food, Drug and Cosmetic Act, this interpretation would have required the FDA to ban the sale of tobacco products including cigarettes and smokeless tobacco—an outcome that the Supreme Court regarded as an "extreme measure[]" that was inconsistent with later Congressional enactments.[385] Similarly, in *UARG*, the Supreme Court held that in the "Tailoring Rule," EPA rewrote clear numerical thresholds in the statute to avoid sweeping up millions of previously unregulated sources into the PSD program.[386] The Agency conceded that, absent the tailoring rule, the number of newly regulated sources "would render the statute 'unrecognizable to the Congress that designed it.'"[387] Accordingly, the Supreme Court struck down EPA's interpretation that a source's greenhouse gas emissions can trigger PSD permitting requirements (while upholding EPA's determination that greenhouse gas emissions are subject to BACT limitations).

In contrast, the CPP implements a statutory provision that the Supreme Court has recognized "speaks directly" to the problem before the Agency.[388] Rather than regulate previously unregulated entities, the CPP involves only "moderately increasing the demands EPA can make of entities already subject to its regulation."[389] Power plants have been a regulated source category under section 111 of the CAA since 1971. EPA conducted extensive analysis to determine that the CPP would not threaten reliability or have other harmful impacts to the grid,[390] and ensured that the rule would have modest economic impacts, in line with prior

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[381] *See* discussion *infra* Section III.C.ii; CPP Final Rule, 82 Fed. Reg. at 64,720-22 (factors Court has identified as generally relevant to Best System determination); *Sierra Club v. Costle*, 657 F.2d at 326 (amount of air pollution reduction is an important factor in selecting the Best System).
[382] Proposed Repeal, 82 Fed. Reg. at 48,042.
[383] *See FDA v. Brown & Williamson*, 529 U.S. 120, 133-43 (1999); *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2444-45 (2014).
[384] *Brown & Williamson*, 529 U.S. at 131-32 (describing FDA's assertion of authority to regulate tobacco products).
[385] *Id.* at 137. ("The FDCA's misbranding and device classification provisions therefore make evident that were the FDA to regulate cigarettes and smokeless tobacco, the Act would require the agency to ban them."); *Massachusetts v. EPA*, 549 U.S. 497, 531 (2007) (characterizing banning of tobacco products as an "extreme measure").
[386] *Util. Air Regulatory Grp.*, 134 S. Ct. at 2445.
[387] *Id.* at 2444 (quoting EPA's Tailoring Rule, 75 Fed. Reg. 31,514, 31,555 (June 3, 2010)).
[388] *Am. Elec. Power v. Connecticut*, 564 U.S. at 424.
[389] *Util. Air Regulatory Grp*, 134 S. Ct. at 2448.
[390] CPP Final Rule, 80 Fed. Reg. at 64,671, 64,694-96, 64,709 (explaining that the rule would not pose reliability risks, and is consistent with existing trends towards less coal-fired and more gas-fired and renewable generation).

regulations. Because the CPP BSER interpretation does not require "extreme measures" that conflict with the statutory scheme,[391] "EPA's reliance on *Brown & Williamson*" here to justify its proposed interpretation is "misplaced."[392]

In *Brown & Williamson*, the Court was motivated by skepticism that Congress delegated the authority to regulate the tobacco industry to the agency at all. After finding that the agency's interpretation was clearly precluded, the Court went on to note that the *Chevron* inquiry:

> is shaped, at least in some measure, by the nature of the question presented. Deference under *Chevron* to an agency's construction of a statute it administers is premised on the theory that a statute's ambiguity constitutes an implicit delegation from Congress to the agency to fill in the statutory gaps. . . . In extraordinary cases, however, there may be a reason to hesitate before concluding that Congress has intended such an implicit delegation.[393]

In section 111(d), however, the delegation is not implicit. Congress explicitly delegated to EPA the task of determining what constitutes the BSER for a specific source and a specific pollutant—using broad language to give the agency broad discretion in executing its statutory mandate[394] As the Supreme Court explained in *AEP* while discussing this very statutory provision, "The critical point is that Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from power plants."[395] The Court further recognized that any regulation of carbon pollution from existing power plants would involve "informed assessment of competing interests," including "the environmental benefit potentially achievable, our Nation's energy needs and the possibility of economic disruption," and found that "The Clean Air Act entrusts such complex balancing to EPA in the first instance . . . ."[396] There is simply no question as to whether the delegation at the heart of *Chevron* occurred, rendering *Brown & Williamson* irrelevant. As evidenced by the references to "cost" and "energy requirements" in section 111(a)(1), Congress was fully aware when it delegated this authority to EPA of the role of these sources in the U.S. economy and infrastructure, and that addressing pollution from those sources would necessarily impact the economy and the evolution of the regulated industries.

EPA cannot plausibly claim that the CPP BSER is a "transformative" exercise of authority in a way that its proposed interpretation is not. As EPA extensively documented in its Legal Memorandum supporting the CPP,[397] the approach adopted in this rule closely resembles several other programs EPA has overseen for decades under the CAA,[398] and the CPP BSER

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[391] *Massachusetts*, 549 U.S. at 531.
[392] *Id.* at 530.
[393] *Brown & Williamson*, 529 U.S. at 159.
[394] *See* 42 U.S.C. § 7411(d)(1).
[395] 464 U.S. at 426.
[396] 464 U.S. at 427.
[397] CPP Legal Memorandum at 95-117.
[398] *See supra* section III.B.ii.c-d; *see also, e.g.*, Cross-State Air Pollution Rule, 76 Fed. Reg. 48,208, 42,252 (Aug. 8, 2011) (basing emissions budgets in part on "increased dispatch of lower-emitting generation."); *Nat. Res. Def. Council v. Thomas*, 805 F.2d at 425 (absent "any clear congressional prohibition of averaging," EPA's approach based in part on averaging and credit trading "makes sense"); *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 535-36 (D.C. Cir. 1983) (upholding EPA's lead phase-down standards, whose stringency was premised in part on the ability of refiners to acquire lead reduction credits from other refineries); *see also* Richard L.

itself was modeled off of the most prevalent measures that states and industry currently take to reduce carbon pollution in the power sector.[399] Additionally, when evaluating the effects of the CPP, EPA thoroughly considered availability of the different building blocks, impacts to reliability, and costs.[400] Further, as the Power Sector Trends Appendix to the January 17, 2017 reconsideration denial as well as various other analyses have concluded, emission levels and corresponding costs of compliance with the CPP have continued to decline since the CPP was finalized in 2015.[401] In fact, reductions in carbon pollution from the power sector have recently outpaced the CPP's requirements (section III.C.iii.b(v)). These facts are directly counter to the speculations that the CPP would radically transform the power sector or impose extreme costs. Now there is even more proof that the CPP was trend following, not radical.

That the CPP has some impact on the industry it regulates and impacts cost of production for covered facilities does not make it a transformative exercise of authority. In fact, Congress was well aware that reducing air pollution and protecting public health may have just that effect.[402] The actual costs of the CPP are in line with, and in some cases lower than, prior CAA regulations.[403] Compared with prior CAA rules, the phase-in time for the CPP requirements is entirely reasonable.[404] As discussed in detail in section III.C.ii.b.(iii), the modeled impacts of the CPP on the power sector are modest and entirely in line with pre-existing trends in the power sector. The CPP is thus fully in line with longstanding CAA practice and law.

Revesz, Denise A. Grab, and Jack Lienke, Familiar Territory: A Survey of Legal Precedents for the Clean Power Plan, 46 Envtl. L. Rep. 10,190 (2016).

[399] CPP Final Rule, 80 Fed. Reg. at 64,727.

[400] *See generally id.* at 64,795-803; *see also id.* at 64,809 (EPA's targets for renewables match levels that "have been achieved without negative impacts to reliability"); *id.* at 64,808 (demonstrating that EPA modeling includes multiple constraints to ensure sufficient resources to maintain reliability).

[401] *See e.g.*, EPA, Basis for Denial of Petitions to Reconsider and Petitions to Stay the Clean Power Plan Appendix 1: State Progress and Trends (Jan. 11, 2017) (finding that numerous states are on track to meet their CPP obligations) (submitted in Joint Appendix as Attachment F4) [Hereinafter "State Progress and Trends Appendix"]; Power Sector Trends Appendix (finding "new information and data show that the CPP goals will be less impactful on the generation mix of the industry and considerably less costly to implement *than previously thought*.") (emphasis in original); Denise Grab & Jack Lienke, *The Falling Cost of Clean Power Plan Compliance* 1-2 (Oct. 2017) (describing recent independent analyses of the CPP that have reported compliance costs ranging from 40-65 percent lower than EPA's original estimates in the final rule) (submitted in Joint Appendix as Attachment J11).

[402] Senator Muskie recognized that it was Congress's "responsibility to establish what the public interest requires to protect the health of persons [and] [t]his may mean that people and industries will be asked to do what seems to be impossible at the present time." *Union Elec. Co. v. EPA*, 427 U.S. 246, 258-59 (1976).

[403] *Compare* EPA, Regulatory Impact Analysis for the Clean Power Plan Final Rule, 3-22 (Aug. 3, 2015) ("EPA projects that the annual compliance cost of the rate-based illustrative plan scenario are $2.4 billion in 2020, $1.1 billion in 2025, and $8.5 billion in 2030 (tbl. 3-8) (submitted in Joint Appendix as Attachment F3) [Hereinafter "Final CPP RIA."] The annual compliance cost of the mass-based illustrative plan approach are estimated to be $1.4 billion in 2020, $3.0 billion in 2025, and $5.1 billion in 2030."), *with* 77 Fed. Reg. 9304, 9425 (Feb. 16, 2012) ("The EPA projects that the annual incremental compliance cost of MATS is $9.6 billion in 2015 ($2007)"), *and* 1978 New Source Performance Standards, 44 Fed. Reg. 33580, 33609 ("tbl. 5. – 1995 Economic Impacts") (June 11, 1979) (estimating compliance costs for various standards to range between $11.0 billion and $16.1 billion adjusted to 2015 dollars).

[404] *Compare* CPP Final Rule, 80 Fed. Reg. at 64,743-44 (Compliance period begins 74 months after publication in Federal Register), *with* NO_x SIP Call, 63 Fed. Reg. 57,356 (Oct. 27, 1998) (compliance period begins 54 months after publication in Federal Register) *and* Clean Air Interstate Rule, 70 Fed. Reg. 25,162 (May 12, 2005) (compliance period begins 44 months after publication in Federal Register).

(ii) The Administrator's assertion that his proposed interpretation would have fewer economic and political consequences is completely unsupported and contradicted by the CPP record.

The Administrator's further assertion that his proposed interpretation would "substantially diminish[] the potential economic and political consequences of any future regulation of CO_2 emissions"[405] is completely arbitrary and unsupported. The economic and political impacts of the CPP are not more significant than the impacts of many other EPA rules and cannot be properly invoked as a factor driving the Administrator's proposed interpretation of the CAA. In fact, EPA concluded in the CPP that interpreting the CAA to *preclude* building blocks 2 and 3 could *increase* the costs of achieving emission reductions[406]—and ultimately prompt power companies to comply with any resulting standard through the same generation-shifting approach that the Administrator attacks in the Proposed Repeal.[407] The Administrator's assertions do not explain this departure from the CPP record. Indeed, he has not provided *any* analysis of a potential replacement in this rulemaking, or even discussed the specific pollution reduction measures that he believes would be legally permissible under his proposed interpretation.[408]

In assuming that his proposed interpretation would result in less stringent (and less costly) standards, the Administrator also takes an arbitrarily one-sided view of "economic and political consequences" that completely ignores the costs of *not* adequately addressing climate pollution from the power sector. EPA concluded in the final CPP that the rule would have massive net benefits to the public in the form of reduced climate-related damages and avoided public health costs associated with power plant pollution. The RIA for this Proposed Repeal confirms that those benefits would be eliminated if the CPP were repealed. Yet the Administrator fails to consider whether the impacts of failing to address emissions that threaten health, climate stability, and civilization itself are significant "economic and political" consequences. To the

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[405] Proposed Repeal, 82 Fed. Reg. at 48,042.

[406] CPP Final Rule, 80 Fed. Reg. at 64,769 ("The narrow interpretation advocated by some commenters would permit consideration only of potential CO_2 reduction measures that are either more expensive than building blocks 2 and 3 (such as the use of natural gas co-firing at affected EGUs or the application of CCS technology) or measures capable of achieving far less reduction in CO_2 emissions (such as the heat rate improvement measures included in building block 1).").

[407] CPP Final Rule, 80 Fed. Reg. at 64,784 ("[T]o control CO_2 emissions from affected EGUs, the EPA first considered more traditional air pollution control measures, including supply-side efficiency improvements, fuel-switching (for CO_2 emissions, that entails co-firing with natural gas), and add-on controls (for CO_2 emissions, that entails CCS). However, it became apparent that even if the EPA could have finalized those controls as the BSER and established the same uniform CO_2 emission performance rates, the affected EGUs would rely on less expensive ways to achieve their emission limits. Specifically, instead of relying on co-firing and CCS, the affected EGUs generally would replace their generation with lower- or zero-emitting generation—the measures in building blocks 2 and 3—because those measures are significantly less expensive and already well-established as pollution control measures.").

[408] In EPA's ANPR, the Administrator indicates that he is skeptical about the use of Carbon Capture and Sequestration (CCS) as a potential BSER for pollution reduction, and that the Agency will adhere to that view unless commenters provide new information. *See* ANPR, 82 Fed. Reg. at 61,517 ("The EPA has previously determined that CCS (or partial CCS) should not be a part of the BSER for existing fossil fuel-fired EGUs because it was significantly more expensive than alternative options for reducing emissions. The EPA continues to believe that neither CCS nor partial CCS are technologies that can be considered as the BSER for existing fossil fuel-fired EGUs. However, if there is any new information regarding the availability, applicability, or technical feasibility of CCS technologies, commenters are encouraged to provide that information to the EPA.") (internal citations omitted).

extent these considerations are relevant at all, they counsel overwhelmingly in favor of regulatory action to control emissions and provide a pathway to a lower-risk future.

Lastly, the Proposed Repeal's assumption that narrowing the scope of the BSER to preclude the cost-effective approaches in the CPP will reduce "economic and political consequences" makes no sense. It is not the *scope* of the term "system of emission reduction" that determines the economic and political consequences of the resulting rule—it is EPA's consideration of costs, reliability, and pollution reductions under the statutory factors when determining BSER for a specific pollutant and source.[409] Absent any analysis of these factors, the Administrator cannot credibly claim that his proposed interpretation avoids economic and political consequences when compared with the CPP BSER. Courts "may not uphold agency action based upon speculation" and should not "defer to an agency's 'conclusory or unsupported assertions.'"[410] Indeed, "speculation is an inadequate replacement for the agency's duty to undertake an examination of the relevant data and reasoned analysis."[411] And when the Administrator asserts that its proposed interpretation is less politically and economically transformative, EPA is arbitrarily assuming without reasoned explanation that any new rule would be less consequential.

(iii) The Clean Power Plan properly respects EPA's role and did not unlawfully intrude on FERC's authority.

The CPP is not "regulation of the energy sector *qua* energy sector" as the Administrator now claims.[412] His assertion ignores the important distinction between regulation of air pollution, clearly mandated under the CAA, versus direct regulation of wholesale energy markets, which is within FERC's exclusive jurisdiction.[413] The CPP BSER provides a guideline for establishing source-specific pollution limits that can be met through a variety of approaches, closely resembling other longstanding CAA emission control programs for the power sector.[414] The CPP's emission targets do not mandate particular energy mix outcomes.

The Federal Power Act ("FPA") vests FERC with exclusive jurisdiction to approve "just and reasonable" rates for the transmission of electric energy in interstate commerce and for wholesale sales of electric energy.[415] But no provision of the FPA limits the authority of EPA under the CAA to establish emission guidelines for existing EGUs. Nor should such a limitation be implied, as the D.C. Circuit has ruled in dismissing past claims that the FPA exempts or limits the nation's federal environmental laws.[416] This is especially true given that, in the nearly 50

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[409] *See Am. Elec. Power v. Connecticut*, 564 U.S. at 427 (noting that the "complex balancing" Congress "entrusts" to EPA includes consideration of "the environmental benefit potentially achievable, our Nation's energy needs and the possibility of economic disruption").
[410] *Nat'l Shooting Sports Found., Inc. v. Jones*, 716 F.3d 200, 214 (D.C. Cir. 2013).
[411] *Horsehead Res. Dev. Co. v. Browner*, 16 F.3d 1246, 1269 (D.C. Cir. 1994).
[412] Proposed Repeal, 82 Fed. Reg. at 48,042; *see also* Former FERC Commissioner Comments.
[413] Federal Power Act § 201, 16 U.S.C. § 824.
[414] *See supra* section III.B.ii.c.
[415] *Mississippi Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354 (1988) (acknowledging FERC's exclusive federal jurisdiction over wholesale electric rates under Federal Power Act section 201, 16 U.S.C. § 824).
[416] *See Monongahela Power Co. v. Marsh*, 809 F.2d 41, 50 (D.C. Cir. 1987) (holding that hydroelectric facilities licensed by FERC are still subject to Clean Water Act permitting requirements because "the Power Act does not

years since the CAA was first given real teeth in 1970, EPA has time and again promulgated regulations that affect the power sector[417]—which incidentally affect the nation's energy mix—and has accordingly considered issues relating to reliability and energy markets when issuing such regulations.[418]

EPA's consideration of issues relating to reliability and the interconnected nature of the power sector under section 111(d) is, therefore, wholly appropriate. In enacting this provision, Congress explicitly directed "EPA [to] prescribe regulations" for existing sources of air pollution that endanger public health or welfare like energy generation sources, and the CPP implements this express mandate.[419] Congress was aware that this duty would likely have an incidental effect on energy needs, which it made clear by requiring EPA to "tak[e] into account … *energy requirements*" when determining BSER for a regulated source category.[420]Accordingly, in addressing the CPP's impacts on the nation's energy resources, EPA thoroughly considered and took into account the energy requirements of the BSER and found that the impacts were acceptable.[421]

To support its new position, EPA points to section 310 of the CAA, which states that the CAA "shall not be construed as superseding or limiting the authorities and responsibilities under any other provision of law, of … any other … agency,"[422] and questions whether the CPP "construed [section 111] in a way that supersedes or limits the authority of the FERC."[423] But EPA fails to articulate how the CPP "supersed[ed]" or "limit[ed]" the authority of FERC in any way. On the contrary, EPA engaged with FERC throughout the entire CPP rulemaking process to an unprecedented degree.[424] Senior EPA officials met with each FERC commissioner, and EPA staff communicated often with FERC staff during the rulemaking process.[425] As a result of these consultations, EPA moved the mandatory compliance date from 2020 to 2022, and included a reliability safety valve in the final rule.[426] Finally, to ensure the CPP would not pose threats to reliability during implementation, EPA set up a process to work with FERC to continue to monitor reliability issues on an ongoing basis.[427]

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provide adequate justification for ignoring the express and unambiguous directive of the subsequently-adopted Pollution Control Act Amendments."); *cf. PUD No. 1 v. Wash. Dep't of Ecology*, 511 U.S. 700, 723 (1994) (refusing to limit applicability of Clean Water Act requirements to hydroelectric projects licensed by FERC on the basis of "hypothetical" conflicts between the Clean Water Act and FERC's authority under the FPA).

[417] *See* CPP Final Rule, 80 Fed. Reg. at 64,671, 64,694-96, 64,709.

[418] *See, e.g.*, MATS, 77 Fed. Reg. at 9,406-11; Cross-State Air Pollution Rule, 76 Fed. Reg. at 48,265-66.

[419] 42 U.S.C. § 7411(d).

[420] *Id.* § 7411(a)(1).

[421] *See* CPP Final Rule, 80 Fed. Reg. at 64,709 (finding that the technologies that make up the CPP BSER "do not . . . impose adverse energy requirements, and they are well established among affected EGUs"); Final CPP RIA, ES-2-ES-5 (Aug. 2015); Technical Support Document: Resource Adequacy and Reliability Analysis (Aug. 2015).

[422] 42 U.S.C. § 7610(a).

[423] Proposed Repeal, 82 Fed. Reg. at 48,042

[424] *See* CPP Final Rule, 80 Fed. Reg. at 64,671, 64,693-94, 64,706-07, 64,800, 64,874-81.

[425] *Id.* at 64,707.

[426] *Id.* at 64,671.

[427] *Id*. at 64,879 (describing a coordination strategy with DOE and FERC to monitor Rule implementation, share information, and resolve any difficulties).

While the statutory responsibilities of EPA and FERC both relate to the power sector, their obligations are distinct, and "there is no reason to think the two agencies cannot both administer their obligations and yet avoid inconsistency."[428] EPA went above and beyond to respect FERC's role and incorporate its feedback into the CPP, and any claim that the Agency unlawfully intruded on the Commission's regulatory territory ignores both the facts on the ground and the laws that Congress passed.

(iv) The Clean Power Plan is a model of cooperative federalism.

In the proposed repeal, EPA also suggests that the CPP may have "infringed upon the roles of the states."[429] This assertion is completely unfounded: the CPP is a textbook example of cooperative federalism.[430] EPA thoroughly explained in the final CPP why the rule did not infringe upon State prerogatives,[431] and the proposed repeal does not explain its departure from the CPP record. The CPP establishes limits to harmful climate pollution from a major stationary source, which the Supreme Court has ruled is fully within the Agency's authority under section 111(d). EPA's BSER for the CPP does not dictate energy policy choices for the states—it is merely the basis for states to establish reasonable pollution limits which power plants can meet using a variety of approaches. States that do not wish to craft their own plans have no obligation to do so; EPA will issue a federal plan to cover affected sources within those states. The CPP thus respects the policy prerogatives and authority of the states and adheres closely to the cooperative federalism framework at the heart of section 111(d).

As for constitutional concerns, courts have long recognized that the CAA lies firmly within Congress's authority under the Commerce Clause and that cooperative federalism programs such as section 111(d) are fully consistent with Tenth Amendment. As the Supreme Court has observed, there is no "Tenth Amendment impediment" to federal regulation of "private persons and businesses" who are "necessarily subject to [] dual sovereignty."[432] The CPP follows in a long line of existing EPA air pollution programs that have been upheld in court—rules that reflect the approach that EPA took with the CPP. For example, as discussed more fully in section III.B.ii.d, Title IV's Acid Rain Program,[433] the Cross-State Air Pollution Rule,[434] and the NO_x/SIP Call[435] similarly established trading programs partially premised on the power plants' ability to shift generation to lower-emitting sources.[436] EPA's newly raised concerns ignore these lawful precedents.

That states may choose to alter energy and environmental policies in response to the CPP does not mean that the CPP oversteps EPA's authority, violates the Tenth Amendment, or

[428] *Massachusetts*, 549 U.S. at 532.
[429] Proposed Repeal, 82 Fed. Reg. at 48,042.
[430] EPA conducted extensive outreach with the states during the CPP drafting process, and EPA updated its CPP toolbox of decision support resources for States. CPP Final Rule, 80 Fed. Reg. at 64,882-84.
[431] CPP Final Rule, 80 Fed. Reg. at 64,881-82.
[432] *Hodel v. Va. Surface Mining & Reclamation Ass'n*, 452 U.S. 264, 286-87 (1981).
[433] 42 U.S.C. §§ 7651-7651o.
[434] This rule was upheld by the Supreme Court, which found EPA's approach was a "permissible, workable, and equitable." *EPA v. EME Homer City Generation*, 134 S. Ct. 1584, 1610 (2014).
[435] This rule was subsequently upheld by the D.C. Circuit. *Michigan v. EPA*, 213 F.3d 663 (D.C. Cir. 2000).
[436] CPP Legal Memorandum at 95-99.

otherwise unlawfully intrudes on state prerogatives.[437] It is not new and not unlawful for a CAA standard to affect the economics of the existing electric sector, and thereby in some instances trigger changes in utilities' resource portfolios, PUC proceedings, or other such actions.[438] These are the typical indirect effects of federal air pollution regulation, and they do not result in violations of the Tenth Amendment.[439]

Finally, as noted above, and consistent with many other examples of cooperative federalism, the CPP permits states to elect not to participate in the program and to leave the regulatory burden associated with administering it to EPA.[440] The Agency would, in such cases, craft a federal plan to cover affected power plants in those states, and that plan would be subject to all statutory and constitutional requirements, including notice-and-comment rulemaking procedures and the possibility of judicial review at the appropriate time.[441] Under this option, states may opt to avoid any unwanted administrative burden related to implementing the CPP, enjoying a level of flexibility fully consistent with the Tenth Amendment.[442]

iii. The Administrator's Interpretation Baselessly Excludes Lawful Alternatives and Is Neither Statutorily Compelled nor a Valid Exercise of Agency Discretion and Cannot Stand.

As explained in detail above, the Administrator's rationales for interpreting the Clean Air Act to preclude building blocks 2 and 3 of the CPP BSER are meritless. They rely on a cramped and unsound statutory parsing, alongside a refusal to perform a proper policy analysis comparing the proposed interpretation to the alternatives. This section of our comments demonstrates that the Administrator has also failed to support his proposed interpretation with a thorough, reasoned analysis of all relevant factors associated with abandoning the CPP BSER and adopting his proposed interpretation. Therefore, even if the Administrator's proposed interpretation were a *permissible* one, it would be arbitrary and capricious for the Administrator to adopt it on the record before him.

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[437] *See FERC v. Elec. Power Supply Ass'n.*, 136 S. Ct. 760, 784 (2016) (distinguishing between federal regulations that "inevitably[] influenc[e]" areas of state control, and those that "intrude on the States' power"); *Conn. Dep't of Pub. Util. Control v. FERC*, 569 F.3d 477, 479-83 (D.C. Cir. 2009) (same).

[438] For example, the Acid Rain Program directly adjusted economics of covered generation due to implementation of credit purchase requirements, and in some instances led some plants to invest in scrubbers. *See* EIA, *Electric Power Annual 2000*, vol. 1 (August 2001) 13 ("Strategies that are being used for compliance include fuel switching/blending, co-firing with natural gas, allowance acquisitions *scrubbers*, repowering and plant retirements.") (submitted in Joint Appendix as Attachment J17).

[439] *Hodel*, 452 U.S. at 288-290 (1981).

[440] *See id* at 288 ("If a state does not wish to submit a proposed permanent program that complies with the Act and implementing regulations, the full regulatory burden will be borne by the Federal Government."); *Texas v. EPA*, 726 F.3d 180, 190-91 (D.C. Cir. 2013) (noting that "Supreme Court precedent repeatedly affirm[s] the constitutionality of federal statutes that allow states to administer federal programs but provide for direct federal administration.").

[441] *See* 42 U.S.C. § 7607(b)(1), (d)(9).

[442] The fact that a federal regulation may incidentally cause private entities to engage with state regulators to take routine actions, such as granting a permit, adjusting electricity rates, or decommissioning a plant, does not somehow mean that the federal regulation unconstitutionally coerces states. *See, e.g., FERC v. Mississippi*, 456 U.S. 742, 759, 765 (1982) (rejecting Tenth Amendment challenge to federal utility regulation that "use[d] state regulatory machinery to advance federal goals," but did not "directly compel[]" states to promulgate or enforce laws).

The D.C. Circuit has repeatedly struck down statutory interpretations that agencies erroneously claimed were statutorily compelled. For example, the D.C. Circuit vacated a similarly erroneous interpretation in *PDK Labs Inc. v. U.S. Drug Enforcement Agency*.[443] There, the Drug Enforcement Agency ("DEA") claimed that the statutory phrase "the chemical may be diverted to the clandestine manufacture of a controlled substance" definitively included the situation where certain medication may be purchased or shoplifted for making methamphetamine *after* the petitioner's product had been safely delivered to third-party retailers.[444] To support its reading of the statute, the DEA pointed to the legislative history,[445] judicial precedent,[446] and the agency's own regulations.[447] Notably, the DEA "reached [its] conclusion without mentioning any policy considerations or *other matters within the agency's expertise*."[448]

The D.C. Circuit ultimately rejected the DEA's interpretation.[449] It explained that where a statute is ambiguous, "it is incumbent upon the agency not to rest simply on its parsing of the statutory language."[450] Instead, the agency "must bring its experience and expertise to bear in light of the competing interests at stake."[451] The court acknowledged that, where an agency has applied its expertise, "it is entitled to deference, so long as its reading of the statute is reasonable."[452] But when the agency erroneously foreclosed a permissible interpretation as a *legal* matter, without consideration of policy implications, its action should be remanded back to the agency for further consideration.[453]

The Administrator's proposed interpretation here suffers from similar flaws.[454] The Administrator has failed to perform any sort of policy analysis or comparison of different systems of emission reduction, and does not attempt to justify his cramped interpretation of the BSER on policy grounds. At points in the Proposal, the Administrator hints at policy arguments that vaguely allude to some of the relevant factors,[455] but provides no support for these assertions.[456] Indeed, as explained below, those assertions are directly contradicted by the CPP record and by ongoing power sector trends.[457]

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[443] 362 F.3d 786 (D.C. Cir. 2004).
[444] *Id.* at 794.
[445] *Id.*
[446] *Id.* at 795-796.
[447] *Id.* at 795.
[448] *Id.* at 794 (emphasis added).
[449] *Id.* at 799 ("The decision upholding the suspension orders must therefore be set aside and the case remanded.").
[450] *Id.* at 797.
[451] *Id.* at 798 (citing *Chevron v. NRDC*, 467 U.S. 837, 865-66 (1984)).
[452] *Id.*
[453] *Id.*
[454] As the D.C. Circuit has recently explained, "Where a statute grants an agency discretion, but the agency erroneously believes it is bound to a specific decision, we can't uphold the result as an exercise of discretion that the agency disavows." *United States v. Ross* 848 F.3d 1129, 1134 (D.C. Cir. 2017). As in *Ross*, the Administrator here has "expressly—and erroneously—imputed to Congress 'a legislative judgment'" that prevents the agency from weighing the burdens and benefits of its proposed interpretation. *Id.* at 1134-35.
[455] Proposed Repeal, 82 Fed. Reg. at 48,038 ("The CPP threatened to impose massive costs on the power sector and consumers . . . and did not adequately ensure the national interest in affordable, reliable electricity . . . .").
[456] *Id.*
[457] *See supra* section III.C.ii.b.(iii)-(v); *see also* Power Sector Trends Appendix.

Nor do the Agency's so-called "policy concerns" cited in the Proposal cure this legal defect. As explained in more detail above (section III.B.ii.e), while EPA characterizes those considerations as "broader policy concerns," they are in fact strictly legal arguments made by petitioners against the CPP before the D.C. Circuit.[458] They in no way engage with the contrary record findings in the CPP itself and in the January 2017 denial of reconsideration. A legally sufficient evaluation of policy considerations would engage with the prior record and include consideration of the relevant statutory factors that are within the Agency's wheelhouse, including among other factors, how rejection of the CPP BSER and the adoption of the Agency's proposed interpretation would affect the emission reductions achievable under section 111(d) and the costs of achieving those reductions. Because EPA's Proposal here relies on an incorrect "parsing of the statutory language,"[459] and the Agency did not exercise its policy expertise in creating the rule, its Proposed Repeal is fatally flawed.

C. The Administrator's Proposed Interpretation is Arbitrary, Capricious, and Unreasonable.

As noted above, the Proposed Repeal rests entirely on a proposed interpretation of the term "best system of emission reduction," which purports to be premised exclusively on the text of the CAA, legislative history, prior agency practice, statutory context, and generic "policy concerns."[460] But the Administrator's explanation as to why he believes the CPP BSER "exceeds its authority under the statute" fails to acknowledge, much less explain, his departure from the voluminous record evidence that supported the interpretation currently reflected in the CPP. In the CPP, EPA meticulously explained why and how the record informed its determination that the "best system of emission reduction" can and should encompass the measures in building blocks 2 and 3. The Administrator's current neglect of the record results in his interpretation being arbitrary, capricious, and unreasonable.

That record evidence overwhelmingly demonstrates that the CPP BSER is better aligned with current industry practice and better satisfies the statutory criteria in section 111(a)(1) than a proposed interpretation that would exclude building blocks 2 and 3. The extensive record information on which the CPP is based demonstrates, among other things, that owners and operators of affected EGUs routinely use the measures in the current BSER to reduce emissions and maintain affordable, reliable electricity;[461] that owners and operators of affected EGUs have supported the use of the building block measures to comply with the CPP and other CAA programs;[462] that the performance rates based on the CPP BSER are readily achievable and secure significant emission reductions at lower costs than other "systems of emission reduction"

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[458] *See supra* section III.B.ii.e; Petitioners' Opening Br. on Core Legal Issues, at 41-56, ECF No. 1610010, *West Virginia v. EPA* (D.C. Cir. No. 15-1363 Apr. 22, 2016).
[459] *PDK Labs*, 362 F.3d at 797.
[460] Proposed Repeal, 82 Fed. Reg. at 48,038.
[461] *See, e.g.*, CPP Final Rule, 80 Fed. Reg. at 64,678-79, 64,728-30, 64,744-51.
[462] *See, e.g., id.* at 64,733 n.380, 64,784 n.617; CPP Legal Memorandum, 14-18 (describing comments submitted by a variety of power companies and power sector trade associations prior to EPA's proposing the CPP); *id.* at 114-16 (describing comments filed by power companies and trade associations on the Mercury and Air Toxics Standards, supporting the interpretation of the term "install controls" to encompass a variety of measures including construction of replacement generation).

considered by EPA;[463] and that regardless of the "system" that EPA ultimately designates as the BSER, affected EGUs operating in the interconnected power sector would most likely seek to comply at least in part (and probably almost entirely) through the measures in building blocks 2 and 3.[464] Recent developments in the power sector and analyses produced since the CPP was finalized have only strengthened each of these conclusions.[465]

The Administrator's failure to meaningfully address (or even mention) the record evidence that supports the CPP BSER is further reason that the Proposed Repeal is arbitrary and capricious.

Further, as discussed in section III.C.ii.b. below, EPA has not provided—and cannot provide—a reasoned basis for concluding that its proposed interpretation better satisfies section 111(a)(1)'s factors or should be preferred over the CPP BSER as a policy matter. While EPA certainly has the authority to reconsider the CPP, including the interpretation of the BSER, it cannot change that legal interpretation without providing "good reasons" for doing so and without explaining why it is "disregarding facts and circumstances that underlay … the prior policy."[466] Here, it would be arbitrary and capricious for EPA to abandon the current BSER and to adopt its proposed interpretation without considering all of the factors that are relevant to the decision. These factors necessarily include the purpose of section 111 and the statutory criteria that inform the Agency's selection of the BSER, including the extent to which EPA's proposed interpretation would exclude "systems" actually relied upon by owners and operators of affected EGUs, the implications of its proposed interpretation for overall reductions in carbon pollution from the power sector, the cost of achieving those reductions, and impacts on energy requirements.

EPA has considered *none* of the statutory factors in justifying its proposed interpretation of the term "best system of emission reduction" and in proposing to discard the CPP BSER.[467] If EPA were to do so, it is clear that the Agency could provide no "good reasons" for adopting its proposed interpretation in lieu of the current BSER. The evidence that underpinned EPA's original interpretation of the BSER in the CPP—and subsequent developments that buttress and strengthen the record findings in the CPP—make an overwhelming case that the CPP BSER is not only the "system of emission reduction" that the industry predominantly relies upon to reduce carbon emissions, it would achieve reductions at lower costs than the narrower interpretation the Administrator has proposed.

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[463] CPP Final Rule, 80 Fed. Reg. at 64,727-28, 64,751, 64,769.
[464] *Id.* at 64,728.
[465] *See also* Power Sector Trends Appendix at 8-42, 45-55, 58-65; Reconsideration Denial, Appendix 3, 7-19; Denise A. Grab & Jack Lienke, *The Falling Cost of Clean Power Plan Compliance*, N.Y.U. Inst. for Policy Integrity (Oct. 2017) (submitted in Joint Appendix as Attachment J11).
[466] *FCC v. Fox*, 556 U.S. 502, 515 (2009).
[467] The Administrator's RIA evaluating the emissions and cost impacts of *repealing the CPP* do not remotely satisfy his obligation to consider all relevant factors in justifying his interpretation that the CAA precludes building blocks 2 and 3. As discussed in our joint comment on the RIA, a reasoned justification for this change in interpretation would require fully explaining the departure from the record supporting the prior interpretation; and evaluating how *the proposed interpretation* would satisfy the statutory purposes of section 111 and the statutory criteria guiding the BSER. In effect, a reasoned justification would require more than just an analysis of the *repeal*—it would require some evaluation of what kind of standard would emerge *after* the repeal, as a result of the proposed interpretation.

i. The Proposed Repeal Arbitrarily Fails to Explain Its Departure from the Record Findings Supporting the Current BSER.

EPA's Proposed Repeal utterly fails to acknowledge the voluminous factual record that underpins the current BSER. As such, it is arbitrary and capricious. The factual record EPA previously developed on historic and current industry trends and practices, the achievability and cost-effectiveness of the individual building blocks, and the impacts of the resulting national performance rates were *not* simply used to assess the policy merits of the CPP. Rather, these considerations were an integral part of EPA's legal interpretation supporting the current BSER and its determination that the BSER for carbon pollution from existing power plants appropriately includes all three of the building blocks. As EPA explained in its Legal Memorandum accompanying the CPP:

> In . . . the preamble, we note the reasons *why CO_2 is a unique air pollutant and why the electric power sector is a unique source category, and the critical importance of those characteristics in shaping this rule*. . . . Numerous commenters objected that the EPA has never applied measures like the building blocks in section 111 rules, and asserted that the EPA was departing from long-standing precedent without explaining why. We disagree with these comments. . . . [T]o determine the BSER, *we began by considering the characteristics of CO_2 pollution and the utility power sector*. We have not previously regulated CO_2 pollution from the utility power sector, and the *combination of the unique characteristics of that air pollutant with the unique characteristics of that sector have led us to include building blocks 2 and 3 in the BSER.* . . . [N]ot surprisingly, whenever the EPA begins the regulatory process under section 111, we initially undertake these same inquiries into the nature of the industry and the air pollutant and then proceed to fashion the rule to fit the industry.[468]

In the preamble to the CPP, EPA similarly explained that in past section 111 rulemakings for power plants, landfills and other sources, it interpreted and applied the BSER by first *examining the particular characteristics of the source category and the pollutant to be regulated*.[469] EPA also reviewed a range of evidence supporting its BSER determination—including the "unique characteristics of CO_2 pollution"; the "unique characteristics of the utility power sector"; "broad trends" in the power sector towards replacement of coal-fired generation with zero- and lower-emitting sources of generation; state and company programs to reduce CO_2 from fossil fuel-fired power plants; and state and federal programs for other pollutants from the power sector.[470] As EPA pointed out:

> This entire review *has made clear that there are numerous measures that, alone or in various combinations, merit analysis for inclusion in the BSER.* The review has also made clear that the unique characteristics of CO_2 pollution and the unique, interconnected and interdependent manner in which affected EGUs and other generating sources operate within the electricity sector *make certain types of*

[468] CPP Legal Memorandum at 6 (emphases added).
[469] CPP Final Rule, 80 Fed. Reg. at 64,724.
[470] *Id.* at 64,725-26.

measures and mechanisms available and appropriate for consideration as the BSER for this rule that would not be appropriate for other pollutants and other industrial sectors.[471]

Consistent with this view, the Agency concluded in the CPP that its "interpretation [of the BSER] is also reasonable" because "[b]uilding blocks 2 and 3 fit well within the structure and economics of the utility power sector" and because "[f]ossil fuel-fired EGUs are already implementing the measures in these building blocks for various reasons, including for purposes of reducing CO_2 emissions."[472]

Likewise, EPA explained in the CPP that its findings regarding the achievability of the CPP BSER were critical to its determination that the term "best system of emission reduction" can reasonably encompass building blocks 2 and 3. In the CPP, EPA described at length the various ways in which affected EGUs can implement building blocks 2 and 3 in order to achieve standards of performance that reflect the CPP BSER.[473] These mechanisms include add-on improvements to reduce emissions at individual affected EGUs; direct investment in activities encompassed in building blocks 2 and 3; participation in emissions trading programs that result in reductions consistent with the BSER; and investment in various non-BSER measures that can help affected EGUs achieve standards of performance. As EPA noted in the final CPP, these considerations—together with the cost-effectiveness and efficacy of building blocks 2 and 3—"reinforce[] the conclusion that the term system of emission reduction is broad enough to include these measures."[474]

EPA also made clear that its record-based findings were important grounds for *rejecting* the interpretation the Administrator now advances in its Proposed Repeal. As EPA explained in the CPP, the "narrow interpretation" that is now reflected in the Proposed Repeal "would be inconsistent with CAA section 111's specific requirement that standards be based on the 'best' system of emission reduction" and with section 111's statutory purpose, because it "would permit consideration only of potential CO_2 reduction measures that are either more expensive than building blocks 2 and 3 … or measures capable of achieving far less reduction in CO_2 emissions."[475] EPA also explained that "it is reasonable … to reject an interpretation of the term 'system of emission reduction' that would exclude building blocks 2 and 3 from consideration in this rule … especially since the record and other publicly available information makes clear that the measures in *the two building blocks are effective in reducing emissions and are already widely used.*"[476]

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[471] *Id.* at 64,726 (emphases added).
[472] *Id.* at 64,761.
[473] *Id.* at 64,731-36.
[474] *Id.* at 64,766-67 ("As noted elsewhere in the preamble, the affected sources subject to this rule are fully able to meet their emission standards by undertaking the measures described in all three building blocks. Moreover, as discussed, the measures in building blocks 2 and 3 are highly effective in achieving CO_2 emission reductions from these affected EGUs, given the unique characteristics of the industry. *This reinforces the conclusion that the term 'system of emission reduction' is broad enough to include these measures*.") (emphasis added).
[475] *Id.* at 64,769.
[476] *Id.* (emphasis added).

In short, in the CPP, EPA recognized that the problem of carbon pollution from the power sector bears unique characteristics that must inform the interpretation and appropriate scope of the BSER, just as similar characteristics have shaped prior BSER interpretations under section 111. Indeed, as EPA explained in the final CPP, the statutory language of section 111(a)(1) strongly indicates that it is *factual considerations unique to the regulated pollutant and source category*—not abstract legal principles alone—that should guide the scope of the "system of emission reduction" for a given source category.[477] That recognition, and the exhaustive empirical analysis EPA constructed based on it, was central in crafting the BSER interpretation in the CPP—and it drew on extensive record findings captured in the preamble to the final CPP, the Legal Memorandum, the RIA, and supporting technical support documents.

Yet the Administrator's proposed repeal of the CPP fails to address this record information. Not only does he fail to explain why those findings are now irrelevant or incorrect; he never even acknowledges them. The Administrator's cavalier disregard for the record underlying the CPP is reflected in the docket for this Proposal, which at the time it was published included virtually none of the materials from the original CPP record.[478]

Because EPA has failed to grapple with facts that were central to the CPP BSER, the Agency's proposed interpretation of the BSER is arbitrary and capricious. As the Supreme Court has explained, reasoned decision-making in the context of a change in policy or legal interpretation requires that an agency demonstrate awareness of, and fully explain any departure from, the "facts and circumstances that underlay or were engendered by a prior policy."[479] Where an agency is operating against a factual record that contradicts its new policy, reasoned decision-making also requires that the agency "provide a more detailed justification than what would suffice for a new policy created on a blank slate."[480] EPA's Proposed Repeal falls far short of those standards.

ii. The Administrator's Proposed Interpretation Is Arbitrary and Capricious.

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[477] *Id.* at 64,769-70 ("The requirement that the 'system of emission reduction' be 'adequately demonstrated' suggests that we begin our review under CAA section 111(d)(1) and (a)(1) with the systems that sources are already implementing to reduce their emissions. As noted above, fossil fuel-fired EGUs have long implemented, and are continuing to implement, the measures in building blocks 2 and 3 for various purposes, including for the purpose of reducing CO_2 emissions—and certainly always with the effect of reducing emissions. *This is a strong indicator that these measures should be considered part of a 'system of emission reduction' for CO_2 emissions from these sources. The requirement that the 'system of emission reduction' be 'adequately demonstrated' indicates that the implementation of control mechanisms or other actions that the sources are already taking to reduce their emissions are of particular relevance in establishing the emission reduction requirements of CAA section 111(d)(1) and (a)(1).*") (emphasis added).

[478] That EPA considered none of the vast evidentiary record supporting the CPP is confirmed by the absence of any of this material from the docket for the Proposed Repeal. *See* 42 U.S.C. § 7607(d)(3) (requiring that every proposed rule covered by section 7607(d) of the Act be accompanied by a summary of "factual data on which the proposed rule is based" and "policy considerations underlying the proposed rule," and that "[a]ll data, information, and documents . . . on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule").

[479] *Fox*, 556 U.S. at 516.

[480] *Id.*

a. The Proposed Repeal is unlawful because the Administrator has arbitrarily failed to consider the statutory purpose.

As courts have explained in numerous cases, the task of interpreting statutory language requires consideration of statutorily relevant factors that bear on its meaning, including the statute's language, structure, purpose, and legislative history.[481]

In the Proposal, the Administrator states that he has considered "the statutory text, context, and legislative history."[482] As we explain in more detail above, the Administrator's analysis of each of these factors is deeply flawed. Here, we address the fact that the Proposed Repeal has failed to consider "the purpose of the statute," and the degree to which different possible interpretations of section 111 achieve that purpose and various statutory requirements. This is a fundamental element of statutory interpretation and EPA may not base its repeal of the CPP on an interpretation that fails to account for this factor.

The fundamental goal of the CAA is to reduce air pollution. As Congress stated, the primary purpose of Title I (which includes section 111) is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population."[483] Section 111 is a core tool for accomplishing this purpose, targeting dangerous pollutants emitted by stationary sources and requiring that such emissions be reduced in amounts that can be achieved by the application of the "best system of emission reduction." When interpreting the language of section 111, EPA must comply with and implement this purpose by evaluating potential interpretations and assessing whether and to what extent those interpretations advance the achievement of pollution reduction. This means considering the quantity of emission reduction that can be achieved through an interpretation of the phrase "best system of emission reduction."[484]

The Administrator's failure to evaluate the degree to which his interpretation of BSER would achieve the CAA's statutory purpose is particularly problematic because the existing administrative record for the CPP seriously calls into question the extent of the pollution reductions available under the Agency's proposed position which appears to suggest that, of the measures in the CPP, only building block 1 would be considered going forward.[485] In the final CPP, EPA evaluated a BSER based solely on building block 1 and determined that the "quantity of emission reductions achievable through heat rate improvement measures is insufficient for these measures alone to constitute the BSER."[486] EPA further determined that applying heat rate improvements to high-emitting plants without additional measures could cause those plants to increase operations at the expense of less-polluting plants, eroding the potential emission

[481] *See Loving v. IRS*, 742 F.3d 1013, 1016 (D.C. Cir. 2014).
[482] Proposed Repeal, 82 Fed. Reg. at 48,039.
[483] 42 U.S.C. § 7401(b). Three additional purposes are itemized, all of which aim to achieve the "prevention and control" of air pollution. *Id.*
[484] *See Sierra Club v. Costle*, 657 F.2d 298, 326 (D.C. Cir. 1981) (construing §111(a)(1): "[W]e can think of no sensible interpretation of the statutory words 'best technological system' which would not incorporate the *amount* of air pollution as a relevant factor to be weighed when determining the optimal standard for controlling" the pollutant at issue.) (emphasis added).
[485] Proposed Repeal, 82 Fed. Reg. at 48,037.
[486] CPP Final Rule, 80 Fed. Reg. at 64,745.

reductions from the heat rate improvements.[487] EPA's own record thus raises significant questions regarding the degree to which its proposed interpretation of BSER might frustrate the statutory purpose of reducing pollution. But Administrator Pruitt has failed to consider either this issue in particular or, more broadly, the pollution-reduction purposes of the CAA when interpreting the statute.

If the Administrator wishes to move forward with this proposed reinterpretation of BSER, he must undertake an evaluation that considers the CAA's statutory purpose of reducing emissions and analyzes how his proposed interpretation, as well as other reasonable interpretations like the one applied in the CPP, would achieve or frustrate that core statutory purpose of the CAA.

b. The Administrator's proposed interpretation ignores other relevant statutory factors and unreasonably fails to explain why the CPP BSER should be abandoned.

The interpretation of "system" must be based on the relevant statutory factors. The proposed repeal is arbitrary and capricious because, as we describe below, the Administrator has "entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, [and] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." [488] Contrary to principles of reasoned decision-making, the Administrator has failed to provide "good reasons" for the proposed interpretation or a "reasoned explanation…for disregarding facts and circumstances that underlay or were engendered by the prior policy."

The Administrator's proposed reinterpretation of "system" is not grounded in the relevant statutory factors, which include the "adequately demonstrated" nature of building blocks 2 and 3 (and the as-yet unspecified systems that conform to the Administrator's proposed interpretation); the cost implications of abandoning the CPP BSER in favor of the proposed interpretation; and the impacts on energy requirements and non-air quality health and environmental concerns. The proposed interpretation simply ignores the best systems of CO_2 emission reduction that existing power plants are actually using in practice, as well as the ongoing (and accelerating) shift from higher-emitting to lower-emitting generation across the sector as a whole. Further, the Proposed Repeal fails to grapple with the voluminous record underlying the CPP, which accounts for the relevant statutory factors. As we explain below, the CPP considers the range of emission reduction measures available, the primary mechanisms by which the power sector already reduces emissions, the costs associated with those mechanisms, reliability, state and corporate trends, and job impacts. The Proposed Repeal's "vaporous record will not do—the Administrative Procedure Act requires reasoned decision-making grounded in actual evidence."[489]

[487] *Id.* (discussing potential "rebound" in pollution following heat-rate improvements).
[488] *Id.* (internal citations omitted).
[489] *Flyers Rights Educ. Fund v. FAA*, 864 F.3d 738, 741 (D.C. Cir. 2017).

(i) EPA must consider the range of potential emission reduction measures in interpreting "system," but failed to do so.

Section 111 requires EPA to determine the *best* system of emission reduction.[490] "[T]he amount of air pollution [is] a relevant factor to be weighed when determining the optimal standard" and "system" must be interpreted in that context.[491] A "system," which achieves minimal air pollution reduction would not fulfill the purposes of the statute or the section.

EPA found that the CPP is "projected to result in substantial and meaningful reductions of CO_2 emissions."[492] It further concluded that if the word "system" is interpreted to preclude measures such as building blocks 2 and 3, the "only controls available that can reduce CO_2 emissions from existing power plants in the amounts commensurate with the problems they pose" are "far more expensive" than the CPP building blocks.[493] EPA reiterated this finding in 2017, when it found in denying various reconsideration petitions that "no other technology or method for reducing emissions has emerged that achieves reasonable amounts of emission reductions more cost-effectively than generation shifting."[494] Therefore, "interpreting the 'system of emission reduction' provisions in CAA section 111(d)(1) and (a)(1) to allow the nation to meaningfully address the urgent and severe public health and welfare threats that climate change pose is consistent with what the CAA was designed to do."[495]

Both in the final CPP, and in its denial of reconsideration, EPA emphasized that limiting the BSER to heat rate improvements would be unreasonable and contrary to the CAA, since any resulting emission reductions would be "grossly insufficient to address the public health and environmental impacts from CO_2," and may, in fact, lead to emission *increases*.[496]

To properly revise its interpretation of "system", the Administrator must engage with these findings from the CPP rulemaking and provide a "more detailed justification" explaining why those findings were incorrect.[497] The Proposed Repeal does not consider the threats associated with climate change or the amount of air pollution that could be reduced through measures that conform to the proposed interpretation, nor does it address whether the emission reductions associated with the proposed interpretation would be "commensurate with the sector's contribution to GHG emissions and thus necessary to mitigate the dangers presented by climate change."[498] Ignoring these underpinnings for the CPP BSER results in an arbitrary and capricious rulemaking.

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[490] 42 U.S.C. § 7411(a)(1).
[491] *Sierra Club v. Costle*, 657 F.2d 298, 326 (D.C. Cir. 1981).
[492] CPP Final Rule, 80 Fed. Reg. at 64,745.
[493] *Id*. at 64,775. *See also* Final CPP RIA, at 3-23 to -24 (Aug. 2015) (finding shifting generation significantly cheaper in most cases than more aggressive emission rate reduction measures at the power plant); EPA, "Greenhouse Gas Mitigation Measures," Doc. No. EPA-HQ-OAR-2013-0602-36748 (Aug. 2015) (finding that an emission standard requiring full CCS "would involve higher costs (and less flexibility) than the approach identified as the best system of emission reduction").
[494] Reconsideration Denial at 55.
[495] CPP Final Rule, 80 Fed. Reg. at 64,775.
[496] Reconsideration Denial at 55 n.75; *see also* CPP Final Rule, 80 Fed. Reg. at 64,787.
[497] *Fox*, 566 U.S. at 515-16.
[498] CPP Final Rule, 80 Fed. Reg. at 64,728.

Further, without this analysis, EPA has no way of determining whether and to what extent repealing the CPP and reinterpreting "system" will (or will not) sufficiently protect the CAA's intended beneficiaries: public health and welfare. The public health and environmental crises associated with emissions of greenhouse gases and other pollutants from power plants, the amount of air pollution reduced, and the cost that those reductions would entail are pivotal factors in interpreting section 111 and designing a rule. The "fail[ure] to consider [these] important aspect[s] of the problem" renders the repeal arbitrary and capricious.[499]

(ii) The Administrator's narrow approach to BSER fails to account for the interconnected nature of the power sector.

The Administrator's Proposal to interpret section 111 to preclude generation-shifting arbitrarily fails to account for how his proposed interpretation would align with the realities of the power sector—a crucial consideration underpinning the original CPP BSER.

The U.S. electric grid is made up of three main regions or interconnections—the Western, Eastern, and Texas interconnections. Each of these interconnections operates as an independent synchronized machine. Once electricity enters an interconnection, it becomes part of a vast pool of undifferentiated energy that is fungible. Since large amounts of electricity cannot be economically stored today, grid operators within each interconnection use automated systems to signal generators to dispatch more or less electricity to the grid in order to continuously and precisely balance supply and demand. The standard approach used by grid operators to dispatch generation is Security Constrained Unit Commitment and Economic Dispatch, also known as constrained least-cost dispatch.[500] Under this approach, generators with the lowest variable costs are dispatched first—taking into consideration system operational limits (such as transmission limits, generators' physical constraints, environmental standards)—until demand is satisfied. Constrained least-cost dispatch allows grid operators to facilitate shifts among generators to ensure affordable and reliable electricity. Generation shifting is therefore an essential and routine feature of grid operations and regulators have long harnessed this shifting as an efficient and economical tool to reduce power sector pollution.[501] Power companies and grid operators have also historically responded to air pollution controls by shifting to lower-emitting generators.

EPA carefully designed the CPP to work with the grid structure rather than against it to drive significant, cost-effective emission reductions.[502] It would harness the unique

[499] *State Farm*, 463 U.S. at 43 (1983).
[500] *See* Grid Experts Comments, at vi.
[501] For instance, the Clean Air Act Acid Rain Program set a nationwide cap on sulfur dioxide emissions from fossil plants and required affected generators to hold a tradable allowance for each ton of sulfur dioxide emitted. This allowance requirement increased the costs of regulated units, which decreased their dispatch competitiveness and led to the dispatch of cheaper, less-polluting generation to meet demand.
[502] *See, e.g.,* CPP Final Rule, 80 Fed. Reg. at 64,725-26 ("In this rule, when evaluating the types and amounts of measures that the source category can take to reduce CO_2 emissions, we have appropriately taken into account the global nature of the pollutant and the high degree to which each individual affected EGU is integrated into a 'complex machine' that makes it possible for generation from one generating unit to be replaced with generation from another generating unit for the purpose of reducing generation from CO_2-emitting generating units… These factors strongly support consideration of emission reduction approaches that focus on the machine as a whole—that is, the overall source category—by shifting generation from dirtier to cleaner sources in addition to emission reduction approaches that focus on improving the emission rates of individual sources.").

interconnected nature of the power system and reflect actions and strategies that power companies and states are already taking to reduce carbon dioxide emissions.

The Administrator's proposed interpretation of the CAA to preclude this practical, common-sense approach gives *no* consideration to the structure and operation of the electric grid. Grid operators pay no attention to facility boundaries when they shift dispatch among generators according to constrained least-cost dispatch principles and it does not make sense for EPA to disregard shifts among generators in developing power sector pollution standards. An exclusive focus on heat rate improvements at coal units is unlikely to reduce power sector carbon dioxide emissions sensibly and economically. And as EPA concluded in the final CPP, if the Agency were to base its emission guidelines on the full suite of other source-specific measures that can reduce emissions from fossil fuel-fired power plants (such as natural gas co-firing or conversion, carbon capture and storage, etc.), the rule would likely cause shifts among generation sources but at greater costs than the CPP.[503] The CPP BSER approach, on the other hand, is compatible with the structure and operation of the electric grid and leverages the interconnected nature of the power system to facilitate shifts away from high-emitting generators to achieve significant cost-effective emission reductions. The Administrator's Proposal to interpret section 111 to preclude building blocks 2 and 3, without explaining his departure from the record evidence and considerations that supported the current BSER, is arbitrary and capricious.

(iii) Generation-shifting is the primary mechanism by which industry has reduced and continues to reduce its emissions in practice.

Another statutory requirement under section 111(a) is that EPA's selection of BSER must be "adequately demonstrated."[504] "An adequately demonstrated system is one which has been shown to be reasonably reliable, reasonably efficient, and which can reasonably be expected to serve the interests of pollution control without becoming exorbitantly costly in an economic or environmental way."[505] To select an adequately demonstrated system, it is essential for EPA to assess what the source category actually is doing to reduce the relevant emissions in the real world. The Administrator's Proposal to interpret the term "system" to exclude the primary means by which the regulated industry is reducing regulated emissions would be unreasonable, arbitrary and capricious.

EPA found in the CPP rulemaking that generation-shifting among power plants is an "everyday occurrence,"[506] and that "fossil fuel-fired EGUs have long implemented, and are continuing to implement, the measures in building blocks 2 and 3 for various purposes, including for the purpose of reducing CO_2 emissions."[507] Further, EPA found that generation-shifting has been utilized in a variety of other EPA rules, including (as discussed in section III.B.ii.d) the Acid Rain Trading Program and the Cross-State Rules.[508]

[503] CPP Final Rule, 80 Fed. Reg. at 64,727-28.
[504] 42 U.S.C. § 7411(a)(1).
[505] *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973).
[506] CPP Final Rule, 80 Fed. Reg. at 64,728-29.
[507] *Id*. at 64,769 n.520 (citing utility climate mitigation plans utilizing generation shifting for pollution reduction).
[508] *Id*. at 64,729.

EPA further documented in the rulemaking that there had been a sharp and accelerating shift in generation away from higher-emitting fossil fuel-fired power plants and toward zero-emitting renewable energy resources, spurred in significant part by the 29 states and the District of Columbia with renewable portfolio standards or similar laws.[509] Renewable capacity grew fivefold from 1998 to 2013,[510] while renewable generation increased from 8 percent in 2005 to 12 percent of electricity in 2013.[511] And between 2009 and 2013, wind generation has tripled while solar generation grew twentyfold.[512]

At the time of EPA's rulemaking, this growth was expected to continue; in its 2015 forecast, the U.S. Energy Information Administration ("EIA") projected that renewable energy would increase by 70 percent from 2013 to 2040, accounting for over one-third of new generation capacity in that time period.[513] And to date, wind and solar growth has significantly exceeded these expectations, driven by continued cost declines as well as federal and state policy support.[514] Between 2014 and 2016, wind and solar have represented the majority of all new capacity additions each year.[515,516] Wind capacity has already surpassed EIA's Annual Energy Outlook ("AEO") 2015 projections for 2030, and utility-scale solar capacity has already exceeded EIA's AEO 2015 projections for 2040.[517] In its most recent Outlook (AEO 2018), EIA has accounted for this recent growth and revised its projections upwards accordingly. In the next section, the impacts of these changes as well as other market trends on expectations for CPP compliance are discussed.

Similarly, a sector-wide trend has occurred among fossil fuel plants themselves, with generation shifting from higher-emitting, coal-fired plants to lower-emitting natural gas-fired plants "since at least 2000."[518] Generation from gas-fired units increased four-fold from 2000 to 2012, while coal-fired generation decreased by one-third during that interval.[519] In the CPP rulemaking, EPA confirmed that this has been a conscious strategy of utilities after reviewing state-level integrated resource plans, which show "a pattern of shifting from coal steam capacity

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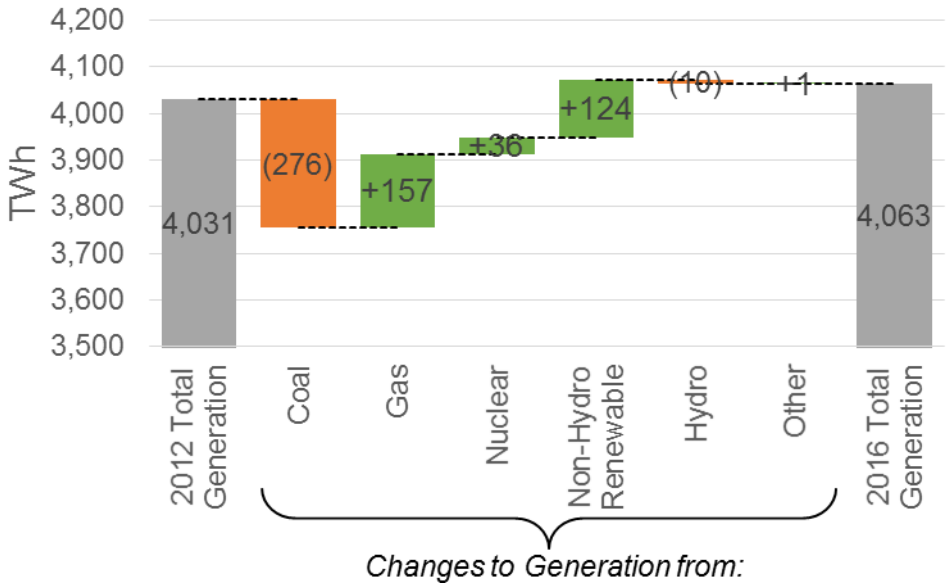
[509] *Id*. at 64,803.
[510] *Id*. (citing EIA, *1990-2013 Existing Nameplate and Net Summer Capacity by Energy Source Producer Type and State (EIA-860)* (submitted in Joint Appendix as Attachment J14)).
[511] *Id*. (citing EIA, *Monthly Energy Review,* tbl. 7.2b. (May 2015) (submitted in Joint Appendix as Attachment J23)); *see also* EPA, "Greenhouse Gas Mitigation Measures (Technical Support Document)," Doc. No. EPA-HQ-OAR-2013-0602-36748, at 4-19 (2015) (describing state integration of renewable energy resources into the generation mix) (submitted in Joint Appendix as Attachment F30).
[512] *Id*. (citing EIA, *Monthly Energy Review,* tbl 7.2b (May 2015) (submitted in Joint Appendix as Attachment J23)).
[513] *Id*. at 64,804 (citing EIA, *Annual Energy Outlook 2015 with Projections to 2040*, at ES-6-7 (2015)).
[514] Power Sector Trends Appendix, 23-30 (in 2016 the level of monthly renewable electricity generation surpassed levels from the corresponding month in 2015).
[515] EIA, *Wind Adds the Most Electric Generation Capacity in 2015, Followed by Natural Gas and Solar*, *Today in Energy*, (Mar. 23, 2016) (submitted in Joint Appendix as Attachment J28).
[516] EIA, *U.S. Electric Generating Capacity Increase in 2016 Was Largest Net Change Since 2011*, *Today in Energy*, (Feb. 27, 2017) (submitted in Joint Appendix as Attachment J26).
[517] SNL Energy, "Power Plant Summary," accessed Jan. 8, 2018: Total U.S. wind and solar capacity has reached 88.0 GW and 26.8 GW, respectively; EIA's AEO 2015 projected 86.3 GW of wind by 2030 and 22.2 GW of solar by 2040.
[518] CPP Final Rule, 80 Fed. Reg. at 64,795.
[519] *Id*. (citing Ventyx Electric Power Database, *Ventyx Monthly Plant-Level Generation, 2000-2012*, Doc. No. EPA-HQ-OAR-2013-0602-37116 (submitted in Joint Appendix as Attachment J61)).

to NGCC capacity."[520] EPA expected, at the time it finalized the CPP, that this pattern would continue.[521] And, indeed, it has.[522]

In fact, EPA's findings have proven highly conservative as the shift from coal-fired to cleaner forms of generation has persisted and deepened since the 2012 baseline year EPA used in setting the CPP emission targets. Figure [A] below decomposes the change in generation from all sources in the lower 48 states between 2012 and 2016, by fuel type. While total generation fueled by coal decreased by 276 terawatt-hours ("TWh") between 2012 and 2016, total gas-fired generation increased by 157 TWh, non-hydro renewable generation grew by 124 TWh, and nuclear generation grew by 36 TWh. Collectively, these sources helped meet 2016 generation demands that were 32 TWh higher than 2012, which is equivalent to a four-year cumulative average growth rate of 0.2 percent.[523] Note too that annual growth rate is lower than that during earlier periods of more robust load growth, reflecting the impact of energy efficiency measures and behind-the-meter renewable installations, among other factors.

Figure [A]: Changes in United States Lower 48 Generation by Fuel Type, 2012 to 2016[524]



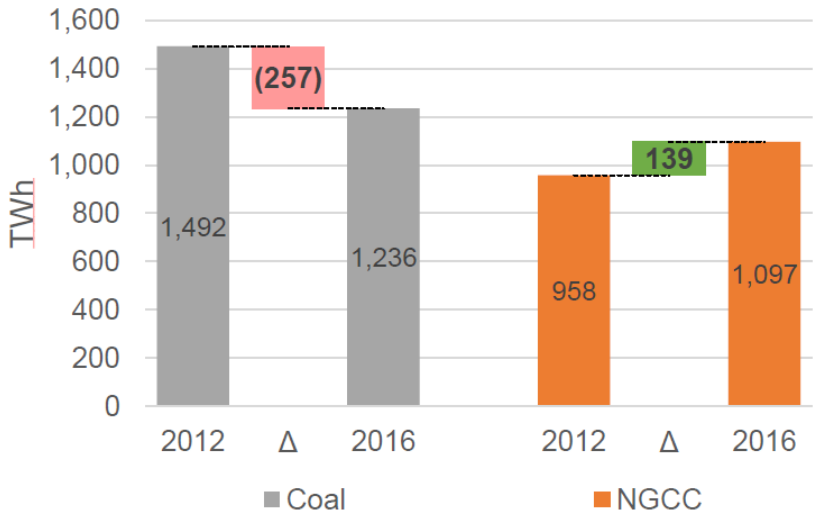
As a result, the U.S. Energy Information Administration estimates that 2016 CO_2 emissions in the electricity sector were 25 percent lower than 2005 levels, within striking distance of the 2030 CPP goal.[525] The CPP was projected to result in emission reductions of 32 percent below 2005 levels by 2030, which translates to 19 percent below 2012 levels—the

[520] *Id*. (citing EPA, *Review of Electric Utility Integrated Resource Plans*, Doc. No. EPA-HQ-OAR-2013-0602-36301 (May 7, 2015) (submitted in Joint Appendix as Attachment F27)).
[521] *Id*. (citing EIA, *Annual Energy Outlook* (forecasting 40 GW of coal retirements and 53 GW of NGCC additions)).
[522] Power Sector Trends Appendix, 19-22 (showing continued growth in reliance on natural gas through increasing capacity factors and new builds).
[523] Analysis by The NorthBridge Group based on EIA Form 860 data from the Ventyx Velocity Suite.
[524] *Id*.
[525] EIA, *Monthly Energy Review*, at 187, tbl. 12.6 "Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector" (March. 2018) (submitted in Joint Appendix as Attachment J27).

baseline year EPA used to set emission targets. Preliminary EIA data show that power sector CO_2 emissions have continued to decline in 2017, reaching 14 percent below 2012 levels—roughly 70 percent of the emission reductions required in just the past five years.[526] While these trends show that the CPP is eminently achievable, we cannot rely solely on market dynamics to reduce emissions. Preserving the CPP is vital to ensure that these emission reduction trends continue, particularly if natural gas prices rise in the future, which could potentially drive some shift back to coal generation. The CPP also provided important policy certainty for power companies and investors. Moreover, the early achievement of the CPP's interim goals if anything argues for a more stringent regulation of carbon pollution from the power sector, not repeal.

Narrowing the focus to the fossil fuel-fired units that are affected sources under the CPP, we can see that EPA conservatively identified the ongoing shift from coal-fired generation to natural gas-fired generation and the potential for further displacement in building block 2 as part of its BSER determination. Since the 2012 baseline year EPA used in setting the CPP emission targets, this shift has accelerated and intensified. Figure [B] below compares the 2012 and 2016 generating output at affected sources covered by the CPP. As coal-fired generation has decreased by 257 TWh during this period, natural gas combined cycle generation has gone up by 139 TWh, effectively replacing over half of the lost coal generation.[527, 528]

Figure [B]: Generation from Affected Sources under the CPP[529]

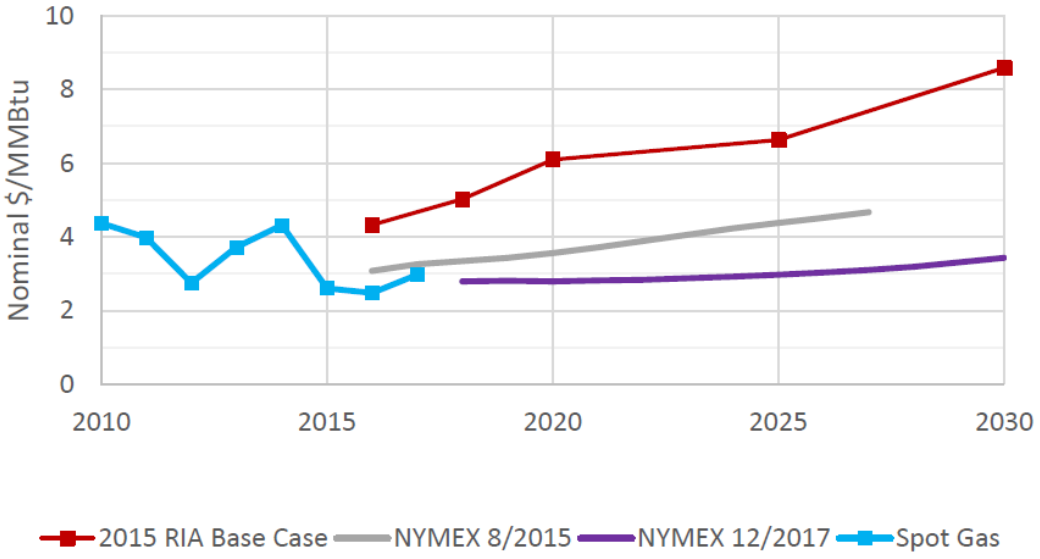


This continued shift has accelerated because EPA's natural gas price assumptions underlying building block 2 have proven to be quite conservative. Over the last several years

[526] *Id*.
[527] Note that the coal and NGCC categories shown in Figure [B] are subsets of the coal and gas categories, respectively, that appear in Figure [A]. For example, the coal category in Figure [A] includes coal generation covered under the Clean Power Plan and other sources of coal generation not covered under the rule. And, the gas category in Figure [A] includes NGCC generation and other sources of gas-fired sources of generation such as steam turbines not covered under the Clean Power Plan.
[528] Analysis by The NorthBridge Group based on the CPP Final Rule Emission Performance Rate Goal Computation Technical Support Document and EIA Form 860 data from Ventyx Velocity Suite.
[529] *Id.*

since the CPP was developed, natural gas prices have fallen well below forecasted levels and spawned a range of new gas price projections that are far below previous expectations. Figure [C] below compares historical Henry Hub spot prices and three forecasts at different points in time. EPA's 2015 CPP Regulatory Impact Analysis assumed natural gas prices would be priced above $4/MMBtu in 2016 and rise above $6/MMBtu by 2020 (as shown in red below.) Since that time, as spot natural gas prices dropped and stayed below $3/MMBtu, growing confidence that natural gas prices will remain low for the foreseeable future has lowered long term price expectations in market forwards. August 2015 NYMEX futures contracts at Henry Hub were priced at $3.08 for 2016 and $3.56 for 2020, and recent December 2017 NYMEX futures contracts were priced even lower at $2.79 for 2018 and $2.80 for 2020.[530]

Figure [C]: Historical and Forecast Gas Prices at the Henry Hub[531]



In some market areas, spot gas prices were even lower than those shown above. For instance, in gas trading points near the Marcellus shale formation, spot gas prices have consistently settled below Henry Hub prices since 2014. Further, based on its most recent Outlook, EIA projects power sector delivered natural gas price without the CPP to be $4.78/mcf ($2017) in 2030—roughly 30 percent lower than previously projected in 2015.[532]

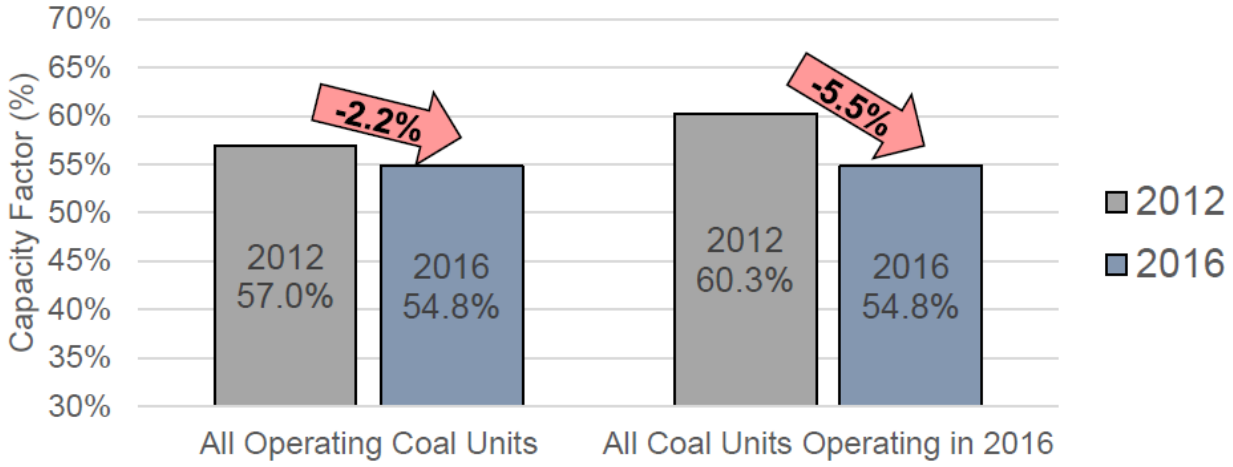
When gas prices are low, the economics of gas-fired generation become more attractive relative to coal-fired facilities. This leads natural gas plants to be dispatched before coal plants and lowers the economic costs of carbon reductions achieved through further coal-to-gas re-dispatch. The much lower current and predicted future natural gas prices present an even greater

[530] Analysis by The NorthBridge Group based on the CPP Final Rule Emission Performance Rate Goal Computation Technical Support Document and EIA Form 860 data from Ventyx Velocity Suite.
[531] *Id.*
[532] *See* EIA, *Annual Energy Outlook 2018* (Feb. 2018) (submitted in Joint Appendix as Attachment J15); EIA, *Annual Energy Outlook 2015* (Apr. 2015), (submitted with these comments as Attachment A). In 2015, the power sector delivered natural gas price without the Clean Power Plan was projected to be $6.38/mcf ($2013) or $6.70/mcf ($2017).

opportunity to displace additional coal-fired generation with natural gas generation than EPA recognized in the CPP.

Since the promulgation of the CPP, reduction in coal utilization rates, not just coal retirements, have helped drive the shift from coal-fired generation to gas-fired generation. While this four-year period from 2012 to 2016 witnessed a number of coal plant retirements, changes to total capacity alone do not explain the shift from coal to gas generation. Utilization rates across the coal fleet fell as well. Coal units covered by the CPP operated at a 57.0 percent capacity factor in 2012 and declined to a 54.8 percent capacity factor in 2016, as shown on the left of Figure [D] below. The 2012 coal fleet, however, included many coal plants with low utilization rates that retired between 2012 and 2016. A 60.3 percent capacity factor was achieved in 2012 by the coal plants that would ultimately remain in operation in 2016 and the utilization of these generators fell by 5.5 percentage points in 2016. The reduction in coal generation is not only due to the loss of generation from retiring facilities, but is also attributable to declining utilization at the remaining generators.[533]

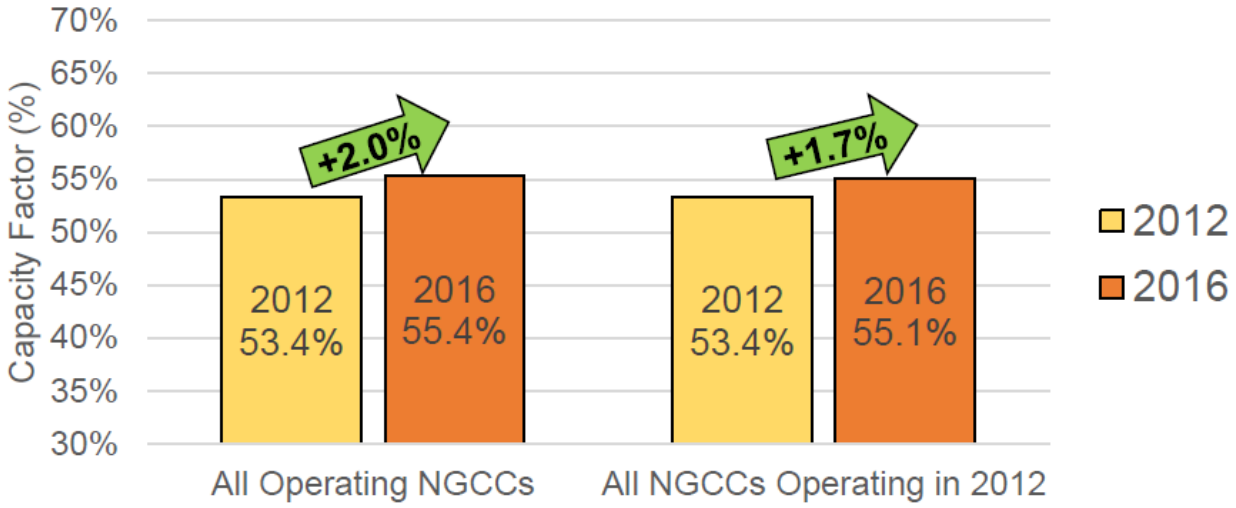
Figure [D]: Capacity Factors at CPP-Covered Coal Units[534]



Similarly, the increase in combined cycle generation is due both to generation at highly-utilized new natural gas combined cycle ("NGCC") facilities and to the increased utilization of the fleet that existed in 2012. The average NGCC capacity factor rose from 53.4 percent in 2012 to 55.4 percent in 2016, as seen on the left side of Figure [E] below. The 2016 NGCC fleet includes capacity brought online after 2012, which was utilized at an above-average rate, but even excluding this capacity, as the right side of Figure [E] does, the 2012 NGCC fleet raised its capacity factor from 53.4 percent to 55.1 percent in four years.[535]

[533] Analysis by The NorthBridge Group based on the CPP Final Rule Emission Performance Rate Goal Computation Technical Support Document and EIA Form 860 data from Ventyx Velocity Suite.
[534] *Id.*
[535] *Id.*

Figure [E]: Capacity Factors at CPP-Covered NGCCs[536]



EPA's Proposed Repeal also fails to overcome the CPP record, which identified the availability of natural gas combined cycle generation to replace the reduced utilization of coal units and also set the target based on a 75 percent annual average capacity factor on a net summer basis in fashioning building block 2. While combined cycle generators have increased their output over the past four years, their operation in the years since the CPP was promulgated demonstrates that EPA's calculations of the opportunity for increased gas unit utilization used in setting the emission guidelines were very conservative. The 55 percent average capacity factor achieved by the U.S. combined cycle fleet in 2016 is well below its technical availability and the 75 percent annual average capacity factor level on a net summer basis used for target-setting in the CPP's building block 2; further, the annual average is well below what has already been experienced on a monthly or weekly basis. Figure [F] below provides a closer examination of the performance of the NGCC fleet in six different regions[537] over four time periods: the 2012 year, the 2016 year, the month of August 2016, and the single week in 2016 with the highest average capacity factor in each region.[538]

[536] *Id.*

[537] The six regions chosen are the same regions modeled by the "Regional Compliance" scenario in the Repeal Proposal RIA. They are: North Central (ND, SD, MN, IA, MO, IL, WI, IN, MI), West (WA, OR, CA, NV, AZ, NM, UT, CO, WY, ID, MT), South Central (NE, KS, OK, AR, TX, LA), Northeast (NY, VT, NH, ME, MA, CT, RI), Southeast (KY, TN, NC, SC, GA, FL, MS, AL), and East Central (OH, PA, NJ, DE, MD, WV, VA, DC).

[538] Analysis by The NorthBridge Group based on EIA Form 860 data and EPA Air Markets Program Data from the Ventyx Velocity Suite.

Figure [F]: NGCC Average Capacity Factors Across U.S. Regions[539]

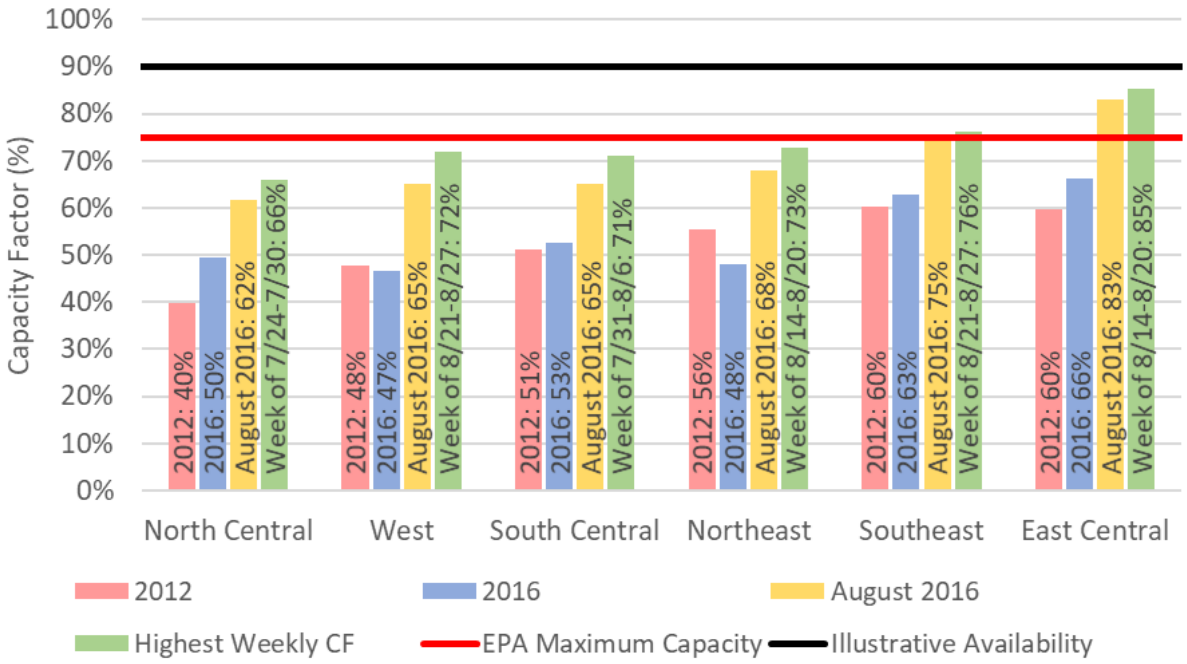


Figure [F] reaffirms that sustained operations at a higher capacity factor are technically feasible across a wide footprint for an entire year, like in the Southeast and East Central regions which achieved annual average capacity factors in 2016 of 63 percent and 66 percent, respectively. Nationwide annual average NGCC capacity factors could rise simply from NGCCs in regions like the North Central and West operating more like NGCCs in the Southeast and East Central regions.

Further, Figure [F] shows that the weeks or months that witnessed the highest capacity factors in each region demonstrate that performance beyond 75 percent is already enabled by existing gas and electric infrastructure during at least some periods of time in two out of the six regions, and performance beyond 70 percent is already enabled during at least some periods of time in five out of the six regions. Given an incentive to dispatch more frequently, whether through low gas prices or a compliance mechanism meant to unlock the full coal-to-gas re-dispatch potential, system-wide capacity factors could rise beyond recent levels demonstrating that the technical and economic basis for building block 2 was well-grounded and has not been overcome in the Proposed Repeal record.

The Proposed Repeal concedes that "[t]he trends in projected emissions from the electric power sector are consistent with the projected shift away from higher-emitting generating sources to lower-emitting generating sources observable in future scenarios that assume no implementation of the CPP."[540] The Proposal proceeds to describe EIA's finding that "in the electric power sector, coal-fired plants are replaced primarily with new natural gas, solar, and

[539] *Id.*
[540] Repeal Proposal RIA, at 110.

wind, which reduced electricity-related CO_2 emissions."[541] EIA found that carbon emissions in the power sector fell by 376 million metric tons (15 percent) between 2005 and 2013. Of that decline, 226 million tons and 150 million tons were attributable to the shift from coal to natural gas and the shift from coal to non-carbon generation, respectively.[542] Yet EPA fails to take these realities into account when interpreting the legal boundaries of BSER for this sector and this pollutant, even though these were the very considerations that EPA looked to when it arrived at the current interpretation of the BSER reflected in the CPP. Rational decision-making requires EPA to look to the current realities of the regulated industry, and to ensure that its actions accord with the facts in the record.[543] EPA has fallen short of that standard here.

If the Administrator refuses to "look out the window" and consider the predominant method by which the covered sources *actually* reduce their CO_2 emissions, he will be arbitrarily ignoring "significant and viable and obvious alternatives" to his proposed reinterpretation of "system," and disregarding key facts that underlay the CPP BSER. Such a decision would be patently arbitrary and capricious.[544] Agency analysis must exhibit a "rational relationship" with "known behavior."[545] The known behavior of the electric system is that it has been, is, and will continue shifting generation from higher-emitting resources to lower- and zero-emitting sources in order to reduce emissions. The Administrator's failure to consider this common practice an adequately demonstrated "system" is fatal to the proposed rulemaking.

(iv) Costs of renewable energy are decreasing and becoming increasingly competitive with other generating sources.

Another set of known, well-documented trends that EPA fails to account for in the Proposed Repeal is the decreasing costs and increasing competitiveness of renewable energy. In the CPP, EPA reviewed numerous studies showing "capital cost reductions and performance improvements for [renewable energy]."[546] EPA found that "[t]he cost and performance improvements for wind and solar are driven by increased scale of production, improved technologies, and advancements in system deployments."[547] The widespread availability and cost-effectiveness of renewable energy were key factors in determining that building block 3 is an appropriate element of BSER for existing power plants,[548] and the Administrator's failure to

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[541] *Id*. (citing *AEO2017*).
[542] EIA, U.S. Energy-Related Carbon Dioxide Emissions, 2016, (Oct. 5, 2017) (submitted in Joint Appendix as Attachment J19).
[543] *Pub. Emps. v. Hopper*, 827 F.3d 1077, 1083 (D.C. Cir. 2016).
[544] *Nat'l Shooting Sports Found. v. Jones*, 716 F.3d 200, 215 (D.C. Cir. 2013).
[545] *Chem. Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1265 (D.C. Cir. 1994); *see also Am. Petroleum Inst. v. EPA*, 862 F. 3d 50, 68 (D.C. Cir. 2017).
[546] CPP Final Rule, 80 Fed. Reg. at 64,804 nn.691-697.
[547] *Id*. (discussing studies that found "novel deployments of new turbines" and system optimization trends in renewable generation; citing, *e.g.*, NREL, "U.S. Renewable Energy Technical Potentials: A GIS-Based Analysis," (July 2012) (submitted in Joint Appendix as Attachment J50); EIA, AEO 2015, at 25).
[548] CPP Final Rule, 80 Fed. Reg. at 64,747 ("Building block 3 is adequately demonstrated as a 'system of emission reduction' for all affected EGUs. As discussed in section II, RE generation has been relied on since the 1970s to provide energy security by replacing some fossil fuel-fired generation . . . Investment in RE generation has grown rapidly, such that in recent years the amount of new RE generating capacity brought into service has been comparable to the amount of new fossil fuel-fired capacity. Rapid growth in RE generation is projected to continue as costs of RE generation fall relative to the costs of other generation technologies. These trends are further

consider this factual underpinning of the CPP BSER makes the Proposed Repeal arbitrary and capricious.

The increasing economic competitiveness of renewable energy has continued apace since the CPP was promulgated; in fact, it is accelerating,[549] bringing about a period of rapid transformation that includes significant changes even in the few years since EPA conducted its Regulatory Impact Analysis of the Final CPP. Even the Repeal Proposal RIA recognizes that "[p]rojections of new renewable capacity have increased . . . substantially" since 2015, reflecting decreased technology costs.[550]

The costs of wind and solar technologies have fallen dramatically in recent years. In many places, these zero-emission resources are out-competing fossil fuel-based electricity generation. According to the investment firm Lazard, the cost of generating power from new wind and solar projects has declined by 67 percent and 86 percent, respectively, since 2009.[551] In the past two years alone, according to the same analysis, the cost of wind and solar power has fallen by 17 percent and 22 percent, respectively. Indeed, the average price of wind power dropped to just $20 per megawatt-hour in 2016.[552] In 2017, the Department of Energy ("DOE") announced that the solar industry had hit the Sunshot target for utility-scale projects—an installation cost of $1 per watt—three years ahead of schedule.[553] Xcel Energy's recent request for proposals in Colorado received an unprecedented number of renewable energy bids, with a median bid price for wind of $19.30/MWh and a median for wind plus storage of $20.63/MWh—cheaper than the operating cost of all existing coal plants in Colorado.[554] Meanwhile, the median bid for solar was $30.96/MWh and the median for solar plus storage was $38.30/MWh—cheaper than roughly 70 percent of Colorado's operating coal capacity.[555]

The policy landscape for wind and solar technologies has also changed considerably. In December 2015, four months after EPA finalized the CPP, Congress passed legislation, signed into law by President Obama, that extends the Production Tax Credit for wind projects and the

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discussed in section V.E. *Interpretation of a 'system of emission reduction' as including RE generation for purposes of this rule is thus supported by legislative history, regulatory precedent, and industry practice.*") (emphasis added).

[549] Power Sector Trends Appendix, at 36-38 (explaining that price declines in non-hydro renewable energy have continued and that continued improvements to solar PV system pricing reinforced long-term declines in renewable energy costs).

[550] Repeal Proposal RIA, at 105-06 (citing Annual Energy Outlook 2017).

[551] Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 11.0* (Nov. 2017) (submitted in Joint Appendix as Attachment J39).

[552] Lawrence Berkeley Nat'l Lab., *2016 Wind Technologies Market Report* (Aug. 2017) (submitted in Joint Appendix as Attachment J37).

[553] Nat'l Renewable Energy Lab., *U.S. Solar Photovoltaic System Cost Benchmark: Q1 2017* (Sept. 2017) (submitted in Joint Appendix as Attachment J46).

[554] *See* David Roberts, *In Colorado, A Glimpse of Renewable Energy's Insanely Cheap Future*, Vox (Jan. 16, 2018), *see also* Rama Zakaria, *Still Cheaper than Coal—A Report on the Economics of Solar Power in Colorado,* EDF Blogs (Mar. 26, 2018), http://blogs.edf.org/climate411/2018/03/26/still-cheaper-than-coal-a-report-on-the-economics-of-solar-power-in-colorado/.

[555] *See* Rama Zakaria, *Still Cheaper than Coal—A Report on the Economics of Solar Power in Colorado,* EDF Blogs (Mar. 26, 2018), http://blogs.edf.org/climate411/2018/03/26/still-cheaper-than-coal-a-report-on-the-economics-of-solar-power-in-colorado/.

Investment Tax Credit for solar projects, placing both credits on a phase-down schedule.[556] At the state level, several states strengthened their Renewable Portfolio Standards in 2015 and 2016.[557]

In its Regulatory Impact Analysis of the final CPP, EPA conducted power sector modeling using the IPM and relied on cost projections developed by the National Renewable Energy Laboratory ("NREL"), as published in its Annual Technology Baseline ("ATB"). NREL updates its cost projections each year; as shown below, recent progress has had a significant impact on expectations for future costs.[558]

Table 1: Changes in Projected Costs for Wind and Solar[559]

Table 1: Projected Levelized Cost of Energy ($2015/MWh), 2030			
	NREL ATB 2015	NREL ATB 2017	% Change
Onshore Wind	51.4	38.1	-26%
Utility Solar PV	85.2	45.2	-47%

The cost declines observed to date, and the further declines expected, have a significant impact on the requisite compliance analysis of the CPP. For example, in its 2015 analysis, EPA relied on NREL's forecast, which did not project solar costs to reach the Sunshot target of $1 per watt *until 2040*. Additionally, the extensions of the federal tax credits for wind and solar will result in significant wind and solar growth, which will in turn lower the remaining cuts needed to meet the goals of the CPP.

In its Repeal Proposal RIA, EPA recognizes and details the impacts that these and other shifting dynamics in the electricity sector have had on the Annual Energy Outlook ("AEO"), another modeled outlook of the electricity sector, conducted by the Energy Information Administration. AEO provides modeled projections of domestic energy markets, released annually to represent updates to current policy and a variety of assumptions for economic growth, fuel prices, and technological progress. AEO has accounted for the CPP since 2015, and

[556] As part of *The Consolidated Appropriations Act of 2016*, the Production Tax Credit (PTC) for onshore wind projects was extended at its full value of 2.3 cents/kWh through the end of 2016, and then will phase down to 80 percent of its full value in 2017, 60 percent in 2018, and 40 percent in 2019. The Investment Tax Credit (ITC) for solar projects was extended at its full value of 30 percent of project investment costs through the end of 2019, and will drop to 26 percent in 2020 and 22 percent in 2021. Without additional legislation, the PTC will expire after 2019, and after 2021, the ITC will drop to 10 percent of investment costs for utility-scale and commercial projects and will expire for residential projects.

[557] Lawrence Berkeley Nat'l Lab., *Renewable Portfolio Standards: 2017 Annual Status Report* (July 2017) (submitted in Joint Appendix as Attachment J38).

[558] Nat'l Renewable Energy Lab., *Annual Technology Baseline* (submitted in Joint Appendix as Attachment J45)

[559] The projections in Table 1 are derived from the 2017 version of the Annual Technology Baseline ("ATB") and an early draft of the 2015 version, which was what EPA relied on in its modeling (*see* Joint Appendix Attachment F3). For onshore wind, NREL provides projections across multiple wind resource classes (Techno-Resource Groups, or "TRGs"). The point of comparison in Table 1 is the mid-case estimate for the central TRGs analyzed. In the 2015 ATB, estimate for TRG3 is presented (out of 5 TRGs analyzed); in the 2017 ATB, the average estimate for TRG5 and TRG6 is presented (out of 10 TRGs analyzed). For utility solar PV, the point of comparison is the mid-case estimate for a solar project with a 20 percent capacity factor.

has presented cases both with and without the policy in place. In its evaluation of the 2015, 2016 and 2017 AEO projections, EPA's RIA for the Proposed Repeal recounts three key ongoing trends in the electricity sector that have occurred independent of the CPP since it conducted the 2015 RIA analysis of the finalized rule.

First, projected demand for electricity between 2020 and 2030 has fallen in each of the AEO projections since 2015. In 2017, electricity demand in 2030 fell to 1.5 percent below 2015 levels.[560] This is continuing evidence of a longstanding trend. Going even farther back, electricity consumption declined at an annual average rate of 0.2 percent in the five years preceding 2015. In every five-year period since 1996, electricity demand growth rates have declined.[561] Declining electricity demand is driven by a number of factors, including growing investment in energy efficiency programs and increased deployment of distributed generation such as rooftop solar.

Second, EPA observes the projected increase in new renewable capacity between EIA's 2015 and 2017 projections. EIA's projections of both cumulative unplanned new renewable energy capacity and total renewable energy capacity have increased substantially. Unplanned new renewable energy capacity additions grew almost 400 percent in AEO2017 over AEO2015.[562] Total renewable energy capacity in 2030 increased 38 percent in AEO2017 compared with AEO2015.[563] As EPA notes, "the increase in projected new builds of these generation technologies reflects the fact that the private cost of building these technologies has decreased over the past few years both because of the PTC/ITC tax credit extensions and because of decreases in the cost of new capacity."[564]

Third, EPA notes that AEO's projected natural gas price forecasts have been continually revised lower between 2015 and 2017. The power sector delivered gas price for 2030 in the 2015 No CPP Reference Case was $6.64/mcf ($2016), and is revised downwards by 21 percent to $5.25/mcf in the 2017 No CPP Reference Case.[565] These forecasts in turn lead to an expectation that competition from natural gas will continue to challenge coal in the electricity sector going forward. As EPA acknowledges, these three ongoing market trends are expected to further reduce the share of coal in the electricity mix. The AEO No CPP Reference Case projections demonstrate a clear shift away from higher-emitting generation sources to lower- and zero-emitting sources. In its Repeal Proposal RIA, EPA points out that between 2015 and 2017, the AEO No CPP Reference Case projects a decrease of 290 TWh or 17 percent in coal generation in 2030, with commensurate declines in coal capacity and coal consumption.[566]

The CPP was designed to phase in emissions limits gradually between 2022 and 2030, and was projected to result in emission cuts of roughly 32 percent below 2005 levels by 2030. Driven by market shifts, power sector carbon emissions have declined by 25 percent between

[560] Repeal Proposal RIA, at 105.
[561] M.J. Bradley & Associates, *Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States* (July 2016) (submitted in Joint Appendix as Attachment J40)
[562] Repeal Proposal RIA, at 106.
[563] *Id.*
[564] *Id.*
[565] *Id.* at 107.
[566] *Id.* at 108.

2005 and 2016, and continued to decline in 2017, reaching 27 percent below 2005 levels.[567] EPA suggests that updating its CPP analysis to account for the latest market and sector information would likely show fewer incremental capacity additions and lower compliance costs. To test this hypothesis, EPA compares the 2016 and 2017 AEO projections that include the CPP. It finds that in the 2017 projections using the most up-to-date baseline, the CPP drives less incremental new generating capacity, has less impact on natural gas prices, and requires a more modest amount of emissions reductions beyond what is already expected, since a portion of the reductions are now projected to occur in the Reference Case. EPA sensibly points out that the implication of these shifts would be that the compliance costs associated with the CPP would be more modest than previously estimated. "Together, these factors contribute to an expectation that updated EPA analysis would project fewer CO_2 emissions in the absence of the CPP than was projected in the 2015 RIA. It follows that, on average, compliance with CPP mass-based emission targets would be less costly since fewer reductions would be required."[568]

EPA's analysis of the trends in recent Annual Energy Outlooks reaffirms the findings of many industry and governmental analyses that the sector is well-positioned for CPP compliance. In June 2016, the Natural Resources Defense Council ("NRDC") reviewed four studies published after the extensions of the renewable energy tax credits, published by Rhodium Group ("RHG"), the National Renewable Energy Laboratory, MJ Bradley and Associates ("MJBA"), and Bloomberg New Energy Finance ("BNEF").[569] NRDC found that each study reached a similar conclusion, with renewables capacity expected to nearly double from 2015 levels by 2021. This growth in renewable energy puts the power industry in an excellent position to meet, or even exceed, the goals of the CPP. Indeed, a 2017 report by the Institute for Policy Integrity presents several recent economic analyses conducted by independent, non-governmental entities all of which show that the gap between projected emissions with and without the Clean Power Plan has narrowed substantially since 2015 and the costs of compliance are much lower than previously anticipated.[570]

EPA's own record thus recognizes that generation is shifting from higher to lower-emitting sources and itself supports the CPP determination that the BSER must reflect this reality. As noted above, the rapid growth and falling costs of renewable energy, and widespread availability of these technologies to EGUs throughout the country, were a key factor supporting EPA's original interpretation of the BSER in the CPP. The Proposed Repeal is arbitrary and capricious because it fails to engage with the record evidence supporting the CPP BSER, runs counter to the Agency's own evidence in this proceeding, and fails to make a "rational connection between the facts found and choice made."[571]

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[567] *See* EIA, *Monthly Energy Review*, at 187, tbl. 12.6 Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector (Mar. 2018) (submitted in Joint Appendix as Attachment J22).
[568] Repeal Proposal RIA, at 118.
[569] Nat. Res. Def. Council, *The Clean Power Plan: Keeping Climate Progress On Track*, (June 2016) (submitted in Joint Appendix as Attachment J47).
[570] Denise A. Grab & Jack Lienke, *The Falling Cost of Clean Power Plan Compliance*, N.Y.U. Inst. for Policy Integrity (Oct. 2017) (Submitted in Joint Appendix as Attachment J11).
[571] *State Farm*, 463 U.S. at 43.

(v) States and companies continue to press forward in their transition to cleaner electricity generation.

Not only are market trends driving a reduction in fossil-fired generation and increases in zero- or lower-emitting generation, but states and companies, with an interest in reducing CO_2 emissions, have taken steps to substitute coal plants with lower-emitting plants. These actions and commitments were likewise an important factor supporting the reasonableness of the CPP BSER,[572] and the Administrator's failure to give them any consideration in the Proposed Rule or discuss how they align with the proposed interpretation is arbitrary and capricious.

Many owners and operators of affected power plants are already planning on deploying significant amounts of RE according to their integrated resource plans.[573] Furthermore, "[m]any affected EGUs have already invested in RE. Of the 404 entities that owned part of at least one affected EGU under this rule, 178 also owned RE (biomass, geothermal, solar, water or wind). . . . As a whole, these entities' share of RE capacity was equal to 25 percent of the total of their affected EGU capacity."[574]

Even during the current Administration, executives at a significant number of electric power companies that own or operate affected generating units have committed to continue deploying clean energy resources that reduce carbon dioxide emissions. Power companies owning more than 19.7 percent of U.S. generating capacity announced significant new renewable energy projects or carbon reduction commitments in 2017.[575] For instance, Duke Energy (with an overall portfolio of 52,700 MW) plans to reduce carbon emissions by 40 percent below 2005 levels by 2030.[576] Xcel Energy (17,000 MW) plans to reduce carbon emissions 60 percent by 2030 below 2005 levels.[577] DTE Energy (11,000 MW) plans to reduce carbon emissions 80 percent by 2050,[578] and Southern Company (46,000 MW) plans to construct 3,000 MW of new wind projects between 2018 and 2020.[579] Southern Company also recently announced a goal to reduce carbon pollution by 50 percent below 2007 levels by 2030 and to achieve "low- to no-

[572] CPP Final Rule, 80 Fed. Reg. at 64,725 (review of state programs was part of BSER determination); *id.* at 64,667 ("As the EPA has done in making BSER determinations in previous CAA section 111 rulemakings, for this final BSER determination, the agency considered the types of strategies that states and owners and operators of EGUs are already employing to reduce the covered pollutant (in this case, CO2) from affected sources (in this case, fossil fuel-fired EGUs")).
[573] EPA, *Review of Electric Utility Integrated Resource Plans*, Doc. No. EPA-HQ-OAR-2013-0602-36301 (May 7, 2015) (submitted in Joint Appendix as Attachment F27).
[574] CPP Final Rule, 80 Fed. Reg. at 64,805.
[575] Estimated from generating capacities of American Electric Power, Dominion, DTE, Duke Energy, Great River Energy, MidAmerican, NextEra, PacifiCorp, Portland General Electric, Southern Company, and Xcel Energy, against total installed U.S. generating capacity as provided in Edison Electric Institute, Industry Data (2018) (Joint Appendix as Attachment J29).
[576] Dylan Brown, *Duke Stays Course on CO_2 Cuts Despite Trump Politics*, Greenwire (Apr. 27, 2017) (submitted in Joint Appendix as Attachment H4).
[577] Ben Fowke, *At Xcel, We'll Stay on a Clean Energy Path*, Star Tribune (June 14, 2017) (submitted in Joint Appendix as Attachment H1).
[578] Hannah Northey, *Mich. Utility to Close Power Plants, Slash Emissions*, E&E News (May 16, 2017) (submitted in Joint Appendix as Attachment H6).
[579] Southern Company, *Southern Company Subsidiary Announces Strategic Wind Development Agreement*, PR Newswire (Dec. 30, 2016) (submitted in Joint Appendix as Attachment J54).

carbon operations by 2050."[580] Also in 2018, American Electric Power (26,000 MW) set a goal to cut carbon emissions by 60 percent from 2000 levels by 2030 and 80 percent from 2000 levels by 2050,[581] while PPL Corporation (8,000 MW) announced a goal to cut the company's carbon dioxide emissions 70 percent from 2010 levels by 2050[582] and Consumers Energy (5,650 MW) announced plans to reduce emissions by 80 percent and phase out coal by 2040.[583]

Power company executives cite the falling cost of cleaner resources, changing consumer and investor preferences for clean energy, and environmental concerns as the major reasons for these changes. Notably, these companies are planning from a perspective of multiple decades into the future. For example, NextEra Energy (45,900 MW capacity) Chief Financial Officer John Ketchum has reported that "[w]e anticipate that improved wind and solar economics and low natural gas prices will continue to lead to additional retirements of coal, nuclear and less fuel-efficient oil and gas-fired generation units, creating significant opportunities for renewables growth going forward."[584] Southern California Edison has stated that it "will maintain an active role in supporting California's efforts to reduce greenhouse gas emissions, including support for renewable energy, transportation electrification, energy efficiency and innovative, clean energy technologies."[585] Exelon Corporation has said that "our customers want reliable, clean and affordable electricity and Exelon remains committed to helping drive the national transition to a low-carbon future."[586] And according to Calpine Corporation, carbon pollution reduction is consistent with the company's core principles and "makes a lot of business sense for us."[587]

As described above, "[s]tates have . . . taken a significant lead in requiring the development of RE resources. In particular, a number of states have adopted renewable portfolio standards (RPS), which are regulatory mandates to increase production of RE. . . . These RPS requirements continue to drive robust near-term growth of non-hydropower RE."[588] States across the U.S. have also enacted *new* commitments to reduce carbon dioxide emissions under this

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[580] Southern Company, *Planning for a low-carbon future* (Apr. 2018), https://www.southerncompany.com/content/dam/southern-company/pdf/corpresponsibility/Planning-for-a-low-carbon-future.pdf.

[581] American Electric Power, *AEP's Clean Energy Strategy Will Achieve Significant Future Carbon Dioxide Reductions*, PR Newswire (Feb. 6, 2018), https://seekingalpha.com/pr/17066680-aeps-clean-energy-strategy-will-achieve-significant-future-carbon-dioxide-reductions.

[582] PPL Corporation, *PPL Corporation sets goal to reduce carbon dioxide emissions*, PR Newswire (Jan. 30, 2018), https://www.prnewswire.com/news-releases/ppl-corporation-sets-goal-to-reduce-carbon-dioxide-emissions-300590222.html.

[583] Consumers Energy, *Consumers Energy Announces Clean Energy Breakthrough Goal: 80 Percent Reduction in Carbon Emissions, Zero Coal by 2040* (Feb. 19, 2018), https://old.consumersenergy.com/News.aspx?id=8831&year=2018; *see also* Charlie Jiang, EDF Blogs, *Proof that the Clean Power Plan's strategy for cutting carbon pollution is the industry standard* (Apr. 26, 2018), http://blogs.edf.org/climate411/2018/04/26/proof-that-the-clean-power-plans-strategy-for-cutting-carbon-pollution-is-the-industry-standard/.

[584] NextEra, *NextEra Energy Partners' (NEE) CEO James Robo on Q1 2017 Results – Earning Call Transcript*, Seeking Alpha (Apr. 21, 2017) (submitted in Joint Appendix as Attachment J48).

[585] Energywire, *Clean Power Plan: For many utilities, court action 'doesn't really change anything'* (Feb. 11, 2016), https://www.eenews.net/stories/1060032232.

[586] *Id.*

[587] NPR, *Texas Power Players Sit Out Political Opposition To Clean Power Plan* (Apr. 16, 2016), https://www.npr.org/2016/04/16/474462519/texas-power-players-sit-out-political-opposition-to-clean-power-plan.

[588] CPP Final Rule, 80 Fed. Reg. at 64,803.

Administration. These include commitments by organizations that span multiple states and large swathes of the U.S. population. For instance, the U.S. Climate Alliance reports that at the time it published its report at the beginning of 2017, the fourteen states[589] and Puerto Rico in the Alliance, which represent more than 36 percent of the country's population, had pledged to reduce their economy-wide emissions by 26-28 percent below 2005 levels by 2025.[590] Also in 2017, the nine states[591] comprising the Regional Greenhouse Gas Initiative ("RGGI") proposed to build on the progress they have made over the past decade and reduce carbon emissions from the power sector an additional 30 percent by 2030 relative to 2020 levels.[592] And in 2018, Maryland[593] and New Jersey[594] also joined the U.S. Climate Alliance.

Many individual states have also made strong commitments to reduce greenhouse gases. For example, Colorado Governor John Hickenlooper signed an executive order committing his state to reducing its power sector emissions by 25 percent below 2012 levels by 2025, and by 35 percent below 2012 levels by 2030.[595] These reduction goals are stronger than what would have been required by the CPP.[596] In issuing this policy, Governor Hickenlooper stated that "[c]lean energy is an economic engine for our state and for our nation."[597] Similarly, Illinois enacted legislation in December 2016 that will reduce its greenhouse gas emissions, in part by mandating 4,300 MW of new wind and solar generation.[598] Virginia is proposing to establish a program that will reduce carbon emissions from the power sector by 30 percent between 2020 and 2030.[599] And just this month, New Jersey lawmakers passed a sweeping clean energy bill that will put the state on a path to becoming a national clean energy leader. [600] Governor Phil Murphy directed the state to begin negotiations to rejoin RGGI[601] and outlined a goal of powering the state with 100

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[589] California, Colorado, Connecticut, Delaware, Hawaii, Massachusetts, Minnesota, New York, North Carolina, Oregon, Rhode Island, Vermont, Virginia, and Washington.
[590] U.S. Climate Alliance, *2017 Annual Report: Alliance States Take the Lead* (2017) (submitted in Joint Appendix as Attachment J59).
[591] Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.
[592] RGGI Inc., *RGGI States Announce Proposed Program Changes: Additional 30% Emissions Cap Decline by 2030* (Aug. 23, 2017) (submitted in Joint Appendix as Attachment J56).
[593] The Baltimore Sun, Scott Dance, *Maryland will join alliance of states supporting Paris climate agreement, Hogan says* (Jan. 10, 2018), http://www.baltimoresun.com/news/maryland/environment/bs-md-hogan-climate-alliance-20180110-story.html.
[594] Josh Siegel, *New Jersey joins coalition backing Paris climate change deal*, The Washington Examiner (February 21, 2018), https://www.washingtonexaminer.com/new-jersey-joins-coalition-backing-paris-climate-change-deal/article/2649679.
[595] State of Colorado, Office of the Governor, *D 2017-015 Executive Order Supporting Colorado's Clean Energy Transition* (July 11, 2017) (submitted in Joint Appendix as Attachment J6).
[596] *Id.*
[597] *Id.*
[598] Andrew Barbeau, EDF Blogs, *Illinois' Future Energy Jobs Bill Shows States are Taking the Lead to Build the Clean Energy Economy* (Dec. 7, 2016) (submitted in Joint Appendix as Attachment J3).
[599] Virginia State Air Pollution Control Board, "Tentative Agenda and Minibook: State Air Pollution Control Board Meeting" (Nov. 16, 2017) (submitted in Joint Appendix as attachment J62).
[600] Gavin Bade, UtilityDive, *New Jersey passes bills for nuke subsidies, 50% RPS, 2 GW storage target* (Apr. 13, 2018), https://www.utilitydive.com/news/new-jersey-passes-bills-for-nuke-subsidies-50-rps-2-gw-storage-target/521314/.
[601] State of New Jersey, Governor Phil Murphy, *Governor Murphy Signs Executive Order Directing New Jersey to Reenter the Regional Greenhouse Gas Initiative* (Apr. 2018), http://www.nj.gov/governor/news/news/562018/approved/20180129a_eo.shtml.

percent clean energy by mid-century.[602] City officials across the U.S. are also pledging to reduce emissions and accelerate clean energy deployment. More than 400 U.S. mayors have committed to "intensify efforts to meet each of our cities' current climate goals, push for new action to meet the 1.5 degrees Celsius target, and work together to create a 21st century clean energy economy."[603]

The failure to recognize and account for the actual emission reduction measures that companies and states are utilizing to reduce carbon emissions from this source category renders the Proposed Repeal arbitrary and capricious.

(vi) The Clean Power Plan can be implemented and maintain reliability.

In the proposed repeal, EPA concludes that the CPP "did not adequately ensure the national interest in affordable, reliable electricity, including from coal generation."[604] EPA, however, provides no evidence to support this assertion—nor does it provide any evidence that its proposed interpretation would better meet these goals. Agency conclusions must be supported by substantial evidence to withstand legal scrutiny; conclusory statements are not entitled to deference because they are not, in fact, exercises of agency expertise. Without underlying evidentiary or analytical support, conclusory assertions offer no foundation on which a court can properly defer to the Agency.[605] That is the case here.

Moreover, the CAA expresses no preference for coal generation. The Act is intended to reduce pollution and protect public health and the environment.[606] Agency decisions under the statute—including determinations of BSER under section 111—must be based on relevant factors; agencies cannot rely on political or other reasons that run counter to the purpose and structure of the underlying statute, such as supporting a preferred generation source.[607] Although section 111 does require an inquiry into the "costs" of BSER, courts have held that this standard only requires EPA to avoid compliance costs that would be "exorbitant," such that they are more than the industry could bear and survive.[608] Under the CPP, EPA previously predicted that coal's share of generation will drop by no more than six percent below the base case (from 33 percent

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[602]Matt Arco, *Murphy wants N.J. powered by 100 percent clean energy by 2050*, (April 4, 2018), https://www.nj.com/politics/index.ssf/2018/04/murphy_wants_nj_to_be_100_clean_energy_by_2050.html.

[603] Climate Mayors, *402 US Climate Mayors Commit to Adopt, Honor and Uphold Paris Climate Agreement Goals* (June 1, 2017) (submitted in Joint Appendix as Attachment J1).

[604] Proposed Repeal, 82 Fed. Reg. at 48,038.

[605] *Keyspan-Ravenswood v. FERC*, 474 F.3d 804, 812 (D.C. Cir. 2007); *see also Chem. Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1265 (D.C. Cir. 1994) (conclusory statements imply that the agency is committed to a path regardless of the facts).

[606] 42 U.S.C. § 7401(b)(1).

[607] S*ee Am. Petroleum Inst. v. EPA*, 706 F.3d 474, 479 (2013) ("EPA expressly viewed the data . . . toward 'promoting growth' in the cellulosic biofuel industry . . . [S]uch a purpose has no basis in the relevant text of the Act."); *see also Sierra Club v. Costle*, 657 F.2d 298, 409 (D.C. Cir. 1981) ("Political considerations are improper when they force an agency to make decisions based on factors not relevant to the applicable statute."); *see also Motor & Equipment Mfrs. Ass'n v. EPA*, 627 F.2d 1095, 1116 (D.C. Cir. 1979) ("An administrative agency has no charter apart from the framework constructed by [statutory] analysis to enforce or otherwise consider whatever suits its or someone else's fancy.").

[608] *Lignite Energy Council v. EPA*, 198 F.3d 930, 933 (D.C. Cir. 1999); *Portland Cement Ass'n v. Train*, 513 F.2d 506, 508 (D.C. Cir. 1975).

to 27 percent of the generation mix) in 2030.[609] This is nowhere near an existential threat to coal-fired generation, let alone the power sector, and cannot justify the Administrator's proposed interpretation of BSER precluding the cost-effective generation-shifting measures in the CPP.

In determining the BSER, EPA was well aware of and heeded the CAA's requirement to "tak[e] into account . . . energy requirements."[610] The changes anticipated under the CPP—shifts from higher-emitting generation to lower- and zero-emitting generation—have been ongoing for years without posing any problems in the reliability of the electricity system.[611] Indeed, the electric system incorporates various features that ensure reliability, including extensive planning, monitoring, and assessment requirements, mandatory reliability standards, and numerous remedies to address local or regional issues.[612] This extremely successful institutional framework would continue to ensure the reliability of the grid as States and power companies achieve the carbon pollution limits in the CPP.

In addition to the already-existing robust mechanisms for assuring reliability, EPA meticulously designed the CPP to ensure reliable electric generation, providing layers of protection and built-in redundancy to ensure against any possible compromises to the grid.

First, EPA engaged in extensive consultation with agencies responsible for maintaining reliability, including FERC and DOE.[613] This engagement included four technical conferences and a commitment to continue coordinated efforts throughout the CPP's implementation.[614] Second, the compliance period does not commence until seven years after finalization of the rule and provides power plants with a long and forgiving averaging period within which to achieve the required emission reductions.[615] Third, the CPP allows states to prescribe differing standards of performance on a plant-by-plant basis provided that the state's plan ensures that the fleet as a whole will satisfy the CPP's emission reduction targets. As such, the CPP allows for accommodation based on each state's unique circumstances.[616] States also have the flexibility to formulate compliance plans that suit their needs, including rate-based, mass-based, multi-state, and trading formats.[617] Fourth, states are required to demonstrate that their compliance plans considered reliability issues before EPA grants its approval.[618] Fifth, states have the option to propose amendments to approved plans in the event of an unanticipated and significant reliability challenges.[619] Finally, the rule provides a reliability safety valve for individual sources that take

[609] Final CPP RIA, at 3-27.
[610] 42 U.S.C. § 7411(a)(1).
[611] CPP Final Rule, 80 Fed. Reg. at 64,874.
[612] Craig Aubuchon et al., Analysis Group, *Electric System Reliability and EPA's Clean Power Plan: Tools and Practices*, Doc. No. EPA-HQ-OAR-2013-0602-37015 at ES-1 (2015) ("The standard reliability practices that industry and its regulators have used for decades are a strong foundation from which any reliability concerns about the Clean Power Plan will be addressed.") (submitted in Joint Appendix as Attachment J9).
[613] CPP Final Rule, 80 Fed. Reg. at 64,671.
[614] *Id*. at 64,671, 64,874.
[615] *Id*. at 64,671.
[616] *Id*.
[617] *Id*.
[618] *Id*.
[619] *Id*.

effect if a source's requirements under the state plan are inconsistent with maintaining reliability.[620]

The CPP thus affords a broad array of options for states to use to help ensure against reliability problems. During the rulemaking process, EPA modeled various illustrative plan approaches and found that under each scenario, "implementation of [the CPP] can be achieved without undermining resource adequacy or reliability."[621] The Agency reiterated this finding in its 2017 reconsideration denial when it concluded that "no approach to meet the final requirements need interfere with the ability of [the] sector to meet electricity demand."[622] Nothing in the Administrator's Proposed Repeal undermines—or even addresses—this conclusion.

Recent reports also affirm the continued reliability of the bulk power system. DOE's Staff Report on Electricity Markets and Reliability—released on August 23, 2017 in response to Secretary of Energy Rick Perry's order to assess electricity markets and reliability in the face of the dynamic changes occurring within the U.S. power sector—concluded that electric reliability remains strong.[623] This conclusion is consistent with voluminous literature and evidence that shows there are no signs of deteriorating reliability on the grid today, and that continued growth in cleaner resources is fully compatible with sustained reliability. The North American Electric Reliability Corporation's ("NERC's") 2017 State of Reliability report found that over the past five years the trends in planning reserve margins were stable while other reliability metrics were either improving, stable, or inconclusive.[624] NERC also found that bulk power system resiliency to severe weather continues to improve.[625] PJM, which has recently experienced both significant coal retirements and new deployment of clean energy resources, found that "the expected near-term resource portfolio is among the highest-performing portfolios and is well equipped to provide the generator reliability attributes."[626]

A wide range of literature further indicates that high renewable penetration scenarios are possible without compromising grid reliability, indicating that it is eminently feasible to achieve deeper carbon pollution reductions than required by the CPP. According to the Brattle Group, grid operators have been developing mechanisms to encourage greater operational flexibility to better integrate renewables while maintaining cost-effective and reliable electric service.[627]

Studies also show that cleaner resources and new technologies being added to the system have, in combination, most if not all the reliability attributes provided by retiring coal-fired

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[620] *Id*.
[621] EPA, *Technical Support Document: Resource Adequacy and Reliability Analysis*, Doc. No. EPA-HQ-OAR-2013-0602-36847, at 2 (Aug. 2015) (submitted in Joint Appendix as Attachment F32).
[622] Reconsideration Denial, at 129 (citing Sarah K. Adair, et al., Nicholas Institute for Environmental Policy Solutions, Duke University, *The Clean Power and Electricity Demand: Considering Load Growth in a Carbon-Constrained Economy* (Jan. 2016) (submitted in Joint Appendix as Attachment J57)).
[623] DOE, *Staff Report to the Secretary on Electricity Markets and Reliability* (Aug. 2017) (submitted in Joint Appendix as Attachment J13).
[624] NERC., *State of Reliability 2017* (June 2017) (submitted in Joint Appendix as Attachment J49).
[625] *Id*.
[626] PJM Interconnection, *PJM's Evolving Resource Mix and System Reliability* (Mar. 2017) (submitted in Joint Appendix as Attachment J53).
[627] Chang et al., *Advancing Past "Baseload" to a Flexible Grid* (submitted in Joint Appendix as Attachement J5).

generation and other resources exiting the system.[628] In fact, the evolving resource mix that includes the retirement of aging coal-fired capacity and the addition of new lower- and zero-emitting capacity can increase system reliability from a number of perspectives. For instance, available data indicates that forced and planned outage rates for renewable and natural gas technologies can be less than half of those for coal.[629] Renewable resources also help hedge against fuel supply and price volatility, contributing to increased resilience. Indeed, clean energy resources have demonstrated their ability to support reliable electric service at times of severe stress on the grid. In the 2014 polar vortex, for example, frozen coal stockpiles led to coal generation outages, while wind and demand response resources were increasingly relied upon to help maintain reliability.[630] More recently in 2017, wind energy contributed critical power during Hurricane Harvey, while W.A. Parish, one of America's largest coal plants, was forced to shutter two of its units after its coal piles were flooded.[631] Thus, an approach that seeks to block transition to cleaner and renewable energy in order to protect coal threatens to *reduce*—not enhance—reliability.

Recent comments from a diverse array of stakeholders opposing the DOE Grid Resiliency Pricing Rule proposal issued on September 29, 2017 further bolster the record that the shift away from coal-fired generation towards cleaner resources enhances grid reliability.[632] Contrary to the body of evidence in its own Staff report on electricity markets and reliability, the DOE proposal asked FERC to intervene in wholesale markets to keep coal and nuclear plants online, arguing that certain units with 90-day on-site fuel provide necessary reliability and resiliency services.[633] Commenters have noted that, given technological advancements, new variable renewable generation is capable of providing essential reliability services including voltage support, fast frequency response, and dynamic reactive power. In fact, in some cases, the bulk power system recovery performance would be faster with high levels of variable generation and low levels of thermal plant generation as compared to today's system.[634]

As part of the DOE resilience docket record, the Rhodium Group performed a detailed examination of outages which demonstrated that on-site fuel supply is not correlated with

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[628] Hibbard et al., *Electricity Markets, Reliability and the Evolving U.S. Power System*, at Figs. 27-28 (showing the reliability effects of a generation mix increasingly reliant on RE and gas) (submitted in Joint Appendix as Attachment J32); PJM Interconnection, *Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events*, at Fig. 6 (May 2014), (comparing reliability attributes of power generating technologies) (submitted in Joint Appendix as Attachment J52).

[629] *Id*.

[630] PJM Interconnection, *Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events*.

[631] Benjamin Storrow, *Flooded Texas Coal Piles Dampen Reliability Arguments*, Climatewire (Sept. 29, 2017) (submitted in Joint Appendix as Attachment H2).

[632] *See, e.g.*, Comments of MISO Transmission Owners RM18-1 (Oct. 23, 2017) (submitted in Joint Appendix as Attachment E2); Comments of ISO New England, Inc., RM18-1 (Oct. 23, 2017) (submitted in Joint Appendix as Attachment E3); Comments of Bipartisan Former FERC Commissioners, RM18-1 (Oct. 19, 2017) (submitted in Joint Appendix as Attachment E6); Multistate Comments of Attorneys General, State Agencies and State Consumer Advocates, RM18-1 (Oct. 23, 2017) (submitted in Joint Appendix as Attachment E1); Comments of Advanced Energy Management Alliance, RM18-1 (Oct 23, 2017) (submitted in Joint Appendix as Attachment E7); Comments of Public Interest Organizations, RM18-1 (Oct. 23, 2017) (submitted in Joint Appendix as Attachment E4).

[633] DOE, *Grid Resiliency Pricing Rule*, 82 Fed. Reg. 46,940 (Oct. 10, 2017).

[634] *See, e.g.*, Reply Comments of Michael Milligan, RM18-1 (Nov. 7, 2017) (submitted in Joint Appendix as Attachment E5).

reliability. According to Rhodium Group, only 0.00007 percent of disturbances over the past five years were due to fuel supply problems and 0.00858 percent were due to generation inadequacy.[635] Rhodium Group found no evidence of any relationship between the generation share of coal and nuclear and the frequency or duration of outages experienced.[636] Conversely, Rhodium Group found that there was no relationship between the share of variable renewable generation and the frequency or duration of outages; in other words, there is no evidence to support the claim that renewables growth is eroding overall system reliability.[637] In fact, Rhodium Group notes that power companies in balancing authorities[638] with the highest share of renewable energy generation experienced the fewest outages in terms of both frequency and duration.[639]

And on January 8, 2018, FERC rejected the DOE proposal, affirming the continued reliability of the bulk power system.[640] According to FERC, "the extensive comments submitted by the RTOs/ISOs do not point to any past or planned generator retirements that may be a threat to grid resilience."[641]

In light of these findings, it is clear that EPA's vague statements of concern over maintaining reliability—and its bizarre invocation of "coal generation" as a policy goal in and of itself—do not withstand scrutiny. The voluminous literature and evidence, as well as the many layers of reliability protection included in the CPP, conclusively support the Agency's earlier position: the CPP poses no risk to grid reliability. The Administrator's attempt to justify the Proposed Repeal based on reliability concerns is unsubstantiated and contradicts the Agency's prior findings, and is yet another reason why this proposal is arbitrary and capricious.

(vii) The Clean Power Plan spurs jobs in lower-emitting sectors.

In its Proposed Repeal, EPA cites the CPP's effects on employment—and the opportunity to avoid disruptions to labor markets—as a potential benefit of repealing the rule. The Agency avers that "employment effects are not experienced uniformly across the population and may be offset by new opportunities in different sectors."[642] It goes on to explain that those who lose jobs

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[635] Trevor Houser et al., Rhodium Grp., *The Real Electricity Reliability Crisis* (Oct. 3, 2017) (submitted in Joint Appendix as Attachment J33).
[636] Peter Marsters et al., Rhodium Grp., "Electric System Reliability: No Clear Link to Coal and Nuclear" (Oct. 23, 2017) (submitted in Joint Appendix as Attachment J36).
[637] *Id.*
[638] A balancing authority is the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a balancing authority area, and supports interconnection frequency in real time. A balancing authority area is the collection of generation, transmission, and loads within the metered boundaries of the balancing authority. *See* NERC., *Glossary of Terms Used in NERC Reliability Standards* (Sept. 2014), https://library.e.abb.com/public/f091b8ae9dec300f85257d6500660234/pa_Stand_Glossary-2.pdf.
[639] *Id.*
[640] FERC, Order Terminating Rulemaking Proceeding, Initiating New Proceeding, and Establishing Additional Procedures (Jan. 8, 2018) (submitted with these comments as Attachment C). The Order terminates the DOE proposal proceeding and instead initiates a new proceeding to develop a common understanding of resilience that would enable a more holistic examination of the resilience of the bulk power system including transmission and distribution system impacts.
[641] *Id.* at 15.
[642] Proposed Repeal, 82 Fed. Reg. at 48,049.

in weak labor markets (implicitly, the coal industry) may have difficulty finding new employment of equivalent earnings, and that "involuntary job loss may increase risks to health, of substance abuse, and even of mortality."[643] By repealing the CPP, EPA suggests, these negative effects can be avoided.

While the employment impacts of any regulation should be taken seriously, EPA fails to engage with the protections the CPP includes to mitigate job loss. For example, the CPP provides states with significant flexibilities in designing their plans to reduce employment impacts, and EPA encourages states to consider these effects so that implementation of the CPP benefits workers and communities in coal-intensive regions impacted by the transition to clean energy.[644] Additionally, the previous Administration proposed (and implemented to the extent possible under existing executive authorities) the POWER+ Plan, which would devote significant resources to workers and communities impacted by the ongoing power sector transition.[645] The CPP provided guidance to states on implementing this program.

Due to the significant flexibilities that states have in designing their plans to implement the CPP, it is difficult to evaluate employment impacts with precision. However, EPA modeled illustrative plan approaches and found that while there may be job losses associated with coal extraction and generation, new jobs associated with improving fossil fuel-fired power plant efficiency, construction and operation of new natural gas-fired power plants and renewable energy production and demand-side energy efficiency are expected to far exceed such losses.[646] In particular, increases in demand-side energy efficiency jobs (full-time or part-time) in 2030 could range from 52,000 to 83,000.[647]

Egregiously, EPA offers no evidence of the overall economic effect that it claims would result from repealing the CPP. In fact, the CPP would *bolster* the clean energy economy, which is strong and growing. In early 2016, in expressing their support for the Paris Agreement, over 1,000 U.S.-based companies and investors, representing over $1.2 trillion in revenues, declared that "failure to build a low-carbon economy puts American prosperity at risk."[648] The energy efficiency industry now supports 2.2 million jobs, and there are over 260,000 jobs in the solar industry, as well as over 100,000 jobs in the wind industry.[649] The Bureau of Labor Statistics recently estimated that the employment categories of solar panel installer and wind turbine technician would be the fastest growing jobs in the economy between 2016 and 2026.[650]

By sending a clear signal to investors and power companies, the CPP would have accelerated growth in the clean energy sector. EPA ignores the potential for economic growth

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[643] *Id*.
[644] CPP Final Rule, 80 Fed. Reg. at 64,928, 64,670.
[645] *Id*. at 64,670.
[646] *Id*. at 64,881.
[647] *Id*.
[648] *See* Kevin Steinberger & Amanda Levin, *Chamber Inflates Costs, Ignores Benefits of Climate Action*, NRDC Expert Blog (Mar. 22, 2017), https://www.nrdc.org/experts/kevin-steinberger/chamber-inflates-costs-ignores-benefits-climate-action.
[649] DOE, *2017 U.S. Energy and Jobs Report* (Jan. 2017) (submitted in Joint Appendix as Attachment J12).
[650] Bureau of Labor Statistics, "Occupational Outlook Handbook: Fastest Growing Occupations" (last modified Apr. 13, 2018) (submitted in Joint Appendix as Attachment J4).

that it would forego by repealing the CPP. In June 2017, Environmental Entrepreneurs released an analysis demonstrating that the CPP could add up to 560,000 jobs and $52 billion in economic value in 2030.[651] In its Proposal to repeal the CPP, the EPA is passing up an opportunity to drive net economic gains by supporting the growing clean energy economy.

(viii) The proposed interpretation would have far-reaching implications that EPA has not considered, reflects EPA's unlawful failure to consider the CPP record, and is arbitrary and capricious.

The Proposed Repeal fails to even acknowledge—much less give any serious consideration to—the implications of the Administrator's proposed interpretation for the availability of compliance flexibilities such as emissions averaging and trading. The Administrator's proposed reading of the statute would appear to rule out flexible compliance approaches such as emissions averaging or market-based compliance mechanisms because, as EPA now sees it, such approaches would not represent measures "that apply at, to, and for a particular source," or constitute a "physical or operational change to a source."[652] The Agency bases its interpretation principally on the "through the application" language in section 111(a)'s definition of "standard of performance."[653] That statutory definition governs both EPA-promulgated new source standards under section 111(b) and state-promulgated standards of performance under section 111(d). Therefore, if, under EPA's proposed construction of "standard of performance," the Agency cannot include opportunities for emissions trading or averaging in identifying the BSER for purposes of developing emission guidelines, then the "standards of performance" adopted by states (subject to EPA approval) under section 111(d) likewise cannot be based on such measures.[654]

This is a sharp departure from the Agency's previous position. As EPA explained in its D.C. Circuit brief supporting the CPP's interpretation of BSER:

> Consistent with these cooperative federalism principles, it is well-established that states may adopt Section 111(d) standards of performance in the form of tradeable emission rates or mass limits. See 40 C.F.R. § 60.21(f);[655] 80 Fed. Reg. at 64,840-41.

EPA Br. 47.

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[651] Environmental Entrepreneurs, *Opportunity Lost: How Rolling Back the Clean Power Plan Hurts America's Economy* (June 2017) (submitted in Joint Appendix as Attachment J30).
[652] Proposed Repeal, 82 Fed. Reg. at 48,039 n.5, 48,040.
[653] *Id.* at 48,039.
[654] EPA's secondary theory that the language in section 111(d) providing that standards of performance must be "for" any existing sources, Proposed Repeal, 82 Fed. Reg. at 48,039, has the same problem: it would preclude trading and other flexible measures in State plans. And EPA's further "textual" argument that the provision in the Clean Air Act's perambulatory provision stating that controlling air pollution "at its source" is the "primary responsibility of States and local governments," *id.* (citing 42 U.S.C. § 7401(a)(3)), provides no support at all for EPA's repeal effort. The CPP would reduce pollution "at its source"—fossil-fired power plants—whereas repeal would leave that pollution unabated.
[655] 40 C.F.R. § 60.21(f) provides: "*Emission standard* means a legally enforceable regulation setting forth an allowable rate of emissions into the atmosphere, establishing an allowance system, or prescribing equipment specifications for control of air pollution emissions."

The rigid approach that the Agency now proposes was overwhelmingly opposed by CPP commenters, including power companies and states that ultimately challenged the CPP in Court. As EPA's brief further explained:

> In fact, numerous state and industry Petitioners agreed in comments that under Section 111(d), states have discretion to adopt standards in the form of trading programs intended to facilitate the ability of industry to rely on the very generation-shifting measures in Building Blocks 2 and 3. [80 Fed. Reg.] at 64,733 n.380; Legal Mem. 14-18.[656]

During the CPP rulemaking, many of the parties that ultimately challenged the final rule specifically urged EPA to affirm state plans implementing the EPA's emission guidelines to provide for emissions trading and crediting. For example, West Virginia submitted pre-proposal comments stating that it could permissibly adopt a "mass-based allowance system" for sources that would "account for . . . load shifting to lower CO_2-emitting generation, and the deployment of renewable (zero-emitting) energy sources."[657] Similarly, a group representing *all* state environmental regulators commented that EPA should design guidelines that "maximize" state flexibility and allow states "to allocate credit for zero-carbon resources."[658] The Utility Air Regulatory Group similarly urged that states should have authority to "allow sources to comply with [a] standard by purchasing allowances or credits representing emission reductions achieved outside their boundaries," which would include generation-shifting.[659]

In its D.C. Circuit brief, EPA responded to the arguments opposing the CPP—which are identical to the arguments the Agency now adopts in its Proposed Repeal—with the following correct observation:

> Petitioners seek to have it both ways. They agree *states* have discretion to promulgate "standards of performance" that authorize and incentivize sources to use generation-shifting measures to lower pollution. Yet they disagree that *EPA* can consider the same cost-efficient measures as part of the Best System that informs the stringency of the standards. But if states can properly craft standards designed to accommodate and encourage the use of generation-shifting as a suitable pollution-control strategy, then EPA can likewise reasonably interpret the phrase "system of emission reduction" to encompass the same suitable strategy. Section 111 does not dictate the provision of maximum flexibility for the purpose of achieving the most minimal emission limitation. Petitioners' comments contradict their representation that Section 111(d) does not authorize trading programs. Pet. Legal Br. 56.

EPA Br. 48-49.

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[656] EPA Brief at 47-48. The CPP preamble notes the "[n]umerous states" and state organizations that "submitted comments urging the EPA to allow states to develop trading programs." CPP Final Rule, 80 Fed. Reg. at 64,733 n.380.
[657] West Virginia Comments 14, EPA-HQ-OAR-2013-0602-24999 (Feb. 2014).
[658] Envtl. Council of the States Comments 3, EPA-HQ-OAR-2013-0602-24059 (Dec. 2014).
[659] *See, e.g.*, UARG Comments 4, EPA-HQ-OAR-2013-0602-0431 (Oct. 2013).

Dominion, a power company owning both coal and gas plants that, made a similar observation in its D.C. Circuit amicus brief supporting the CPP:

> Dominion strongly differs with Petitioners' arguments regarding the statutory limits on the terms "standard of performance" and "emission limitation." Pet'rs Legal Br. at 50-56. If the Court were to adopt Petitioners' interpretation of these terms, the interpretation would not only constrain EPA's authority when establishing "emission guidelines," as is intended by Petitioners, but would also effectively prohibit regulated entities from complying with this and all other section 111 standards through flexible compliance approaches such as market-based trading mechanisms. Foreclosing the ability of Dominion and other owners of regulated power plants to rely on trading measures as a means of compliance would unnecessarily increase the Rule's compliance costs and could adversely impact the feasibility of compliance with the Rule and other air quality regulations promulgated under section 111 of the CAA.[660]

After noting that leading CPP challengers (including Utility Air Regulatory Group) had previously insisted that section 111 not only permits but in some circumstances requires emissions trading approaches, Dominion explained in its brief that the CPP litigation challengers' arguments would, if sustained, mean more costly and less flexible regulation that would harm owners of regulated sources. Dominion explained that the CPP litigation challengers:

> argue that the broad terms "standard of performance" and "emission limitation" must be interpreted to preclude flexible emission reduction approaches such as emissions trading or averaging because such approaches necessarily involve the shifting of generation among regulated units, and such shifting is, in their view, excluded from the relevant definitions. *See* Pet'rs Legal Br. at 30, 52, 54. From Dominion's perspective, Petitioners' legal strategy would have adverse consequences for electric utilities and their customers. Were this Court to adopt the overly narrow reading of "standard of performance" advocated by Petitioners—that it may reflect only those types of abatement measures that can be applied physically at an individual source to which it applies—EPA would necessarily be prohibited from establishing "emission guidelines" under the methodology used in the Rule. However, Petitioners either fail to understand or fail to appreciate the risk that this approach would also preclude trading-based *compliance* under section 111. As both EPA and Petitioners agree, it is the *states,* and not EPA, that set "standards of performance" under section 111(d). 80 Fed. Reg. at 64,759 ("EPA issues emissions guidelines . . .; in compliance with those guidelines and subject to federal oversight, the States then issue performance standards for stationary sources within their jurisdiction") (quoting *Am. Elec. Power Co., Inc. v. Connecticut,* 564 U.S. 410 (2011)); Pet'rs Legal Br. at 74 ("Section 111(d) grants the authority to 'establish[] standards of performance' for existing sources to the States—*not* EPA") (emphasis in original) (citation omitted). Therefore, any constraint on the scope of the term "standard of performance"—such as limiting it to "inside-the-fence" abatement measures and prohibiting trading and averaging among sources (including through the use of market-based credits)—would

[660] Brief of *Amicus Curiae* Dominion Resource, Inc. in Support or Respondent, at 10, *West Virginia v. EPA*, No. 15-1363 (D.C. Cir. Apr. 1, 2016) (submitted in Joint Appendix as Attachment A2).

function as a direct constraint on state authority and, ultimately, on compliance flexibility for regulated power plants.

Under Petitioners' legal theory, EPA would determine an emission guideline for coal-fired power plants and an emission guideline for natural gas-fired power plants based exclusively on systems of emission reduction that improve emissions performance at each individual power plant (e.g., heat rate improvements, fuel switching, or carbon capture and sequestration). Then, each state also would have to require each power plant to comply with the emission guideline exclusively through a technological or operational system(s) implemented at the power plant. Owners of regulated power plants would not be able to avail themselves of the cost-saving strategies of emissions trading or averaging with other generation assets.

In Dominion's view, this rigid interpretation of Clean Air Act section 111 could make compliance with the Rule infeasible. This reading would likely result in more premature and inefficient closures of power plants—most notably coal-fired power plants, including those for which other pollutants have already been well-controlled, often at recent and significant customer expense. Petitioners' overly narrow interpretation of the Clean Air Act would be more disruptive to the power sector, and result in higher compliance costs for power plant owners and electricity customers, than a regulatory program with "standards of performance" that allows for market-based trading compliance mechanisms. This could be the case even if the emission guideline that EPA sets under a section 111(d) regulatory program that does not permit trading is substantially less stringent than the corresponding emission guideline under a section 111(d) program that permits trading.

Further, the term "standard of performance" is broadly applicable to a variety of air pollutants emitted from both new and existing sources in a host of other section 111 source categories. *See generally* 40 C.F.R. Pt. 60. Dominion has concerns that the consequences of adopting Petitioner's interpretation of section 111 would not be limited to the regulation of carbon dioxide from power plants, but would also constrain EPA and states from permitting sources to comply with section 111 standards of performance for pollutants other than carbon dioxide and for source categories other than power plants, in a cost effective manner.[661]

The CPP court challengers that Dominion cited—as well as many others—insisted that states should be allowed to adopt trading and similarly flexible approaches to implementing whatever emissions targets EPA established in its emission guidelines. But because the "standard of performance" definition covers both EPA-promulgated standards under section 111(b) and state-promulgated standards under section 111(d), it makes no sense to argue that measures that can be used to comply with a state plan cannot be considered by EPA in identifying the BSER.

If the Administrator believes that averaging and trading approaches are permissible elements of standards of performance adopted in state and federal plans, then that determination has important consequences for the Administrator's interpretation of the BSER and development

[661] *Id.* at 10-12; *see also* EPA Brief 45-46; CPP Legal Memorandum at 14-18.

of emission guidelines for carbon pollution from power plants. It would be logically inconsistent and arbitrary for EPA to recognize that such mechanisms are available for *compliance* while, at the same time, determining that they *cannot* be considered in determining the "best system" and establishing emission guidelines. If a source can lawfully meet a "standard of performance" by obtaining credits representing reduced emissions from *other* affected sources, there is no logical reason why such transactions—and the emission-reducing activities that those transactions represent—should not be considered as a potential "system of emission reduction" when crafting the emission guideline. Allowing trading and averaging for compliance, while ruling out such techniques in setting standards, would be like calculating a golfer's handicap assuming that she only has a putter in her bag, while allowing the golfer to play using the full bag of clubs. Because allowing cross-source averaging and trading for compliance would logically require that such measures be considered in defining the "system of emission reduction," EPA would unavoidably have to consider the BSER reflected in the CPP if it were to determine that averaging and trading were permitted for compliance under section 111(d).

When developing the CPP, EPA repeatedly and prominently addressed this issue, and commenters discussed it extensively as well. EPA's Proposed Repeal, however, ignores this obvious problem in offering a renewed interpretation of the statute despite the extensive treatment of it in the CPP rulemaking and litigation.

The Administrator's failure to even consider, let alone address and analyze this problem is unreasonable, arbitrary and capricious.

(ix) The Proposed Repeal disregards substantial reliance interests.

EPA also has given no consideration to the substantial reliance interests that would be undone were EPA to finalize its repeal as proposed. The CPP promised certain emissions reductions and a clear, workable regulatory framework for reducing carbon dioxide emissions from the power sector—answering years of calls from states, nongovernmental organizations, and members of the public who raised concerns about the risk of climate change and who require protection of the federal government to address these risks. States have done much to reduce emissions within their own borders but require the federal protection the CAA affords them from pollution that is emitted from sources outside their borders.[662]

Legitimate, well-founded reliance on the CPP—EPA's carefully considered exercise of its long-delayed obligation to address carbon pollution from the largest stationary sources—is substantial. For nearly a decade, states and nongovernmental organizations have relied upon EPA's carrying out its obligation under section 111 to control carbon dioxide emissions from power plants—forgoing other legal remedies under the CAA and common law. States and NGOs sued EPA over a decade ago for failing to limit carbon dioxide from fossil-fueled power plants, the largest stationary source of carbon pollution in the nation. In *New York v. EPA*,[663] they argued that because carbon dioxide from power plants endangers public health and welfare, section 111 of the CAA, 42 U.S.C. § 7411, compelled EPA to establish emission standards for new power plants and ensure that states put standards in place to limit CO_2 from existing plants.

[662] *See Massachusetts v. EPA*, 549 U.S. 497, 519–20 (2007).
[663] D.C. Cir. No. 06-1322.

Following the decision in *Massachusetts v. EPA*,[664] EPA entered a settlement in *New York* in 2011 based on EPA's agreement to undertake rulemaking under section 111 to limit power plant CO_2 emissions. Also in 2011, the Supreme Court held that because section 111 "speaks directly" to limiting CO_2 emissions from existing power plants, parties (including several State Intervenors) were precluded from using federal common law nuisance actions to enjoin power plants to reduce CO_2 emissions that are causing climate change harms in their communities.[665] EPA's repeal would, at the very least, substantially delay the public health and environmental benefits that the CPP offered, upsetting their reliance upon the promised protection from EPA under section 111, and would force these parties to again take up other remedies.

In addition, EPA's Proposal to abandon a flexible approach based upon the measures actually employed in the power sector in favor of a more costly and limited approach based exclusively on physical and operational changes at individual plants also threatens to upset the reasonable expectations of power companies. As documented in the CPP record, industry (as well as many states and other stakeholders) consistently urged EPA to adopt a flexible approach that takes account of the most prevalent and cost-effective emissions-control techniques and that would allow for compliance flexibility.[666] EPA's evidence-blind construction of the statute threatens to overturn power plant owners and operators' reasonable expectations—expectations that have undergirded power companies' investment strategies.[667]

The environmental and public health reliance interests at stake here are still more far-reaching. The CPP was a key factor of the United States' successful effort toward achieving worldwide action to combat climate change. Indeed, "[t]he Clean Power Plan is an important part of the United States' successful efforts toward achieving a worldwide consensus to combat global warming."[668] And the harm to the environment and all those whose interests are imperiled by the climate instability caused by carbon dioxide emissions is great and irreparable.[669] Although the market trends towards cleaner energy have accelerated since the CPP was finalized, indicating that the CPP's emission reduction targets will be achieved with even lower costs than those EPA originally projected, the regulatory framework is needed to ensure that market forces continue in this direction and deliver additional pollution reductions.[670] Indeed, the acceleration

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[664] 549 U.S. 497 (2007).

[665] *See Am. Elec. Power Co. v. Connecticut*, 564 U.S. at 424.

[666] *See, e.g.*, CPP Legal Memorandum at 14-18 (power industry comments encouraging EPA to consider "the role of fuel-switching to natural gas, plant retirements, and growing renewable energy" to reduce CO_2 emissions from the source category).

[667] *See, e.g.*, Alliant Energy Public Comment Submission on State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Advance Notice of Proposed Rule, Doc. ID No. EPA-HQ-OAR-2017-0545-0160 (Feb. 23, 2018) ("The long planning horizons for electric-sector infrastructure investments require that we make prudent, risk-adjusted decisions regarding our assets despite continued regulatory uncertainty. That is why Alliant Energy continues to transition toward cleaner energy in order to ensure our electricity remains safe, reliable and affordable for all customers.").

[668] Brief for Amici Curiae Madeline K. Albright, Leon E. Panetta and William J. Burns, at 3 West Virginia v. EPA, No. 15-1363 (D.C. Cir. filed Apr. 1, 2016) (Doc. 1606810) (submitted in Joint Appendix as Attachment A1); *id*. at 4-11 (describing the importance of the United States commitments to reduce its emissions, and of its promulgation of the Clean Power Plan, in encouraging other countries to join the Paris Climate Agreement and to submit national commitments to reduce greenhouse gas emissions).

[669] *See* section I.B. *infra*.

[670] Notably, the Energy Information Administration's Annual Energy Outlook for 2017, which incorporates recent market trends and policy developments encouraging continued emissions reductions in the power sector, finds that

of those trends and the urgency of mitigating climate change demand EPA analysis of how greater reductions could be secured from the power sector.

IV. EPA'S OPAQUE REVIEW UNDER EXECUTIVE ORDER 13,783 VIOLATES PROCEDURAL AND SUBSTANTIVE REQUIREMENTS OF THE CLEAN AIR ACT.

The Proposed Repeal states that EPA reviewed the CPP in accordance with Executive Order 13,783 "and is initiating this action based on the outcome of that review."[671] The Administrator fails to explain, however, how EPA conducted that review and fails to disclose for public review and comment any record of that review. Among other things, the Proposed Repeal does not explain what factors EPA applied, what evidence and analyses it relied upon or performed, or what parts of the Executive Order 13,783 review process it relied upon in determining to propose a repeal of the CPP.

The Administrator references various requirements and policies set forth in Executive Order 13,783, but it is unclear which of those provisions informed the Agency's decision to reconsider its legal interpretation and propose the repeal of the CPP. First, the Proposed Repeal cites three policies set forth in this Order: promoting the "clean and safe development of our Nation's vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation"; ensuring that "necessary and appropriate environmental regulations comply with the law"; and ensuring that environmental regulations respect the authority of Congress and the states.[672] Second, the Proposed Repeal cites requirements in the Executive Order directing the Agency to review existing regulations that "unduly burden the development of domestic energy resources" and, specifically, to review the CPP, and initiate proceedings to "suspend, revise, or rescind" it as appropriate and consistent with the law.[673]

The preamble to the Proposed Repeal reports that EPA's review "raised substantial concerns that the CPP is not consistent with the policy articulated in section 1 of the Executive Order," described above.[674] EPA further explains, without substantiation or critical analysis, or any consideration of contrary evidence, that many stakeholders had commented that the CPP would impose "massive costs" on the power sector and consumers, encroach on states' authority, and threaten the affordability and reliability of electricity.[675] EPA further stated that its proposed interpretation of BSER laid out in the preamble addresses "policy concerns" of the Agency and

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eliminating the CPP would result in significant foregone emission reductions. EIA estimates that without the CPP in place, power sector emissions would reach 1,886 MMT in 2030, roughly 22% below 2005 levels. By contrast, full implementation of the CPP would reduce power sector emissions to 1,537 million metric tons in 2030, or 36% below 2005 levels. U.S. Energy Information Administration, Annual Energy Outlook 2017 (Jan. 2017) (submitted in the Joint Appendix as Attachment J15).

[671] Proposed Repeal, 82 Fed. Reg. at 48,036. Executive Order 13,783 is titled "Promoting Energy Independence and Economic Growth."

[672] Exec. Order 13,783, § 1.

[673] *Id.* §§ 1(c), 4.

[674] Proposed Repeal, 82 Fed. Reg. at 48,038.

[675] *Id*.

some stakeholders who had identified "serious economic and political implications" of the CPP.[676]

EPA's reliance on the Executive Order review is arbitrary and unlawful. First, EPA was obligated to, but did not, place the information and analyses it relied upon during the review—the conceded basis for the Proposed Repeal—in the administrative docket in order to allow the public to review and comment upon them. Second, contrary to basic requirements of reasoned decision-making, EPA has not explained how it interpreted and applied the Executive Order's provisions. Third, EPA has failed to explain how its interpretation and application of Executive Order comports with the CAA. And finally, EPA has failed to identify any record basis for the "policy concerns" arising from the Executive Order review that are the stated basis for EPA's Proposed Repeal.

A. In Conformity with Section 307(d)(3) of the Clean Air Act, EPA Must Make Public Information and Documents Reflecting Its Consideration of the Executive Order and Must Provide an Opportunity for Public Comment.

The preamble for EPA's Proposed Repeal leaves no doubt that Executive Order 13,783 played a central role in the development of the Proposal. Indeed, EPA states that the Proposed Repeal was "based upon" EPA's review under the Executive Order.[677] EPA's discussion of that review refers to, and appears to rely upon, criticisms of the CPP from various entities, but EPA never actually identifies these entities or cites the documents or other sources from which these criticisms are taken.[678]

The Administrator has provided virtually no discussion of how he applied the Executive Order. The Proposed Repeal provides no documentation of how that review proceeded, what materials the Agency considered, and which particular stakeholders were instrumental in influencing the Agency's decision-making process. This is unlawful: section 307(d)(3) of the CAA requires that EPA include in a notice of proposed rulemaking a summary of "*the factual data on which the proposed rule is based*" and "the major legal interpretations and policy considerations underlying the proposed rule" and that "[*a]ll data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule*."[679]

By failing to provide the public with documentation on the "review" that prompted the Proposed Repeal, EPA has violated these statutory requirements as well as general principles of administrative law requiring that the Agency include documents leading up to its decision in the administrative record.[680] That failure deprives the public of the opportunity to review and

[676] *Id*. at 48,042.
[677] *Id.* at 48,036 ("In accordance with Executive Order 13,783, 82 Fed. Reg. 16,093 (March 31, 2017), the EPA has reviewed the CPP and is initiating this action based on the outcome of that review.").
[678] *Id.* at 48,038 (referring to criticisms from "numerous states, regulated entities and other stakeholders").
[679] CAA § 307(d)(3) (emphases added).
[680] *See Id.* § 307(d)(7)(A) (noting that the materials preceding promulgation of the proposed rule identified in paragraph 7607(d)(3) must be part of the record for judicial review); *see also Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 420 (1971) (judicial review under APA is based on "the full administrative record that was before the Secretary at the time he made his decision").

comment upon the basis for EPA's Proposal, as section 307(d)(3) guarantees. Accordingly, the Proposed Repeal is unlawful. EPA must release this information, and provide the public with an opportunity to review and comment on it.

B. EPA Must Explain How Its Review Under the Executive Order Became the Basis of the Proposed Repeal.

Although affirming that the Proposed Repeal results from the Executive Order review,[681] the Administrator fails to explain how he analyzed the CPP as part of that Executive Order review, or what factors cited in the Executive Order he analyzed and how much weight the he gave them.

EPA's review proceeds under an Executive Order that professes the need to ensure that environmental regulations are "developed through transparent processes," Executive Order 13,783, section 1(e), yet EPA's "review" is anything but transparent. EPA has failed to provide the public with the analyses and information that informed its review. The Agency cites anonymous opponents of the CPP but does not reference or identify the specific comments or show that it has given any consideration to contrary views (including the Agency's own refutation of those comments in the record supporting the CPP).

The Administrator's description of its "review" under the Executive Order only highlights the degree to which EPA's Proposal has emerged from an opaque, non-public process that cannot be reconciled with CAA Section 307(d). EPA's notice states that EPA's review "raised substantial concerns that the CPP is not consistent with the policy articulated in Section 1 of [Executive Order 13,783]."[682] EPA explains:

> For example, numerous states, regulated entities and other stakeholders warned that the CPP threatened to impose massive costs on the power sector and consumers; invaded traditional areas of state regulation over the mix of energy generation within their borders; departed radically from prior regulatory practice and longstanding reading of the statute; and did not adequately ensure the national interest in affordable, reliable electricity, including from coal generation.[683]

None of the referenced "warn[ings]" are identified or included in the docket. This makes it impossible for commenters to evaluate in any way the statements that EPA references. This failure to provide documents on which the Proposed Repeal is based is a clear violation of section 307(d)(3), which is designed to allow the public to review and comment upon documents that EPA has relied upon in developing a proposed rule.[684]

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[681] Proposed Repeal, 82 Fed. Reg. at 48,036.
[682] *Id.* at 48,038.
[683] *Id.*
[684] In an effort to obtain information pertaining to this Executive Order review, including any reports describing the *outcome* of that review, EDF previously filed a Freedom of Information Act Request to EPA requesting these documents. *See* Letter from Benjamin Levitan, Attorney, EDF, to National Freedom of Information Officer, EPA, *Re: Freedom of Information Act Request for Records Concerning EPA's Review of the Clean Power Plan in Accordance with Executive Order 13,783*, (Jan. 25, 2018), (FOIA Request No. EPA-HQ-2018-003777). EPA was required under the FOIA statute to provide EDF with a determination of this request by February 22, 2018, but the

Furthermore, EPA's reliance upon anonymous "warn[ings]" about the CPP does not supply a lawful basis for agency action. Not only has EPA failed to identify the sources of these critiques, it appears to have ignored the CPP rulemaking records, wherein the Agency addressed these concerns in great detail.[685] If EPA wishes to reevaluate and now place reliance upon comments of opponents of the CPP that it already addressed during the CPP rulemaking, it must demonstrate that the claims in question are supported by substantial evidence.[686] Furthermore, it must address the contrary findings EPA previously made in the CPP rulemaking process, and provide good reasons why it has changed its mind.[687]

C. EPA Has Failed to Explain How Its Reliance Upon the Executive Order Is Consistent with the Clean Air Act.

Although EPA has not explained its reliance on Executive Order 13,783 or the underlying analyses and information, the preamble to the Proposed Repeal of the CPP strongly suggests that EPA has based its Proposal upon factors other than those Congress intended the Agency to consider under the CAA.

EPA's Proposed Repeal invokes the Executive Order 13,783's concern with "burdening" the development of domestic energy resources.[688] In particular, section 2(b) of Executive Order provides: "For purposes of this order, 'burden' means to unnecessarily obstruct, delay, curtail, or otherwise impose significant costs on the siting, permitting, production, utilization, transmission, or delivery of energy resources."[689]

EPA must explain how it interpreted and applied the Executive Order's concept of "burden" on domestic energy resources, which sits very uneasily with EPA's core statutory obligations. Carefully crafted regulations that limit air pollution from high-emitting sources in order to protect public health and welfare cannot fairly be regarded as "burdens." On the contrary, such regulations may be more appropriately viewed as *removing* burdens on the public and on lower-emitting sources that, absent effective rules limiting air pollution, would be forced to compete with dirtier sources that can offload their negative societal costs onto the public.

If merely requiring high-emitting sources to limit their pollution is characterized as an improper "burden," the Executive Order is at war with common sense and the CAA itself.

Agency has yet to provide the determination. As of the date these comments were due, EPA has not provided EDF with any responsive records, thereby impairing our ability to knowledgeably comment on the Proposed Repeal.

[685] See, among myriad examples, EPA's discussion of the economic impacts of the CPP, e.g., 80 Fed. Reg. at 64,750; its discussion of how the CPP comports with standard state-federal roles in the power sector, e.g., *id*. at 64,840-41, 64,986; its explanation that the CPP is consistent with prior EPA regulation approaches, *id*. at 64,770-73; CPP Legal Memorandum at 95-102; and its discussion of how the CPP is designed to ensure robust protection of reliability, 80 Fed. Reg. at 64,874-81.

[686] *Cablevision Systs. Corp. v. FCC*, 597 F.3d 1306, 1310 (D.C. Cir. 2010); *Florida Gas Transmission Co. v. FERC*, 604 F.3d 636, 639 (D.C. Cir. 2010); *Ass'n of Data Processing Serv. Orgs. v. Bd. of Governors*, 745 F.2d 677, 683-84 (D.C. Cir. 1984).

[687] *See supra* section III.C.ii.

[688] Proposed Repeal, 82 Fed. Reg. at 48,038.

[689] Exec. Order 13,783, § 2(b).

Moreover, the CPP—which was designed precisely to facilitate compliance flexibility and cost-effective pollution reductions, and which does not limit the overall amount of energy produced in the United States—cannot fairly be seen as imposing improper burdens. The Agency lacks authority under the CAA to decline to impose reasonable regulations that would protect public health and welfare, based on its abstract, unelaborated, and statutorily unrooted notions of "burden." Doing so is both contrary to the CAA and is arbitrary and capricious under the CAA and Administrative Procedure Act.

Also notably absent from either the Executive Order, or EPA's discussion of it in the Proposed Repeal, is any consideration of the central statutory objective of section 111—namely, to reduce emissions that "cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare."[690] Any rational reappraisal of the CPP must give appropriate weight to this core objective.[691] If the Administrator has given significant weight to the Executive Order's concerns about regulatory "burdens" for pollution sources, and has done so without regard to the CAA's requirement to protect public health and welfare, then he has acted unlawfully.[692] If the Agency *did* consider the public health and environmental protection objective of the CAA and the many benefits of the CPP as a part of its review, it must explain how it did so and provide the public with an opportunity to comment on that analysis.

The Proposed Repeal also relies upon provisions of the Executive Order that, in context, saddle EPA with an extra-statutory mandate to protect, and favor, the use of fossil fuels for energy production. For example, in the Proposed Repeal, the Agency cites section 1(b) of the Executive Order,[693] which provides that "[i]t is further in the national interest to ensure that the Nation's electricity is affordable, reliable, safe, secure, and clean, and that it can be produced from coal, natural gas, nuclear material, flowing water, and other domestic sources, including renewable sources."[694] Having acknowledged that it relied upon this requirement, EPA has not made any effort to reconcile this provision with the CAA, which prohibits EPA from shortchanging its mandate to protect public health and the environment based on a perceived need to favor or protect particular industrial inputs. Under the CAA, if Production Method A causes serious harms to public health, and Production Method B does not, EPA may not ignore those health harms based upon an abstract policy goal of protecting those who have invested in Method A. And a bare desire to favor certain U.S. industries against other U.S. industries at the expense of the environment and public health is antithetical to the CAA's mandate. [695]

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[690] 42 U.S.C. § 7411(b)(1).

[691] See *Sierra Club v. Costle*, 657 F.2d at 326 (quantity of emission reductions is an important factor in determining "best" system of emissions reduction).

[692] *Cf. N.Y. Cross Harbor R.R. v. STB*, 374 F.3d 1177, 1183-84 (D.C. Cir. 2004); *Nova Plumbing v. NLRB*, 330 F.3d 531, 537 (D.C. Cir. 2003); *Verizon v. FCC*, 570 F.3d 294, 303-05 (D.C. Cir. 2009).

[693] *See* Proposed Repeal, 82 Fed. Reg. at 48,038.

[694] The Executive Order's preference for fossil fuels is manifest and explicit. *See, e.g.*, Section 2(a) ("The heads of agencies shall review all existing regulations, orders, guidance documents, policies, and any other similar agency actions (collectively, agency actions) that potentially burden the development or use of domestically produced energy resources, with particular attention to oil, natural gas, coal, and nuclear energy resources.").

[695] S*ee Am. Petroleum Inst. v. EPA*, 706 F.3d 474, 479 (2013) (Petitioner "challenges the special tilt with which EPA expressly viewed the data—a tilt, in its words, toward "promoting growth" in the cellulosic biofuel industry . . . [S]uch a purpose has no basis in the relevant text of the Act."); *see also Whitman v. Am. Trucking Ass'n*, 531 U.S. 457, 471 (2001) (barring consideration of cost because it is unambiguously precluded in the statute); *see also Sierra*

EPA also must explain how its reliance on the Executive Order can be consistent with the extensive and unrebutted findings of the CPP, which concluded that, even after full implementation in 2030, fossil fuels (including coal) would continue to serve a substantial portion of the nation's energy demand.[696] And EPA must explain how, even if its concerns with protecting fossil fuel generation were entirely lawful, those concerns are furthered rather than frustrated by adopting an interpretation of the statute that either precludes or draws into question (even for purposes of compliance) what EPA continues to acknowledge are the most cost-effective methods of abating pollution.[697]

EPA's admission that the Executive Order was what prompted the Proposed Repeal, combined with the Agency's total failure to explain how it analyzed the CPP pursuant to the Executive Order, strongly suggests that EPA has impermissibly relied on factors other than those specified by Congress. This violates the fundamental principle that agencies' "power to act and how they are to act is authoritatively prescribed by Congress."[698] The exercise of agencies' regulatory authority "must be rooted in a grant of such power by the Congress and subject to limitations which that body imposes."[699] When exercising its delegated authority to regulate, an agency may not "rel[y] on factors which Congress has not intended it to consider."[700] In particular,

> there is no such thing as a "general duty" on an administrative agency to make decisions based on factors *other than those Congress expressly or impliedly intended the agency to consider*. The general principles of administrative law and procedure call upon an agency to give reasoned consideration to all facts and issues relevant to the matter at hand, but the determination of what is relevant turns in the first instance on analysis of the express language of the statute involved and the content given that language by implication from the structure of the statute, its legislative history, and the general course of administrative practice since its enactment. An administrative agency *has no charter apart from the framework constructed by that analysis to enforce or otherwise consider whatever suits its or someone else's fancy.*[701]

Club v. Costle, 657 F.2d 298, 409 (D.C. Cir. 1981) ("Political considerations are improper when they force an agency to make decisions based on factors not relevant to the applicable statute.").

[696] When it promulgated the Clean Power Plan, EPA determined that the use of coal to generate electricity would be 5.4 percent less with the rule than without it. *See* EPA Brief at 39 (citing Regulatory Impact Analysis at 3-27 (tbl. 3-11)).

[697] *See supra* section III.C.ii.b(i).

[698] *City of Arlington v. FCC*, 569 U.S. 290, 297 (2013).

[699] *Chrysler Corp. v. Brown*, 441 U.S. 281, 302 (1979).

[700] *State Farm*, 463 U.S. at 43.

[701] *Motor & Equipment Mfrs. Ass'n v. EPA*, 627 F.2d 1095, 1116 (D.C. Cir. 1979) (emphasis added). *Accord*, *North Carolina v. EPA*, 531 F.3d 896, 917-18 (D.C. Cir. 2008), *modified on other grounds*, 550 F.3d 1176 (D.C. Cir. 2008); *id.* at 919 ("[A]n agency may not trespass beyond the bounds of its statutory authority by taking other factors into account than those to which Congress limited it, nor substitute new goals in place of the statutory objectives without explaining how doing so comports with the statute.") (citations and internal quotation marks and brackets omitted).

If the Agency does not adhere to these principles, its action is unlawful, arbitrary and capricious.[702]

Furthermore, an Executive Order does not provide authority to disregard a duly enacted statute. The President's authority to issue the Order derives from his constitutional power to "take Care that the Laws be faithfully executed."[703] But this authority "must stem either from an act of Congress or from the Constitution itself."[704] As such, the Executive Order cannot alter or override the section 111 provisions that are the basis for the CPP and that impose an obligation on EPA to regulate carbon dioxide pollution from existing power plants. Nor may an Executive Order excuse EPA from complying with general requirements of reasoned decision-making as set forth in section 307(d) of the Act, or indeed, with any other aspect of the statute.

Because EPA has provided no explanation of how it interpreted and applied the Executive Order, it is impossible to identify or properly assess EPA's reasons for concluding that the Executive Order supports repeal of the CPP. But there is strong reason to conclude that EPA unlawfully relied on factors that differ from or contradict those set out in the CAA. As noted above, the directives in section 1 of the Executive Order concerning "burdens" on energy development and on coal and gas resources are divorced from the factors set forth in section 111 of the CAA. Because EPA has acknowledged that the Proposed Repeal is "the outcome" of its review under the Executive Order, the Agency has an obligation to disclose information it relied upon in the course of that review, and to explain how it interprets the Executive Order and its relationship to the Agency's CAA obligations. Finally, EPA must also provide the public with an opportunity to comment upon that information and analysis.

D. EPA Has Provided No Record Basis for Its Claims that the CPP Is Inconsistent with the Executive Order.

Even if EPA *could* lawfully rely upon the factors described in the Executive Order in its Proposed Repeal, EPA has failed to identify any record basis for concluding that the CPP in fact contravenes those factors. As demonstrated above, the CPP rests upon an entirely lawful reading of the statute and is securely grounded upon extensive and amply documented factual findings concerning the operation of the electric grid and existing practices of sources.[705] The Agency's reference to an opaque Executive Order review does not magically dispense with the requirements that it ground its factual findings in the administrative record, examine alternatives, and provide a reasoned explanation for its policy choices.[706] EPA's failure to satisfy these requirements renders the Proposed Repeal unlawful.

The Proposed Repeal suggests that EPA found persuasive unidentified commenters' (or litigants') concerns that the CPP would impose "massive costs on the power sector and

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[702] *State Farm*, 463 U.S. at 43 (1983); *DIRECTV, Inc. v. FCC*, 110 F.3d 816, 826 (D.C. Cir. 1997) (agencies' regulatory actions must be "based on a consideration of the relevant factors"). *See also* 42 U.S.C. § 7607(d)(9).
[703] U.S. Const. art. II, § 3.
[704] *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 638 (1952) (Jackson, J. concurring); *see also In re Surface Mining Regulation Litig.*, 627 F.2d 1346, 1357 (D.C. Cir. 1980) ("Executive orders without specific foundation in congressional action are not judicially enforceable.").
[705] *See supra* sections III.B.i and III.C.ii.b.(i)-(v).
[706] *See supra* section II.

consumers."[707] But as with EPA's other concerns, no evidence is provided to substantiate this anonymously-sourced concern. And in fact, the CPP's record—including the January 2017 denial of requests for reconsideration—reflects extensive consideration of costs as required under CAA section 111, and found them to be reasonable.[708] EPA has provided no factual basis for concluding otherwise; and to the extent EPA is applying a different metric of cost than that set out in the CAA, following decades of precedent,[709] the Agency has wholly failed to explain its new position, which it must do under Supreme Court precedent.[710]

Also, contrary to the "policy concern" of anonymous CPP critics, the CPP works like any CAA rule, and does not encroach upon states' legal authority over the electric utility sector, nor does it require states to alter their generation mix.[711] In developing the rule, EPA exhaustively considered claims that the CPP would imperil the reliability of electricity service. The Agency concluded that these concerns were unfounded, but nonetheless included in the final rule a number of safeguards to protect against any reliability problems.[712] EPA likewise exhaustively considered the impact of the CPP on consumer electricity prices. Not only did the Agency find that any increases to consumer electricity prices would be minimal, it determined that the program would ultimately *save* consumers money on their electric bills by encouraging more investment in energy efficiency. As with all of the other listed policy concerns, EPA (1) does not identify the commenter or include the comment, or the information on which the concern is based, in the record, (2) identify any record support for EPA's professed "policy concern," or (3) acknowledge EPA's massively well supported contrary findings in the CPP record and explain why they are wrong.

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In sum, the Administrator's reliance on the Executive Order review as the impetus for this rulemaking is procedurally flawed, opaque, unexplained, and unlawful.

V. ADMINISTRATOR SCOTT PRUITT'S PARTICIPATION IN THIS RULEMAKING VIOLATES THE DUE PROCESS CLAUSE, ADMINISTRATIVE LAW REQUIREMENTS FOR RULEMAKING AND FEDERAL ETHICS RULES.

A. Administrator Pruitt's Statements and Actions Indicate He Has a Closed Mind and Demand His Recusal from the Clean Power Plan Repeal Rulemaking.

[707] Proposed Repeal, 82 Fed. Reg. at 48,038.
[708] *See* Reconsideration Denial; EPA, *Basis for Denial of Petitions to Reconsider and Petitions to Stay the Clean Power Plan: Appendix 1 — States Progress and Trends* (Jan. 11, 2017) (submitted in Joint Appendix as Attachment F4).
[709] *Lignite Energy Council v. EPA*, 198 F.3d 930, 933 (D.C. Cir. 1999); *Portland Cement Ass'n. v. Train*, 513 F.2d 506, 508 (D.C. Cir. 1975).
[710] *Fox*, 556 U.S. at 516.
[711] *See supra* section III.B.ii.e.
[712] See *supra* section III.B.ii.e(iii); *see generally* Former FERC Commissioners Letter.

As EDF and other NGOs previously commented,[713] Administrator Pruitt's statements and actions with respect to the CPP demonstrate that he has a closed mind on this repeal. His participation in the proceedings is thus unlawful and he must recuse himself. The public has a right to "fair and open" rulemaking proceedings, including the right to an "impartial decisionmaker."[714] Due Process is violated if an agency decision-maker presiding over a rulemaking proceeding has "an unalterably closed mind on matters critical to the disposition of the [rulemaking]."[715] The standard for showing improper prejudgment is properly a demanding one, requiring a "clear and convincing" demonstration that the decision-maker's mind is firmly closed.[716] But Administrator Pruitt meets even this demanding test. His participation in these circumstances flouts the public rulemaking procedures set out in the CAA, 42 U.S.C. § 7607(d), and Administrative Procedure Act, 5 U.S.C. §§ 551-53, which require agency officials to adopt rules based on reasoned evaluation of the law, record evidence, and public comment. The rulemaking process fails to satisfy its statutorily required function when an official has already prejudged the matter before the public process is completed.[717]

Despite ongoing rulemaking procedures, Administrator Pruitt has repeatedly publicly stated that the CPP *is* being repealed as if the decision has been made—casting the rulemaking procedures as nothing more than an inconvenient formality.[718] Recently, for example, he called the CPP an "overreach" that "[w]e're getting rid of . . . and providing a substitute."[719]

These statements take on greater significance as they echo statements by President Trump that similarly refer to the repeal as essentially accomplished.[720] As Attorney General of Oklahoma, Mr. Pruitt was a leading proponent of legal challenges to the CPP, initiating

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[713] Comments of Environmental Defense Fund; Appalachian Mountain Club; Center for Biological Diversity; Clean Air Council; Clean Air Task Force; Clean Wisconsin; Conservation Law Foundation; Earthjustice; Environmental Law and Policy Center; National Parks Conservation Association; Sierra Club; and the Union of Concerned Scientists on EPA Administrator Scott Pruitt's Improper Prejudgment of Outcome of Proposed Repeal of Clean Power Plan, EPA-HQ-OAR-2017-0355 (Jan. 29, 2018).

[714] *Ass'n of Nat'l Advertisers v. FTC*, 627 F.2d 1151, 1174 (D.C. Cir. 1979).

[715] *Id.* at 1170, 1174; *Lead Indus. Ass'n v. EPA*, 647 F.2d 1130, 1179-80 (D.C. Cir. 1980).

[716] *Ass'n of Nat'l Advertisers*, 627 F.2d at 1170, 1174; *Miss. Comm'n on Envtl. Quality v. EPA*, 790 F.3d 138, 183-84 (D.C. Cir. 2015); *C & W Fish Co. v. Fox*, 931 F.2d 1556, 1564 (D.C. Cir. 1991).

[717] On January 9, 2018, a coalition of state and local governments submitted initial comments in this proceeding documenting in detail the actions and statements demonstrating that Administrator Scott Pruitt has improperly prejudged the Proposed Repeal rule. States of California, Delaware, Hawaii, Illinois, Maine, Maryland, New Mexico, New York, Oregon, Vermont, and Washington, the Commonwealth of Massachusetts, the District of Columbia, the County of Broward (Florida), and the Cities of Boulder (Colorado), Chicago (Illinois), New York (New York), Philadelphia (Pennsylvania), and South Miami (Florida), Comments on Administrator Scott Pruitt's Improper Prejudgment of Outcome of Proposed Repeal of Clean Power Plan, EPA-HQ-OAR-2017-0355-7861 (Jan. 9, 2018) (hereinafter "State/Local Initial Comments").

[718] *See e.g.*, Michael Barbaro, *Listen to 'The Daily': A Conversation With Scott Pruitt*, NYTimes (Feb. 2, 2018), https://www.nytimes.com/2018/02/02/podcasts/the-daily/scott-pruitt-epa.html ("I think withdrawing the deficient 2015 rule, the Clean Power Plan, is absolutely an important thing . . . recognizing by removing that and moving to a different way of doing business we restored the way we've done business historically, and that means good outcomes for the environment going forward.").

[719] Niina Heikkinen, *Pruitt publicly lauds Trump after 2016 criticisms resurface*, E&E NEWS (Feb. 1, 2018), https://www.eenews.net/climatewire/2018/02/01/stories/1060072579.

[720] George Cahlink, *Trump rallies GOP, calls for ending 'horrible' regulations*, E&E NEWS (Feb. 1, 2018), https://www.eenews.net/eenewspm/2018/02/01/stories/1060072683 ("'The president said his administration's push to cut regulations over his first year in office, including several environment rules tied to the Clean Power Plan, is 'every bit as important as his tax cuts.' He added, 'In one year, we knocked out more regulation than anyone.'").

improper, premature lawsuits even before the CPP was finalized, and acting as an outspoken advocate, both in court and in public, during the litigation challenging the final rule.[721] Administrator Pruitt has manifestly not been able to set aside his previous advocacy role, as the great majority of public officials are called on and are able to do. Through the rulemaking process, the Agency is required to consider comments and evidence now being submitted and examined, but Administrator Pruitt's statements leave no reasonable doubt it would be impossible for any information that arises in these proceedings to change his mind. Even after the States and municipal governments and non-governmental organizations filed comments demonstrating in detail Scott Pruitt's extraordinary history (including while serving as Administrator) of unremitting hostility to the CPP and prejudgment regarding he repeal, Pruitt has continued to make statements treating the repeal as an accomplished fact, and treating the public comment process as an empty formality.[722]

Nor has Pruitt's unlawful participation in the CPP repeal process been limited to making statements demonstrating an unalterably closed mind about the substance of the ongoing rulemaking. In the short time since we submitted our comments about Administrator Pruitt's closed mind with respect to the CPP, additional evidence has cast his impartiality and adherence to ethical norms even further into doubt. Specifically, emails have emerged that appear to show that Administrator Pruitt was closely directing and monitoring the scrubbing of information about the CPP and its benefits from EPA's website as early as April 2017.[723] The website purge resulted in the removal of information about the CPP—a validly promulgated regulation that is still on the books—more than five months before the Agency took any formal action toward repeal. These emails also show EPA political appointees directing staff to manipulate search results for "Clean Power Plan" to direct people to a page about Executive Order 13,783 (discussed in section IV).[724] These actions are particularly problematic given the ongoing public comment process—in which members of the public would likely be seeking information on the rule proposed to be rescinded. Like Administrator Pruitt's many statements denigrating the CPP and describing it as a dead letter even before and while the Proposed Repeal was subject to

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[721] State/Local Initial Comments at 3-11.

[722] *See* Press Release, EPA, *Latest Inventory of Greenhouse Gas Emissions and Sinks Shows Continued Progress* (Apr. 18, 2018) ("'This report confirms the President's critics are wrong again: one-size-fits-all regulations like the Clean Power Plan or misguided international agreements like the Paris Accord are not the solution. The U.S. has reduced greenhouse gas emissions more than any country on Earth over the last decade,' said EPA Administrator Scott Pruitt."); EPA, *EPA Year in Review: 2017-2018* (Mar. 5, 2018), https://www.epa.gov/sites/production/files/2018-03/documents/year_in_review_3.5.18.pdf (quoting Administrator Pruitt as saying about the Clean Power Plan, "With a clean slate, we can now move forward to provide regulatory certainty."); Michael Barbaro, *Listen to 'The Daily': A Conversation With Scott Pruitt*, NYTimes, (Feb. 2, 2018) (At 10 minutes, Administrator Pruitt says task at EPA has been "cleaning up deficient rules." At 12 minutes, in response to question as to whether Congress has to change the law for EPA to address climate change, Administrator Pruitt says, "Without question. Without question." At approximately 16 minutes, Pruitt says, "withdrawing the deficient 2015 rule, the Clean Power Plan, is absolutely an important thing."); Niina Heikkinen, *Pruitt Publically Lauds Trump After 2016 Criticisms Resurface*, E&E News (Feb. 1, 2018) ("'[T]he Clean Power Plan, that was overreach that was stayed by the Supreme Court. We're *getting rid of that* and providing a substitute. I think what people sometimes think is when you fix these things that there is an absence or a void for regulation; that is simply not the case. What we are doing is getting back in our lane,' [Pruitt] said.") (emphasis added).

[723] Chantal Da Silva, *Pruitt Directly Oversaw Efforts to Erase Climate Change Info From EPA Website, Emails Reveal*, Newsweek (Feb. 2, 2018), http://www.newsweek.com/scott-pruitt-personally-oversaw-efforts-erase-climate-change-information-epa-798069.

[724] *Id.*

public comment, such actions reflect a fundamental disregard for the public's right to participate in the administrative process.

Pruitt's actions effectively frustrated and posed improper barriers on public engagement in the rulemaking procedures, particularly from individuals who may have supported the CPP and opposed its repeal. Scrubbing information about the rule—including information from the CPP record that the Administrator is attempting to ignore in this rulemaking—made it harder for members of the public to be fully informed about the CPP's benefits and frustrated participation in these proceedings. This further confirms the impression, unmistakable from his statements concerning the CPP both before becoming Administrator and since, that Administrator Pruitt is not truly interested in listening to the public or facilitating an informed public discussion of the Proposal.

B. Administrator Pruitt's Participation Is in Violation of Federal Ethics Regulations.

In addition to revealing a firmly closed mind in violation of Due Process constraints, the Administrator's conduct and statements are inconsistent with federal ethics regulations. His conduct and statements have destroyed any reasonable expectation that he will administer the CPP repeal rulemaking in an impartial and unbiased manner.

Federal regulations dictate that government officials must act impartially and not give preferential treatment to any organization or individual.[725] Yet the actions and statements described above—including his descriptions of the CPP repeal as a completed deed before the public comment process has occurred and his disinclination to hear the voices of supporters of the CPP[726]—all reveal an improper bias that mandates recusal.

In addition, given the statements discussed above, and given the Administrator's continued endorsement of court challenges to the CPP even as EPA Administrator—it is an understatement to observe that "the circumstances would cause a reasonable person with knowledge of the relevant facts to question [his] impartiality in the matter."[727] Accordingly, the Administrator was at a bare minimum required to seek ethics authorization before he became involved in the CPP repeal rulemaking. In participating in this rulemaking, he failed follow the requirement in ethics regulations, 5 C.F.R. § 2635.502(a), to obtain ethics authorization before becoming involved in the CPP repeal rulemaking proceeding. But, there is no indication that Pruitt sought or obtained written authorization from EPA's Designated Ethics Official to be involved in this rulemaking.

Even if the Administrator sought the requisite approvals to participate in this rulemaking, we do not believe that any such authorization could lawfully be given in the extreme circumstances here. And, in an event, no such authorization would cure the violation of Due Process described above, which independently renders Pruitt's participation unlawful. But

[725] 5 C.F.R. §§ 2635.101(b)(8), 2635.501(a), 2635.502(a). *See also* State/Local Initial Comments 23-26.
[726] *See, e.g.,* Miranda Green & Aaron Kessler, *Less than 1% of EPA administrator's meetings are with environmental groups,* CNN (Oct. 6, 2017), http://www.cnn.com/2017/10/06/politics/pruitt-industry/index.html.
[727] 40 C.F.R. § 2635.502(a).

Administrator Pruitt's failure even to seek it reflects a serious lack of concern for ethical requirements.

Administrator Pruitt's inability to participate in this proceeding consistent with ethical standards is all the more obvious given recent revelations that he leased a condominium on Capitol Hill during the first six months of his tenure, at a highly favorable rate, from the wife of a prominent energy lobbyist. According to press accounts, the lobbyist's firm was lobbying EPA during the same period on behalf of Oklahoma Gas & Electric specifically on matters relating to the CPP.[728] At the request of a lobbyist from Hart's firm, Administrator Pruitt and his chief of staff were scheduled to meet with representatives of the company in March 2017.[729]

EPA's rules specifically prohibit government employees from accepting gifts, such as below market rental agreements, from entities seeking official action by the employee's agency; conducting activities regulated by the employee's agency, or having interests that may be substantially affected by the performance or nonperformance of the employee's official duties.[730] Administrator Pruitt's unusual and apparently highly favorable rental agreement appears to be in violation of these rules—which suggest that government employees avoid accepting even permissible gifts that create a perception of impartiality or call into question the employee's integrity, as is clearly the case here.[731]

For the foregoing reasons, the Proposed Repeal signed by Administrator Pruitt must be withdrawn and Mr. Pruitt must recuse himself from any further CPP administrative proceedings.

[728] *See* Letter from Citizens for Responsibility and Ethics in Washington, to Arthur A. Elkins Jr., Inspector General, EPA, *Re: Ethics Advice to EPA Administrator Scott Pruitt and Other EPA Officials*, at 3 n.11 (Apr. 24, 2018) (submitted with this comment as Attachment F) (discussing lobbying disclosure reports from Williams and Jensen on behalf of OGE Energy Corp, which reported payments totaling $180,000 in 2017 to lobby EPA and other government entities on issues including "EPA 111(d) proposal re Greenhouse gas emissions from existing utility plants" and "review of EPA regulations impacting utilities.").
[729] *See* Eric Lipton, *Pruitt Had a $50-a-Day Condo Linked to Lobbyists. Their Client's Project Got Approved,* N.Y. Times (Apr. 2, 2018), https://www.nytimes.com/2018/04/02/climate/epa-pruitt-pipeline-apartment.html.
[730] 5 C.F.R. §§ 2635.202, 2635.203(d).
[731] *Id.* § 2635.203(b)(1).