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U.S. Environmental Protection Agency EPA Docket Center Mail Code 28221T 1200 Pennsylvania Ave., NW Washington, D.C. 20460

Attention: Docket ID No. EPA-HQ-OAR-2017-0545, Advance Notice of Proposed Rulemaking, State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units

Joint Comments of Environmental and Public Health Organizations on Advance Notice of Proposed Rulemaking Regarding Emission Guidelines for Existing Electric Utility Generating Units

Appalachian Mountain Club; Center for Biological Diversity; Clean Air Council; Clean Air Task Force; Clean Wisconsin; Conservation Law Foundation; Earthjustice; Environmental Defense Fund; Environmental Law and Policy Center; Minnesota Center for Environmental Advocacy; National Parks Conservation Association; Natural Resources Defense Council; Sierra Club, and the Union of Concerned Scientists hereby submit these comments on EPA's Advance Notice of Proposed Rulemaking, State Guidelines for Greenhouse Gas Emissions for Existing Electric Utility Generating Units, 82 Fed. Reg. 61,507 (Dec. 28, 2017) (ANPR). Some of the organizations joining these comments will submit additional comments separately.

INTRODUCTION

Climate change, caused principally by combustion of fossil fuels, is harming public health and welfare. It represents an existential threat to the United States and to human civilization. Fossil electric generating units (EGUs) are the nation's largest stationary-source contributors to greenhouse gas pollution. As EPA has recognized, meaningfully addressing the climate change crisis necessarily requires expeditious, substantial reductions in EGUs' carbon dioxide emissions. Furthermore, the ability to reduce emissions from other major sectors, including transportation and manufacturing, depends in large part upon these sectors' ability to access large quantities of low- or zero-carbon electricity.

Deep emissions reductions from EGUs are not only urgently needed to protect the public health and welfare, but are also readily attainable. EPA's Clean Power Plan ("CPP"), 80 Fed. Reg. 64,662 (Oct. 23, 2015), provides a cost-effective, sensible framework for achieving such reductions based on tested means of reducing EGUs' carbon dioxide emissions. Adopted by EPA after years of exhaustive outreach, including scores of public meetings, and based upon a massive factual record, the CPP represents one of the country's most important steps to address climate change. Experience since the CPP's promulgation in 2015 has proven the Plan's

emissions targets to be even more attainable than originally anticipated. Well in advance of the 2022 initial compliance date (and despite a Supreme Court stay of the CPP), power sector emissions have declined at a rate far more rapid than required for compliance with the CPP. Power sector emissions have decreased by approximately 28 percent since 2005, meaning current emissions levels are already most of the way toward the 32 percent reduction the CPP is expected to provide relative to 2005 emissions.

The CPP's approach is based upon measures that have already proven successful at reducing carbon dioxide emissions. In addition, the CPP establishes a framework that provides regulatory certainty to power companies well into the future so that informed planning decisions can be made – while affording both states and power companies extensive flexibility to determine how to achieve the required emission reduction targets in the most cost-effective way.

Nevertheless, despite the reasonableness of the CPP's approach and the massive record supporting it, the Administrator has proposed an outright repeal of the CPP. 82 Fed. Reg. 48,035 (Oct. 17, 2017) ("Repeal Proposal"). As we will show in our comments on that proposal, such a repeal would be unlawful. The Administrator's Repeal Proposal is based on incorrect and unreasonable legal arguments borrowed from the legal briefs filed by states and industry stakeholders challenging the CPP in the United States Court of Appeals for the D.C. Circuit; fails to demonstrate why the proposed interpretation of the statute contradicts the approach reflected in the CPP or would require the repeal of the CPP; wholly fails to address the substantial record supporting the CPP; and reflects egregiously inadequate consideration of the health and environmental benefits expected from the implementation of the CPP.

On December 28, 2017, the Administrator commenced the ANPR proceeding to consider *whether* to issue a replacement for the CPP. The ANPR assumes the correctness of the legal interpretation in the Repeal Proposal and of the Administrator's unsupported conclusion that its proposed interpretation inexorably requires the repeal of the CPP. The ANPR also seeks public comment on a narrow set of possible future rule designs that seem deliberately designed to minimize available reductions in greenhouse gas emissions from existing power plants. The ANPR is "primarily focused" on potential efficiency or "heat-rate" improvements at individual EGUs, 82 Fed. Reg. at 61,513 – measures that EPA already examined exhaustively in the CPP rulemaking and determined would, without additional measures, reduce coal-fired power plant

¹ The movements toward cleaner generation "are now significantly more pronounced than EPA initially projected at the time it finalized the CPP." EPA, *Basis for Denial of Petitions to Reconsider and Petitions to Stay the CAA section 111(d) Emission Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units*, App. 2: Power Sector Trends, at 8 (Jan. 11, 2017) [hereinafter "Basis for Denial"].

² Carbon dioxide emissions from the power sector declined from 2,416 million metric tons (mmt) in 2005 to 1,821 mmt in 2016, a decline of 25 percent. *See* Energy Information Administration, *Monthly Energy Review*, at 187, tbl. 12.6 "Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector," (Feb. 2018), https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf (last visited Feb. 26, 2018). During the first 11 months of 2017, emissions were 1,607 mmt, compared to 1,663 mmt over the first 11 months of 2016. *Id*.

carbon dioxide emissions rates by only a few percentage points at best, and could even, standing alone, *increase* carbon dioxide emissions. *See* 80 Fed. Reg. at 64,745, 64,748.

Given the extensive information and analysis EPA already has from the CPP rulemaking, the ANPR is an unreasonable and dilatory exercise. The Administrator's slow-walking approach and the artificially narrow emission-reduction measures constitute an unlawful shirking of his duty under the Clean Air Act to reduce emissions of dangerous pollutants. Especially given the urgent hazards of climate change, the agency's failure to comply with its statutory mission to protect public health and the environment is unlawful, arbitrary, and capricious. The Administrator should withdraw the ANPR and the CPP Repeal Proposal, and should refocus its efforts on *implementing* the CPP. If EPA does proceed with a rulemaking to replace the CPP, the only justifiable conclusion the agency could reach – based on a reasonable interpretation of the statute, the urgency of achieving reductions in carbon pollution, and the manifest potential for cost-effective emission reductions in this sector – is that the CPP should be *strengthened*.

I. THE ANPR IS AN UNNECESSARY AND UNREASONABLE DIVERSION FROM THE EXECUTION OF EPA'S DUTIES UNDER THE CLEAN AIR ACT (Responsive to ANPR Questions 2, 3, and 5)

A. The ANPR's Legal Premise is Incorrect (Responsive to ANPR Questions 2, 3, and 5)

Though it does not commit to any rulemaking, the ANPR posits that, *if* a rule issues, the Repeal Proposal's tentative interpretation that the CPP is beyond EPA's statutory "authority" will be finalized. The ANPR states that "EPA is not soliciting comment through this ANPRM on this proposed interpretation;" that "comments on interpreting CAA section 111(a)(1) should be submitted on the CPP repeal proposal;" and that the ANPR seeks comment on "how the program should be implemented assuming adoption of that proposed interpretation." 82 Fed. Reg. at 61,512.

But the ANPR's entire legal premise is wrong. As we will show in our comments on the Repeal Proposal, the Administrator's proposed "new" interpretation of the Act is not clearly distinguishable from the interpretation that supported the CPP. Indeed, the Administrator's proposal utterly fails to consider compelling arguments that the CPP actually comports with its proposed interpretation, because the BSER in the CPP consists of "technological or operational measures that can be applied to or at a single source." 82 Fed. Reg. at 48,037. And to the extent the proposed interpretation does preclude the CPP, it is unlawful, arbitrary and capricious – and plainly not (as the Administrator apparently believes) mandated by the statute. Furthermore, the Repeal Proposal does not contain the required review and analysis of EPA's prior factual findings or any rational consideration of policy implications and alternatives. For the agency now to embark on a new rulemaking process on the "assumption" that the CPP Repeal Proposal is valid would not be a lawful or rational approach. And the fact that EPA is issuing an advance notice of proposed rulemaking so constrained to a new statutory construction on which the agency is still taking comment is a further indication of the filibustering nature of this entire exercise. As many of the organizations joining these comments will note in comments on the Repeal Proposal, EPA is working towards a predetermined outcome—repeal—while going

through the motions of seeking public input.³ The Administrator is not sincerely canvassing public input on ways to implement section 111 and reduce greenhouse gas emissions; he is looking for ways of doing as little as possible for as long as possible, despite a clear statutory duty that has been repeatedly affirmed by the courts.

Instead of repealing the CPP and dithering about possible future minimalist replacements, the Administrator should be *implementing* the CPP, which is lawful and reasonable, and examining how to *improve* the CPP in light of the new information indicating that its targets are considerably less ambitious than the facts now warrant.

The ANPR Fails to Discharge EPA's Mandatory Duty (Responsive to ANPR В. Questions 2, 3 and 5)

If the Administrator finalizes his proposal to repeal the CPP and replace it with nothing, the agency will be in default of its mandatory duty under the Clean Air Act. The ANPR does not cure – indeed, it would compound – that breach of EPA's statutory duty.

Section 111(b) 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." 42 U.S.C. § 7411(b)(1)(A). Power plant carbon dioxide emissions fall within these criteria. In Massachusetts v. EPA, the Supreme Court held that "EPA has the statutory authority to regulate the emission of [greenhouse] gases," because these emissions "fit well within the Clean Air Act's capacious definition of an 'air pollutant.'" 549 U.S. 497, 532 (2007). The Court explained that "the Clean Air Act requires the Agency to regulate emissions" of gases contributing to climate change if there is an endangerment finding. Id. at 533. After analyzing the enormous body of scientific literature on climate change, EPA found in 2009 that greenhouse gases "endanger human health and welfare." The D.C. Circuit rejected all challenges to EPA's Endangerment Finding, and the Supreme Court declined review.⁵ EPA has reviewed the science more recently (including in the CPP and in its section 111 rulemaking for new power plants, and other rulemakings), finding that the scientific basis for a finding that greenhouse gas pollution endangers public health and welfare has only become more robust since the 2009 Finding.⁶

³ See Comments on EPA Administrator Scott Pruitt's Improper Prejudgment of Outcome of Proposed Repeal of Clean Power Plan, EPA-HQ-OAR-2017-0355-16416 (filed Jan. 29, 2018). See also States of California, et al., 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"). As those comments show, Administrator's unlawful prejudgment would render it unlawful for him to finalize the proposed repeal.

⁴ 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).

⁵ Coal. for Responsible Regulation, Inc. v. EPA, 684 F.3d 102, 118-19 (D.C. Cir. 2012), rev'd in part on other grounds, 134 S. Ct. 2427 (2014).

⁶ 80 Fed. Reg. at 64,517-24. See also 81 Fed. Reg. 73,478, 73,486-87 (Oct. 25, 2016); 81 Fed. Reg. 59,332, 59,337-41 (Aug. 19, 2016); 81 Fed. Reg. 54,422 (August 15, 2016); 81 Fed. Reg.

Thus, EPA must develop emission guidelines applicable to power plants' carbon dioxide emissions. *See* Order, *West Virginia v. EPA*, 15-1363, ECF No. 1687838, at 2 (D.C. Cir. Aug. 8, 2017) (concurring statement of Judges Tatel and Millett, noting that EPA's Endangerment Finding "triggered an affirmative statutory obligation to regulate greenhouse gases" from EGUs); see also *Am. Elec. Power v. Connecticut*, 564 U.S. 410, 424 (2011) (section 111 "speaks directly" to the regulation of climate pollution from existing power plants).

EPA has a present, mandatory statutory duty to regulate carbon pollution from existing power plants. EPA's proposal to repeal the CPP without a valid replacement violates that duty, and its unreasonably constrained and dilatory ANPR only compounds that breach of statutory duty.

C. An ANPR Oriented toward Minimizing Emissions Controls Flouts EPA's Statutory Duty and Filibusters Our Most Urgent Environmental Crisis (Responsive to ANPR Ouestions 2, 3 and 5)

In issuing the ANPR, the Administrator has employed an administrative tool that may well be appropriate when an agency confronts a regulatory problem anew and needs new information or new policy ideas before developing a proposed response. But the use of an ANPR here, premised upon the repeal of the CPP, is improper and dilatory. *Cf.* Order, *Massachusetts v. EPA*, No. 03-1361, ECF No. 1124013 (D.C. Cir. June 26, 2008) (Tatel, J., concurring in part and dissenting in part) (EPA's plan to proceed via Advance Notice of Proposed Rulemaking "essentially postpones regulation indefinitely").

First, as just noted, EPA is under a mandatory statutory duty and would be in default if it carries through on its Repeal Proposal before promulgating a final replacement rule. The CPP rulemaking involved extensive public outreach over many years and an exceptionally thorough analysis by the agency of all facets of the problem of reducing carbon dioxide emissions from power plants. It resulted in a massive record that is at EPA's disposal. If the Administrator were serious about executing his statutory duties, he would rely on that already extensive record and propose a rule that would improve upon the CPP, relying on updated information concerning developments in the power sector.

Instead, the Administrator proposes to go back to square one with a complete repeal and a new process simply to determine *whether* to propose any replacement. Unfortunately, this unnecessary ANPR is just the latest sign that the current EPA administration wants to shirk its statutory responsibilities. The agency has proposed to repeal the CPP based upon the legal

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^{35,824, 35,833-37 (}June 3, 2016). While section 111 requires that EPA make "endangerment" and "significant contribution" findings only when a source category is initially listed for regulation (which for EGUs occurred in 1971, Air Pollution Prevention and Control: List of Categories of Stationary Sources, 36 Fed. Reg. 5,931 (Mar. 31, 1971)), in the 2015 CPP rulemaking, EPA affirmed that the record concerning the dangers of climate change, and power plants' massive share of carbon dioxide pollution supports both findings. 80 Fed. Reg. at 64,530. In neither the ANPR nor the Proposed Repeal does EPA call into question or seek comment on any of these findings. *See* 82 Fed. Reg. at 48,037 n.3 ("The substance of the 2009 Endangerment Finding is not at issue in this proposed rulemaking, and we are not soliciting comment on the EPA's assessment of the impacts of GHGs with this proposal.")

assertion that EPA lacks statutory "authority" to adopt it. 82 Fed. Reg. at 48,038-42. But this very question – including the particular arguments concerning the meaning of "best system of emission reduction" under the Act – is currently before the D.C. Circuit in the challenges to the CPP itself. *West Virginia v. EPA*, D.C. Cir. No. 15-1363. Yet EPA has urged the court *not* to decide the case before it, exploiting a Supreme Court stay that was imposed only to maintain the status quo pending the completion of litigation, which the D.C. Circuit had expedited.⁷

This way of proceeding—repeal without replacement, followed by an ANPR offering only the mere *possibility* of issuing a minimally protective rule at some undetermined date — would mean that the very same statutory issues will need to be decided by the courts potentially years into the future. This approach not only defers emission reductions critically needed to reduce the threat of climate change, it increases uncertainty for the regulated industry and all parties in the meantime, further postponing the date when a stable, effective regulatory regime for limiting greenhouse gas emissions from power plants will be in place. If EPA finalizes its flawed Repeal Proposal and that rule is then set aside on judicial review, the legal theory underlying the ANPR will be likewise invalidated. This will cause still further, massive delays in EPA's fulfillment of its statutory responsibility to protect public health and welfare. The agency's approach is unlawful and profoundly misguided given that delay only increases serious risks to public health and welfare.

If EPA is going to undertake the time-consuming exercise of issuing an ANPR in an area where it has recently completed a massive rulemaking with a comprehensive record, the agency must conduct a wide-ranging review of *all* opportunities for emissions reductions, informed by section 111's purpose to achieve maximum feasible control of harmful pollution and updated information and data related to the electricity sector. EPA's narrow inquiry accomplishes little besides backsliding and delay.

D. Delay in Effectuating Emission Reductions is Especially Harmful Given the Nature of the Carbon Pollution Problem (*Responsive to ANPR Question 5*)

EPA's avoidance of its duty to protect the public is particularly troubling given its own prior recognition of the imminent dangers of climate change and the urgency of abating the pollution that causes it.

In the CPP rulemaking, EPA recognized that climate change "has become the nation's most important environmental problem," the mitigation of which has become an urgent necessity.⁸ As the CPP preamble explains, "[w]e are now at a critical juncture to take meaningful action to curb the growth in CO₂ emissions and forestall the impending

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⁷ See EPA Status Report, West Virginia v. EPA, No. 15-1363, ECF No. 1698068 (D.C. Cir. Oct. 10, 2017) (asking the Court to hold the case in abeyance until the conclusion of the CPP rulemaking); EPA Status Report, West Virginia v. EPA, No. 15-1363, ECF No. 1686504 (D.C. Cir July 31, 2017); EPA Supp. Br., West Virginia v. EPA, No. 15-1363, ECF No. 1675243(D.C. Cir. May 15, 2017).

⁸ 80 Fed. Reg. at 64,774; *see also* Basis for Denial, at 1 (noting that climate change is the nation's "most urgent and important environmental challenge").

consequences of prior inaction. CO₂ emissions from existing fossil fuel-fired power plants are by far the largest source of stationary source emissions." 80 Fed. Reg. at 64,774. EPA emphasized:

According to the National Research Council, "Emissions of CO2 from the burning of fossil fuels have ushered in a new epoch where human activities will largely determine the evolution of Earth's climate. Because CO2 in the atmosphere is long lived, it can effectively lock Earth and future generations into a range of impacts, some of which could become very severe. Therefore, emission reduction choices made today matter in determining impacts experienced not just over the next few decades, but in the coming centuries and millennia."

80 Fed. Reg. at 64,682 (footnote omitted). Taking heed of the overwhelming evidence, EPA designed the CPP in light of what it found to be an "urgent need for actions to reduce GHG emissions." *Id.* at 64,937.

The CPP record includes EPA's review of the major scientific assessments of climate change issued since 2009, which uniformly confirmed and strengthened the agency's imperative to act quickly. 80 Fed. Reg. at 64,675, 64,677, 64,684, 64,686. EPA also reaffirmed in the CPP rulemaking that the Clean Air Act's core purpose is to protect against such urgent and severe threats to public health and welfare. *Id.* at 64,733. And in January 2017, the agency reiterated that because carbon dioxide is very long-lived in the climate system, it is cumulative emissions that matter to the world's ability to stay within the range of carbon dioxide concentrations in the atmosphere needed to avoid the worst effects of climate change. Failing to achieve the necessary reductions soon means that much deeper reductions must be made later, at much higher cost.

Both in the 2015 CPP and in its January 2017 decision denying reconsideration, EPA emphasized that without urgent action to substantially reduce carbon dioxide emissions now, future harms, including serious public health and environmental outcomes, will occur with more intensity, exceeding those that have already occurred. Rising temperatures will lead to an increase in heat-related deaths and illnesses, for example, as well as an increase in vector-borne diseases. Increased warming will also exacerbate the harms from emissions of other air pollutants; for instance, higher temperatures will "make it harder for any given regulatory approach to reduce ground-level ozone," among other effects. 11

EPA has not reversed its prior position concerning the urgency of the climate pollution problem, nor could it provide any rational justification for doing so. Indeed, the current Administration's own most recent assessment of the climate science only underscores the magnitude and urgency of the harms that climate change is inflicting on communities across

⁹ Basis for Denial, App. 4 at 5. EPA relies, *inter alia*, on several National Research Council/National Academy of Science reports, on the IPCC 5th Assessment Report, and on the U.S. Global Change Research Program (USGCRP) work done in 2016.

¹⁰ Basis for Denial, App. 4 at 3.

¹¹ *Id.* at 4 (quoting the U.S. Global Change Research Program report edited by Crimmins, *et al.*, "The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment," (USGCRP 2016), *available at*: http://dx.doi.org/10.7930/J0R49NQX).

America.¹² In light of EPA's statutory duty and the harm of delay, EPA's proposed path of CPP repeal combined with an ANPR focusing on the weakest possible emissions-reduction measures is unlawful and arbitrary. The agency should withdraw the Repeal Proposal and ANPR, and should instead proceed with implementing the CPP. In particular, the agency should abandon its efforts to keep the D.C. Circuit litigation in abeyance and thereby perpetuate the Supreme Court stay of the CPP. If EPA is to issue an ANPR in this area that the agency itself and countless others have already studied exhaustively, any such advance notice should invite comment on how to strengthen the CPP.

II. ANY REPLACEMENT RULE UNDER SECTION 111(d) MUST EFFECTUATE SECTION 111'S OBJECTIVE OF ACHIEVING MAXIMUM FEASIBLE CONTROL OF EMISSIONS, AND EPA'S ANALYSIS MUST INCLUDE ALL AVAILABLE EMISSIONS-REDUCTION MEASURES (Responsive to ANPR Questions 2, 3, 3a and 5)

Any further actions EPA takes with respect to section 111 and EGU carbon dioxide emissions must put the statutory objective of maximum feasible control of dangerous emissions front and center. The ANPR charts a course that fails this fundamental test.

The Clean Air Act seeks "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." 42 U.S.C. § 7401(b)(1). As EPA has recognized, the Act's purposes "include protecting public health and welfare by comprehensively addressing air pollution, and, particularly, protecting against urgent and severe threats." 80 Fed. Reg. at 64,773. "At its core, Congress designed the CAA to address urgent and severe threats to public health and welfare." ¹³

Section 111 is central to the Act's objective of reducing dangerous emissions. It applies when a category of stationary sources "causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7411(b)(1)(A). That language emphatically describes carbon pollution from power plants, which are the largest stationary source of the pollution responsible for climate change, the nation's "most urgent and important environmental challenge." ¹⁴

Reflecting the importance Congress placed upon reducing this dangerous pollution, the statute requires the EPA Administrator to identify the "best system of emission reduction" for

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¹² See U.S. Global Change Research Program, *Climate Science Special Report* 18 (Fourth National Climate Assessment, Volume I, 2017) ("Temperature and precipitation extremes can affect water quality and availability, agricultural productivity, human health, vital infrastructure, iconic ecosystems and species, and the likelihood of disasters. Some extremes have already become more frequent, intense, or of longer duration, and many extremes are expected to continue to increase or worsen, presenting substantial challenges for built, agricultural, and natural systems.").

 $^{^{13}}$ 80 Fed. Reg. at 64,774 (discussing text and history of 1970 Act and 1977 and 1990 amendments).

¹⁴ Basis for Denial, at 1 & App. 4: Climate Science Update.

each listed source category. 42 U.S.C. § 7411(a). That statutory text and context both make clear that reducing dangerous pollution is the core statutory objective. Accordingly, when EPA evaluates the "best system" for "reduc[ing]" dangerous air pollutants at a given source category, it is axiomatic that the agency's central consideration must be *reducing air pollution – i.e.*, actually serving the central congressional purpose. *See 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."). In the CPP, EPA highlighted this basic and obvious feature of the statute, 80 Fed. Reg. at 64,719-20 (citing *Sierra Club*, 657 F.2d at 326, 347, and *Lignite Energy Council v. EPA*, 198 F.3d 930, 933 (D.C. Cir. 1999)). As EPA recognized in 1975 when it first promulgated regulations implementing section 111(d) for existing sources, section 111 "requires *maximum feasible control of pollutants from new stationary sources*.... Section 111(d)] reflected a decision in conference that a *similar approach* (making allowance for the costs of controlling existing sources) was appropriate for the pollutants to be controlled under section 111(d)." ¹⁶

In contrast, the ANPR (like the Repeal Proposal) barely mentions the objective of reducing dangerous air pollution, and says nothing whatsoever about the urgent, time-sensitive threats posed by unchecked greenhouse gas emissions. The absence of any discussion of climate change (the very reason for regulating these emissions in the first place) – let alone any analysis of how the Administrator's proposed new approach would address this threat – renders the endeavor quintessentially arbitrary and capricious. Instead of grappling with the problem before it, the Administrator appears more interested in artificially *constraining* the "BSER" inquiry to "heat rate" improvements, measures EPA has already found can achieve only minor emission reductions (or indeed, may even increase emissions) unless they are coupled with other measures to curb power plant emissions. But EPA's job is not to do as *little as possible* to address dangerous pollution; rather, its job is to find the best system for reducing dangerous emissions.

EPA would be acting irrationally and in violation of its statutory mandate to select the "best system" if it did not pursue *all* emissions reductions that can be achieved consistent with the statute. EPA cannot lawfully confine its consideration to heat-rate measures that EPA has already determined can only achieve minor emissions reductions (or might, in practice, even increase emissions). EPA must comprehensively analyze every available means of reducing carbon dioxide emissions from existing fossil fuel-fired power plants, including those approaches

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¹⁵ In the 1977 Clean Air Act amendments, Congress slightly revised the language of section 111 such that the new source standards were to reflect "the best technological system of continuous emission reduction" and existing source standards were to reflect "the best system of continuous emission reduction." In the 1990 Clean Air Amendments, Congress reverted to the original standard, "best system of emission reduction," for both new and existing source standards.

¹⁶ State Plans for the Control of Certain Pollutants from Existing Facilities, 40 Fed. Reg. 53,340, 53,342 (Nov. 17, 1975) (emphasis added); *see also id.* at 53,344 (stating that "section 111(d) requires *maximum feasible control* of welfare-related pollutants in the absence of" a reasoned basis for a less stringent approach, and that "EPA will promulgate plans requiring maximum feasible control if States fail to submit satisfactory plans for welfare-related pollutants.") (emphasis added).

that fit even the agency's improperly constrained reading of the statute set out in the Repeal Proposal but that are mentioned scarcely or not at all in the ANPR. These include reducing utilization of relatively high-emitting units, see, *e.g.*, 80 Fed. Reg. at 64,732-33, 64,780-81;¹⁷ fuel-switching and co-firing, see 79 Fed. Reg. at 34,857, 34,875; 80 Fed. Reg. at 64,727, and retrofit carbon capture and sequestration, 79 Fed. Reg. at 34,876-77; see also Basis for Denial, at App. 3: Non-BSER CPP Flexibilities. The CPP record contains a wealth of information concerning available means of reducing carbon emissions from EGUs. ¹⁸ EPA cannot now lawfully exclude consideration of these measures, and it would be preposterous and indefensible to assert that only heat-rate improvements are eligible for identification as BSER.

Given all of the available means of reducing carbon dioxide from power plants, and given the power sector's recent record of reducing emissions substantially, in large part by using these very approaches, ¹⁹ there is no reasonable basis for EPA to approve a weak guideline limited to heat-rate improvements. Any BSER that does not achieve the maximum feasible *emissions* reductions will be legally and factually unsupportable.

III. IF EPA REPEALS THE CPP, THE MOUNTING IMPACTS AND RISKS OF CLIMATE CHANGE AND FALLING CARBON ABATEMENT COSTS REQUIRE THE ADMINISTRATOR TO REPLACE THE CPP WITH A PLAN THAT ACHIEVES GREATER REDUCTIONS EXPEDITIOUSLY (Responsive to ANPR Questions 2, 3, and 5)

For the reasons described above, we oppose Administrator Pruitt's effort to repeal the CPP. If the Administrator does choose to repeal the CPP, he must promulgate a replacement that reflects developments that have occurred since the CPP was completed in 2015. As summarized above, scientific developments since the CPP was finalized continue to show that climate change is advancing at an alarming pace, that anthropogenic greenhouse gas emissions are the overwhelming cause of this phenomenon, and that the threat to public health and welfare is increasingly severe. At the same time, the rapidly increasing availability and dramatically falling costs of various options for reducing carbon pollution from existing power plants demonstrate both the eminent feasibility of the CPP emission reduction targets and the significant potential to achieve further reductions. Together, these facts show that any replacement for the CPP must

¹⁷ 80 Fed. Reg. at 64,782, n.602 (noting that "reduced 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").

¹⁸ See generally Greenhouse Gas Abatement Measures TSD. Docket ID No. EPA-HQ-OAR-2013-0602; Basis for Denial, App. 3: Non-BSER CPP Flexibilities.

¹⁹ See notes 1-2, supra, also 80 Fed. Reg. at 64,725, 64,785, 64,803-04; Basis of Denial of Petitions to Reconsider (Jan. 2017), Appendix 2: Power Sector Trends.

achieve deeper cuts than were expected under that program, and must do so on a very expeditious schedule.

First and foremost, the cost of wind and solar energy has fallen significantly since EPA finalized the CPP. Since 2015, the cost of wind power has fallen 17 percent and solar power has fallen by 22 percent. Significantly more wind and solar projects were built in 2016 than had been expected when the CPP was finalized. In 2016, the U.S. solar industry added over 10 gigawatts of solar capacity, double the amount added in 2015, and wind energy added eight gigawatts, with many more wind projects on the way. The renewable cost declines mean that it will now cost significantly less to achieve the reductions contemplated by the CPP's Building Block Three. At the same time, the primary cost of building block two – substituting generation from fossil steam units in favor of existing natural gas combined cycle units – has also fallen since the CPP was finalized. Comparing the 2015 and 2018 Annual Energy Outlooks shows a 30 percent drop in the Henry Hub gas price for 2030.²²

The decline in natural gas prices reduces the cost of the CPP's second building block, operating lower-emitting natural gas plants rather than coal-fired plants. In addition, old highly-polluting power plants continue to retire due primarily to market forces. These trends show that the regulated fleet of power plants is well on its way to achieving the emission reductions required under the CPP, on a faster timeline, and at far lower costs, than initially anticipated. Indeed, a June 2016 analysis by M.J. Bradley & Associates, using the same electric sector model that EPA employed in the CPP rulemaking but updating several inputs, found that compliance would cost up to 84 percent less than the agency originally estimated. Several independent analyses using a variety of modeling approaches have also concluded that CPP compliance costs – which were already estimated to be modest when the rule was finalized – have fallen significantly since 2015. Associates are constantly since 2015.

Any effort to repeal and replace the CPP must update the factual record and account for the cost declines and shifts in the power sector toward cleaner sources of electricity, and the increasing costs of the havoc wrought by climate change. The need for climate action has only

²⁰ Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 11.0*, (Nov. 2017), https://www.lazard.com/media/450337/lazard-levelized-cost-of-energy-version-110.pdf.

²¹ *Id.*; DOE, 2016 Wind Technologies Market Report, https://emp.lbl.gov/sites/default/files/2016 wind technologies market report final optimized.pdf.

²² *Compare* U.S. Energy Information Administration, Annual Energy Outlook 2015, Appendix A, Table A1, https://www.eia.gov/outlooks/aeo/pdf/0383(2015).pdf, with U.S. Energy Information Administration, Annual Energy Outlook 2018, Appendix A, Table A1, https://www.eia.gov/outlooks/aeo/pdf/appa.pdf.

²³ DOE, 2016 Wind Technologies Market Report, https://emp.lbl.gov/sites/default/files/2016 wind technologies market report final optimized.pdf; see also M.J. Bradley & Associates, EPA's Clean Power Plan: Summary of IPM Modeling Results with ITC/PTC Extension (June 2016).

²⁴ See Denise A. Grab and Jack Lienke, *The Falling Cost of Clean Power Plan Compliance*, 1-2 (Oct. 2017), http://policyintegrity.org/files/publications/Falling Cost of CPP Compliance.pdf.

increased since 2015 and the cost of reducing carbon pollution has gone down. This means that new emission guidelines issued under section 111(d) can and must achieve greater reductions than contemplated under the CPP.

As noted, the power sector has made remarkable progress over the past several years. EPA used 2012 as the baseline year to develop the targets for the Clean Power Plan, and the rule was projected to achieve emissions cuts of 19% below the 2012 baseline by 2030, equivalent to 32% below 2005 levels. Emissions have already declined by 14% between 2012 and 2017; in other words, the power sector has already achieved 75% of the reductions required from the baseline. Even as emissions have declined, the potential to achieve cost-effective emissions reductions by shifting generation to lower-emitting sources continues to grow. Applying the CPP methodology to a baseline reflecting the major emissions reductions already achieved in the power sector since 2015, and taking into account declining costs of lower and zero-emitting generation, would yield much greater projected emissions reductions by 2030 than were projected to be achieved when the CPP was finalized.

IV. UNDER SECTION 111(d), EPA MUST SET BINDING EMISSIONS LIMITS WITH WHICH STATE PLANS MUST COMPLY (Responsive to ANPR Questions 1, 3b, and 5)

EPA requests comment on several issues concerning the relationship between the agency and the states, including EPA's role in determining the BSER and reviewing state plans, and EPA's role in promulgating numerical emission limits. These issues were raised during the CPP rulemaking process and thoroughly addressed by EPA in the final CPP. It would be unlawful for EPA to abdicate its statutory responsibility to establish binding emission guidelines based upon the best system of emission reduction.

A. EPA is Statutorily Required to Determine the Best System of Emission Reduction, and Must Reject State Plans That Fail to Achieve the Corresponding Degree of Emission Reduction (Responsive to ANPR Questions 1 and 5)

EPA requests comment on "the extent of involvement and roles of the EPA in developing emission guidelines, including, but not limited to, providing sample state plan text, determining the BSER, . . . and reviewing state plan submittals; the roles of the States in this endeavor, including determining the scope of most appropriate emissions standards, *e.g.*, setting unit-by-unit or broader-based standards; and joint considerations, such as the form of the emission standard, *i.e.*, rate- or mass-based, and compliance flexibilities, such as emissions averaging and trading." 82 Fed. Reg. at 61,510. As the agency determined when it first established implementing regulations in 1975, the Clean Air Act unambiguously provides that *EPA itself* must determine the BSER and ensure that state plans achieve those reductions.

Section 111(a)(1) defines "[s]tandard of performance," "[f]or purposes of this section," 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 . . . the Administrator determines has been adequately demonstrated." 42 U.S.C. § 7411(a)(1) (emphasis added). Section 111(d)(1) requires EPA to establish "a procedure similar to that provided by section 7410," pursuant to which States will submit plans "establish[ing] standards of performance" for existing sources under their jurisdiction. *Id.* § 7411(d)(1). Section 111(d)(2),

in turn, provides that EPA "shall have the same authority . . . to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as [the agency] would have under section 7410(c)" *Id.* § 7411(d)(2).

These provisions define the respective roles of EPA and the states in regulating existing sources under section 111(d). First, EPA determines the BSER for the relevant source category and the degree of emission limitation achievable through application of that system. Second, each state submits a plan establishing standards of performance for designated sources subject to its jurisdiction. Third, EPA determines whether these plans are "satisfactory." At minimum, a satisfactory plan must comport with the statutory requirement to "establish standards of performance" for each designated source that reflect "the degree of emission limitation achievable through the application of" the BSER identified by EPA. If a standard fails to do so, it is not a "standard of performance" within the meaning of section 111. Accordingly, a plan that fails to deliver the degree of emission reduction deemed achievable by EPA is not "satisfactory."

When EPA promulgated the 111(d) implementing regulations in 1975, it determined that this straightforward interpretation of the statute was "legally correct." 40 Fed. Reg. at 53,342. EPA specifically rejected the argument that its role was limited to "prescrib[ing] procedural requirements for adoption and submittal of State plans." *Id.* As the agency explained, the statutory language, context, and legislative history confirmed that section 111(d) was intended to function in much the same way as section 110, with EPA establishing criteria to guide the state planning process, and then engaging in substantive review to ensure that state plans satisfy these criteria. *Id.* at 53,342–43.

EPA further concluded that the agency's ability to engage in substantive review of state plans was "essential to the effective implementation of" the statute. *Id.* at 53,343. Congress's overarching purpose in enacting the Clean Air Act was to protect public health and welfare by forcing dramatic reductions in air pollution. *Id.* "Against this background of Congressional firmness . . . it would make no sense to interpret section 111(d) as requiring the Administrator to base approval or disapproval of state plans solely on procedural criteria." *Id.* Such an interpretation would allow states to "set extremely lenient standards—even standards permitting greatly increased emissions—so long as EPA's procedural requirements were met." *Id.* Surely Congress did not intend "to leave such a gaping loophole in a statutory scheme otherwise designed to force meaningful action." *Id.*

The implementing regulations reflect this straightforward interpretation of the statute. Pursuant to these regulations, EPA first publishes an "emission guideline," which identifies the BSER and the degree of emission reduction achievable using that system. 40 C.F.R. § 60.22(b). States then submit plans establishing emission standards, which, in general, "shall be no less stringent than the corresponding emission guideline(s)." *Id.* at § 60.24(c). If the plan is unsatisfactory—because it does not achieve the required degree of emission reduction—EPA must promulgate a federal plan to take its place. *Id.* at § 60.27(c)(3).

Congress has amended the Clean Air Act twice since EPA promulgated the 111(d) implementing regulations, and each time, it has endorsed the approach set forth in these regulations. The House Report prepared in connection with the 1977 Clean Air Act Amendments explained that under section 111(d), as amended, "[t]he Administrator would establish guidelines as to what the best system for each such category of existing sources is." H.R. Rep. No. 95-294 at 195 (1977). Similarly, when Congress acted in 1990 to force EPA's

hand to regulate a particular source category in need of urgent control—solid waste incinerators—it indicated that the agency should establish "guidelines (under section 7411(d) of this title . . .)" for these sources, and that States should then establish emission standards "at least as protective as" those included in EPA's guidelines. 42 U.S.C. § 7429(a)(1)(A).

The Supreme Court relied on this longstanding interpretation of the statute in holding that section 111(d) displaces any federal common law remedy for power plant emissions of greenhouse gases. In *American Electric Power Co. v. Connecticut*, the Court explained that under section 111(d), "EPA issues emissions guidelines . . . ; in compliance with those guidelines and subject to federal oversight, the States then issue performance standards." 564 U.S. 410, 424 (2011). The Court's understanding that section 111(d) empowers EPA to determine the extent to which power plants must reduce their emissions was critical to its holding. The Court explained that "[t]he appropriate amount of regulation in any particular greenhouse gas-producing sector cannot be prescribed in a vacuum," and that "[t]he Clean Air Act entrusts such complex balancing to EPA in the first instance, in combination with state regulators." *Id.* at 427. Because Congress intended for EPA to determine the appropriate degree of emission reduction, there was no room for federal common law to address the same question. Thus, the court of appeals had erred in ruling that a federal district court "may set limits on greenhouse gas emissions in face of a law *empowering EPA to set the same limits*." *Id.* at 429 (emphasis added).

The statute is clear: EPA must determine the BSER and the corresponding degree of emission reduction, and must reject state plans that fail to achieve that required degree of reduction. The agency has interpreted the Act for over forty years to require such an approach,²⁵ and this approach has been endorsed by Congress and relied upon by the Supreme Court. For these reasons, any attempt to depart from it now would violate the statute's plain terms and (assuming *arguendo* any ambiguity) would be outside the range of permissible interpretations. the ANPR's request for comments on a long-settled area of law is simply more evidence of EPA's unlawfully dilatory conduct.

B. EPA Must Promulgate Numerical Emission Limits (Responsive to ANPR Questions 1, 3b and 5)

The agency also requests comment on an approach "where the EPA determines what system may constitute BSER without defining presumptive emission limits and then allows States to set unit-by-unit or broader emission standards based on the identified BSER while considering the unique circumstances of the State and the EGU." 82 Fed. Reg. at 61,511. This approach violates the plain language of the statute and (assuming *arguendo* any ambiguity) would be outside the range of permissible interpretations.

Under section 111, a standard of performance must "reflect[] the degree of emission limitation" that EPA determines is achievable through application of BSER. 42 U.S.C. § 7411(a)(1). There is no permissible interpretation of this language that would not require EPA to establish numerical emission limits in its existing source guideline documents. The word

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²⁵ 80 Fed. Reg. at 64,759 (noting that in all prior section 111(d) rules, "EPA has identified the type of emission controls for the source category and the level of emission limitation based on those controls."); *id.* at 64,759 n.456 (citing examples).

"degree" is, by its very nature, quantitative. 26 This interpretation of section 111(a)(1) is confirmed by the fact that section 111(h) authorizes the Administrator to adopt non-numeric design, equipment and work practice standards only where a numerical standard is not feasible. 42 U.S.C. § 7411(h). This understanding is also reflected in EPA's longstanding implementing regulations, which require the agency to identify the degree of emission reduction which is achievable through the application of BSER and to reject state plans that fail to impose sufficiently stringent emission limitations. 40 C.F.R §§ 60.22(b), 60.24(c). While the Administrator may be seeking opportunities to make an end-run around the agency's obligation to set numerical emission limits in its guideline document, the Clean Air Act simply does not countenance that approach.

CONCLUSION

In sum, EPA should withdraw the ANPR and focus its energies on protecting the public health and welfare, including by implementing and strengthening the CPP.

Respectfully submitted,

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²⁶ In that respect, "degree" is analogous to "level" as construed in *Adamo Wrecking Co. v. United States*, 434 U.S. 275, 286 (1978) ("Most clearly supportive of petitioner's position that a standard was intended to be a quantitative limit on emissions is this provision of § 112(b)(1)(B): 'The Administrator shall establish any such standard *at the level* which in his judgment provides an ample margin of safety to protect the public health from such hazardous air pollutant."') (emphasis in original).

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