Comments of New York, California, Connecticut, Hawaii, Illinois, Iowa, Maine, Maryland, Massachusetts, Minnesota (by and through its Minnesota Pollution Control Agency), New Mexico, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, and Washington, the District of Columbia, and the cities of Boulder (CO), Chicago, New York, Philadelphia, and South Miami (FL), and the county of Broward (FL) on

the Environmental Protection Agency's Advance Notice of Proposed Rulemaking on State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 82 Fed. Reg. 61,507 (Dec. 28, 2017)

February 26, 2018

Introduction

The States of New York, California, Connecticut, Hawaii, Illinois, Iowa, Maine, Maryland, Minnesota (by and through its Minnesota Pollution Control Agency), New Mexico, North Carolina, Oregon, Rhode Island, Vermont, and Washington, the Commonwealths of Massachusetts, Pennsylvania, and Virginia, the District of Columbia, and the cities of Boulder (CO), Chicago, New York, Philadelphia, and South Miami (FL), and the county of Broward (FL) (together, "States and Cities") submit these comments on the Environmental Protection Agency's ("EPA") Advance Notice of Proposed Rulemaking on State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 82 Fed. Reg. 61,507 (Dec. 28, 2017) ("Advance Notice"). In the Advance Notice, EPA seeks comment on a "potential new rule establishing emissions guidelines" to limit greenhouse gas ("GHG") emissions from fossil fuel-fired power plants, in place of the existing Clean Power Plan, 80 Fed. Reg. 64,662 (Oct. 23, 2015). *See* 82 Fed. Reg. at 61,508.

As detailed below, the States and Cities oppose the use of an advance notice in this context. EPA already has the necessary information to regulate power plant greenhouse gas emissions, and immediate action is necessary to address the severe harms we are facing from climate change.

In addition to being inappropriate, the Advance Notice indicates that EPA is considering interpreting section 111(d) of the Clean Air Act inconsistently with the statute and EPA's own implementing regulations. The notion that state standards under section 111(d) are discretionary—and may allow for more pollution than EPA's emission guidelines—is contravened by the statute, which requires EPA to set a sufficiently protective baseline. Further, narrowly focusing on improving the efficiency (heat rate) of fossil fuel-fired power plants while ignoring other ways these plants currently can, and do, reduce emissions would also directly contravene Congress's intent and could actually *increase* annual emissions of greenhouse gases and other pollutants. The agency's solicitation of comments on how it could lawfully allow power plants to avoid their permitting and pollution control obligations under other important Clean Air Act programs, such as New Source Review, is further evidence that EPA's approach in the Advance Notice is fundamentally flawed. If EPA is intent on pursuing (and the courts do not reject) its misguided course to repeal the Clean Power Plan, the agency must design a replacement that considers how power plants operate and reduce emissions and that will lead to meaningful emission reductions to address the critical problem of climate change.

I. Overarching Concerns with the Advance Notice

The States and Cities have fundamental, overarching objections to the Advance Notice. In *West Virginia v. EPA* (D.C. Cir. No. 15-1363), EPA recognized that "[n]o serious effort to address the monumental problem of climate change can succeed without meaningfully limiting [power] plants' CO_2 emissions."[1] According to the most recent data, fossil fuel-fired power plants emit approximately 28 percent of U.S. greenhouse gas emissions, which is second only to the transportation sector.[2] The Clean Power Plan represents a meaningful (albeit initial) step toward addressing this pollution by establishing the first nationwide emission limits on carbon dioxide from existing fossil fuel-fired power plants, which when fully implemented in 2030 would cut carbon pollution by approximately one-third from 2005 levels.

The Advance Notice, by contrast, does not represent a "serious effort" to address the pressing problem of climate change or EPA's obligations under the Clean Air Act. An advance notice of proposed rulemaking is nothing more than a proposal to make a proposal. Although this unrequired administrative step may be useful at the initial stages of a rulemaking where an agency is gathering preliminary references or considering whether to regulate a problem that is not particularly pressing, it is patently inappropriate here; there has already been an extraordinarily lengthy rulemaking process, the agency possesses thousands (if not millions) of relevant reports, studies, and comments, and what EPA has described as "the Nation's most important and urgent environmental challenge"[3] is awaiting long overdue action. In light of the circumstances, the Advance Notice is akin to responding to your house being on fire by asking all of your neighbors to make a list of some of the ways you can fireproof your house in the future. And here, EPA *already has* all of the information it needs to promulgate an appropriate regulation to reduce carbon dioxide emissions from power plants, and has had such information for years.

Fifteen years ago, in February 2003, New York and several other states sent a notice of intent to sue EPA for failing to review, and as necessary, revise, emission standards for pollutants from fossil fuel-fired power plants under section 111 of the Clean Air Act. That notice (attached as ***Exhibit A***) included an appendix of more than fifty pages discussing the various strategies for reducing carbon dioxide from

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[1] EPA Final Brief in *West Virginia v. EPA*, D.C. Cir. No. 15-1363, Doc. #1609995 (filed April 22, 2016), at 61.

[2] *See* EPA, DRAFT Inventory of U.S. Greenhouse Gas emissions and Sinks: 1990-2016 (Feb. 6, 2018)

[3] EPA Final Brief in *West Virginia v. EPA* at 1.

new and existing power plants. After EPA declined to establish emission standards for these plants, in 2006, New York and other states and cities sued EPA in the D.C. Circuit. *New York v. EPA* (D.C. Cir. No. 06-1322). After the Supreme Court ruled in *Massachusetts v. EPA*, 549 U.S. 497 (2007), that EPA has the authority to regulate greenhouse gas emissions from new motor vehicles under the Clean Air Act, the D.C. Circuit remanded the power plant rulemaking at issue in *New York* back to EPA for further action.

Ten years ago, EPA issued an advance notice of proposed rulemaking seeking input on regulating greenhouse gas emissions under section 111 of the Act, among other issues. *See* 73 Fed. Reg. 44,354, 44,386-93 (July 30, 2008). EPA stated even then that "[w]ith respect to GHGs, there has been a significant effort devoted to identifying and evaluating ways to reduce emissions within sectors such as the electricity generating industry." *Id.* at 44,489. Several of the States and Cities submitted comments on the 2008 advance notice of proposed rulemaking concerning how EPA should regulate greenhouse gas emissions from power plants and other major sources under the Clean Air Act, including under section 111(d). *See, e.g.,* Comments of 14 State Attorneys General, 5 State Environmental Agencies, and 4 Cities, Docket No. EPA-HQ-OAR-2008-0318-1422 (Nov. 26, 2008); Comments of New York Attorney General's Office, EPA-HQ-OAR-2008-0318-1440 (Nov. 26, 2008); Comments of the District of Columbia, EPA-HQ-OAR-2008-0318-1559 (Nov. 28, 2008); Comments of Attorneys General of California and Connecticut, EPA-HQ-OAR-2008-0318-1826 (Nov. 26, 2008).

EPA also has before it the extensive record it developed in the Clean Power Plan rulemaking. As EPA noted in the preamble to the Clean Power Plan, "the final rule [was] the result of unprecedented outreach and engagement with states, tribes, utilities, and other stakeholders, with stakeholders providing more than 4.3 million comments on the proposed rule." 80 Fed. Reg. at 64,663. Indeed, many of the topics that are the subject of the Advance Notice—such as emission reductions attainable through heat rate improvements and whether emission guidelines should provide for both emission rate-based and mass-based options—were the subjects of extensive comments during the Clean Power Plan rulemaking. *See generally* EPA Response to Comments – Revised Final, EPA-HQ-OAR-2013-0602-37106 (Oct. 23, 2015) ("RTC").

While EPA is stalling, avoiding any meaningful action, and wasting taxpayer money through the Advance Notice, our country has just experienced one of the three hottest years on record, a year that was also marked by record-breaking storms and floods, as well as damaging wildfires. Indeed, according to the National Oceanic and Atmospheric Administration, 2017 was an "historic year of weather and climate

disasters," and the most expensive year on record, with costs for these severe weather and climate events totaling over $306 billion.[4] As explained in a recent scientific publication, several of these events were caused in part or amplified by climate change.[5] In this context, it is difficult to envision a less "serious attempt" to "secure critically important reductions in carbon dioxide from the largest emitters in the United States – fossil-fueled power plants." EPA Opp. to Stay Motions in *West Virginia v. EPA* (D.C. Cir. No. 15-1363), Doc. #1586661, at 1.

With these major and underlying objections noted, the States and Cities provide the following additional comments on the specific topics raised in the Advance Notice.

II. Specific Comments on the Advance Notice

Pursuant to EPA's request to commenters in the Advance Notice, 82 Fed. Reg. at 61,510, the States and Cities have structured their specific comments into five subject matter areas:

(1) the roles and responsibilities of states and EPA in regulating greenhouse gas emissions from power plants;

(2) application of reading section 111(a)(1) of the Clean Air Act as limited to measures that can be applied to or at a stationary source, at the source-specific level, to limit greenhouse gas emissions from existing power plants;

(3) how to define the best system of emission reduction ("Best System") and develop greenhouse gas emission guidelines for existing power plants under this reading of section 111(a)(1);

(4) potential interactions of a rule under section 111(d) limiting greenhouse gases from existing power plants with other regulatory programs; and

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[4] NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2018), *available at*: https://www.ncdc.noaa.gov/billions/; *see also* Umair Irfan and Brian Resnick, "Megadisasters Devastated American in 2017. And They're Only Getting Worse," *Vox* (Jan. 8, 2018), *available at*: https://www.vox.com/energy-and-environment/2017/12/28/16795490/natural-disasters-2017-hurricanes-wildfires-heat-climate-change-cost-deaths.

[5] Jennifer Hijazi, "The 16 Billion Dollar Disasters that Happened in 2017," *Scientific American* (Jan. 18, 2018), *available at*: https://www.scientificamerican.com/article/the-16-ldquo-billion-dollar-disasters-rdquo-that-happened-in-2017/.

(5) other comments that may assist EPA in considering setting emission guidelines to limit greenhouse gases from existing power plants.

1. Roles and Responsibilities of States and EPA in Regulating Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Power Plants

The Advance Notice contemplates abandonment of EPA's statutorily mandated role in regulating greenhouse gas emissions from existing power plants. EPA suggests that emission guidelines are nonbinding unless EPA "in an exercise of discretion, chooses" to make them binding and that states generally "have authority and discretion to establish less stringent standards where appropriate." 82 Fed. Reg. at 61,509, 61,511. EPA frets that its historical approach of providing states with "guidance on the preparation of state plans" will now "send[] a signal of limiting flexibility and limiting the consideration of other factors that are unique to each State and situation." *Id.* at 61,511. EPA questions whether it should establish "broadly applicable, presumptively approvable emission limitations"—as it has in virtually every prior Clean Air Act regulation—suggesting it might instead "allow[] the States to set unit-by-unit or broader emission standards." *Id.* at 61,511, 61,513. In short, EPA signals its intent to make a full retreat from its obligation to establish a mandatory federal baseline for greenhouse gas emission reductions from existing power plants.

The States and Cities urge EPA to fulfill its statutory mandate to establish a consistent, across-the-board baseline of required reductions for greenhouse gas emissions from existing power plants. Although States and Cities fully support preserving states' flexibility in determining the *manner* of emission reductions, a firm federal baseline of the *amount* of required reduction is mandated by statute and necessary to prevent a "race to the bottom" in which states are incentivized to compete to create the most favorable regulatory climate for industry, at the expense of the health and welfare of their citizens and the citizens of other states. The fact that some states have already embarked on the regulation of greenhouse gases within their borders or that some states have aging fleets of fossil fuel-fired power plants does not excuse EPA from its obligation to set a mandatory emissions reduction baseline.

a. Suitability of EPA's Regulatory Provisions to Control Greenhouse Gas Emissions from Existing Power Plants

EPA is obligated to establish a federal baseline for greenhouse gas emission reductions from existing power plants and ensure that states establish "satisfactory"

plans to achieve those reductions. 42 U.S.C. § 7411(d)(1) & (2). Consistent with this obligation, EPA's regulations require it to establish binding emissions guidelines and ensure states plans are at least as stringent. 40 C.F.R. § 60.24(c). Nothing about the nature of greenhouse gas emissions from power plants excuses EPA from its statutory and regulatory obligation.

EPA is wrong in asserting that it has "discretion" to "choose[]" whether to make federal emission guidelines applicable to power plant greenhouse gas emissions binding on the states. 82 Fed. Reg. at 61,509-10. As an initial matter, EPA provides no explanation for its sudden departure from its prior characterization of "emission guidelines" as "binding requirements that states must address when they develop their plans." 80 Fed. Reg. at 64,703. In any case, the Supreme Court has made clear that EPA, the "expert agency . . . best suited to serve as primary regulator of greenhouse gas emissions," is responsible for setting mandatory "emissions reductions." *American Elec. Power Co. v. Connecticut*, 564 U.S. 410, 427-28 (2011) ("*AEP*"). Although the Court noted that the Clean Air Act authorizes states to "take the first cut at determining *how* best to achieve EPA emissions standards within its domain," the Court expected that the standards themselves would be binding on the states. *Id.* at 428 (emphasis added). The Clean Power Plan provided just such flexibility, by allowing states to determine how to meet the established minimum emission reductions.

Binding EPA emission guidelines are consistent with the language and structure of the Clean Air Act. Fundamentally, it is EPA, and not the states, that is required to issue guidelines establishing the level of emission reduction it determines is achievable based on the Best System, without which the state cannot derive standards. *See* 42 U.S.C. § 7411(d)(1). The scenario EPA appears to posit now—in which States are free to determine for themselves what levels of emissions reductions to achieve, if any—is not meaningfully different from the conditions existing before enactment of the Clean Air Act—in other words, from the very conditions Congress sought to change by creating a role for EPA. EPA's authority to "prescribe" and "enforce" a "plan for a State where the State fails to submit a satisfactory plan" would be unnecessary if federal emission guidelines were not binding on the states. *Id.* § 7411(d)(2). Also, Section 111 instructs EPA to "establish a procedure" for the submission of state plans establishing standards of performance that is "similar to that provided in [Clean Air Act section 110.]" Section 110, in turn, establishes the system for submission of state implementation plans for national ambient air quality standards ("NAAQS"), which are indisputably mandatory. *See id.* § 7410. "[S]imilar" plans submitted under section 111 must comply with EPA's "similar[ly]" mandatory guidelines.

Moreover, non-binding emission guidelines for greenhouse gas emissions from power plants would violate EPA's regulations. If EPA has "determined that a

designated pollutant may cause or contribute to endangerment of public health," state emissions standards "shall be no less stringent than the corresponding emission guideline(s)," subject to certain limited exceptions. 40 C.F.R. § 60.24(c). EPA determined that greenhouse gas emissions from mobile sources contribute to or cause endangerment of the public health, 74 Fed. Reg. 66,496 (Dec. 15, 2009), concluded that a separate endangerment finding for greenhouse gas emissions from power plants was not required, 80 Fed. Reg. at 64,529-30, and, in any case, extended the 2009 endangerment finding for greenhouse gas emissions to power plants, *see, e.g.*, 80 Fed. Reg. at 64,683-88 (concluding that "recent scientific assessments" since the 2009 endangerment finding "confirm and strengthen the conclusion that GHGs endanger public health," and "public welfare," and noting that power plants "are by far the largest emitters of GHGs among stationary sources"). EPA explicitly disavows any attempt to modify or depart from those findings in the Advance Notice. 82 Fed. Reg. 61,508-09 & n.3. Therefore, EPA must establish mandatory federal emission guidelines for greenhouse gas emissions from power plants, and states in turn must propose plans with standards that are "no less stringent," subject to specific, narrow exceptions. *See* 40 C.F.R. § 60.24(c), (f).

b. Extent of Involvement and Roles of EPA and States

In addition to EPA's suggestion that it may issue "non-binding" emissions guidelines, other statements in the Advance Notice reflect EPA's apparent abandonment of the Clean Air Act's goal of establishing a strong and mandatory federal baseline for emission reductions. *See, e.g.,* 82 Fed. Reg. at 61,511 (suggesting that EPA "guidance on the preparation of state plans" could be "perceived as sending a signal of limiting flexibility"; noting that "[e]ach State has its own unique circumstances to consider when regulating air pollution emissions from the power industry"; and questioning whether EPA could determine the Best System "without defining presumptive emissions limits" and "allow[ing] the States to set unit-by-unit or broader emission standards"). One of section 111's key functions is to guard against a "race to the bottom" in which states "compete with each other in trying to attract new plants and facilities without assuring adequate control" of pollutant emissions. H.R. Rep. No. 91-1146, at 3 (June 3, 1970). To allow the creation of such "pollution havens" would undermine the protective purpose of the Clean Air Act by allowing increases in harmful emissions that harm not only citizens of that State, but may cross state lines and injure the health and welfare of residents of other States. EPA recognized that this concern particularly applies to the regulation of conventional pollutants and greenhouse gases from existing power plants, because companies typically own and operate plants in multiple states that are all connected to the electric grid. Legal Memorandum Accompanying Clean Power Plan, at 19 n.34.

By contrast, when EPA sets a floor in its emission guidelines, it protects *all* states from the harmful effects of pollution, better serving the underlying purposes of the Clean Air Act. *See Alaska Dep't of Envt'l Conservation v. EPA*, 540 U.S. 461, 486 (2004) (EPA's federal supervisory authority helps guard states against the threat of pollution from more permissive neighboring states). Accordingly, EPA's suggestions that EPA could "determine[] what systems may constitute [the Best System] without defining presumptive emission limits," 82 Fed. Reg. at 61,511, or give states wide discretion to depart from EPA's emission guidelines, *id.* at 61,513, are fundamentally inconsistent with EPA's role in establishing a federal emission-limit backstop. Indeed, EPA itself has recently acknowledged that part of its role is to "establish[] the degree of emission limitation to be reflected in the standard of performance." 82 Fed. Reg. 48,039 (proposed repeal of Clean Power Plan); *see also* 80 Fed. Reg. at 64,719 (noting that both the Clean Air Act and EPA's regulations *require* "that the EPA's guidelines reflect the degree of emission reduction achievable through the application of the best system of emission reduction").

Although EPA appropriately proposes to consider programs already implemented by states to reduce greenhouse gas emissions from power plants, 82 Fed. Reg. at 61,512, EPA fails to follow that logic to its necessary conclusion: that what power plants and states are already doing to reduce greenhouse gas emissions *must* be considered as part of the Best System when setting "achievable" emission guidelines. Moreover, the record supporting the Clean Power Plan is already replete with information regarding successful state programs,[6] belying the need for an Advance Notice to collect additional information. For example, ten Northeast and mid-Atlantic States entered into the Regional Greenhouse Gas Initiative ("RGGI"), through which they agreed to limits for greenhouse gas emissions and created a market where power plants can buy and sell allowances to meet agreed-upon limits. *See* RGGI Comments, EPA-HQ-OAR-2013-0602-22395 (Nov. 5, 2014). By encouraging shifts from power plants that generate more greenhouse gas emissions, such as oil- and coal-plants, to power plants that generate less, such as natural gas plants and renewable resources, the RGGI states have succeeded in reducing carbon pollution from fossil-fuel fired power plants by over forty percent between 2005 and 2012. Joint Comments of 14 States, EPA-HQ-OAR-2013-0602-23597, at 18 (Dec. 1, 2014) ("State Comments"). Other programs in Minnesota and California have also led power plants to make meaningful reductions in greenhouse-gas emissions through some of the same measures EPA appropriately considered as part of the Best System in the Clean Power Plan. State Comments at 23-24. Moreover, these greenhouse gas emissions reductions were achieved while delivering significant economic benefits and

[6] *See, e.g.,* State Comments at 15-19; RGGI Comments at 3; RTC at ch. 3.2; 80 Fed. Reg. at 65,735, 64,783, 64,796, 64,803.

without threatening grid reliability. *See* RGGI Comments at 23, 27-28; State Comments, at 12, 15, 19-24. In short, EPA does not need to solicit more information on successful state programs that have achieved meaningful emission reductions—the record supporting the Clean Power Plan already includes that information. EPA now proposes to ignore these well-demonstrated systems of emission reduction, while at the same time re-collecting information on successful programs.

Likewise, further information regarding the appropriateness of considering mass-based compliance options, *see* 82 Fed. Reg. at 61,512, is unnecessary because that information is already available in the Clean Power Plan record. EPA fully considered this issue in the Clean Power Plan rulemaking, and determined that mass-based compliance options were an appropriate alternative to rate-based standards, and in fact, had a track record of success in reducing the very emissions at issue here. *See* 80 Fed. Reg. at 64,820-21; *see also, e.g.,* State Plan Considerations, TSD, Docket No. EPA-HQ-OAR-2013-0602-36853, at 97-135 (June 2014). EPA specifically solicited information on translating rate-based goals to mass-based goals, and published a supplemental notice of additional information on that topic, as well as a Technical Support Document. *See* 79 Fed. Reg. 67,406 (Nov. 13, 2014). Moreover, the RGGI Comments demonstrated the success of emissions averaging and mass-based trading in reducing greenhouse gas emissions. RGGI Comments, at 5-7. Nor is the concept of mass-based alternatives new to section 111 regulations, as EPA now suggests. *See* 82 Fed. Reg. at 61,512. In fact, as the agency itself noted in the Clean Power Plan, EPA has included mass-based trading in other section 111 rules, such as the regulation of municipal waste combustors, 40 C.F.R. § 60.33b(d)(1), (2), and the Clean Air Mercury Rule (CAMR).[7] *See* 80 Fed. Reg. at 64,697, 64,778; Legal Memorandum at 105-06, 113.

The fact that some states already have "existing or nascent" programs to limit greenhouse gas emissions from power plants does not make establishing a federal baseline "duplicative," as EPA seems to suggest. *See* 82 Fed. Reg. at 61,510. Section 111 does not allow EPA to decline to address an enormous amount of dangerous air pollution simply because some states are already taking steps to regulate it. Rather, existing state programs may be incorporated into state plans that meet or exceed minimum emissions reductions established by EPA, and such programs must inform EPA's analysis of "achievable" systems of emission reductions. *See* 42 U.S.C. § 7411; *AEP*, 564 U.S. at 428. States remain free under the Clean Air Act to impose more stringent emission standards than those required by the federal baseline. 42 U.S.C. § 7416; 40 C.F.R. § 60.24(g).

[7] The D.C. Circuit vacated the CAMR on grounds unrelated to the cap-and-trade system. *See New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008).

2. Application of Reading Section 111(a)(1) as Limited to Emission Measures that Can Be Applied at a Source-Specific Level to Limit Greenhouse Gases from Existing Power Plants

As the States and Cities will explain at length in our comments on EPA's proposed repeal of the Clean Power Plan, 82 Fed. Reg. 48,035 (Oct. 16, 2017) ("Proposed Repeal"), the proposed repeal is unlawful, because (among other things) it artificially limits the agency's authority to consider proven methods of emission reduction from power plants. In light of EPA's request that comments on this subject be submitted to the rulemaking docket for the Proposed Repeal, the States and Cities only note their position for the record here.

3. Using EPA's Source-Specific Reading of Section 111(a)(1), How to Define the Best System and Develop Greenhouse Gas Emission Guidelines for Existing Power Plants

a. Identifying the Best System

The Advance Notice presumes the outcome of the ongoing rulemaking to repeal the Clean Power Plan and reflects an unnecessarily constrained view of the Best System proposed by EPA in the Proposed Repeal. As an initial matter, the information solicited in the Advance Notice presupposes that EPA's Proposed Repeal will be finalized. *See* 82 Fed. Reg. at 61,513. However, that rulemaking is open and ongoing. Additionally, as the States and Cities will show in their comments in that docket, the Proposed Repeal unlawfully constrains EPA's consideration of systems of emissions reduction by, among other things, ruling out systems of emission reduction identified in the Clean Power Plan without any factual or legal basis.[8]

EPA's Advance Notice suggests an even more constrained consideration of systems of emission reduction by focusing its requests for information almost entirely on heat rate improvements. EPA disregards its own characterization of the Clean Power Plan's Best System as "measures that can be implemented—'applied'—by the sources themselves." *See* 80 Fed. Reg. at 64,720. EPA also ignores other demonstrated

[8] In a January 9, 2018, comment on the Proposed Repeal, many of the undersigned States and Cities pointed out that EPA cannot legally finalize that action because Administrator Pruitt has improperly prejudged the outcome of the rulemaking and should have been recused. *See* Docket No. EPA-HQ-OAR-2017-0355-7861. Because the Advanced Notice is based on the assumption that the Clean Power Plan will be repealed through that process, those States and Cities that have joined today's comments further oppose the Advanced Notice because it incorporates these same defects.

technologies that can be applied by and at sources, such as co-firing a coal power plant with natural gas. In the Clean Power Plan, EPA found that co-firing is "technically feasible and within price ranges that the EPA has found to be cost effective" and that "the resulting emission reductions could be potentially significant." 80 Fed. Reg. at 64,727. EPA decided not to include co-firing in the Best System in the Clean Power Plan because generation-shifting approaches to emission reduction were less expensive. *Id.* at 64,727-28. If EPA is now going to reject generation-shifting, it must explain why co-firing, and any other demonstrated systems of emission reduction, is not the Best System. *See Motor Vehicle Mfrs Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 46-48 (1983) ("*State Farm*") (agency must consider available alternative technologies before rescinding a rule). The administrative record for the Clean Power Plan includes a wealth of information that EPA must consider in formulating a replacement to the Clean Power Plan, underscoring, again, the inappropriateness of this Advanced Notice. *See* Response to Comments, chs. 3.7 to 3.12 (summarizing and responding to numerous comments on various non-building block methods to reduce emissions, including co-firing and carbon capture and storage).

EPA also downplays its own prior findings regarding the potential problems of relying on heat rate improvements alone. *See* 82 Fed. Reg. at 61,516. In the Clean Power Plan, EPA described how relying on heat rate improvements at coal power plants, without "other incentives to reduce generation and CO2 emissions," could result in coal-fired power plants being called on to operate more frequently, which would further reduce the already small emission reductions achievable by heat rate improvements, and possibly increase emissions of greenhouse gases and other pollutants. 80 Fed. Reg. at 64,745. The Clean Power Plan avoided this outcome by including in the Best System, in addition to heat rate improvements, "other CO2 reduction strategies that encourage increases in generation from lower- or zero-carbon [generators]." *Id.* If EPA now intends to willfully ignore those "other . . . strategies," it must identify solutions for addressing the "rebound effect" of heat rate improvements alone. The Advance Notice reflects no such approach, suggesting, again, that EPA is not serious about addressing the problem of greenhouse gas emissions from existing power plants, as the Clean Air Act requires.

b. Whether Greenhouse Gas Emission Guidelines Should Include Presumptively Approvable Limits

EPA's suggestion that "broadly applicable, presumptively approvable limitations . . . may not be appropriate for GHG emissions from [power plants]," 82 Fed. Reg. at 61,513, flies in the face of the plain language of Clean Air Act section 111(d) and EPA's prior interpretations. As discussed above in Point 1, Clean Air Act

section 111(d) contemplates that EPA will establish mandatory minimum requirements for emission reductions. The Clean Power Plan incorporated EPA's understanding that the Clean Air Act and EPA's regulations required that "EPA's guidelines reflect the degree of emission reduction achievable through the application of the best system of emission reduction." 80 Fed. Reg. at 64,719. EPA has recently held to this interpretation of its authority, describing in the Proposed Repeal its role under section 111 as "establishing the degree of emission limitation to be reflected in a standard of performance." 82 Fed. Reg. at 48,039. Although EPA may preserve flexibility for States to account for their unique situations—as it did in the Clean Power Plan—EPA must establish baseline mandatory minimum emission limitations for greenhouse gas emissions from power plants.

The provision in section 111(d) authorizing EPA to consider the "remaining useful lives of the sources in the category of sources" to which the emission standard applies does not excuse EPA from establishing broadly-applicable, mandatory standards. *See, e.g.,* 82 Fed. Reg. at 61,511. Although states must retain the flexibility to account for the "remaining useful life" of power plants within their borders, where appropriate, EPA must assure that all states meet minimum reduction levels consistent with the Best System.

c. Carbon Capture and Storage (CCS)

In the Clean Power Plan, EPA recognized that CCS, like co-firing with natural gas, was "technically feasible and within price ranges that the EPA has found to be cost effective," that it could be implemented by a segment of existing power plants, and that "the resulting emission reductions could be potentially significant." 80 Fed. Reg. at 64,727. EPA declined to treat CCS as part of the Best System, however, because other, less expensive, systems of emission reduction were available. *Id.* Now that EPA has proposed to reject those less expensive systems, it must reasonably explain why CCS is not part of the Best System. *See State Farm*, 463 U.S. at 43. Both the Clean Power Plan record and the record for the Clean Air Act section 111(b) rule for greenhouse gas emissions from new or modified power plants support the availability of CCS. *See, e.g.,* 80 Fed. Reg. at 64,545-48; RTC ch. 3.8, at 174–227.

4. Potential Interactions of a Possible Rule Under Section 111(d) with Other Regulatory Programs

a. New Source Review

EPA seeks comment on the potential interactions between a replacement rule issued under section 111(d) limiting greenhouse gas emissions from existing power

plants with the New Source Review ("NSR") permitting and pollution control requirements in section 165 of the Clean Air Act, 42 U.S.C. § 7475. Specifically, EPA asks about "actions that can be taken to harmonize and streamline the NSR applicability and/or the NSR permitting process with a potential new rule." 82 Fed. Reg. at 61,519.

Based on its discussion in the Advance Notice, *id.* at 61,518–19, EPA appears to be primarily concerned with the scenario in which a power plant owner undertakes a heat rate improvement project to comply with an EPA replacement rule yet triggers New Source Review permitting and pollution control requirements because of projected higher annual emissions of greenhouse gases (or other pollutants) following such a project.[9] EPA appears to recognize—without explicitly saying so—the reason why the agency previously rejected a "Best System" based solely on heat rate improvements: that a slightly-more efficient power plant could be prioritized in the electricity dispatch order and by running more often, increase pollution. *See id.* at 61,518.

As EPA notes, an existing power plant that undergoes a non-routine modification that would result in an increase in the plant's annual pollution must comply with New Source Review requirements. 42 U.S.C. § 7475. It is well established that in light of the Clean Air Act's broad definition of "modification," 42 U.S.C. §§ 7479(2)(C), 7411(a)(4), EPA lacks the authority to exempt projects that would result in annual emission increases from New Source Review permitting and pollution control requirements. *See New York v. EPA*, 443 F.3d 880 (D.C. Cir. 2006) (vacating EPA rule exempting from New Source Review certain equipment replacements that did not exceed a dollar threshold); *New York v. EPA*, 413 F.3d 3 (D.C. Cir. 2005) (finding unlawful EPA attempts to exclude "clean units" and pollution control projects from New Source Review). Indeed, Congress enacted the New Source Review program in 1977 because it was dissatisfied with the Act's existing provisions, including section 111, as a sufficient mechanism to address pollution from major stationary sources. *See Environmental Defense Fund v. Duke Energy Corp.*, 549 U.S. 561, 567-68 (2007); *New York*, 413 F.3d at 10.

In fact, EPA and states have brought New Source Review enforcement cases based on increased actual emissions resulting from the types of heat rate improvement projects listed in EPA's Table 1, such as replacing or upgrading economizers and coal pulverizers, 82 Fed. Reg. at 61,514. *See, e.g., United States v. Ohio Edison*, 276 F. Supp. 2d

[9] Unlike the trigger for a modification under section 111, which is based on an increase in maximum hourly emissions, existing sources trigger New Source Review permitting and pollution control requirements when they are modified in a way that would increase annual emissions. *See New York v. EPA*, 413 F.3d at 20.

829, 856-57, 870-72, 882 (S.D. Ohio 2003) (economizer and pulverizer replacement resulted in significant emission increases of sulfur dioxide and/or nitrogen oxides); *see also* Partial Consent Decree in *United States v. Cinergy*, (S.D. Ind., Civil Action No. 1:99-cv-01693) at 5 (noting finding of liability based on pulverizer projects), available at: https://www.epa.gov/sites/production/files/documents/dukeenergy-cd.pdf. As the court concluded in *Ohio Edison*:

> Increased utilization means that more coal is burned and more emissions created. . . The impact of improved heat rate resulting from the [] projects is indeed largely cancelled out by the increased utilization that is realized from the change in unit position on the dispatch ladder.

276 F. Supp. 2d at 880; *see also* National Academy of Public Administration, *A Breath of Fresh Air: Reviving the New Source Review Program* 94 (Apr. 2003) ("[m]arginal efficiency improvements are no substitute for the installation of modern pollution controls"), *available at*: https://www.napawash.org/uploads/Academy_Studies/03_02ABreathofFreshAirRevivingtheNewSourceReviewProgram.pdf.

A recent analysis prepared by Resources for the Future, together with public health experts at several major universities, which formed the basis for the group's recent comments submitted to the Maryland Attorney General's office (attached hereto as ***Exhibit B***), further demonstrates the inadequacy of a replacement rule using EPA's constrained understanding of systems of emission reduction. Resources for the Future compared emission reductions of carbon dioxide, nitrogen oxides, and sulfur dioxide expected under the Clean Power Plan to emissions reductions anticipated under a possible replacement rule consistent with EPA's Proposed Repeal and the Advance Notice. Citing studies by Driscoll et al. (2015) and Staudt and Macedonia (2014), the authors of the analysis concluded that a replacement rule based on heat-rate improvements alone "results in a small fraction of the [carbon pollution] reductions that would be achieved overall in the power sector under the Clean Power Plan" and further that "[t]he expected replacement [rule] would lead to increased utilization of coal plants at many facilities, and an overall increase in sulfur dioxide emissions nationally." Exh. B at 3, 9. In Maryland alone, such a replacement rule would lead to six more premature deaths annually *compared to no rule at all*, and 106 more premature deaths than if the Clean Power Plan were implemented. *Id.* at 9.

Of course, the proper agency response to such an outcome is not to seek to enable power plants to avoid complying with New Source Review, but to promulgate an emissions guideline that actually *reduces emissions*, as the Clean Air Act requires. In promulgating the Clean Power Plan, EPA did not limit itself to considering potential

emission reductions from heat rate improvements, but took into account additional, proven methods of carbon pollution reduction from electricity generating units, including reducing the use of higher-emitting generation, and correspondingly, increasing the use of lower-emitting generation, such as wind and solar power. The Clean Power Plan thus incorporated a well-thought out analysis that reflected the way that power plants operate (and, in the case of fossil fuel-fired plants, pollute) on an interconnected electricity grid. The potential pollution increases under the type of replacement rule now being envisioned by EPA underscores the agency's fundamental flaw in choosing to ignore both the way the industry operates and the proven methods these sources have used to cut greenhouse gases.

b. New Source Performance Standards

EPA also seeks comment on whether and how state plans developed under section 111(d)—and any interstate trading schemes, in particular—might be affected if a power plant were to undergo a reconstruction or modification as defined in section 111(b), under which EPA regulates greenhouse gas emissions from new and modified power plants. 82 Fed. Reg. at 61,519. Once again, the States and Cities note that EPA's broad call for comment "on whether there are any potential interactions between" section 111(d) and section 111(b) programs, *see id.*, belies the substantial amount of information already in the agency's record regarding this set of issues. The Clean Power Plan discusses in detail interactions between sections 111(d) and 111(b) in the context of regulating greenhouse gas emissions from power plants and responds to numerous comments on this point. *See, e.g.*, 80 Fed. Reg. at 64,729–30, 64,883 n. 898, 64,888, 64,903.

Importantly, EPA carefully crafted the Clean Power Plan, considering interactions between sections 111(b) and 111(d), so as to avoid creating perverse incentives for the electric sector to increase, rather than decrease, its overall emissions. *See* 80 Fed. Reg. at 64,903. As EPA acknowledged in the Clean Power Plan, "increased CO_2 emissions . . . [are] contradictory to objectives of this rule and should, therefore, be minimized." *Id.* In crafting any replacement guidelines and authorizing compliance mechanisms, EPA should continue to guard against incentives or mechanisms that could have the effect of *increasing* overall emissions of greenhouse gases or other pollutants. Likewise, regulation of power plant greenhouse gas emissions should not incentivize industry to make investments that could burden electric ratepayers with stranded costs considering long-term emission-reduction policies or the dynamics of a trading program.

5. Additional Considerations in Setting Emission Guidelines to Limit Greenhouse Gas Emissions from Existing Power Plants

Finally, EPA seeks "any other comment that may assist the agency in considering setting emission guidelines to limit [greenhouse gas emissions] from existing [power plants]." 82 Fed. Reg. at 61,510. As discussed in the introductory section above, an advance notice of proposed rulemaking in this context is completely inappropriate to the task at hand. As the Supreme Court has recognized, section 111 of the Clean Air Act is an important tool for EPA and states to use to battle carbon pollution from power plants that is endangering public health and welfare. *See AEP*, 564 U.S. at 427–28. The agency itself has compiled a robust record showing that the harms caused by carbon pollution from power plants are imminent and wide-ranging. *See, e.g.*, 80 Fed. Reg. at 64,682–89. Yet at a time that our leading scientists are telling us we need to sprint to prevent catastrophic harms from climate change, EPA's path exemplified in the Advance Notice amounts to running backwards. Such an approach would guarantee that, given the accelerating pace of threats, the nation will lose ground. EPA can, and must, do better.

The States and Cities do agree with EPA that section 111(d) is a flexible tool for states and EPA to use in achieving carbon pollution reductions from existing fossil-fueled power plants. Unlike the replacement rule EPA seems to be contemplating, however, the Clean Power Plan recognized adequately demonstrated systems of emissions reductions and required meaningful emission reductions, while also maintaining flexibility. If implemented, it could still help fulfill EPA's statutory duty to achieve such reductions. If EPA will not change its position and the courts do not reject the agency's misguided course on repealing the Clean Power Plan, EPA must at least start with the principle that any replacement rule must also result in meaningful pollution cuts to address climate change harms. That in turn requires consideration of (i) how carbon dioxide is a different pollutant from conventional pollutants that create greater harm in more proximate areas, (ii) how power plants interact with each other on the interconnected electricity grid and how they currently reduce their emissions, and (iii) the need for prompt, significant reductions. Only by recognizing these realities would EPA be able to design a replacement rule that would represent the necessary and legally-required "serious effort" to address one of our country's largest sources of carbon pollution.

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Respectfully Submitted,

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