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EPA Docket Center
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Attr: Docket No. ID EPA HO CAL

Attn: Docket No. ID EPA-HQ-OAR-2017-0355

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

Clean Air Task Force (CATF), Center for Biological Diversity (CBD), Clean Air Council (CAC), and Minnesota Center for Environmental Advocacy (MCEA) respectfully submit these comments on the Repeal of Carbon Pollution Emissions Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035 (Oct. 16, 2017) (Proposed Repeal).

Founded in 1996, CATF seeks to help safeguard against the worst impacts of climate change by working to catalyze the rapid global development and deployment of low carbon energy and other climate-protecting technologies, through research and analysis and public advocacy leadership.

CBD is a non-profit organization with some 1.3 million members and online activists and offices throughout the United States. CBD's mission is to ensure the preservation, protection and restoration of biodiversity, native species, ecosystems, public lands and waters and public health. In furtherance of these goals, CBD's Climate Law Institute seeks to reduce U.S. greenhouse gas emissions and other air pollution to protect biological diversity, the environment, and human health and welfare. Specific objectives include securing protections for species threatened by global warming, ensuring compliance with applicable law in order to reduce greenhouse gas emissions and other air pollution, and educating and mobilizing the public on global warming and air quality issues. These comments are filed on behalf of our members and staff with a vital interest in reducing greenhouse gas and other air pollutants.

CAC is a member-supported, non-profit environmental health organization dedicated to protecting and defending everyone's right to breathe clean air. CAC is headquartered in Philadelphia and has worked for over 50 years through public education, community organizing, advocacy, and government oversight to ensure enforcement of environmental laws.

Established in 1974, MCEA uses law, science, and research to protect Minnesota's environment, its natural resources, and the health of its people.

These comments incorporate and supplement the Joint Comments¹ and Joint Appendix² submitted by CATF, CBD, CAC, MCEA, and eleven other organizations.

I. Introduction.

The Environmental Protection Agency (EPA or Agency) proposes a complete repeal of the Clean Power Plan – which directs carbon dioxide emissions reductions from the nation's largest stationary source of that intensely damaging air pollutant³ – based on two grounds: (1) an allegedly changed interpretation of the Clean Air Act, and (2) the policy demands of the President, which were memorialized in an Executive Order. Neither is sufficient to support a repeal (which manifests a complete change in the Agency's position). The Agency fails to explain why its new statutory interpretation is either truly different from that underlying the Clean Power Plan, or why the Plan does not satisfy it. But, to the extent that the Proposal can be read as a new interpretation of Clean Air Act section 111 precluding systems of emission reduction such as the one underlying Clean Power Plan, its reading is contrary to the statute, impermissible, and unreasonable. And even if policy grounds alone - like those set out in the Executive Order and based on campaign promises⁴ – could be a sufficient basis for overturning a substantive final rule, such concerns cannot support a result that flies in the face of the statutory requirements and purpose.

Nor does EPA otherwise adequately justify or explain its complete abandonment of the Clean Power Plan. EPA does not analyze the results of its new interpretation or its policy preference against the statutory factors Congress intended to constrain the Agency's action. Indeed, EPA does not grapple at all with the extensive record underlying the Clean Power Plan, asserting wrongly that its changed legal position is enough to support repeal. It is clear from even a glancing review of the record that the Clean Power Plan is based on actions already being taken by the industry to control

¹ 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, "Joint Comments of Health, Environmental, and Conservation Groups on EPA's Proposed Rule," (Apr. 26, 2018) [hereinafter "Joint Comments"].

² Joint Appendix of Environmental and Public Health Organizations, and States Regarding the Proposed Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units [hereinafter "Joint App."].

³ Joint Comments of Environmental and Public Health Organizations Regarding the Proposed Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units Comments Specific to Climate Change, (Apr. 26, 2018) [hereinafter "Comments Specific to Climate Change"].

⁴ See Environmental Defense Fund, et al., Comments on EPA Administrator Scott Pruitt's Improper Prejudgment of Outcome of Proposed Repeal of Clean Power Plan, (Jan. 29, 2018), Doc. No. EPA-HQ-OAR-2017-0355-17195 (cataloguing statements from President Trump and Administrator Pruitt that the decision to repeal the Clean Power Plan was made well before this rulemaking commenced).

carbon pollution from the affected sources – actions that satisfy even EPA's assertedly new interpretation of the statute.

Where the Agency has a legal obligation, as it does here, to regulate a seriously damaging air pollutant from existing coal- and gas-fired power plants, EPA's repeal of the Clean Power Plan with no immediate replacement at hand is unlawful. *See* Joint Comments at Section II. And, because time is of the essence due to the long life of carbon dioxide in the atmosphere and the extent of the damage it is already causing, EPA's decision to repeal the Clean Power Plan is arbitrary and capricious, or at minimum a serious abuse of agency discretion.

II. Nothing in Clean Air Act section 111 or the Agency's proposed "new" interpretation of it *compels* EPA to repeal the Clean Power Plan.

As the Joint Comments make clear, EPA's assertions that repeal is necessary because the Clean Power Plan "exceeds the EPA's statutory authority," are baseless and unsupported. See Joint Comments at Section III.A. It is unclear whether EPA is basing the Proposed Repeal on the assertion that the text of the statute is unambiguous, see infra at Section III.a, and Joint Comments at Section III.A.1, or on the basis that the Agency has discretion because the language of the statute gives it the latitude to do so, see infra at Section III, and Joint Comments at Section III.B. Under either theory, EPA's arguments fail. EPA's new reading of the statute as precluding the system underlying the Clean Power Plan has no support in the language of the statute. Nor has EPA shown that the Clean Power Plan is based on an impermissible reading of the statute.

EPA seeks to adopt an interpretation of section 111 consistent with its "potential rulemaking" "focus[ed]" on minor heat rate improvements at existing coal plants. However, on its face, the Agency's "new" legal interpretation is not actually new – at its core it is the same interpretation underlying the Clean Power Plan. The Agency now asserts that the statutory phrase "best system of emissions reduction" on which emission guidelines for state-imposed emission standards must be based, 42 U.S.C. § 7411(a)(1), may not encompass measures other than those that can be applied to or at an individual affected source. But the Proposed Repeal fails to acknowledge or comprehend that the interpretation on which the Clean Power Plan was based *does* reflect that understanding: that "emission guidelines for the existing sources must reflect ... the application of the 'the best system of emission reduction,' and the system must be limited to measures that can be implemented – 'appl[ied]' – by the sources themselves."

The Proposed Repeal does not describe the Clean Power Plan interpretation and then textually distinguish the new one, other than to ignore the salient terms of section 111 – "best system"

⁵ 82 Fed. Reg. at 48,036-38, 48,048.

⁶ 82 Fed. Reg. 61,507, 61,513 (Dec. 28, 2017).

⁷ *Id.* at 48,039.

⁸ 80 Fed. Reg. 64,662, 64,720 (Oct. 23, 2015); *see also id.* at 64,736 (the "system" must be implementable by affected sources), *id.* at 64,761 (including "actions enabl[ing] the affected source to achieve its emissions limitation," the fundamental requirement of the statute).

"adequately demonstrated" - and stress various prepositions. The Agency claims that because its new focus is exclusively "source-oriented," the old interpretation fails. But that argument has no merit, as the Clean Power Plan interpretation also is "source-oriented," based on a set of measures that reduce emissions from the affected sources and requiring each affected source to comply with a standard of performance. The Agency never explains why the Clean Power Plan – which defines a standard that must be met at each affected source, based on a system that can be applied "by," "to," "at," or "for" the source to reduce emissions – does not comply with the statutory factors, or the Proposal's "new" interpretation of them.

a. The Clean Power Plan does not exceed EPA's statutory authority.

EPA repeatedly claims that the Clean Power Plan "exceeds the EPA's statutory authority," and therefore *must* be repealed.¹¹ In effect, EPA argues that the text of the statute unambiguously demands the Agency's repeal decision. However, the statute is simply not unambiguous -- "[o]ne does not need to open up a dictionary to realize the capaciousness of' ¹² the relevant terms here: "system" and "application." "Congress" uses "capacious terms when it wishes to enlarge [] agency discretion." "The broad language reflects an intentional effort to confer the flexibility necessary to forestall…obsolescence." ¹⁴

If anything, it is more likely that section 111's plain language precludes an interpretation limiting the best system of emissions reduction to physical changes, such as heat rate improvements, that have to be applied "to or at the source," as that reads into the statute "a drastic limitation that nowhere appears in the words Congress chose." Here, however, the Agency has apparently concluded that it has no choice but to repeal the Clean Power Plan. As that is "an erroneous view of the law," the Agency may not lawfully finalize repeal on that basis.

⁹ 82 Fed. Reg. at 48,039 (focusing on italicized language: "applied to or at the source" and "for any existing source").

¹⁰ Id

¹¹ Id. at 48,036-38, 48,048.

¹² Michigan v. EPA, 135 S.Ct. 2699, 2705 (2015).

¹³ City of Arlington v. FCC, 133 S.Ct. 1863, 1868 (2013).

¹⁴ Massachusetts. v. EPA, 549 U.S. 497, 532 (2007).

¹⁵ Hercules, Inc. v. EPA, 938 F.2d 276, 289 (D.C. Cir. 1991).

¹⁶ See SEC v. Chenery, 318 U.S. 80, 95 (1943) ("an administrative order cannot be upheld unless the grounds upon which the agency acted in exercising its powers were those upon which its action can be sustained.").

¹⁷ Prill v. NLRB, 755 F.2d 941, 947 (1985). "An agency regulation must be declared invalid, even though the agency might be able to adopt the regulation in the exercise of its discretion, if it was not based on the [agency's] own judgment but rather on the unjustified assumption that it was Congress' judgment that such [a regulation is] desirable." Id. at 948 (internal citations omitted); see also U.S. Postal Serv. v. Postal Regulatory Comm'n, 640 F.3d 1263, 1264 (D.C. Cir. 2011) (remanding the Commission's interpretation of the Postal Accountability and Enhancement Act of 2006 because it incorrectly concluded the plain meaning of the statutory language required a particular result); see also NextEra Desert Ctr. Blythe v. FERC, 852 F.3d 1118, 1122 (D.C. Cir. 2017) (remanding order to Commission because its decision rested "on an erroneous assertion that the plain language of the relevant wording is unambiguous"); and Order, The Regents of the

b. The Clean Power Plan is premised on a permissible and workable exercise of EPA's statutory authority, while the Proposed Repeal's cramped approach would result in a deficient regulation.

Far from being an illegal rule in excess of statutory authority, the Clean Power Plan is a reasonable and workable regulation to begin limiting carbon dioxide emissions from fossil fuel-fired power plants and should go into effect. As demonstrated in the Clean Power Plan, and *infra* at Section III, the language and structure of section 111(d), read as a whole and in the context of the Clean Air Act and its purposes, supports EPA's prior interpretation of "system." ¹⁸ In fact, EPA's former interpretation "is preferable as a matter of simple English..., is soundly supported by the legislative history, and is not belied by other provisions or policies of the Clean Air Act." ¹⁹

In developing the Clean Power Plan, EPA recognized its mandate to determine the *best* system of emission reduction and gathered unprecedented public input even before crafting a proposed rule. In March 2011, EPA began holding listening sessions. On top of the eleven listening sessions, EPA met with 210 separate groups in Washington, D.C., alone. The Agency then held 115 additional meetings and events across the ten regional offices.²⁰ During a 166-day comment period, EPA received 4.3 million comments. Over the next eight months, the Agency responded to these comments before the rule was finalized.²¹

Similar to the Cross State Air Pollution Rule, which was promulgated under Clean Air Act section 110,²² and upheld by the Supreme Court,²³ EPA built upon a substantial record and stayed within the confines of the Clean Air Act,²⁴ while also employing the Act's flexibility to craft an innovative

Univ. of Cal. v. DHS, No. 17-05211, Doc. 234, at 29, 38 (Jan. 9, 2018) (enjoining repeal of DACA because the action "was based on a flawed legal premise (citing *Massachusetts*, 549 U.S. at 532)).

¹⁸ See 80 Fed. Reg. 64,762 (enumerating the reasons that EPA's interpretation is reasonable).

¹⁹ Ala. Power Co. v. Costle, 636 F.2d 323, 393-94 (D.C. Cir. 1979).

²⁰ EPA Consulted with Hundreds of Groups on Carbon Rule for Existing Power Plants, DAILY ENVT. REP., (Apr. 8, 2014), (Joint App. H5).

²¹ Linda Tsang & Alexandra M. Wyatt, Cong. Research Servs., *Clean Power Plan: Legal Background and Pending Litigation in West Virginia v. EPA*, at 6-7 (Mar. 8, 2017), *available at:* https://fas.org/sgp/crs/misc/R44480.pdf. *See also* Regulations.gov > "Standards of Performance for Greenhouse Gas Emissions from Existing Sources: Electric Utility Generating Units" > "Comments," *available at:* https://www.regulations.gov/docketBrowser?rpp=25&so=DESC&sb=commentDueDate&po=0&dct=PS&D=EPA-HQ-OAR-2013-0602 (last accessed Apr. 25, 2018) (Joint App. G3).

²² Section 110 is cross-referenced in section 111(d), which expressly gives the Administrator authority to use it in "prescribing regulations" for existing sources. 42 U.S.C. § 7411(d)(1). Section 110 in turn includes authorizations to establish "other control measures, means or techniques (including economic incentives such as fees, marketable permits and auctions of emissions rights"). *Id.* at § 7410(a)(2)(A).

²³ EPA v. EME Homer City Generation, 134 S.Ct. 1584 (2014).

²⁴ Richard L. Revesz, et al., Institute for Policy Integrity, Bounded Regulation: How the Clean Power Plan Conforms to Statutory Limits on EPA's Authority, (Sept. 2016), available at: http://policyintegrity.org/files/publications/Bounded Regulation Policy Brief.pdf (Joint App. G6).

solution. The resulting Clean Power Plan accounts for the unique characteristics of carbon dioxide pollution and the realities of the interconnected nature of the regulated power plants.²⁵

The system of emission reduction underlying the Clean Power Plan is heat rate improvement and substituting higher-emitting generation at affected sources with lower-emitting generation.²⁶ This "adequately demonstrated" system, serving as the basis for the Clean Power Plan's emission targets, locks in and builds upon current market trends and the predominant state and industrial approach to reducing carbon emissions from the affected sources.²⁷ Indeed, it would have been unreasonable for EPA to have ignored this evidence of industry trends when determining the "best" system of emission reduction.

The affected sources have significant discretion in how to meet their state-imposed performance standards, and the market trends favoring cleaner sources of generation, discussed *infra* at Section V.b, are accelerating and reducing the compliance costs significantly, resulting in lower overall carbon dioxide emissions at the affected sources. When the Clean Power Plan was finalized, EPA estimated that the highest costs for compliance in 2030 would be \$26/ton and when that number was updated in January 2017, it had dropped to \$17/ton.²⁸ Recent analysis shows that if states took full advantage of the compliance flexibilities available the Clean Power Plan would have reduced 72 million metric tons of carbon dioxide on average *every year*.²⁹

The Clean Power Plan was "not prescribed in a vacuum;³⁰" EPA gave due consideration to "the environmental benefit potentially achievable, our Nation's energy needs and the possibility of economic disruption...".³¹ The best system of emission reduction underlying the Clean Power Plan

²⁵ EME Homer City, 134 S.Ct. at 1594 (regulators must take into account the particular characteristics of the pollution problem they face when designing a solution); see also Sierra Club v. Costle, 657 F.2d 298, 339 (D.C. Cir. 1981) (upholding section 111 performance standards, which reflected the current trends the electric sector, including "the projected increase in coal production"); and Portland Cement Ass'n v. EPA, 665 F.3d 177, 190 (D.C. Cir. 2011) (upholding section 111 performance standards, which were based, in part, on older units being replaced by newer units).

²⁶ 80 Fed. Reg. at 64,667.

²⁷ Trends in the industry show that significant coal-fired electricity generation has been replaced with lower-emitting sources, and projections show that this will continue. EPA is limited to designing a best system of emission reduction that is "rationally related to reality." *Colombia Falls Aluminum Co. v. EPA*, 139 F.3d 914, 923 (D.C. Cir. 1998). ""[S]ection 111 looks toward what may fairly be projected for the regulated future…" *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973). Substituting higher-emitting generation for lower-emitting generation, is a "market-generated innovation" for controlling carbon dioxide. *FERC v. EPSA*, 136 S.Ct. 760, 779 (2016).

²⁸ 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, at 3 (Jan. 11, 2017). [hereinafter "Reconsideration Denial"] (Joint App. F8).

²⁹ John Larsen & Whitney Herndon, Rhodium Grp., "What the Clean Power Plan Would Have Done," (Oct. 9, 2017), https://rhg.com/research/what-the-cpp-would-have-done/ (Joint App. J35).

³⁰ Am. Elec. Power Co. v. Connecticut, 131 S.Ct. 2527, 2539 (2011).

³¹ 80 Fed. Reg. at 64,784.

is an adequately demonstrated, "everyday occurrence," the costs are reasonable, is reliability is not jeopardized, it achieves substantial emissions reductions, and due to conservative assumptions at its promulgation, is eminently achievable. If it were to be altered, changed circumstances since promulgation of the Clean Power Plan would require the rule to be *strengthened*. The costs are reasonable, and the costs are rea

In fact, EPA previously rejected the exact approach it now takes in the Proposed Repeal and in the Advanced Notice of Proposed Rulemaking. As EPA warned:

limiting the BSER to building block 1 ["source-oriented"] measures would be unreasonable and contrary to the CAA. The BSER underlying the final Rule is a combination of the three building blocks that, when implemented, result in an achievable and significant degree of CO₂ emission reductions from the utility power sector. 80 FR 64,663; see also id. at 64,924 (projecting, by 2030, a 32% reduction in CO₂ emissions from 2005 levels). One of the factors that EPA must consider under section 111 is an assessment of the amount of emission reductions that can be achieved through applying a system of emission reduction. See 80 FR 64,721 (discussing Sierra Club v. Costle, 657 F.2d 298, 326 (D.C. Cir. 1981)). Excluding building blocks 2 and 3 would severely undercut the projections expected by 2030; in fact, reductions from building block 1 alone would be grossly insufficient to address the public health and environmental impacts from CO2 emissions and limiting the BSER to efficiency measures might actually "exacerbate the insufficiency of the emission reductions." 80 FR 64,787; see also id. at 64,748 (expressing concern "that implementation of building block 1 in isolation not only would achieve insufficient emission reductions ... but also has the potential to result in a 'rebound effect."). Thus, in light of the significant CO₂ emission reductions attributable to building

³² Id. at 64,728-29.

³³ *Id.* at 64,782.

³⁴ See id. at 64,876-79 (the Clean Power Plan includes a "reliability safety valve to address situations where, because of an unanticipated catastrophic event, there is a conflict between the requirements imposed on an affected unit and the maintenance of reliability.").

³⁵ Sierra Club, 657 F.2d at 326; see also 80 Fed. Reg. at 64,745 (finding that the Clean Power Plan is "projected to result in substantial and meaningful reductions of CO₂ emissions.").

³⁶ "EPA has determined a reasonable level of stringency for each of the building blocks rather than the maximum possible level of stringency. We have taken this approach in part to ensure that there is 'headroom' within the BSER measures that provides greater assurance of the achievability of the BSER for the source category and for individual sources." 80 Fed. Reg. at 64,730.

³⁷ 80 Fed. Reg., at 64,748-52 (describing Clean Power Plan costs and conservative assumptions across various metrics). Since the Clean Power Plan was finalized, costs have declined significantly. See Denise A. Grab et al., Institute for Policy Integrity, New York University School of Law, The Falling Cost of Clean Power Plan Compliance (Oct. 2017) (Joint App. J11) (summarizing various cost studies); M.J. Bradley & Associates, EPA's Clean Power Plan: Summary of IPM Modeling Results with ITC/PTC Extension (June 2016) (Joint App. J42) (finding costs 84% lower than original estimates); and American Petroleum Institute, Natural Gas Solutions: Power Generation, EPA Clean Power Plan Compliance Pathways – Modeled Generation, Capacity and Costs (2016) (Joint App. J2) (projecting one compliance scenario would have no costs in 2030 and another would cost 40% less than original estimates).

blocks 2 and 3, it would be unreasonable to limit the BSER to building block 1 measures alone. 80 FR 64727 ("heat rate improvements are a low-cost option that fit the criteria for the BSER, except that they lead to only small emission reductions for the source category.").³⁸

EPA's prior interpretation of the ambiguous language in section 111(d) was reasonable in light of the source category and regulated pollutant and heeded the statutory limits. The Proposed Repeal fails to acknowledge and respond to EPA's prior explanation of why a "best system" determination limited to minimal heat rate improvements would be unlawful, and instead it simply repeats the mantra that the Clean Power Plan "exceeds EPA's statutory authority." That claim is entirely unsupportable and therefore the Repeal, as proposed, must be withdrawn.

c. The Clean Power Plan is "source-oriented" and fits comfortably within the Proposed Repeal's purportedly "new" interpretation of the Agency's section 111 authority.

Not only is the Clean Power Plan reasonable, it comports with EPA's proposed "new" interpretation of section 111. The Clean Power Plan prescribes regulations setting emission guidelines for standards to be set for and met by existing power plants. Those guidelines were based on available methods to reduce emissions at the affected sources, including by reducing the generation from higher-emitting fossil fuel-fired power plants subject to the rule to the extent that their generation could be replaced by increased generation at lower- and zero-emitting sources. ⁴⁰ The Agency found that these measures were available to all affected sources through direct investment, operational changes or emissions trading. ⁴¹ Nothing in the Proposed Repeal explains why that scheme does not comport with EPA's asserted "new view" of the statute's requirements.

EPA now claims that the Clean Power Plan is illegal because it "set[] carbon dioxide (CO₂) emission guidelines for existing power plants that can only realistically be effected by measures that cannot be employed to, for, or at a particular source." Even if these newly found constraints in the statute were legitimate, *but see infra* at Section III, the Clean Power Plan meets them. There is nothing more "source-oriented" than requiring air pollution emissions be decreased at the source. The system of decreasing generation at higher-emitting sources reduces emissions from the source category as a

³⁸ Reconsideration Denial at 55, n. 75 (Jan. 11, 2017); *see also* 80 Fed. Reg., at 64,787; and 82 Fed. Reg., at 48,039, n.5 (acknowledging that the Clean Power Plan building block one cannot stand on its own).

^{39 82} Fed. Reg. at 48,036.

^{40 80} Fed. Reg. 64,667.

⁴¹ *Id*.

^{42 82} Fed. Reg. at 48,037.

⁴³ Dan Farber, LegalPlanet, "The Off Switch is Inside the Fenceline," (Dec. 26, 2017), http://legal-planet.org/2017/12/26/the-off-switch-is-inside-the-fenceline/ (Joint App. G1); see also Comment Submitted by D. Farber & K. Engel, (Jan. 15, 2018), EPA-HQ-OAR-2017-0355-16293.

whole because, due to the interconnected electric grid, zero- and lower-emitting sources can replace the reduced generation.

The Clean Power Plan is fundamentally based on the concept that the source category can reduce climate pollution from the higher-emitting sources commensurate with the amount of electricity available from lower-emitting sources.⁴⁴ That does not make it impermissible, indeed it makes it pragmatic and implementable, as these shifts are happening already in the regulated industry, *see infra* at Section V.b, and the unique characteristics of carbon dioxide and the interconnected nature of the grid enable them. "With emission limits for the source category as a whole in place, the resulting reduction in supply of higher-emitting generation will incentivize additional utilization of existing [natural gas combined cycle] capacity, the resulting reduction in overall fossil fuel-fired generation will incentivize investment in additional [renewable] generating capacity, and the integrated system's response to these incentives will ensure that there will be sufficient electricity generated to continue to meet demand."⁴⁵ Reducing generation, moreover, is a well-established and congressionally-recognized measure for individual power plants to take in order to comply with the Clean Air Act.⁴⁶

EPA has issued other Clean Air Act rules based on the ability of higher-emitting sources to curtail their emissions by shifting generation to lower-emitting sources providing the same product (in this case electricity). The Supreme Court upheld a rule under Clean Air Act section 110 (which is cross-referenced in section 111(d), *see supra* n. 20), under which "EPA created an annual emission 'budget," taking into account generation shifts and redispatch from higher-emitting sources to lower-emitting sources. Likewise, the D.C. Circuit largely upheld the NOx SIP Call, which was, in part, based on "increase[d] use of natural gas over coal."

As discussed *infra* at Section V.b, the trends and trajectory in the electricity sector at the time the Clean Power Plan was finalized demonstrated that older, inefficient fossil fuel-fired plants were curtailing and retiring in favor of lower-emitting sources, and this trend has continued. This is to be expected as technology advances, and cleaner and less expensive means of generating electricity become available.

^{44 80} Fed. Reg. at 64,731.

⁴⁵ Id. at 64,732-33.

⁴⁶ See, e.g. id., at 64,780-81 (describing the role of reduced generation in Title IV, BART, and permit limitations for various CAA sections).

⁴⁷ EME Homer City Generation, 134 S.Ct. at 1597.

⁴⁸ 76 Fed. Reg. 48,208, 48,252, tbl. VI.B.3 n.a and 48,280.

⁴⁹ Michigan, 213 F.3d at 678-79 (D.C. Cir. 2001).

 $^{^{50}}$ EPA, "Regulatory Impact Analysis for the NOx SIP Call, FIP and Section 126 Petitions," at 6-2 (1998), available at:

http://yosemite1.epa.gov/ee/epa/ria.nsf/vwTD/9051349471EC8109852566B000569EF5 (Joint App. F25); see also 80 Fed. Reg. at 64,772, n. 545.

When Congress passed the Clean Air Act, it was understood that "electric utility units had an average lifetime of 30 years." Currently 86% of coal generation has outlived that life expectancy, 53% of those units have outlived it by more than a decade. The Supreme Court has found in another context, that so long as "demand [for the product is] generally met, the basic requirements of the [Clean Air Act] are satisfied," even if that results in retirement of higher-polluting sources. 53

Indeed, even the regulated industry continues to request – in the 2018 Advance Notice of Proposed Rulemaking docket – that reduced generation at the sources they own should be one of the means for meeting the standards. "That might include, in addition to other technological or operational measures, the option of becoming a 'synthetic minor' – that is, taking a permit limitation that would restrict the source's hours or level of operation."⁵⁴ And if a means of compliance meets the section 111(a)(1) statutory criteria, it must be considered as part of the best system of emission reduction.

Environmental statutes are designed to internalize the economic costs associated with damage from pollution. To the extent that the owners of marginal plants cannot absorb those costs, the statute is performing as intended: inefficient plants will curtail their operations or close. This underlying concept was aptly described in the legislative history for the analogous Clean Water Act:

Congress clearly contemplated that cleaning up the nation's waters might necessitate the closing of some marginal plants. As Senator Bentsen stated: 'There is no doubt that we will suffer some disruption in our economy because of our efforts; many marginal plants may be forced to close.' In sum, while it is clear that the Administrator must consider cost, some amount of economic disruption was contemplated as a necessary price to pay in the effort to clean up the nation's waters⁵⁵

EPA, in the Clean Power Plan, understood that in regulating pollution from existing sources in the power industry, it was not authorized to curtail electricity generation itself. Rather, the same amount of electricity must be generated with fewer emissions, and therefore the best system of emission reduction – forming the basis for the standards – includes *substituting* reduced generation at affected sources with lower-emitting generation.⁵⁶

⁵¹ 1990 CAA LEG. HIST. 731, 791 (Nov. 1993) (discussing history of 1970 Clean Air Act).

⁵² EIA, "Preliminary Monthly Electric Generator Inventory," (Mar. 23, 2018). https://www.eia.gov/electricity/data/eia860M/ (Joint App. J25).

⁵³ Cf. Int'l Harvester Co. v. Ruckelshaus, 478 F.2d. 615, 640 (D.C. Cir. 1973) (finding that automobile emission standards are permissible so long as demand for automobiles is met, even if it has the effect of banning less efficient automobiles). "The driving preferences of hot rodders are not to outweigh the goal of a clean environment." *Id.* at 640.

⁵⁴ Ark. Elec. Coop. Corp., Comments on State Guidelines, Doc. ID. EPA-HQ-OAR-2017-0545-0188, at 2 (Feb. 26, 2018) (Joint App. C1); *see also* Nat'l Rural Elec. Coop. Ass'n, Comments on State Guidelines, Doc. ID. EPA-HQ-OAR-2017-0545-0287, at 9 (Feb. 26, 2018) (same) (Joint App. C3).

⁵⁵ Am. Iron & Steel Inst. v. EPA, 526 F.2d 1027, 1052 (3rd Cir. 1975).

⁵⁶ 80 Fed. Reg. at 64,780.

EPA calibrated the best system-based, emission target such that the amount of substitute lower-emitting generation would be available at reasonable cost and could be substituted for higher-emitting generation without jeopardizing regional electric system reliability.⁵⁷ Of course, under the Clean Power Plan (and indeed under section 111(d)'s structure) source owners are not required to apply the best system at every source. Instead, sources comply with the state-imposed standards through any method available to them.

In the Clean Power Plan, EPA concluded that reduced generation meets all the criteria of section 111 defining the best system of emission reduction:

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.⁵⁸

Now EPA claims that the Clean Power Plan "depends on the employment of measures that cannot be applied at and to an individual source," without engaging with the Clean Power Plan's finding that a source need only reduce its own generation to meet the standards and can do so by any means available. Anticipating that low- and zero-emitting energy will substitute for reduced generation and requiring the affected source to hold a credit showing that it did indeed happen for the purposes of showing compliance with its effective emission standard, is completely reasonable, and measures the reduction at each source. In fact, EPA's current failure to acknowledge the "known behavior" of the regulated industry – namely, that substituting higher-emitting generation at affected sources with lower-emitting generation is a daily occurrence – would be unreasonable. 60

Finally, that reducing generation at affected sources will create additional incentives for the development of lower-emitting generation to substituted higher-emitting generation and achieve an overall reduction in emissions at affected sources does not mean that the rule is unreasonable or unlawful. The Clean Power Plan directly regulates affected sources and no more. Reduced higher emitting generation will affect the electric system by delivering more generation from lower-emitting sources – but that is "of no legal consequence" because EPA has the direct authority to require affected sources (the higher emitters) to reduce generation. 61

⁵⁷ Id. at 64,782.

⁵⁸ Id. at 64,782, n. 602.

⁵⁹ 82 Fed. Reg. at 48,037.

⁶⁰ Chem. Mfrs. Ass'n v. EPA, 28 F.3d 1259, 1265 (D.C. Cir. 1994) (Agency decision is arbitrary and capricious if there is no rational relationship between the rule and the "known behavior" of the regulated pollutant and source); see also API v. EPA, 862 F.3d 50, 68 (D.C. Cir. 2017) (Agency rules must reflect a "sufficient linkage between theory, reality, and the result reached").

⁶¹ FERC v. EPSA, 136 S.Ct. at 776.

The Proposed Repeal exhibits an extraordinary gap in reasoning. It sets forth an allegedly "new" interpretation of "system," and then it asserts that the Clean Power Plan does not comport with this interpretation, without engaging with the record that explains that the "system" is indeed "source-oriented." The system of emission reduction underlying the Clean Power Plan is reduced generation, which is entirely "at" the source. If the premise of an agency's proposal is fundamentally flawed, as it is here, the Proposal must be withdrawn.

III. The Proposed Repeal's interpretation of section 111 is contrary to the statute and unreasonable.

Even if the Proposed Repeal could be read as the Agency's attempt at a new interpretation of section 111,⁶² its reading is contrary to the statute and unreasonable. In this reading, the Proposed Repeal would contort the Clean Air Act by claiming that emission guidelines must be based on equipment that can be integrated into the physical power plant. This reads limits into section 111's text that plainly do not exist.⁶³ Nothing in the Act limits EPA to designing emission guidelines based on measures that are located inside a power plant's fence line, especially where adequately demonstrated emission reduction strategies that would result in much greater reductions provide a superior approach. And, failing to base the regulation on the *best* system available is contrary to the statute.

EPA's restricted reading of this section also is an impermissible interpretation of statutory ambiguity because it undermines Congress' intent and the purposes of the Clean Air Act, by hamstringing section 111(d)'s ability to accommodate new pollution problems, innovations and solutions.⁶⁴ Arbitrarily, EPA now claims that its new position excludes the system by which the affected sources reduce their carbon dioxide emissions on a daily basis.⁶⁵

⁶² If this were the case, the Agency would have to re-notice the Proposal to clarify that it intends to interpret ambiguous language and allow for a proper notice and comment period.

^{63 42} U.S.C. § 7411; see also 80 Fed. Reg. at 64,761-63; see also Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 468 (2001) (rejecting respondents challenge where they could point to no "textual commitment of authority to EPA to consider costs.")

^{64 &}quot;A primary goal of this Act is to encourage or otherwise promote reasonable Federal, State, and local governmental actions...for pollution prevention." 42 U.S.C. § 7401(c). "Pollution prevention" is defined as "reduction or elimination, through any measures, of the amount of pollutants produced or created at the source." *Id.* at § 7401(a)(1) (emphasis added). The purpose of the Clean Air Act is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." *Id.* at § 7401(b)(1).

⁶⁵ 80 Fed. Reg. at 64,728-29 (the Clean Power Plan record found that shifting generation among power plants is an "everyday occurrence").

a. The Proposed Repeal ignores the salient text in section 111 and its textual arguments for reinterpreting "system of emission reduction" fail.

Section 111(d) of the Clean Air Act requires EPA to "prescribe regulations" directing each State to submit a plan establishing standards of performance *for* any existing source within their borders. Section 111(a)(1) defines "standard of performance" and requires that the Administrator establish the basis for the standard. The Standards of performance" are emission standards that reflect the degree of emission limitation achievable through application of the best system of emission reduction adequately demonstrated. The Standards of the best system of emission reduction adequately demonstrated.

The Clean Power Plan recognized that because the emission limitation must be achievable "through *application*" of the system, the system "must be limited to a set of measures ... that are implementable by the sources themselves." But the Proposed Repeal, reads the word "best" out of the phrase "through application of the *best* system of emission reduction" by inventing limits to the statute requiring the system "to be something that can be *applied to* or *at* the source and not something that the owner or operator can implement *on behalf* of the source at another location." By limiting the interpretation of the system to source-oriented strategies (in the cabined way the Repeal and Advanced Notice of Proposed Rulemaking do – as limited to minimal heat rate improvements), the Proposal arbitrarily rules out reliance on the "best" "adequately demonstrated" systems that were available at the time the Clean Power Plan was proposed and finalized, and are currently reducing emissions at the source category, *see* Section V.b. The Proposal thus fails to give full effect to the words "best" and "adequately demonstrated."

⁶⁶ 42 U.S.C. § 7411(d)(1).

⁶⁷ Id. at § 7411(a)(1).

⁶⁸ *Id*.

^{69 80} Fed. Reg., at 64,762. EPA then made the unremarkable observation that a "source" (an inanimate object), cannot apply or implement *anything* themselves and therefore the owner or operator must be able to implement the system on the source's behalf. *Id.* It is not the source that is held responsible for meeting 111 standards, it is the "owner or operator." 42 U.S.C. § 7411(e). Even heat rate improvements, the system of emission reduction the Advanced Notice of Proposed Rulemaking is "primarily focused on," 82 Fed. Reg. at 61,513, would require the owner or operator to take action.

⁶⁹ 80 Fed. Reg. at 64,727 ("heat rate improvement measures include best practices such as improved staff training, boiler chemical cleaning, cleaning air preheater coils, and use of various kinds of software, as well as equipment upgrades such as turbine overhauls. These are measures that the owner/operator of an affected coal-fired steam EGU may take that would have the effect of reducing the amount of CO[2] the source emits per MWh").

⁷⁰ 82 Fed. Reg. 48,039 (stating that the phrase "system of emission reduction" is the starting point for developing 111 standards).

⁷¹ Id.

⁷² See Montclair v. Ramsdell, 107 U.S. 147, 152 (1883) (must "give effect...to every clause and word of a statute.").

Further, given the magnitude of endangerment of public health and welfare posed by climate change, EPA, by reading into the words "application of" a limitation on the "system" to inside the fence line measures also fails to give full effect to the term "best" by failing to consider whether the system is "commensurate with the sector's contribution to GHG emissions and thus necessary to mitigate the dangers presented by climate change." See discussion at V.a infra. This interpretation willfully ignores the predominant strategy, as found in the robust Clean Power Plan record, that the affected sources utilize to reduce carbon emissions. See discussion at V.b infra.

EPA inexplicably asserts that there is a locational limitation in the term "application." "Application" is not defined in the Act but its ordinary dictionary definition is the "act of putting something to use." Therefore, the statute simply requires that standards of performance must reflect the degree of emission limitation achievable by putting the best system to use. In fact, "source" is not even referenced in section 111(a)(1) – the language the Proposed Repeal claims it is interpreting – nor does that section require that the system be applied to or at the source.

The Proposed Repeal also claims that section 111(d) directs that standards be established *for* any existing source, therefore "it is *reasonable to expect* that such standards would be predicated on measures that can be applied to or at those same individual sources." EPA misunderstands the statutory scheme here, however. EPA's role in it is to establish what can be done under the "best" "adequately demonstrated" system. It is the *states* that must submit a plan that establishes standards of performance for any existing source. Once EPA establishes an emission guideline reflecting the best system of emission reduction, the states must develop a plan that includes a standard of performance *for* each source. That every source must be subject to a standard of performance does not drive *how* EPA's determination of what the best system of emission reduction is – it's the other way around. It is EPA's best system determination that directs the states in their standard setting *for* existing sources – and states have the flexibility (granted in the text of the statute) to allow section 110 approaches for compliance (including credit or allowance trading) or to address remaining useful life related issues. Far from offering states more choices, EPA's "new" interpretation limits the states' choices in standard setting, to "measures applied to or at those same individual sources."

Finally, EPA endeavors to support its view on the basis that "application" appears elsewhere throughout the Clean Air Act's standard-setting provisions, accompanied in some instances by textual limitations, and the term should be interpreted consistently. ⁷⁹ EPA's problem, which it fails

⁷³ 80 Fed. Reg. at 64,667. "[T]he amount of air pollution [is] a relevant factor to be weighed." *Sierra Club v. Costle*, 657 F.2d 298, 326 (D.C. Cir. 1981).

⁷⁴ Merriam-Webster Online, "application," https://www.merriam-webster.com/dictionary/application?src=search-dicthed.

⁷⁵ 82 Fed. Reg. at 48,039 (emphasis added).

⁷⁶ 42 U.S.C. § 7411(d)(1).

⁷⁷ 40 C.F.R. § 60.22(b).

⁷⁸ 82 Fed. Reg. at 48,039.

⁷⁹ *Id.* at 48,039.

to overcome, is that "application," does *not* always "signal[] a physical or operational change to a source." In fact, neither the word itself nor the Clean Air Act sections EPA references require any limitation based on physical attachment of controls. Rather, "application" refers to a broad range of measures including processes, methods, systems, techniques, technology, and controls, and controls, and controls, so not retrofit equipment that can be applied to or at each affected source. In fact, as the Joint Comments point out, at Section III.A.1, the main import for section 111 of other sections' reference to "application" as allegedly limited to controls implemented onsite at each source, is that such alleged limitations are just not present in section 111 *at all*. And, as when "Congress includes particular language in one section of a statute but omits it in another . . . it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion." The fact that limiting language does not appear in section 111 means that Congress did not intend such limits to be controlling there. Therefore, EPA's conclusion that the phrase "reflecting the application" of the best system of emission reduction can only encompass standard setting based on "physical or operational change[s]...at the source" has no textual underpinning.

EPA never explains in the Proposed Repeal why even under its "new" view, the Clean Power Plan is not *applied to*, and is not *for*, the affected sources, requiring emission reductions at those same sources, as discussed *supra* at Section II.c. The Proposed Repeal fundamentally misunderstands, or intentionally disregards, the context: the means by which electricity is created and the affected sources operate. The affected sources are individual cogs located within a massive synchronous machine, which includes regulated and unregulated sources. Therefore, any proper application of section 111(d) must consider the affected source in this context and cannot treat the affected power plant as an island.⁸⁴ The interconnected nature of the electric grid means that if an affected source reduces its generation, and thereby its emissions, lower- or zero-emitting sources can and will substitute for that generation. That the Clean Power Plan recognizes this reality does not mean that the system of emission reduction applies *at* or *to*, or is *for*, a source other than those regulated by section 111(d).

"Because the performance and usage of their units depends on the operation of other units outside their individual controls, power companies regularly coordinate to plan new investments, plan unit retirements, and balance their respective systems." EPA found – by analyzing what would happen under the "best system" it chose – that reducing generation at higher-emitting sources, with lower-emitting generation substituting for that generation through the operations of the interconnected

⁸⁰ *Id.* at 48,040.

⁸¹ See 42 U.S.C. §§ 7412(d)(2), 7479(e), 7521(a)(3)(A)(i), 7521(a)(3)(D).

⁸² Keene Corp. v. United States, 508 U.S. 200, 208 (1993) (citation omitted).

^{83 82} Fed. Reg. at 48,039.

⁸⁴ See generally Br. of Amici Curiae Grid Experts, West Virginia v. EPA, 15-1363, ECF 1606654 (Apr. 1, 2016). "The usage of any individual generator is...dependent on – and to a large extent, dictated by – the performance of other components of the machine." *Id.* at 2 (Joint App. A3).

⁸⁵ See id. at 10.

grid, is a response to the standards that would indeed be "for" the affected sources. That analysis was "based in part on observed decades-long behavior of [power plants], show[ing] that all types and sizes of affected [power plants] in all locations are able to undertake the actions described as the [best system of emission reduction], including investor-owned utilities, merchant generators, rural cooperatives, municipally-owned utilities, and federal utilities." Under the Clean Power Plan's compliance frameworks, individual sources would meet their compliance obligations by reducing their own generation, by investing in zero- or low-emitting replacement generation, and/or by purchasing credits representing increased low- or zero-emitting generation or representing allowed emissions under an emissions cap. Notably, a mass-based compliance framework under the Plan would only require affected sources to reduce their generation and emissions to a level commensurate with the quantity of allowances they hold. Under a state measures plan, sources would comply by meeting the constraints a state imposed on them, if any—which could be as simple as a constraint on annual emissions or generation hours. Due to the interconnected nature of the grid, all of these actions will lead to emission reductions *at* the affected sources.

i. There is no support in Section 111's legislative history for EPA's approach to interpreting "system" as necessarily "source-oriented."

EPA claims that legislative history confirms its view that the term "system" "is historically rooted in a physical or operational change to or at the source." This argument is totally unsupported and improperly limits Congress's intentionally broad language in section 111. Nevertheless, as discussed *supra* at Section II.c, the heat rate improvements underlying the Clean Power Plan are physical changes, and reduced generation at affected sources is an "operational change."

Section 111 was first adopted in the Clean Air Act Amendments of 1970⁸⁸ and the 1970 legislative history informs our understanding of the phrase "standard of performance" (including the "best system" language), because the current definition adds only that EPA must consider certain "health and environmental impacts and energy requirements" in determining the best system of emission reduction. ⁸⁹ The Senate bill regulated existing sources, whereas the House bill did not, and it was the Senate bill that was incorporated into the Conference bill and ultimately codified. ⁹⁰ The commentary accompanying the Senate bill discussed "standards of performance" as "reflect[ing] the greatest

88 Clean Air Act Amendments of 1970, Pub. L. No. 91-604, § 4(a), 84 Stat. 1676, 1683.

⁸⁶ 80 Fed. Reg. at 64,735; *see also id.* at 64,746 (describing means by which an individual source can access substituting higher-emitting generation with lower-emitting NGCC generation); *see also id.* at 64,747 (describing means by which an individual source can access substituting higher-emitting generation with zero-emitting RE generation).

^{87 82} Fed. Reg. at 48,040.

⁸⁹ 42 U.S.C. § 7411(a)(1). The additional language was added in 1977. *See* Pub. L. No. 95-95, § 109(c), 91 Stat. 685, 700 (1977).

⁹⁰ H.R. 17255 (conf. bill), 91st Cong., 2d Sess. § 4(a) (1970) (enacted); H.R. Rep. No. 91-1783 (1970); Pub. L. No. 91-604, § 4(a), 84 Stat. 1676, 1684. The Senate version of the existing source provision (proposed section 114) and the final version differed in this respect: The Senate would have required EPA to set and enforce the standards for existing sources, with the states having an option to take over enforcement. See S. 4358, 91st Cong. § 6(b) (1970). The final bill, rather than simply offering an opportunity to the states, required the states to submit plans, along the lines of section 110, for EPA approval. H.R. 17255 (conf. bill), 91st Cong., 2d Sess. § 4(a) (1970) (enacted).

degree of emission control which the Secretary determines to be achievable through application of the latest available control technology, [or] *processes, operating methods, or other alternatives.*" Likewise the Report reveals that the Senate intended that the implementation of the resulting standards of performance need not be limited to pollution reduction at a source, but could also encompass pollution prevention: "[P]erformance standards should be met through application of the latest available emission control technology or through *other means of preventing or controlling* air pollution" "Pollution prevention" is defined by the Act as "the reduction or elimination, *through any measures*, of the amount of pollutants produced or created at the source."

In spite of this history, EPA now avers that the codified statutory language only "target[s] a physical or operational change to the source itself." EPA argues that the legislative history's use of the words "[c]ontrol technology,' 'processes,' and 'operating methods' are properly read to denote measures applied at or to, and implementable at the level of, the individual source." But there is nothing in the history to support this view – indeed neither the word "source" nor any discussion of the locational relationship between the system and the source appears in the history at all. Moreover, the word "process," which does appear, is not "source-oriented," but rather "a series of actions or operations conducing to an end; *especially*: a continuous operation or treatment especially in manufacture." Given that affected power plants are part of a complex, interconnected grid producing electricity, the regular "process" of shifting generation from higher-emitting sources to lower-emitting sources fits comfortably within the meaning expressed in the legislative history. Likewise, an "operating method" certainly encompasses the regular occurrence of higher-emitting sources reducing generation and allowing the interconnected grid to replace it with lower-emitting generation.

The Proposed Repeal also reads the phrase "other alternatives" out of the history – claiming that Congress really meant *only* "source-oriented" alternatives, because the alternatives are really just a list explaining what is meant by "control technology," under the doctrine of *esjudem generis.* The but if all these terms in the history really were intended to mean only one thing ("source-oriented," bolt-on controls or efficiency upgrades), the Senate Report would not have needed to use all of them. The

⁹¹ S. 4358, 91st Cong. § 6(b) (1970) (emphasis added).

⁹² S. Rep. No. 91-1196, at 16 (1970) (emphasis added).

^{93 42} U.S.C. § 7401(a)(3) (emphasis added).

^{94 82} Fed. Reg. at 48,040.

⁹⁵ Id.

⁹⁶ Merriam-Webster Online, "process," https://www.merriam-webster.com/dictionary/process?src=search-dict-hed.

^{97 82} Fed. Reg., at 48,040.

⁹⁸ Cf. Montclair, 107 U.S. at 152 (setting forth the basic principle of statutory construction, under which it must be assumed that Congress chooses words intentionally and "to give effect, if possible, to every clause and word of a statute, avoiding, if it may be, any construction which implies that the legislature was ignorant of the meaning of the language it employed."); see also Bailey v. United States, 516 U.S. 137, 146 (1995) ("we assume that Congress used two terms because it intended each term to have a particular, nonsuperfluous meaning"). Where Congress chooses words, either in statutes or the history supporting them, it must be assumed Congress knows what it does.

Senate chose to define "standard of performance to include the "latest available control technology, processes, operating methods, or other alternatives" to achieve the "national goal of a cleaner environment." Nothing in that history, or the canon EPA mistakenly cites, supports EPA's now much more limited view of its authority.

Finally, in 1977, Congress added the word "technological" to section 111(a)(1)'s definition of standard of performance, ¹⁰¹ referring to the "best technological system of emissions reduction," but in 1990 Congress removed the word "technological" from the definition. ¹⁰² EPA now argues that the 1990 amendment did not re-enlarge the available "systems" "beyond a physical or operational change to the source," and that removing "technological" was only related to and contingent on Title IV. ¹⁰³ But nothing elsewhere in the statutory language supports that view, and EPA's argument limiting a "system" of emission reduction, after 1990, to a "physical or operational change to the source," has no basis in *any* of the Clean Air Act's legislative history. For example, just as fuel cleaning offsite was appropriate in 1989, it was also appropriate in 1990. ¹⁰⁴ Moreover, even when the best system for new sources was limited to "technological systems," Congress made clear that "the standards in the section 111(d) State plan would be based on the best available means (not necessarily technological) for categories of existing sources to reduce emissions." ¹⁰⁵

b. EPA's "new" "source-oriented" approach is also unreasonable as it is not consistent with the statutory purpose of section 111.

EPA must demonstrate through a robust record that the "it can continue to protect the intended beneficiaries of legislation despite deregulation." The purpose of the Clean Air Act is "to protect

⁹⁹ S. 4358, 91st Cong. § 6(b) (1970) (emphasis added).

¹⁰⁰ Essex Chem. Corp. v. Ruckelshaus, 486 F.2d 427, 434, n. 14 (D.C. Cir. 1973) (citing S. Rep. No. 1196, 91st Cong., 2nd Sess. 16 (1970)).

¹⁰¹ Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 109(c)(1)(A), 91 Stat. 685, 699-700.

¹⁰² Clean Air Act Amendments of 1990, Pub. L. No. 101-549, § 403(a), 104 Stat. 2399, 2631.

¹⁰³ 82 Fed. Reg. at 48,040.

¹⁰⁴ EPA, *Legal Memorandum Accompanying Clean Power Plan for Certain Issues*, at 88 (2015) (Joint App. F18) (providing examples of standards based on fuel cleaning before and after the 1990 Clean Air Act Amendments)[hereinafter "Legal Memo"].

 $^{^{\}rm 105}$ H. Rep. 95-294 at 195, reprinted in 1977 CAAA Legislative History at 2662.

[&]quot;Int'l Ladies Garrland, Deregulation and Judicial Review, 98 HARV. L. REV. 507, 535-36 (1985) (Joint App. G5) (citing n. 118 "Int'l Ladies Garment Workers' Union v. Donovan, 722 F.2d 795, 815-18, 816 n. 39 (D.C. Cir. 1983) (agency failed to consider abolishing homework restrictions only in rural areas, even though such a limitation was necessary to ensure ability to enforce minimum-wage protections); Office of Comm. of United Church of Christ v. FCC, 707 F.2d 1413, 1441-42 (D.C. Cir. 1983) (agency failed to consider modified program-log option, even though such a modification was necessary to protect citizens' right to participate in license renewals); Action on Smoking & Health v. Civil Aeronautics Bd., 699 F.2d 1209, 1217-19 (D.C. Cir. 1983) (agency failed to consider alternatives to rescission of smoking regulations, even though some kind of regulation was necessary to provide protection for nonsmokers and special protection for those particularly sensitive to smoke); State Farm Mut. Auto. Ins. Co. v. Dep't of Transp., 680 F.2d 206, 232-39 (1982) (agency failed to consider modifying rather than rescinding passive-restraint regulation, even though modification would provide

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.¹⁰⁷ Therefore, the Agency should "err on the side of overprotection."¹⁰⁸

Instead, EPA fails entirely even to discuss the purposes of the Clean Air Act, or the gap-filling role of section 111(d), that is, to address emissions that endanger public health and welfare and that are otherwise not controlled by the Act.¹⁰⁹ The Clean Air Act and its Amendments reflect a bold and aggressive response to the threats from air pollution. Congress expected section 111 to control sources "to the maximum practicable degree regardless of location."¹¹⁰ Describing the related Clean Air Act section 110 program, Senator Muskie recognized that it was Congress's "responsibility to establish what the public interest requires to protect the health of persons [and] [t]his may mean that people and industries will be asked to do what seems to be impossible at the present time."¹¹¹ Meeting these purposes of the Act demands a vigorous application of the *best* system of emission reduction.¹¹²

Failing to consider the purposes of the Clean Air Act and section 111 in this rulemaking renders it unlawful.

c. The relative stringency of EPA's 2015 standards for new and existing sources fit well within the statutory context.

The Proposed Repeal claims that the Agency's "historical view that emission guidelines for existing sources would be less stringent than standards of performance weighs against [an] expansive interpretation of" the term "system." The broad language of section 111, however, contains no

protection for automobile occupants); Ctr. for Sci. in Pub. Interest v. Dep't of Treasury, 573 F. Supp. 1168, 1176-88 (D.C. Cir. 1983) (agency failed to consider address label option, rather than complete rescission of ingredient disclosure requirements, even though the option was necessary to protect people allergic to beverage ingredients)").

¹⁰⁷ 42 U.S.C. § 7401(b)(1).

¹⁰⁸ NRDC v. EPA, 902 F.2d 962, 972 (D.C. Cir. 1990); see also State Farm, 680 F.2d at 55 ("Congress intended safety to be the pre-eminent factor under the Act").

¹⁰⁹ See generally 82 Fed. Reg. 48,035 (The outline for EPA's "Basis for Proposed Repeal of the CPP" includes "Statutory Text," "Legislative History," "Prior Agency Practice," "Statutory Context," and "Broader Policy Concerns," – completely failing to address the purpose of the Clean Air Act or section 111).

¹¹⁰ Summary of the Provisions of the Conference Agreement on Clean Air Act Amendments of 1970, 116 Cong. Rec. 42,384 (Dec. 8, 1970).

¹¹¹ Union Elec. Co. v. EPA, 427 U.S. 246, 258-59 (1976); but see supra at Section II.b and infra at Section V.b (the Clean Power Plan is far from "impossible" and merely incrementally builds upon the current trends and trajectory of the regulated industry).

¹¹² "Congress did not intend to permit continuance of pollution by industries which have failed to cope with and attempt to solve the problem of pollut[ion]." NRDC v. EPA, 804 F.3d 149, 165 (2nd Cir. 2015).

¹¹³ 82 Fed. Reg. at 48,041, n. 16. Notably the Agency does not offer any citation for its "historical view."

such limits as the Proposed Repeal contends and the Clean Power Plan interpretation fits well within the statutory context. 114

In any event, EPA's Proposed Repeal makes no showing that the standards of performance for new sources *are* indeed more stringent than would be the standards directed by the Clean Power Plan's emission guidelines. Nor can this comparison even readily be made because the new source rule and the existing source rule arise from entirely different contexts – emissions reductions that can be achieved through the design of new sources, and pollution control from those already in existence. Putting the two numbers next to one another and crying foul is overly simplistic and does not withstand scrutiny.

The new source standard of performance applies to sources built after January 8, 2014 and that can readily accommodate control equipment, innovative processes, or measures as part of the original design of the source. Beginning on October 23, 2015, each new source must comply with the 1,305 lbs. CO₂/MWh standard *immediately* over a 12-month-rolling basis and demonstrate compliance by monitoring its emissions. These standards must be reviewed and revised every eight years, and therefore will be updated in 2023. The source built after January 8, 2014 and that can readily accommodate control equipment, innovative processes, or measures as part of the original design of the source. The source such as the source of the original design of the source. The source of the original design of the source of the original design of the source. The source of the original design of the source. The source of the original design of the source of the original design of the source. The source of the original design of the source of the original design of the source of the original design of the source. The source of the original design of of the

However, the emission guidelines would go into effect in 2022 at the earliest, and the compliance period is eight years. Moreover, unlike the new source standards, the existing source guidelines allow compliance through obtaining and holding credits (or allowances under a mass-based system) for reduced generation at the affected sources. These credits, which are based on reduced generation at affected sources being substituted with lower- or zero-emitting generation, are averaged into the affected source's emission rate to show compliance. EPA's Clean Power Plan emission guidelines do not anticipate that any existing power coal-fired plant will be emitting at a rate of 1,305 lbs. CO₂/MWh. ¹¹⁹

119 Affected sources, however, do have the option of improving their efficiency by co-firing with natural gas, or installing carbon capture and sequestration, which may result in an actual emission rate approaching the effective emission guideline. As Commenters have explained many times before, and notwithstanding Administrator Pruitt's new pronouncements, see EPA, "EPA's Treatment of Biogenic Carbon Dioxide Emissions from Stationary Sources that Use Forest Biomass for Energy Production," (Apr. 23, 2018), co-firing or converting to biomass would not lead to emission reductions at the source, and therefore is not a system of emission reduction. See, e.g., Ctr. for Biological Diversity v. EPA, 722 F.3d 401, 406 (D.C. Cir. 2013) (noting that carbon dioxide emitted due to biomass burning cannot be distinguished in the atmosphere from carbon dioxide emitted due to fossil fuel burning). The Clean Air Act "does not allow EPA to exempt those sources' emissions of a covered air pollutant just because the effects of those sources' emissions on the atmosphere might be offset in some other way." Id. at 414 (Kavanaugh, J. concurring). "There is no statutory basis for exempting biogenic carbon dioxide." Id. at 415 (Kavanaugh, J. concurring).

¹¹⁴ The Proposed Repeal also argues that the Preconstruction requirements require a "source-oriented" system of emission reduction. 82 Fed. Reg. at 48,041. However, EPA mistakes the Clean Power Plan as the floor for power plant carbon emissions, when the section 111(b) standards serve as the floor. *See* Joint Comments at Section III.A.3.

¹¹⁵ 80 Fed. Reg. 64,510, 64,512 (Oct. 23, 2015).

¹¹⁶ Id. at 64,786.

¹¹⁷ Id. at 64,785-86.

¹¹⁸ *Id*.

When an affected source emitting, for example, at a rate of 1,700 lbs. CO₂/MWh, reduces its generation, each MWh generated continues to emit 1,700 lbs. of carbon dioxide. But because the affected source reduces its generation, fewer tons of carbon dioxide are emitted. And, due to the interconnected grid and requirements to meet electricity demand, a lower-emitting generating source fills the void created by the reduced generation – creating a credit. This kind of action already occurs every day – although without the credit mechanism - regardless of regulation. Under the Clean Power Plan, however, the affected source can use that credit to show compliance by averaging the replacement low- or zero-emitting MWh with its emissions rate to get an "effective emission rate." The affected source could also decide to not reduce its generation at all, but instead to rely on credits created by other affected sources' overcompliance.

For example, say the affected power plant used to generate 100,000 MWh at 1,700 lbs. CO₂/MWh, but now due to the ongoing trends of the electric sector and to comply with the emission guidelines, it generates 75,000 MWh at 1,700 lbs. CO₂/MWh. This reduced generation at the affected source leads to zero- or lower-emitting generation replacing that generation, thus creating credits for the affected source in the amount of 25,000 MWh. Therefore, if the replacement generation was all zero-emitting, the source can continue to divide its total emissions (127,500,000 lbs. CO₂) by 100,000 MWh and get an effective emission rate of 1,275 lbs. CO₂/MWh. In this case, the plant would have overcomplied and can sell that overcompliance in the form of credits to another affected source.

This compliance mechanism, which is entirely reasonable and harnesses the proven and cost-effective system of reducing emissions, is not comparable to the direct emission-monitoring based standard for new sources. Further, the flexibility inherent in a trading program for this unique pollutant and network of interconnected sources must be built into the stringency of the standard, and whereas the new source standards do not include such flexibilities this may be a case where a more stringent emission guideline is appropriate.

IV. Agency decisionmaking must be based on statutory factors, not unsupported policy choices.

An agency is only a creature of the statute(s) it is directed to implement. Agency decisions – including decisions to repeal regulations – that are made on pure policy grounds, divorced from

12

120 80 Fed. Reg. at 64,786, n. 623. ("The EPA has frequently required that sources meet a more stringent nominal limit when they are allowed compliance flexibility, particularly, the opportunity to trade." Citing e.g., EPA, "Improving Air Quality with Economic Incentive Programs," EPA-452/R-01-001, at 82 (2001) (requiring that Economic Incentive Programs show an environmental benefit, such as "reducing emission reductions generated by program participants by at least 10%"), available at http://mww.epa.gov/airquality/advance/pdfs/eipfin.pdf; "Economic Incentive Program Rules: Final Rule," 59 FR 16690(Apr. 7, 1994) (same); "Certification Programs for Banking and Trading of NO[X] and PM Credits for Heavy-Duty Engines: Final Rule," 55 FR 30584 (July 26, 1990) (requiring that for programs for banking and trading of NO[X] and PM credits for gasoline, diesel and methanol powered engines, all trading and banking of credits must be subject to a 20% discount "as an added assurance that the incentives created by the program will not only have no adverse environmental impact but also provide an environmental benefit.")).

statutory factors, therefore are invalid.¹²¹ Here, EPA proposes to rely on the policy directives found in an Executive Order, documenting a Presidential campaign promise, as a basis to repeal a substantive rule. The Clean Power Plan however was finalized based on an enormous factual and legal record, including full briefing and *en banc* argument. In this situation, where an Agency decision represents a complete change of position, that record must be addressed and rebutted.¹²² But the Agency has not done that in the Proposed Repeal, and it is "intolerable as a matter of administrative law" for an agency to succumb to political pressure and fail to provide its own defensible rationale based on the statutorily relevant factors and a robust record.¹²³ That an agency considers some of the relevant factors doesn't "immunize" it from a claim that it has acted in bad faith where the proposed decision is "based in whole or in part on the pressures emanating from political actors."¹²⁴

For example, when EPA denied a petition to regulate greenhouse gases from motor vehicles, the Supreme Court faulted it for relying on "reasoning divorced from the statutory text." The pervasive theme throughout *Massachusetts* was "whether the petition denial was in fact a product of expertise...or whether it was an instance of politics overriding scientific judgment." Instead of hewing to the statutory factors, the Agency provided a "laundry list of [policy] reasons not to regulate," such as the voluntary programs in existence, the President's ability to negotiate with other nations to reduce emissions, and the piecemeal nature of regulating vehicles to curtail climate change. None of these policy reasons comported with the statutory commands and therefore were rejected by the Court.

a. EPA's reliance on Executive Order 13,783 is insufficient to justify repeal of the Clean Power Plan.

In addition to its allegedly "new" interpretation of section 111, EPA's only other proffered rationale for repealing the Clean Power Plan is that it reviewed the Plan "[i]n accordance with Executive

¹²¹ See API v. EPA, 706 F.3d 474, 479 (2013) ("EPA expressly viewed the data... toward "promoting growth" in the cellulosic biofuel industry....[S]uch a purpose has no basis in the relevant text of the Act."); see also Am. Trucking Ass'n, 531 U.S. at 471 (barring consideration of cost because it is unambiguously precluded in the statute); see also Sierra Club, 657 F.2d at 409 ("Political considerations are improper when they force an agency to make decisions based on factors not relevant to the applicable statute.").

¹²² FCC v. Fox Television Stations, 556 U.S. 502, 515-16 (2009) (internal citation omitted) (If an agency changes course, it must "provide a more detailed justification than would suffice for a new policy…when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account. It would be arbitrary and capricious to ignore such matters.").

¹²³ Hazardous Waste Treatment Council v. EPA, 886 F.2d 355, 375 (D.C. Cir. 1989).

¹²⁴ Tummino v. Torti, 603 F. Supp. 2d 519, 544 (E.D.N.Y. 2009) (citing D.C. Fed'n of Civic Assocs. v. Volpe, 459 F.2d 1231, 1246, 1248 (D.C. Cir. 1971) (internal citations omitted)) (vacating bad faith action based on improper political influence).

¹²⁵ Massachusetts, 549 U.S. at 532.

¹²⁶ Jody Freeman & Adrian Vermeule, *Massachusetts v. EPA: From Politics to Expertise*, 2007 SUP. CT. REV. 51 (2007) (Joint App. G2).

¹²⁷ *Id*.

Order 13,783...and [proposes to repeal it] *based* on the outcome of that review."¹²⁸ But nothing in the Executive Order can excuse the Administrator from the constraints and obligations of the congressionally-enacted Clean Air Act. "[T]he Order cannot do more constitutionally than enforce existing law."¹²⁹ The statute Administrator Pruitt must implement requires him to develop emission guidelines based on the *best* system of emission reduction, with the overall purpose of protecting and enhancing air quality "so as to promote the public health and welfare,"¹³⁰ not the protection of favored fuels or electricity generating sources.

The policy underlying Executive Order 13,783 is contrary to the purposes of the Clean Air Act. The Order¹³¹ directs review of actions "that potentially burden the development or use of domestically produced energy resources, with particular attention to oil, natural gas, coal, and nuclear energy resources." The policy goes on to declare a national interest in developing domestic energy resources and "avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation." But the purposes of the Clean Air Act, which the Administrator is constrained to implement include "protecting and enhancing the quality of the nation's air resources so as to promote the public health and welfare and the productive capacity of its population."

Satisfying the general purposes of the Act requires existing emission sources to control pollution, rather than imposing public health and environmental consequences on the public, including specifically, section111(d)'s policy to reduce existing source emissions that "cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare," as well as promoting actions for pollution prevention, defined as "the reduction or elimination, *through any measures*, of the amount of pollutants produced or created at the source." The statute's purpose is thus adamantly *not* "promoting the development or use of domestic energy resources," as coal, among the most abundant of domestic energy resources, is an intensely polluting fuel. Clearly there is a conflict between the Clean Air Act's policy purposes as established by Congress, and the Executive Order's policy directives.

¹²⁸ 82 Fed. Reg., at 48,036 (emphasis added).

¹²⁹ Order, at 2, Santa Clara v. Trump, No. 17-cv-00574-WHO (N.D. Cal. Apr. 25, 2017).

¹³⁰ 42 U.S.C. § 7401(b)(1).

¹³¹ Exec. Order No. 13,783, § 4(a), 82 Fed. Reg. 16,093 (Mar. 31, 2017).

¹³² *Id.* at § 2(a).

¹³³ *Id.* at 1(a); *id.* at § 2(b) ("Burden" means to "unnecessarily obstruct, delay, curtail or otherwise impose significant costs on the siting, permitting, production, utilization, transmission, or delivery of energy resources.").

¹³⁴ 42 U.S.C. § 7401(b)(1).

¹³⁵ 42 U.S.C. § 7411(b)(1); see also Sierra Club, 657 F.2d at 326 (quantity of emission reductions is an important factor in determining "best" system of emissions reduction).

¹³⁶ 42 U.S.C. § 7401 (a)(3), (c).

EPA cannot put the Executive Order's objectives above and before the purposes of the statute, in an attempt to support the repeal of a substantive rule. Because Congress mandated the EPA Administrator to implement the Clean Air Act, ¹³⁷ including section 111(d), ¹³⁸ those duties are paramount. The Agency must consider "the relevant factors," not rely "on factors which Congress has not intended it to consider." Notably, while relying on the Executive Order, the Proposed Repeal fails to analyze the statutory factors Congress *did* intend it to consider (*i.e.*, "best," "achievable" "emission reduction," "nonair quality health and environmental impact," and "adequately demonstrated"), as discussed *supra*. This Administration has conceded that executive orders cannot change existing law, and to the extent that they purport to, they are not lawful. The "President's use of the bully pulpit" is in effect a cheerleading directive, not a mandate that can overturn a statutory command. ¹⁴²

Nor does EPA even explain the process by which it undertook its Executive Order 13,785 Clean Power Plan "review." Yet, reasoned decisionmaking, not to mention due process of law, requires that an agency must "intelligibly explain[] the reasons for making its choice." EPA here offers only unidentified stakeholders' concerns with the Clean Power Plan. The process by which EPA reviewed and identified particular stakeholder comments that call into question the Clean Power Plan's consistency with the Executive Order policy is unknown, along with the weight those comments were given, or any other processes or deliberation performed under the Clean Power Plan review. The Agency claims that these stakeholders raised concerns with the Clean Power Plan, such as increased electricity costs and reduced reliability, violating the proper role of states in overseeing their generation mix, and abandonment of longstanding agency practice. Yet, none of this material can be found in the repeal docket, although, each of these issues was open for public comment (and was commented on) during the Clean Power Plan rulemaking. EPA developed a substantial record underlying its final Clean Power Plan determination addressing each of these

¹³⁷ Clean Air Act, 42 U.S.C. §§ 7401, et. seq. (duties throughout the Clean Air Act indicate that "the Administrator shall…" perform them).

¹³⁸ 42 U.S.C. § 7411(d)(1) ("The Administrator shall prescribe regulations...").

¹³⁹ State Farm, 463 U.S. at 43 (internal citations omitted).

¹⁴⁰ 42 U.S.C. § 7401 (a)(3), (c).

¹⁴¹ See Order, at 16, Santa Clara v. Trump, No. 17-cv-00574-WHO (N.D. Cal. Apr. 25, 2017) (describing the Government's concession regarding the effect of an Executive Order at oral argument).

¹⁴² *Id*.

¹⁴³ FERC v. EPSA, 136 S.Ct. at 784.

¹⁴⁴ *Id*.

¹⁴⁵ 82 Fed. Reg. at 48,038.

 $^{^{146}}$ This failure to docket the review materials constitutes a violation of section 307(d)(3), 42 U.S.C. § 7607(d)(3) (requiring that the record for a proposed rule must include the factual data on which the proposal is grounded, and the methodology used in obtaining and analyzing that information).

"concerns," and subsequently denied petitions for reconsideration of the rule. 147 The Proposed Repeal fails to engage with that record and its "conclusory statements are not entitled to deference." 148

- b. Likewise, the Proposed Repeal's professed "policy concerns" do not justify the Agency's "new" reading of section 111.
 - i. The "clear statement rule," to the extent that it exists, directs EPA regulation not repeal.

Some Court observers believe that there is an emergent doctrine that constrains the Executive, on topics of "vast economic and political significance," by limiting agency action to those on which "Congress [has spoken clearly]. Whether this gives rise to a new statutory canon called the "clear statement rule" is debatable. Regardless, the Proposed Rule misconstrues the cases cited for the "rule:" FDA v. Brown & Williamson and Utility Air Regulatory Group v. EPA. These cases ask whether Congress delegated the agency authority to make a decision, not whether Congress clearly stated what the decision should be. Congress has clearly directed EPA to make a decision here.

Section 111 itself plainly confirms that it is for the Administrator to determine the best system of emission reduction.¹⁵¹ And, as the Supreme Court has confirmed, "Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from power plants."¹⁵²

Thus, any "clear statement rule" is satisfied here. Whether a "system" of emission reduction is based on substituting generation or heat rate improvements does not affect EPA's jurisdiction over the finite group of existing sources covered by the rule, and over the identification of the "best system of emission reduction" for those sources and this pollutant. The "clear statement rule," to the extent that it exists, asks whether Congress has delegated authority to the agency to "decide a major matter of policy." In Brown & Williamson, Congress clearly did not delegate the decision of whether and how to regulate tobacco, and in UARG, Congress clearly did not delegate the decision of whether

¹⁴⁷ See e.g., 80 Fed. Reg. at 64,750 (discussing economic impacts); *id.* at 64,840-41, 64,986 (discussing state-federal roles in the power sector); *id.* at 64,770-73; Legal Memo at 95-102 (discussing consistency with prior regulatory approaches); and 80 Fed. Reg. at 64,874-81 (discussing reliability).

¹⁴⁸ Keyspan-Ravenswood v. FERC, 474 F.3d 804, 812 (D.C. Cir. 2007); see also Chem. Mfrs. Ass'n, 28 F.3d at 1265 (conclusory statements imply that the agency is committed to a path regardless of the facts).

¹⁴⁹ Util. Air Regulatory Grp. v. EPA, 134 S.Ct. 2427, 2444 (2014) (citing FDA v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 160 (2000)).

¹⁵⁰ U.S. Telecom Ass'n v. FCC, 855 F.3d 381 (2017) ("We have no need in this case to resolve the existence or precise contours of the major rules (or major question) [(or clear statement)] doctrine.").

^{151 42} U.S.C. § 7411(a)(1); see also 42 U.S.C § 7411(d)(1) ("Administrator shall prescribe regulations...") (emphasis added).

¹⁵² Am. Elec. Power Co., 131 S.Ct. at 2538.

¹⁵³ U.S. Telecom Ass'n, 855 F.3d at 387-88.

and how to regulate tens of thousands of small sources of air pollution. But, Congress clearly delegated the decision of whether and how to regulate carbon dioxide from existing power plants.¹⁵⁴

EPA now hides behind *Brown & Williamson*, employing the same kind of reasoning it relied on over a decade ago, when it failed to regulate greenhouse gases from motor vehicles, and was rebuked by the Supreme Court. That *Massachusetts* Court found that there was no legislation banning greenhouse gas regulation similar to that to that precluding regulation of tobacco by the Food and Drug Administration, which was crucial to the decision in *Brown & Williamson*. Additionally, "there is nothing counterintuitive to the notion that EPA can curtail the emission of substances that are putting the global climate out of kilter," Including the largest industrial source of those emissions.

The Clean Power Plan involves "moderately increasing the demands EPA (or a state permitting authority) can make of entities already subject to its regulation." The Supreme Court has confirmed that the Clean Air Act "speaks directly" to regulating carbon dioxide from existing power plants, and the statute clearly delegates to EPA the decision of what constitutes the "best system of emission reduction" for each source and pollutant regulated under section 111, therefore the "clear statement rule" is satisfied. The Agency must then "carry out its authority in a reasonable and non-arbitrary way," but whether EPA has authority to decide how to interpret section 111 is settled.

ii. The Clean Power Plan is a model of the cooperative federalism underlying the Clean Air Act.

The Proposed Repeal discusses the well-understood legal framework under which "regulation of the nation's generation mix is not within the Agency's authority."¹⁶⁰ But as shown *supra* at Sections II.c, the Clean Power Plan did not expand EPA authority beyond its obligation to regulate emissions from this largest source of industrial carbon dioxide. EPA now challenges whether the Clean Power Plan infringes on the roles of the states, and whether the new interpretation of "system" included in the Proposed Repeal would remove any such infringement on state roles."¹⁶¹

Again, EPA ignores that given how the affected sources are interconnected, *any* regulation of carbon dioxide from existing power plants can have the secondary effect of changing the generation mix. As

¹⁵⁴ Am. Elec. Power Co., 131 S.Ct. at 2538.

¹⁵⁵ Massachusetts, 549 U.S. at 531.

¹⁵⁶ *Id.* at 530-31.

¹⁵⁷ Am. Elec. Power, 131 S.Ct. at 2534 (five U.S. electric power companies alone made up 10% of the carbon dioxide emissions from all domestic human activities).

¹⁵⁸ Util. Air Regulatory Grp., 134 S.Ct. at 2448.

¹⁵⁹ U.S. Telecom Ass'n, 855 F.3d at 387-88.

¹⁶⁰ 82 Fed. Reg. at 48,042.

¹⁶¹ *Id*.

existing sources internalize the costs of pollution - whether by improving its heat rate, installing carbon capture or reducing generation – the competitive position of lower-emitting sources will improve, and the generation mix will adjust. The electricity from affected sources and from unaffected sources cannot be "hermetically sealed from each other." ¹⁶²

It is clear that states have authority to determine their preferred electricity generation mix. They have "the right to forbid new entrants from providing new capacity, to require retirement of existing generators [and] to limit new construction to more expensive, environmentally-friendly units..." However, "valid federal enactments may have an effect on state policy." The Clean Power Plan is a valid federal enactment. Congress was explicit that "EPA shall prescribe regulations" governing emissions from certain existing sources of air pollution, and the Clean Power Plan implements this directive. Congress was aware that this duty may have an effect on energy, as evidenced by the statutory requirement that EPA "tak[e] into account ...energy requirements."

The Clean Power Plan directly regulates affected sources subject to EPA jurisdiction. Courts have held that an agency may incent that which it cannot directly regulate, so long as it does so through a mechanism which is within its statutory purview. Emission guidelines based on reducing generation at higher-emitting affected sources will affect the electric system by triggering increased generation by lower-emitting sources – but that is "of no legal consequence" because EPA has the direct authority to regulate air pollution from affected sources. 168

iii. The Clean Power Plan, designed in conjunction with FERC, does not encroach on FERC's authority.

The Proposed Repeal also asks whether the Clean Power Plan exceeded EPA's proper role and whether the Proposal's interpretation of "system" would ensure that Clean Air Act section 111 "has not been construed in a way that supersedes or limits the authorities and responsibilities of the FERC." ¹⁶⁹

The Federal Energy Regulatory Commission (FERC) and EPA generally have jurisdiction over different aspects of the operations of the same group of sources, "but there is no reason to think the

¹⁶² FERC v. EPSA, 136 S.Ct. at 776.

¹⁶³ New York v. FERC, 535 U.S. 1, 22-23 (2002). See also Conn. Dep't of Pub. Util. Control v. FERC, 569 F. 3d 477, 481 (D.C. Cir. 2009) (also describing state rights with respect to generation mix).

¹⁶⁴ FERC v. Mississippi, 456 U.S. 742, 766 (1982).

¹⁶⁵ 42 U.S.C. § 7411(d).

¹⁶⁶ *Id.* at § 7411(a)(1).

¹⁶⁷ Conn. PUC, 569 F.3d at 477.

¹⁶⁸ FERC v. EPSA, 136 S.Ct. at 776.

¹⁶⁹ 82 Fed. Reg. at 48,042.

two agencies cannot both administer their obligations and yet avoid inconsistency."¹⁷⁰ As discussed throughout these comments, EPA has an obligation to regulate air pollution from existing sources and that may very well have an impact on the energy sector and reliability, but that does not negate EPA's responsibility.

The Clean Power Plan does not intrude on FERC's power under the Federal Power Act.¹⁷¹ It regulates air pollution; it does not regulate any kind of electricity sales or rates—interstate or intrastate. Further, the Clean Power Plan was developed in close coordination with FERC to ensure reliability and even includes a reliability safety valve to accommodate extreme circumstances.¹⁷² Former FERC officials confirm that the Proposed Repeal's professed concerns are "unfounded."¹⁷³

The CPP does not dictate a specific energy mix, or require the adoption of particular energy policies by FERC. The CPP does not set wholesale rates for generators in the electricity markets, which is FERC's core regulatory duty under the FPA. Nor does the CPP place any obligations on FERC. Indeed, none of FERC's authorities under the FPA would be in any way diminished or altered if the CPP were fully implemented.¹⁷⁴

...[A]ny claim now that EPA may have displaced the authority of FERC when promulgating the CPP would ignore the law and precedent, the voluminous record of EPA/FERC coordination, FERC's characterization of its own authority over aspects of the CPP when compared with EPA and the States, and the practical realities of the Commission's task of ensuring just and reasonable rates under the FPA, which plainly include consideration of federal and state public policies.¹⁷⁵

Infringement on FERC authority is not a basis upon which EPA can repeal the Clean Power Plan.

V. The Proposed Repeal fails to overcome the Clean Power Plan record, or develop its own, which accounts for the salient terms in section 111.

Section 111 makes clear that it is factual considerations unique to the regulated pollutant and source category—not abstract legal principles—that should guide the scope of the "system of emission reduction" for a given source category.¹⁷⁶

¹⁷⁰ Massachusetts, 549 U.S. at 532.

¹⁷¹ 16 U.S.C. §§ 791a, et seq.

¹⁷² 80 Fed. Reg. at 64,671, 64,693-94, 64,706-07, 64,800, 64,874-81.

¹⁷³ Norman C. Bay, et al., Comments on Proposed Repeal, Doc. ID EPA-HQ-OAR-2017-0355-19640, at 1 (Mar. 27, 2018).

¹⁷⁴ *Id.* at 3.

¹⁷⁵ Id. at 6.

¹⁷⁶ 42 U.S.C. § 7411(a)(1) ("system" is to be "best," and "adequately demonstrated" to achieve "emission reduction," taking into account "cost," "nonair quality health and environmental impact and energy requirements.).

The requirement that the "system of emission reduction" be "adequately demonstrated" suggests that we begin our review under CAA section 111(d)(1) and (a)(1) with the systems that sources are already implementing to reduce their emissions. ... The requirement that the "system of emission reduction" be "adequately demonstrated" indicates that the implementation of control mechanisms or other actions that the sources are already taking to reduce their emissions are of particular relevance in establishing the emission reduction requirements of CAA section 111(d)(1) and (a)(1). As a result, such measures are a logical starting point for consideration as a "system of emission reduction" under CAA section 111.¹⁷⁷

Statutory interpretation cannot be performed "in a sterile textual vacuum," as the Proposed Repeal attempts, but "in the context of implementing policy decisions in a technical and complex arena." The Proposed Repeal sidesteps this "complex arena" and fails to meaningfully address the underlying facts substantiated in the Clean Power Plan record.

Under section 111, EPA must choose a best system of emission reduction for existing sources that is "adequately demonstrated" and therefore "rationally related to reality." Additionally, to be the "best" system, it must achieve the deepest reductions possible while accounting for the relevant statutory factors, the unique nature of carbon dioxide, the power sector, and trends and the trajectory in the regulated industry. Determining the best system of emission reduction for existing fossil-fired power plants also requires EPA to review the relevant physical and market context within which the sources exist. ¹⁸¹

The Clean Power Plan repeal as proposed, however, is arbitrary and capricious because, as we describe *infra*, EPA "entirely failed to consider [] important aspect[s] of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, [and] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." And where an agency changes course, a court may find it must "provide a more detailed justification than would suffice for a new policy... [particularly] when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy It would

¹⁷⁷ 80 Fed. Reg. at 64,769-70.

¹⁷⁸ Chevron v. NRDC, 467 U.S. 837, 863 (1984).

¹⁷⁹ Colombia Falls Aluminum, 139 F.3d at 923.

¹⁸⁰ EME Homer City Generation, 134 S.Ct. at 1594 (regulators must take into account that particular characteristics of the pollution problem they face when designing a solution).

¹⁸¹ Congress "usually does not legislate by specifying examples, but by identifying broad and general principled that must be applied to particular factual instances." *Pub. Citizen*, 491 U.S. at 454-55 (Kennedy, J., concurring); "A given term...may take on distinct characters from association with distinct statutory objects calling for different implementation strategies." *EDF v. Duke Energy Corp.*, 549 U.S. 561, 574 (2007).

¹⁸² 463 U.S. at 43 (1983) (internal citations omitted).

be arbitrary and capricious to ignore such matters." ¹⁸³ "An agency cannot simply disregard contrary or inconvenient factual determinations that it made in the past." ¹⁸⁴

EPA must therefore provide "reasoned analysis to cogently explain why its [proposed interpretation] satisfies the [Clean Air Act's] requirements." Reasoned decisionmaking requires the agency to "weigh[] competing views, select[] a [solution] with adequate support in the record, and intelligibly explain[] the reasons for making that choice." To that end, the Agency must examine the relevant information and show that the data on which it relies are accurate and defensible. Moreover, the Administrative Procedure Act requires agencies to use "the best information available" in reaching their conclusions. This is just as true when repealing a substantive rule as it is when such a rule is finalized.

Yet EPA's Proposed Repeal, and its reinterpretation of "system," is not grounded in the relevant statutory factors. The new interpretation simply ignores the best systems of carbon dioxide emission reduction that existing power plants are actually using in practice, as well as the ongoing (and accelerating) shift from higher-emitting to lower-emitting generation across the sector as a whole.

By contrast, the Clean Power Plan rulemaking record shows that the prior interpretation is the result of a review of the relevant statutory factors and context stretching over ten years, starting with a 2008 Advanced Notice of Proposed Rulemaking. As a result, EPA has amassed a robust record analyzing the industry and its carbon dioxide emissions, and its impact on public health and the environment, the nature of and trends in the electric system within which the affected sources operate, and available and demonstrated methods used by power plants to reduce emissions. The Clean Power Plan thus was the culmination of years of study and public input. The Proposed Repeal utterly fails to engage with this record or create its own for that matter.

As we explain *infra*, the Clean Power Plan considers the range of emission reductions available and the primary mechanisms by which the sector reduces emissions. The Proposed Repeal's "vaporous record will not do—the Administrative Procedure Act requires reasoned decisionmaking grounded in actual evidence." Clean Air Act section 111 was designed to control affected sources "to the

¹⁸³ Fox Television Stations, 566 U.S. at 515-16 (internal citation omitted).

¹⁸⁴ Id. at 537 (Kennedy, J., concurring).

¹⁸⁵ NRDC v. Daley, 209 F.3d 747, 755-56 (D.C. Cir. 2000).

¹⁸⁶ FERC v. EPSA, 136 S.Ct. at 784.

¹⁸⁷ See Dist. Hosp. Partners v. Burwell, 786 F.3d 46, 57 (D.C. Cir. 2015).

¹⁸⁸ Catawba County v. EPA, 571 F.3d 20, 45 (D.C. Cir. 2009).

¹⁸⁹ 73 Fed. Reg. 44,354, 44,487-93 (July 30, 2008).

¹⁹⁰ See Standard of Performance for Greenhouse Gas Emissions from Existing Sources: Electric Utility Generating Units, Doc. No. EPA-HQ-OAR-2013-0602, https://www.regulations.gov/docket?D=EPA-HQ-OAR-2013-0602.

¹⁹¹ Flyers Rights Educ. Fund v. FAA, U.S. App. LEXIS 13694 *2 (D.C. Cir. 2017).

greatest degree practicable" to achieve the "national goal of a cleaner environment." An emission guideline that does not consider the predominant approach for reducing emissions, especially when that system is excluded based on "reasoning divorced from the statutory text," is arbitrary and capricious.

a. EPA must consider the range of potential emission reductions in interpreting "system," but failed to do so. A proper analysis would have shown the Agency's new interpretation of "system" is a costlier way to achieve the necessary emission reductions.

EPA in the Clean Power Plan found that the "magnitude and rate of the present GHG increase place the climate system in what could be one of the most severe increases in radiative forcing of the global climate system in Earth history." The Proposed Repeal fails to address the robust record, which demonstrates that existing fossil fuel-fired power plants are "by far the largest domestic stationary source of emissions of CO₂…endanger[ing] public health and welfare through its contribution to climate change." Any interpretation of "best system" must consider the existing record, finding an emissions reduction system that is "commensurate with the sector's contribution to GHG emissions and thus necessary to mitigate the dangers presented by climate change."

Section 111 requires EPA to determine the *best* system of emission reduction.¹⁹⁷ "[T]he amount of air pollution [is] a relevant factor to be weighed when determining the optimal standard" and "system" must be interpreted in that context.¹⁹⁸ A "system" that achieves minimal air pollution reduction would not fulfill the purposes of the statute or the section. EPA found that the Clean Power Plan is "projected to result in substantial and meaningful reductions of CO₂ emissions,"¹⁹⁹ which will be lost if the rule is simply repealed. Even if a replacement rule were on the horizon (and one clearly is not), if it relied only on heat rate improvements it would be unreasonable, as EPA already has found, both in the final Clean Power Plan, and in its denial of reconsideration. Limiting the best system of emission reduction to heat rate improvements yield emission reductions at a level

¹⁹² Essex Chem. Corp., 486 F.2d at 434, n. 14 (citing S. Rep. No. 1196, 91st Cong., 2nd Sess. 16 (1970)).

¹⁹³ Util. Air Regulatory Group, 134 S.Ct. 2427, 2441 (2014) (citing Massachusetts, 549 U.S. at 532, 535).

¹⁹⁴ 80 Fed. Reg. at 64,684. *See also generally* Joint Comments Specific to Climate Change (discussing the voluminous scientific evidence published since the Clean Power Plan's promulgation that overwhelmingly reinforces EPA's already compelling record from 2015 and amplifies EPA's conclusion that greenhouse gases from existing power plants endanger public health and welfare by driving increasingly dangerous climate change.).

¹⁹⁵ 80 Fed. Reg. at 64,664.

¹⁹⁶ *Id.* at 64,667.

¹⁹⁷ 42 U.S.C. § 7411(a)(1).

¹⁹⁸ Sierra Club, 657 F.2d at 326.

¹⁹⁹ 80 Fed. Reg. at 64,745.

"grossly insufficient to address the public health and environmental impacts from CO₂," and may, in fact, lead to emission *increases*.²⁰⁰

EPA further concluded in the final Clean Power Plan that if the word "system" is limited to onsite measures, the "only controls available that can reduce carbon dioxide emissions from existing power plants in the amounts commensurate with the problems they pose" are "far more expensive" than the Clean Power Plan building blocks. ²⁰¹ EPA reiterated this finding in 2017 when it found, in denying various reconsideration petitions, that "no other technology or method for reducing emissions has emerged that achieves reasonable amounts of emission reduction more cost-effectively than generation shifting." Therefore, "interpreting the 'system of emission reduction' provisions in CAA section 111(d)(1) and (a)(1) to allow the nation to meaningfully address the urgent and severe public health and welfare threats that climate change pose is consistent with what the CAA was designed to do." Walking away from this substantive finding in the final Clean Power Plan rule requires more than simply changing a legal opinion about the language of the statute – it also requires full engagement with the problem underlying the rule and the record supporting the rule.

To properly revise its interpretation of "system." EPA must engage with these findings from the Clean Power Plan rulemaking and may be required to provide a "more detailed justification" explaining why those findings were incorrect. ²⁰⁴ The Proposed Repeal does neither. It does not consider at all the threats associated with climate change or the amount of air pollution that could be reduced through onsite measures only, nor does it address the costs associated with its revised approach in a manner that is "commensurate with the sector's contribution to greenhouse gas emissions and thus necessary to mitigate the dangers presented by climate change." ²⁰⁵ Ignoring these matters is arbitrary and capricious.

Further, without this analysis, EPA has no way of determining whether and to what extent repealing the Clean Power Plan and reinterpreting "system" will (or will not) sufficiently protect public health and the environment – it will not be possible to say whether the fundamental goals of the Act are met. The current and time sensitive problem of public health and environmental damage associated with emissions of greenhouse gases and other pollutants from power plants, the amount of air

²⁰⁰ Reconsideration Denial, at 55, n. 75; see also 80 Fed. Reg. at 64,787.

²⁰¹ *Id.* at 64,775. *See also* EPA, "Regulatory Impact Analysis for the Clean Power Plan Final Rule," Doc. No. EPA-HQ-OAR-2013-0602-36791, at 3-23 -24 (Aug. 2015) (Joint App. F23) (finding shifting generation significantly cheaper in most cases than more aggressive emission rate reduction measures at the power plant) [hereinafter "Clean Power Plan RIA"]; EPA, "Greenhouse Gas Mitigation Measures," Doc. No. EPA-HQ-OAR-2013-0602-36748 (Aug. 2015) (Joint App. F30) [hereinafter "Mitigation Measures TSD"] (finding that an emission standard requiring full CCS "would involve higher costs (and less flexibility) than the approach identified as the best system of emission reduction").

²⁰² Reconsideration Denial at 55.

²⁰³ Id.

²⁰⁴ Fox Television Stations, 566 U.S. at 515-16.

²⁰⁵ 80 Fed. Reg. 64,728.

pollution reduced, and the cost that those reductions would entail are pivotal factors in interpreting section 111 and designing a rule. The Proposed Repeal's "fail[ure] to consider [these] important aspect[s] of the problem" renders it arbitrary and capricious.²⁰⁶

b. Generation-shifting is the primary mechanism by which the affected sources have reduced and continue to reduce their emissions in practice.

Under section 111(a) EPA is to select a best "system" that is "adequately demonstrated.²⁰⁷ See supra at Section III.a (describing textual requirements for interpreting "system"). "An adequately demonstrated system is one which has been shown to be reasonably reliable, reasonably efficient, and which can reasonably be expected to serve the interests of pollution control without becoming exorbitantly costly in an economic or environmental way."²⁰⁸ To select an adequately demonstrated system, it is essential for EPA to assess what the source category actually is doing to reduce the relevant emissions in the real world. To interpret "system" to exclude the primary means by which the regulated industry is reducing regulated emissions would be the height of unreasonableness.

EPA's Clean Power Plan record demonstrates that generation-shifting among power plants is an "everyday occurrence," and that "fossil fuel-fired [power plants] have long implemented, and are continuing to implement, the measures in building blocks 2 and 3 for various purposes, including for the purpose of reducing CO₂ emissions." Further, EPA found that generation shifting has been utilized in a variety of other EPA rules, including Title IV²¹¹ and the Air Transport Rules. Yet none of this evidence for the adequate demonstration of EPA's Clean Power Plan best system of emissions reduction is engaged by the Proposed Repeal.

²⁰⁶ State Farm, 463 U.S. at 43.

²⁰⁷ 42 U.S.C. § 7411(a)(1).

²⁰⁸ Essex Chem. Corp., 486 F.2d at 433.

²⁰⁹ 80 Fed. Reg. at 64,728-29.

²¹⁰ Id. at 64,769, n. 520 (citing utility climate mitigation plans utilizing generation shifting for pollution reduction).

²¹¹ 80 Fed. Reg. at 64,696 (citing 42 U.S.C. § 7651g(c)(1)(B) (allowing units to satisfy their emission targets by "reducing utilization of the unit as compared with its baseline or by shutting down the unit")).

²¹² 80 Fed. Reg. at 64,696-97. The D.C. Circuit largely upheld the NO_x SIP Call, which was in part based on "increase[d] use of natural gas over coal. EPA, "Regulatory Impact Analysis for the NO_x SIP Call, FIP and Section 126 Petitions," at 6-2 (1998), available at: http://yosemite1.epa.gov/ee/epa/ria.nsf/vwTD/9051349471EC8109852566B000569EF5; see also 80 Fed. Reg. at 64,772, n. 545. The Court deferred to EPA's interpretation of ambiguous statutory terms because there was no "clear congressional intent to preclude" a trading rule, based in part on changes in dispatch. Michigan v. EPA, 213 F.3d 663, 678-79 (D.C. Cir. 2001), cert. denied, 532 U.S. 904 (Mar. 5, 2001) (No. 00-632). Likewise, the Supreme Court upheld the Cross State Air Pollution Rule, the trading program, which also took into account generation shifts and redispatch from higher-emitting sources to lower-emitting sources, 76 Fed. Reg. 48,208, 48,252, tbl. VI.B.3 n.a and 48,280, as a "permissible, workable, and equitable" solution to the particularities of the pollution problem. EME Homer City Generation, 134 S.Ct. at 1584.

EPA further documented in the Clean Power Plan record that there had been a sharp and accelerating shift in generation away from higher-emitting fossil fuel-fired power plants and toward zero-emitting renewable energy resources, spurred in significant part by the 29 states and the District of Columbia with renewable portfolio standards or similar laws. ²¹³ Renewable capacity grew fivefold from 1998 to 2013, ²¹⁴ while renewable generation increased from 8% in 2005 to 12% of electricity in 2013. ²¹⁵ And between 2009 and 2013, wind generation has tripled while solar generation grew twentyfold. ²¹⁶

At the time EPA finalized the Clean Power Plan in 2015, this growth was expected to continue. In its 2015 forecast, EIA projected that renewable energy would increase by 70% from 2013 to 2040, accounting for over one-third of new generation capacity in that time period. ²¹⁷ In the 2017 Reconsideration Denial EPA further found that wind and solar growth had significantly exceeded these expectations, driven by continued cost declines as well as federal and state policy support. ²¹⁸

The shift from coal to renewable generation has continued since the Clean Power Plan was finalized. EIA recently found that wind and solar generation accounts for 64% of the total electric generation growth through 2050.²¹⁹ "Continued favorable economics relative to other generating technologies result in a more than doubling of renewables generation between 2017 and 2050, with an average annual growth rate of 2.8%." Renewable generation is projected to increase 139% by 2050.²²¹ From 2020 to 2050, wind capacity is projected to grow by 20 GW, solar capacity is projected to grow by 127 GW, and storage capacity is projected to grow by 34 GW.²²²

Similarly, a sector-wide trend has occurred "since at least 2000" among fossil fuel plants themselves, with generation shifting from higher-emitting, coal-fired plants to lower-emitting natural gas-fired

²¹³ 80 Fed. Reg. at 64,803.

²¹⁴ Id. (citing EIA, 1990-2013 Existing Nameplate and Net Summer Capacity by Energy Source Producer Type and State (EIA-860) http://www.eia.gov/electricity/data/state/ (Joint App. J14)).

²¹⁵ Id. (citing EIA, Monthly Energy Review, tbl. 7.2b. (May

^{2015), &}lt;a href="http://www.eia.gov/totalenergy/data/monthly/pdf/sec7">http://www.eia.gov/totalenergy/data/monthly/pdf/sec7 6.pdf. (Joint App. J22)); see also Mitigation Measures TSD at 4-19 (describing state integration of renewable energy resources into the generation mix).

²¹⁶ *Id.* (citing EIA, *Monthly Energy Review*, tbl 7.2b (May 2015) http://www.eia.gov/totalenergy/data/monthly/pdf/sec7 6.pdf).

²¹⁷ Id. at 64,804 (citing EIA, Annual Energy Outlook 2015 with Projections to 2040, at ES-6-7 (2015), p. ES-6-7, available at: http://www.eia.gov/forecasts/aeo/pdf/0382(2015).pdf.

²¹⁸ Reconsideration Denial, at App. 2, 23-30 (in 2016 the level of monthly renewable electricity generation surpassed levels from the corresponding month in 2015).

²¹⁹ EIA, Annual Energy Outlook, at 20 (Feb. 6, 2018) (Joint App. J16) [hereinafter "AEO 2018"].

²²⁰ *Id.* at 90.

²²¹ Id. at 94.

²²² Id. at 96.

plants.²²³ Generation from gas-fired units increased fourfold from 2000 to 2012 (when EPA began gathering evidence from stakeholders for the record underlying the Clean Power Plan), while coal-fired generation decreased by one-third during that interval.²²⁴ In the Clean Power Plan record, after reviewing state-level integrated resource plans and docketing that review, EPA confirmed that this has been a conscious strategy of utilities, which shows "a pattern of shifting from coal steam capacity to NGCC capacity."²²⁵ In 2015 EPA expected that this pattern would continue.²²⁶ And, indeed, it has.²²⁷ EIA recently found that "[n]atural gas-fired generation steadily increases its market share of total electricity generation relative to coal through 2050."²²⁸ EIA also recently found that even in the absence of the Clean Power Plan, "[c]oal-fired generating capacity decreases by an additional 65 GW between 2017 and 2030 as a result of competitively priced natural gas and increasing renewables generation, before leveling off near 190 GW in the Reference case through 2050."²²⁹ But that does not render the Clean Power Plan unnecessary²³⁰ – in fact the opposite, it builds upon and painlessly locks in emissions reductions that already have occurred. EPA fails to discuss this at all in the Proposed Repeal.

EPA's findings underlying the final Clean Power Plan have proven highly conservative as the shift from coal-fired to cleaner forms of generation has persisted and deepened since the 2012 baseline year EPA used in setting the Clean Power Plan emission guidelines. Figure [A] below decomposes the change in generation from all sources in the lower 48 states between 2012 and 2016, the most recent full year of data available, by fuel type. While total generation fueled by coal decreased by 276 TWh between 2012 and 2016, total gas-fired generation increased by 157 TWh, non-hydro renewable generation grew by 124 TWh, and nuclear generation grew by 36 TWh. Collectively, these sources helped meet 2016 generation demands that were 32 TWh higher than 2012, which is equivalent to a four-year cumulative average growth rate of 0.2%. ²³¹ Note too that annual growth rate is lower than that during earlier periods of more robust load growth, reflecting the impact of energy efficiency measures and behind-the-meter renewable installations, among other factors.

²²³ 80 Fed. Reg. at 64,795.

²²⁴ Id. (citing Ventyx Electric Power Database, Ventyx Monthly Plant-Level Generation, 2000-2012, Doc. No. EPA-HQ-OAR-2013-0602-37116).

²²⁵ Id. (citing EPA, "Review of Electric Utility Integrated Resource Plans," Doc. No. EPA-HQ-OAR-2013-0602-36301 (May 7, 2015)).

²²⁶ Id. (citing EIA, AEO (forecasting 40 GW of coal retirements and 53 GW of NGCC additions)).

²²⁷ Reconsideration Denial, at App. 2, 19-22 (showing continued growth in reliance on natural gas through increasing capacity factors and new builds).

²²⁸ AEO 2018 at 90.

²²⁹ Id. at 88.

²³⁰ *Id.* ("Adoption of the Clean Power Plan or similar greenhouse gas emission restrictions by regional or state authorities results in 15 GW of additional coal power plant retirements by 2030 and 19 GW by 2050 in the Reference case.").

²³¹ Analysis by The NorthBridge Group based on EIA Form 860 data from the Ventyx Velocity Suite.

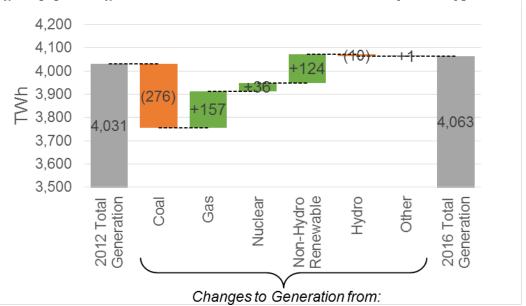


Figure [A]: Changes in United States Lower 48 Generation by Fuel Type, 2012 to 2016

As a result, based on 2017 EIA data, the Rhodium Group estimates that by the end of 2017 power sector emissions had fallen 28% below 2005 levels, which translates to a 14.6% reduction relative to 2012 or 76% of the reductions required by the Clean Power Plan between 2012 and 2030. While these trends show that the Clean Power Plan is eminently achievable, we cannot rely solely on market dynamics to reduce emissions. Preserving the Clean Power Plan is vital to ensure that these emissions reduction trends continue, particularly if natural gas prices rise in the future, which could drive a shift back to coal generation. The Clean Power Plan also provided important policy certainty for power companies and investors. Moreover, the early achievement of the Clean Power Plan's interim goals strongly argues for a more stringent regulation of carbon pollution from the power sector, not repeal. And most importantly, EPA now fails to engage this robust record at all in the Proposed Repeal.

Narrowing the focus to the fossil fuel-fired units that are affected sources under the Clean Power Plan, we can see that EPA conservatively identified the ongoing shift from coal-fired generation to natural gas-fired generation and the potential for further displacement as part of its best system if emission reduction determination. Since the 2012 baseline year EPA used in setting the Clean Power Plan emission targets, this shift has accelerated and intensified. Figure [B] below compares the 2012 and 2016 generating output at affected sources covered by the Clean Power Plan. As coal-fired generation has decreased by 257 terawatt-hours (TWh) during this period, combined cycle generation has gone up by 139 TWh, effectively replacing over half of the lost coal generation. ²³³

²³² Note, Rhodium Group, "Final U.S. Emissions Numbers for 2017, (Mar. 29, 2018) https://rhg.com/research/final-us-emissions-numbers-for-2017/ (Joint App. J58).

²³³ Analysis by The NorthBridge Group based on the Clean Power Plan Final Rule Emission Performance Rate Goal Computation Technical Support Document and EIA Form 860 data from Ventyx Velocity Suite. Note that the coal and NGCC categories shown in Figure B are subsets of the coal and gas categories, respectively, that appear in Figure [A]. For example, the coal category in Figure [A] includes coal generation covered under the Clean Power Plan and other

1,600 1.400 (257)1,200 1,000 800 1,236 600 1.097 958 400 200 0 2012 Δ 2016 2012 Δ 2016

■ Coal

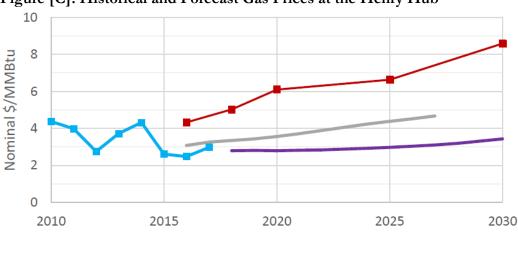
Figure [B]: Generation from Affected Sources under the Clean Power Plan

This continued shift has accelerated in part because EPA's natural gas price assumptions underlying the shift to natural gas also have proven to be quite conservative. Over the last several years since the Clean Power Plan was developed, natural gas prices have fallen well below forecasted levels and spawned a range of new gas price projections that are far below previous expectations. Figure [C] below compares historical Henry Hub spot prices and three forecasts at different points in time. EPA's 2015 Clean Power Plan Regulatory Impact Analysis assumed natural gas prices would be priced above \$4/MMBtu in 2016 and rise above \$6/MMBtu by 2020 (as shown in red below.) Since that time, as spot natural gas prices dropped and stayed below \$3/MMBtu, growing confidence that natural gas prices will remain low for the foreseeable future has lowered long term price expectations in market forwards. August 2015 NYMEX futures contracts at Henry Hub were priced at \$3.08 for 2016 and \$3.56 for 2020, and recent December 2017 NYMEX futures contracts were priced even lower at \$2.79 for 2018 and \$2.80 for 2020.²³⁴

NGCC

sources of coal generation not covered under the rule. And, the gas category in Figure [A] includes NGCC generation and other sources of gas-fired sources of generation such as steam turbines not covered under the Clean Power Plan.

²³⁴ Id.



—■ 2015 RIA Base Case — NYMEX 8/2015 — NYMEX 12/2017 — Spot Gas

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

In some market areas, spot gas prices were even lower than those shown above. For instance, in gas trading points near the Marcellus shale formation, spot gas prices have consistently settled below Henry Hub prices since 2014.

When gas prices are low, the economics of gas-fired generation become more attractive relative to coal-fired facilities. This leads natural gas plants to be dispatched before coal plants and lowers the economic costs of carbon reductions achieved through further coal-to-gas re-dispatch. While price predictions are no guarantee and cannot replace proper regulation, lower current and predicted future natural gas prices present an even greater opportunity to displace additional coal-fired generation with natural gas generation than EPA recognized in the Clean Power Plan.

EPA also fails to recognize that, since the Clean Power Plan was proposed, a reduction in coal utilization rates, not just an increase in coal retirements, has helped drive the shift from coal-fired generation to gas-fired generation. While the four-year period from 2012 to 2016 witnessed a number of coal plant retirements, changes to total capacity alone do not explain the shift from coal to gas generation. Utilization rates across the coal fleet fell as well. Coal units covered by the Clean Power Plan operated at a 57.0% capacity factor in 2012 and declined to a 54.8% capacity factor in 2016, as shown on the left of Figure [D] below. The 2012 coal fleet, however, included many coal plants with low utilization rates that retired between 2012 and 2016. A 60.3% capacity factor was achieved in 2012 by the coal plants that would ultimately remain in operation in 2016 and the utilization of these generators fell by 5.5 percentage points in 2016. The reduction in coal generation is not only due to the loss of generation from retiring facilities but is also attributable to declining utilization at the remaining generators.²³⁵

²³⁵ *Id.*

Figure [D]: Capacity Factors at Clean Power Plan-Covered Coal Units



Similarly, the increase in combined cycle generation is due both to generation at highly-utilized new natural gas facilities and to the increased utilization of the fleet that existed in 2012. The average NGCC capacity factor rose from 53.4% in 2012 to 55.4% in 2016, as seen on the left side of Figure [E] below. The 2016 natural gas fleet includes capacity brought online after 2012 which was utilized at an above-average rate, but even excluding this capacity, as the right side of Figure [E] does, shows that the 2012 natural gas fleet raised its capacity factor from 53.4% to 55.1% in four years. ²³⁶

Figure [E]: Capacity Factors at Clean Power Plan-Covered Gas Units



EPA's Proposed Repeal simply fails to discuss, never mind overcome, the full Clean Power Plan record, which identified the availability of natural gas generation to replace the reduced utilization of coal units and also sets the target based on a 75% annual average capacity factor in fashioning building block 2. While gas generators have increased their output over the past four years, their operation in the years since the Clean Power Plan was promulgated demonstrates that EPA's 2015

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²³⁶ Id.

calculations of the opportunity available for increased gas unit utilization to substitute for higher emitting coal, and used in setting the emission guidelines, were very conservative. The 55% average capacity factor achieved by the U.S. gas fleet in 2016 is well below its technical availability and the 75% annual average capacity factor level used for target-setting in the Clean Power Plan's building block 2; further, the annual average is well below what has already been experienced on a monthly or weekly basis. Figure [F] below provides a closer examination of the performance of the gas fleet in six different regions²³⁷ over four time periods: the 2012 year, the 2016 year, the month of August 2016, and the single week in 2016 with the highest average capacity factor in each region.²³⁸

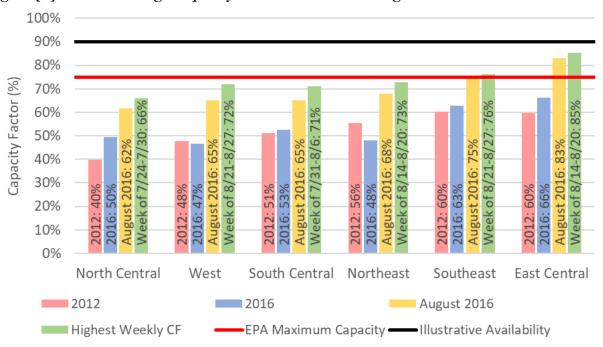


Figure [F]: NGCC Average Capacity Factors Across U.S. Regions

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

Further, as shown in the figure above, the weeks or months that witnessed the highest capacity factors in each region demonstrate that performance beyond 75% is already enabled by existing gas and electric infrastructure during at least some periods of time in two out of the six regions, and

²³⁷ The six regions chosen are the same regions modeled by the "Regional Compliance" scenario in the CLEAN POWER PLAN Proposed Rule RIA. They are: North Central (ND, SD, MN, IA, MO, IL, WI, IN, MI), West (WA, OR, CA, NV, AZ, NM, UT, CO, WY, ID, MT), South Central (NE, KS, OK, AR, TX, LA), Northeast (NY, VT, NH, ME, MA, CT, RI), Southeast (KY, TN, NC, SC, GA, FL, MS, AL), and East Central (OH, PA, NJ, DE, MD, WV, VA, DC).

 $^{^{238}}$ Analysis by The NorthBridge Group based on EIA Form 860 data and EPA Air Markets Program Data from the Ventyx Velocity Suite.

performance beyond 70% is already enabled during at least some periods of time in five out of the six regions. Given an incentive to dispatch more frequently, whether through low gas prices or a compliance mechanism meant to unlock the full coal-to-gas re-dispatch potential, system-wide capacity factors could rise beyond recent levels demonstrating that the technical and economic basis for building block 2 was well-grounded and has not been overcome in the Proposed Repeal record.

The Proposed Repeal concedes that "[t]he trends in projected emissions from the electric power sector are consistent with the projected shift away from higher-emitting generating sources to loweremitting generating sources observable in future scenarios that assume no implementation of the Clean Power Plan."239 Indeed, the Proposal proceeds to describe EIA's finding that "in the electric power sector, coal-fired plants are replaced primarily with new natural gas, solar, and wind, which reduced electricity-related CO₂ emissions."²⁴⁰ EIA found that carbon emissions in the power sector fell by 376 million metric tons (15%) between 2005 and 2013. Of that decline, 226 million tons and 150 million tons were attributable to the shift from coal to natural gas and the shift from coal to non-carbon generation, respectively.²⁴¹ Yet EPA fails to take these realities into account when interpreting the legal boundaries of the "best system" for this sector and this pollutant, even though these were the very considerations that EPA looked to when it arrived at the current interpretation of the "system" reflected in the Clean Power Plan. Rational decision-making requires EPA to look to the current realities of the regulated industry, and to ensure that its actions accord with the facts in the record. ²⁴² EPA has fallen short of that standard here. Moreover, if anything, the information in the record for the Clean Power Plan, the Reconsideration Denial, and information currently available, argue for a more stringent replacement rule, most certainly not a repeal. Leaving the Clean Power Plan in place produces emissions reductions, climate and health benefits, as it tracks and maintains reductions already occurring and that have already occurred in the regulated industry.

By refusing to "look out the window" and consider the predominant method by which the covered sources *actually* reduce their carbon dioxide emissions, EPA has ignored "significant and viable and obvious alternatives" to its proposed reinterpretation of "system," and has thus engaged in arbitrary and capricious rulemaking.²⁴³ Agency analysis must exhibit a "rational relationship" with "known behavior." The known behavior of the electric system is that it has been, is, and will continue to shift generation from higher-emitting resources to lower- and zero-emitting sources in order to reduce emissions. EPA's failure to consider this phenomenon an adequately demonstrated "system" is fatal to the Proposed Repeal.

²³⁹ EPA, Regulatory Impact Analysis for the Review of the Clean Power Plan: Proposal, at 110 (Oct. 2017).

²⁴⁰ *Id.* (citing AEO 2017).

²⁴¹ EIA, "U.S. Energy-Related Carbon Dioxide Emissions, 2016," (Oct. 5, 2017), https://www.eia.gov/environment/emissions/carbon/ (Joint App. J19).

²⁴² Public Employees v. Hopper, 827 F.3d 1077, 1083 (D.C. Cir. 2016).

²⁴³ Nat'l Shooting Sports Found. v. Jones, 716 F.3d 200, 215 (D.C. Cir. 2013).

²⁴⁴ Chem. Mfrs. Ass'n, 28 F.3d at 1265 (D.C. Cir. 1994); see also API, 862 F. 3d at 68 (same).

VI. The Proposed Repeal fails to include relevant documents in the record and demonstrates an impermissible, results-oriented approach.

"Under our system of government, the very legitimacy of general policymaking performed by unelected administrators depends in no small part upon the openness, accessibility, and amenability of these officials to the needs and ideas of the public from whom their ultimate authority derives, and upon whom their commands must fall."²⁴⁵

The Proposed Repeal indicates that "EPA continues to consider whether it should issue another CAA section 111(d) rule addressing GHG emissions from existing [power plants]."²⁴⁶ This approach is lacking and fails to recognize the statutory obligation before the agency. Further, the Agency has bifurcated consideration of the repeal of the Clean Power Plan from its potential replacement, thereby undermining "meaningful opportunity" for public comment.²⁴⁷ Integral to the decision to repeal a rule is what it will be replaced with, or whether it will be replaced at all. The Proposed Rule errs by making clear that it is not soliciting comment on *any* aspects of the replacement.²⁴⁸ By failing to "faithfully execute" the requirements of the Clean Air Act and excluding relevant comments, the Proposed Repeal is unlawful, arbitrary and capricious.

Additionally, the Proposed Repeal fails to make available the documents underlying its review associated with Executive Order 13,783²⁴⁹ or the stakeholder comments underlying its "policy concerns."²⁵⁰ That failure also deprives the public of the opportunity to review and comment upon the basis for EPA's Proposal, as Administrative Procedure Act section 307(d)(3) guarantees.²⁵¹ EPA must release this information and provide the public with an opportunity to review and comment on it.

Further, CATF and other environmental and public health organizations submitted comments to this docket in January expressing concern that regardless of facts or evidence proffered, the Clean Power Plan will be repealed, because the Administrator has an unalterably closed mind on this

²⁴⁵ Sierra Club, 657 F.2d at 400-401.

²⁴⁶ 82 Fed. Reg. at 48,038.

²⁴⁷ N.C. Growers Ass'n v. UFW, 702 F.3d 755 (4th Cir. 2012) (finding that a repeal of current regulations and reinstatement of old regulations was arbitrary and capricious because it "did not solicit or receive relevant comments regarding the substance or merits of either set of regulations.").

²⁴⁸ 82 Fed. Reg., at 48,038.

²⁴⁹ *Id.* ("In accordance with Executive Order 13783, 82 FR 16093 (March 31, 2017), the EPA has reviewed the CPP and is initiating this action based on the outcome of that review.").

²⁵⁰ *Id.* at 48,042 ("EPA's proposed interpretation is more consistent with certain broader policy concerns of...stakeholders.").

²⁵¹ See 42 U.S.C. 7607(d)(7)(A) (noting that the materials preceding promulgation of the proposed rule identified in paragraph 7607(d)(3) must be part of the record for judicial review); see also Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 420 (1971) (judicial review under APA is based on "the full administrative record that was before the Secretary at the time he made his decision").

question. EPA's failure to engage with the Clean Power Plan record at all further supports our request that Administrator Pruitt recuse himself from the Proposed Repeal – or if not, that the Proposed Repeal should be withdrawn as improper.²⁵² CATF maintains that request here.

VII. Conclusion

The Proposed Repeal is unlawful and unreasonable on multiple grounds. It elevates policy considerations over the factors Congress set out in the statute, and erroneously sets forth a cramped "source-specific" interpretation of "system" of emissions reduction, which has no support in the statute, regulations, or legislative history. But EPA then both fails to acknowledge that, in fact, the Clean Power Plan requires emissions reductions at the affected sources and fails to engage with the record that shows this to be the case. In addition to the opportunity for heat rate improvement identified in Clean Power Plan building block 1, the system of emission reduction underlying the Clean Power Plan is reduced generation, which is also entirely "at" the source. Indeed, EPA fails to fully engage the substantive record underlying the Clean Power Plan at all. As it is not accompanied by a proposed replacement, it would leave the Agency in violation of the statutory duty to regulate this largest domestic industrial source of carbon dioxide emissions. Repealing the Clean Power Plan on the grounds presented in the Proposal would be arbitrary, capricious and contrary to law.²⁵³

We urge the Agency to rescind this hopelessly flawed Proposed Repeal, keep the Clean Power Plan in place, and more appropriately, consider strengthening it.

Respectfully submitted,

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²⁵² Environmental Defense Fund, et al., Comments on EPA Administrator Scott Pruitt's Improper Prejudgment of Outcome of Proposed Repeal of Clean Power Plan, (Jan. 29, 2018), Doc. No. EPA-HQ-OAR-2017-0355-17195; see also Ass'n of Nat'l Advertisers, Inc. v. FTC, 627 F.2d 1151, 1154 (D.C. Cir. Dec. 27, 1979). "An agency member may be disqualified from such a proceeding...when there is a clear and convincing showing that he has an unalterably closed mind on matters critical to the disposition of the rulemaking."

²⁵³ See Safe Air for Everyone v. EPA, 488 F.3d 1088, 1101 (9th Cir. 2007) (citing INS v. Ventura, 537 U.S. 12, 16 (1985)).

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