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Scott Pruitt, Administrator
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, D.C., 20460

RE: Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units [EPA-HQ-OAR-2017-0355]

Dear Administrator Pruitt:

The Chesapeake Bay Foundation, Inc. (CBF) submits the following comments regarding the United States Environmental Protection Agency’s (EPA) proposed repeal of the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generation Units, otherwise known as the Clean Power Plan.

According to the notice, the EPA “proposes a change in the legal interpretation as applied to section 111(d) of the Clean Air Act (CAA), on which the CPP was based.”

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The EPA would now interpret the Clean Air Act best system of emission reductions “as being limited to emission reduction measures that can be applied to or at an individual stationary source.”

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This interpretation ignores EPA’s long history of using pollution trading, credits, and national and regional pollution budgets to achieve emission reductions, and it is arbitrary and capricious to base the repeal of a legally sound regulation on this flawed interpretation.

I. Background

CBF is a 501(c)(3) non-profit organization whose mission is to “Save the Bay” and keep it saved. CBF represents more than 241,000 members across the country and has offices in Easton and Annapolis, Maryland; Richmond and Virginia Beach, Virginia; Harrisburg, Pennsylvania, and the District of Columbia. For 50 years, CBF has been working to restore the Chesapeake Bay and its tributary rivers and streams. CBF participated in the development of the Chesapeake Bay Total Maximum Daily Load (TMDL) and the Bay jurisdictions’ Watershed Implementation Plans—collectively, the Chesapeake Bay Clean Water Blueprint. CBF continues to participate in efforts to implement and refine the Blueprint throughout the Bay watershed. However, climate change has profound implications for the health of the Chesapeake Bay, the achievability of the Blueprint, and the wellbeing of the citizens who call this region home.

2 Id. at 48,039.
II. Climate change threatens the health of the Chesapeake Bay, as well as the culture and way of life in the Bay region.

The Chesapeake Bay is the nation’s largest estuary, supporting vibrant commercial fishing and tourism industries. But the Bay—and surrounding states—are not immune to the effects of climate change. Climate change will impact the achievability of the Bay TMDL, cause flooding in coastal communities, degrade important wetland and forest habitat, decrease the available oxygen in Bay waters, and threaten commercially valuable fisheries through acidification. The impacts of climate change are too severe in the Chesapeake Bay for the EPA to roll back the Clean Power Plan.

The Clean Power Plan was designed to reduce carbon dioxide emissions by shifting the power sector away from high polluting sources of energy to cleaner, renewable sources of energy. This shift to clean fuel will also improve air quality by reducing co-pollutants like nitrogen oxides (NOx), sulfur dioxide (SO2), and particulate matter. Cleaner air will lead to a cleaner Chesapeake Bay. One third of the nitrogen entering the Chesapeake Bay comes from air pollution, including pollution from power plants. Air pollution reductions were factored into the scientific models that form the basis for the Chesapeake Bay Clean Water Blueprint. If these air pollution reductions are not realized, Bay states will have a harder time achieving the pollution reduction goals of the Blueprint.

Climate change caused by greenhouse gas emissions directly affects the Chesapeake Bay through sea level rise. Carbon dioxide and other greenhouse gases accumulate in the atmosphere, which has caused the global annual average temperature to increase by more than 1.2 °F. The Fourth National Climate Assessment concludes that “it is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century.” The warming of the planet has had a twofold effect on our oceans: ocean temperatures have increased, and sea ice has melted. Warmer waters cause thermal expansion, and melting sea ice has increased the volume of water in our oceans. The combined effect of these two changes contribute to sea level rise.

Globally, sea level is projected to rise at least 8 inches but no more than 6.6 feet by 2100. Within 20 years, nearly 170 U.S. communities will be chronically

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4 U.S. Global Change Research Program, Climate Science Special Report: Fourth National Climate Assessment 10, 13 (2017) ("Human activities, especially emissions of greenhouse gases, are the dominant cause of the observed warming since the mid-20th century.").
5 Id. at 12.
inundated with flooding from sea level rise. More than 70% of these communities will be in Louisiana and Maryland: the canaries in the coal mine for sea level rise. In the Southern Chesapeake Bay region, land subsidence, the sinking or lowering of land surface, increases the rate of relative sea level rise, which contributes to the region’s high rate of sea level rise—the fastest on the Atlantic Coast. Sea level rise threatens to inundate small coastal communities and major cities alike in the Chesapeake Bay region. In Maryland alone, sea level rise threatens to flood over 61,000 homes by 2100, valued at $19 billion. Entire inhabited islands are now underwater in the Chesapeake Bay, with more likely to follow if greenhouse gas emissions do not decrease substantially. In Norfolk, Virginia, sea level rise poses significant risk to military infrastructure and operations.

Sea level rise also threatens the health of wetlands in the Chesapeake Bay. Wetlands trap and filter pollution and sediment, reducing the level of pollutants entering the Bay. Wetlands also protect coastal communities from storm surge and erosion. But wetlands inundated with saltwater from sea level rise cannot provide the same water quality and habitat benefits as healthy wetlands.

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8 Id.


12 "Sea level rise at just one site can have a significant impact on [both military policy and] strategy. Hampton Roads, Virginia, dubbed ‘the greatest concentration of military might in the world’ by former Secretary of Defense Leon Panetta, is by itself an invaluable operational and strategic hub for both the United States and its allies. It… is the backbone of the U.S. Atlantic Fleet. It is also a low-lying site and very exposed to sea level rise and storm surge. If significant portions of the Hampton Roads infrastructure… were regularly inundated, as is projected under a number of scenarios for the years 2035-2100, the impediment to force deployments for critical Atlantic, Mediterranean and Pacific war-fighting and humanitarian operations – many of which are tied to core strategic goals of the United States – would be significant." The Center for Climate and Security, Military Expert Panel Report: Sea Level Rise and the U.S. Military’s Mission 23–24 (2016), https://climateandsecurity.files.wordpress.com/2016/09/center-for-climate-and-security_military-expert-panel-report2.pdf.


14 Id.

typically the some of the first areas to be exposed to chronic flooding from sea level rise. Wetlands have the ability to migrate in response to changes in water levels, provided they have the space and time to do so. But the pace of sea level rise and changes in land use in coastal communities have weakened the ability of wetlands to migrate.

Sea level rise also threatens forested buffer areas, as saltwater seeps into the soil killing trees and creating “ghost forests.” More severe storms with increased rainfall could also impact forest buffers as well, reducing their ability to filter nutrient runoff from more intense rain events. Average U.S. precipitation has increased since the 1990s, and the frequency and intensity of heavy precipitation events is increasing. Increased scouring and runoff from more intense rain events carry significantly higher loads of nitrogen, phosphorous, and sediment into the Bay tributaries.

In addition to contributing to sea level rise, warming water also depletes the level of available oxygen in the Bay. This will have major repercussion in the Chesapeake Bay, which already struggles with dead zones of hypoxic water from nitrogen and phosphorus pollution. Excess nutrient pollution in the Bay fuels algal blooms. When those blooms of algae die and decompose, they consume oxygen which depletes the availability of oxygen for other species. This creates hypoxic and anoxic areas of the Bay with little to no oxygen available. Warming ocean temperatures will only exacerbate the dead zone in the Bay, because warmer water molecules hold less oxygen than colder water molecules.

Greenhouse gas emissions have also caused ocean and bay waters to acidify. Our oceans are a sink for atmospheric carbon, absorbing about a quarter of the carbon dioxide released into the atmosphere each year. This absorption is not without consequence: excess carbon dioxide is changing the ocean’s chemistry. A chemical

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17 Id.


21 Id.


reaction occurs between carbon dioxide, water, and carbonate ions that reduces seawater pH and depletes the concentration of carbonate ions and calcium carbonate minerals. This negatively affects calcifying species by impairing their shell making ability. Ocean acidification threatens the growth and reproduction of oysters, clams, blue crabs, and other creatures with calcium shells. Oysters and blue crab in particular are important commercial species in the region’s multi-billion dollar seafood industry. CBF is committed to restoring the native oyster, *Crassostrea virginica*, in the Bay. Chesapeake oysters play a vital ecological role in the Bay by filtering algae, sediment, and other pollutants, and oyster reefs also provide habitat for fish, crabs, and other bay organisms. CBF has two oyster restoration centers in Maryland and Virginia, and has planted more than 200 million oysters into the Bay. Erosion of that investment from ocean acidification is an unwelcome future.

The consequences of climate change are far too great for the EPA to roll back the Clean Power Plan. Further, the agency does itself—and the country—a disservice by only analyzing the foregone domestic climate benefits of repealing the rule. Carbon dioxide is a global pollutant, and the lack of regulation from the United States will have a global impact that the EPA should have analyzed, as it did when it prepared the Clean Power Plan and addressed domestic as well as international benefits. Further, the EPA does not include the foregone benefits of reducing co-pollutants like NOx and SO2 in the repeal cost-benefit discussion. Reducing NOx pollution from coal-fired power plants will have measurable benefits in the Chesapeake Bay region, and these benefits should be fully analyzed before the EPA repeals the Clean Power Plan.

**III. The Environmental Protection Agency has a moral and legal obligation to meaningfully regulate greenhouse gas emissions from the power sector, and the repeal of the Clean Power Plan abrogates this duty in violation of the Clean Air Act.**

In 2009, the EPA determined that six greenhouse gases, including carbon dioxide, endanger the public health and public welfare of current and future generations. Following the Endangerment Finding, the EPA has a legal duty under section 111 of the Clean Air Act to develop regulations to reduce carbon dioxide

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25 [Id.](#)
emissions from new and existing stationary sources. The repeal of the Clean Power Plan violates the Clean Air Act, specifically the requirements of section 111(d).

Section 111 of the Clean Air Act establishes standards of performances for new and existing stationary sources for pollutants other that criteria pollutants and hazardous air pollutants. Section 111(d) requires the EPA to establish regulations that establish a procedure for states to submit plans to the Administrator that establish the standards of performance for any existing source for the pollutant at issue. Before the states can submit plans with standards of performance, the Administrator must determine the best system of emission reduction for the affected sources. The Clean Air Act does not define “system of emission reduction,” but the plain meaning of the phrase can be understood to mean “a set of measures that work together to reduce emissions.” The Administrator analyzes the following factors to determine whether a system of emission reduction is the “best” system: costs, non-air health and environmental impacts, energy considerations, and the amount of emissions reductions. The EPA must consider these factors on a national or regional level and over time, not only on a plant-specific level at the time of the rulemaking. After defining the best system of emission reductions, the Administrator then sets the emissions guidelines that identify the minimum amount of emission limits that a state must impose on its sources through standards of performance in its state plan.

The Clean Power Plan determined that the best system of emissions reduction for carbon dioxide from electric generation units was a combination of measures: (1) increasing the operational efficiency of existing coal-fired steam electric generating units, (2) substituting increased generation at existing natural gas combined cycle units for generation from higher-emitting steam electric generating units, and (3) substituting generation from new zero-emitting renewable energy generating capacity for generation at existing fossil fuel-fired electric generation units. These measures are referred to in the Clean Power Plan as building blocks.

The current administration is repealing the Clean Power Plan on the basis that building blocks 2 and 3 cannot be BSER because they are not applicable to an

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31 42 U.S.C. § 7411. See also Massachusetts v EPA, 549 U.S. 497, 532 (2007) (“Because greenhouse gases fit well within the Clean Air Act’s capacious definition of ‘air pollutant,’ we hold that EPA has the statutory authority to regulate the emissions of such gases from new motor vehicles.”).
36 “The term ‘standard of performance’ means a standard for emissions of air pollutants which reflects the degree of emission limitations achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any other nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.” 42 U.S.C. § 7411(a)(1). See also 80 Fed. Reg. 64,662, 64,719.
37 80 Fed. Reg. at 64,707.
individual source. As discussed below, this interpretation is patently wrong and ignores the EPA’s long history of relying on trading, credits, and national and regional pollution budgets to achieve emission reductions.

If the EPA rejects generation shifting and renewable energy as BSER, the agency is left with measures that are cost prohibitive and less effective at reducing greenhouse gas emissions, which do not meet the requirements of BSER. During the development of the Clean Power Plan, the EPA analyzed heat rate improvements, cofiring with natural gas, and carbon capture and sequestration as potential measures to include in BSER. The EPA concluded that heat rate improvements on their own would not qualify as BSER because they did not meet a critical component of BSER: the quantity of emissions reductions. Heat rate improvements lead only to small emission reductions from coal and steam fired electric generation units. Without other measures to reduce emissions, heat rate improvements could actually increase carbon dioxide emissions—through the rebound effect—by improving the competitiveness and utilization of coal fired electric generating units.

Co-firing with natural gas and carbon capture and sequestration were also considered for BSER, but the EPA determined that these measures are more expensive than other measures, namely energy generation shifting to natural gas and renewable energy. If the current administration refuses to utilize power generation shifting to natural gas and renewable energy to reduce carbon dioxide emissions, the EPA is left with measures that are too expensive and do not achieve the level of carbon dioxide reductions commensurate with the problem of climate change. This violates section 111 of the Clean Air Act, and abrogates the EPA’s duty to regulate carbon dioxide.

IV. The Clean Power Plan rests on strong legal footing, and the present repeal is arbitrary and capricious because the EPA has ignored the past use of beyond-the-fence line measures to achieve emissions reductions.

The Clean Power Plan and its best system of emission reduction requirement is a permissible construction of the Clean Air Act, and relies on tools the EPA has utilized in other pollution reduction regulations to establish the “best system of emission reductions” for greenhouse gas emissions from the power sector. The repeal of the Clean Power Plan not only violates the Clean Air Act, but the Administrative Procedure Act. The EPA has not provided a rational explanation for its decision to repeal the Clean Power Plan. The purported reason for repealing the Clean Power Plan is unsupported by the rulemaking record, and completely ignores the EPA’s use of trading, credits, and national and regional pollution budgets to achieve emission reductions.

38 80 Fed. Reg. at 64,727.
39 Id.
40 Id.
41 Id. at 64,727–28.
reductions, as well as an extensive set of analyses set out as the basis for the previous rulemaking. The repeal of the Clean Power Plan, if finalized, would therefore be arbitrary, capricious, and illegal.

The standard of review for regulatory actions under the Administrative Procedure Act is “arbitrary and capricious.” While this standard is narrow, an agency must still examine the relevant facts and articulate a satisfactory explanation for its action, which includes a “rational connection between the facts found and the choice made.” An agency rule is arbitrary and capricious if the agency “has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or product of expertise.” A court must vacate a rule it determines to be arbitrary and capricious.

The arbitrary and capricious standard applies equally to deregulatory actions as well. Agencies have the authority to revisit and revise regulations, in recognition of changing circumstances, but “the forces of change do not always or necessarily point in the direction of deregulation.” There is a presumption “against changes in the current policy that are not justified by the rulemaking record.” The agency must therefore examine the relevant facts, and articulate a satisfactory explanation for its repeal that is supported by the rulemaking record. The EPA has not done so in the proposed repeal of the Clean Power Plan.

The impetus behind the repeal of the Clean Power Plan was not a change in technology or scientific fact, but an executive order. Specifically, President Trump directed the EPA to review the Clean Power Plan in his “Promoting Energy Independence and Economic Growth” Executive Order, with the directive to suspend, revise, or rescind the rule if necessary. The EPA attempts to rationalize the repeal of the Clean Power Plan by changing its interpretation of the best system of emission reduction to only apply to individual stationary sources. But this reasoning runs directly counter to the ample rulemaking record generated for the Clean Power Plan, and the EPAs own history of utilizing generation shifting and renewable energy to achieve emissions reductions.

It is arbitrary and capricious for the EPA to repeal the Clean Power Plan on the basis that BSER can only apply to an individual source because the EPA has used beyond-the-fence line reduction techniques in a number of Clean Air Act regulations,

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44 Id. at 43.
46 State Farm, 463 U.S at 42.
47 Id.
including regulations promulgated under Section 111(d). The Clean Air Mercury Rule set statewide targets for mercury emissions from power plants and allowed for inter-source and interstate emissions trading, which inherently reaches beyond the fence line of any single plant. The EPA also used NOx emission credit trading in its emission guidelines for large municipal waste combustors promulgated under sections 111(d) and 129. The EPA has also used beyond-the-fence line measures in other rules to achieve emissions reductions, including the Cross State Air Pollution Rule, which set statewide emission budgets for nitrogen oxides and sulfur dioxide and relied on shifts to lower-emitting generation to achieve reductions. The EPA’s “bubble policy,” which regulated emissions from a whole plant instead of individual sources, allowed plants in the same area to trade emissions of the same pollutants. It is therefore arbitrary, and unsupported by the record, for the EPA to now repeal the Clean Power Plan based on the claim that BSER can only apply at an individual source. The EPA has used beyond the fence line measures across the Clean Air Act to address regional and national pollution, and must continue to do so to address the global problem of carbon dioxide pollution.

V. The EPA has failed to adequately engage the public in the repeal rulemaking process.

The current effort to repeal the Clean Power Plan wholly ignores the widespread public support for the rule, and the EPA has not thoroughly engaged the public in the repeal rulemaking. During the development of the Clean Power Plan, the EPA participated in more than 300 meetings prior to proposing the Clean Power Plan to solicit policy ideas, concerns, and technical information. The EPA then participated in more than 300 meetings after the issuing the proposed rule, and received over 4.3 million comments about the proposed rule. Thousands of people engaged in the EPA’s public hearings, webinars, listening sessions, teleconferences, and meetings. The EPA also engaged state officials, tribal officials, United States


53 80 Fed. Reg. at 64,704.

54 Id.

55 Id. The EPA held four public hearings in Atlanta, Denver, Pittsburgh, and the District of Columbia, and a fifth was held in Phoenix on the supplemental proposal. The EPA also held 11 public listening sessions across the country.
territories, industry and electric utility representatives, electric grid operators, community and non-governmental organizations, environmental justice organizations, labor union representatives, and other federal agencies.\textsuperscript{56}

In the present repeal public comment period, the EPA has held only one public hearing in Charleston, West Virginia—deep in coal country. The EPA has said it would hold three “listening sessions” in San Francisco, California; Gillette, Wyoming; and Kansas City, Missouri. Many East Coast states have requested that the EPA hold a public hearing on the East Coast that would be more accessible for their constituents. The EPA has yet to respond to these requests, so the states of Delaware, Maryland, and New York, and the city of Philadelphia have taken it upon themselves to hold public listening sessions for their citizens to voice their concerns over the repeal. The level of engagement from the EPA during this repeal rulemaking pales in comparison to the efforts of the prior administration in drafting the Clean Power Plan. The EPA fully engaged the public, state governments, and industry when it promulgated the Clean Power Plan, and if the EPA is going to repeal the Clean Power Plan, the level of engagement should be commensurate to creation of the Clean Power Plan.

Conclusion

The proposed repeal of the Clean Power Plan fails to provide sufficient, reasoned support for its promulgation. Thus, it violates the Administrative Procedure Act and the Clean Air Act. The EPA should not continue forward with the repeal of the Clean Power Plan. CBF, therefore, asks that the proposed repeal rulemaking be withdrawn.

Sincerely,

\begin{center}
\textbf{Alison Prost, Esq.}
Maryland Executive Director
Interim Vice President for Environmental Protection and Restoration
Chesapeake Bay Foundation
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\textsuperscript{56} Id. at 64,704–07.