CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

OFFICERS
Harry T. Lester
CHAIR
Jane P. Batten
VICE CHAIR
Carolyn Groobey
VICE CHAIR
William C. Baker
PRESIDENT
Alan R. Griffith
TREASURER
William A. Agee
SECRETARY

TRUSTEES
R. Bruce Bradley
George L. Bunting Jr.
W. Russell G. Byers Jr.
D. Keith Campbell
Michael J. Chiaramonte
Thomas M. Davis III
Robert S. Evans
Harry S. Gruner
Ann Fritz Hackett
Michael J. Hanley
Christian Hodges
Jeanne Trimble Hoffman
Mark J. Hourigan
Otis S. Jones
Robert A. Kinsley II
Burks B. Lapham
Katie Z. Leavy
Pamela B. Murphy
Devan B. Ogburn
Elizabeth Oliver-Farrow
Mark S. Ordan
Arnold I. Richman
J. Sedwick Sollers III
Sandra E. Taylor
Susan P. Wilmerding

HONORARY TRUSTEES
Donald F. Boesch, Ph.D.
Louisa C. Duemling
Richard L. Franyo
Alan R. Griffith
C.A. Porter Hopkins
Robert A. Kinsley
T. Gaylon Layfield III
Byron F. Marchant
M. Lee Marston
Wayne A. Mills
Marie W. Ridder
James E. Rogers
Truman T. Semans
Simon Sidamon-Eristoff
Jennifer Stanley
Thomas H. Stoner
Bishop Eugene Taylor Sutton
Alan L. Wurtzel

October 31, 2018

Submitted via regulations.gov

Mr. Andrew Wheeler, Acting Administrator
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

RE: Chesapeake Bay Foundation Comments,
EPA, *Emission guidelines for greenhouse gas emissions from Existing Electric Utility Generating Units; Revisions to emissions guideline implementing regulations; Revisions to New Source Review Program*
Docket ID No. EPA-HQ-OAR-2017-0355

Dear Acting Administrator Wheeler:

The Chesapeake Bay Foundation, Inc. (CBF) respectfully submits the following comments regarding the proposed rule, *Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program.*[1]

CBF is a 501(c)(3) non-profit organization, founded in 1967. The organization's mission --carried out from offices in Maryland, Virginia, Pennsylvania and the District of Columbia -- is to restore and protect the ecological health of the Chesapeake Bay, the nation's largest and one of its most vital estuaries. As such, and on behalf of our over 275,000 members across the United States,[2] we are very interested in matters that will impact the health of the Chesapeake Bay, the waters that feed into it, and the health of those who live and work within the Bay watershed.

The above referenced proposal is collectively referred to as the Affordable Clean Energy (ACE) Rule and consists of three sections, as described by EPA: (1) EPA proposes to determine the Best System of Emission Reduction (BSER) for existing Electric Utility Generating Units (EGUs) based on Heat Rate Improvement (HRI)

[1] 83 FR 44746, August 31, 2018.
[2] Over 14,000 of our members have also submitted their own comments regarding this proposed rulemaking.

measures that can be applied at an affected source - and proposes a corresponding emission guideline clarifying the roles of EPA and the states regarding the development of standards of performance consistent with the application of BSER; (2) EPA proposes new implementation regulations that apply to this action and future emission guidelines promulgated under Section 111(d) of the Clean Air Act (CAA) that make it clear that states have broad discretion in establishing and applying emissions standards consistent with BSER; and (3) EPA proposes to give owners/operators of EGU's more latitude to make efficiency improvements that are consistent with EPA's BSER without triggering "onerous and costly" New Source Review (NSR) permit requirements.[3]

CBF disagrees with EPA's characterization of - and need for - these three proposals. Thus, we oppose the ACE Rule for many reasons, most importantly because it will impede the implementation of the Chesapeake Bay Total Maximum Daily Load (TMDL) and because it will worsen the impacts of climate change from which the Bay is already suffering. We therefore urge EPA to withdraw this proposal, and fully implement the Clean Power Plan.[4]

I. Background

In 2009, EPA determined that six greenhouse gases (GHGs), including carbon dioxide (CO_2), endanger the public health and public welfare of current and future generations.[5] Hence, EPA has a legal duty under Section 111 of the Clean Air Act (CAA) to develop regulations to reduce CO2 emissions from new and existing stationary sources.[6]

On October 23, 2015, EPA published the Clean Power Plan (CPP),[7] the first-ever regulatory program that addresses carbon pollution from power plants. The CPP was designed to meet the obligations of Section 111 of the CAA by shifting the power sector away from high polluting sources of energy to cleaner, renewable sources of energy. If implemented, carbon pollution from the power sector would be 32 percent below 2005 levels by 2030.[8] The CPP was projected to produce climate benefits of $20 billion, health benefits between $14 and $34 billion, and net benefits of $26-$45 billion.[9] It was expected to reduce emissions of nitrogen oxides by 72 percent (compared to 2005 levels)

[3] *Id.* at 44748.
[4] EPA, *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule,* 80 FR 64662, October 23, 2015.
[5] EPA, *Endangerment and Cause of Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 FR 66496, December 15, 2019.
[6] 42 U.S.C. § 7411; *See also*, *Massachusetts v. EPA*, 549 U.S. 497, 532 (2007).
[7] *Id.*
[8] EPA, *Overview of the Clean Power Plan, Cutting Carbon Pollution from Power Plants, Benefits of Implementing the Clean Power Plan*, pp. 2-3, https://19january2017snapshot.epa.gov/sites/production/files/2015-08/documents/fs-cpp-overview.pdf
[9] *Id.*

and avoid 3,600 premature deaths, 1,700 heart attacks, 90,000 asthma attacks, and 300,000 missed work days in 2030, and every year beyond.[10]

On, October 16, 2017, EPA proposed to repeal the CPP,[11] and now proposes to replace the CPP with the ACE Rule. The repeal of the CPP ignores the 2009 Endangerment Finding and violates Section 111 of the CAA, and EPA's ACE Rule does not fulfill these obligations. CBF submitted comments on the proposed repeal of the CPP and the Advanced Notice of Proposed Rulemaking for its replacement rule (now the ACE Rule) and incorporates by reference these prior comments thereby reiterating our support for the full implementation of the CPP.[12]

Simply stated, EPA's replacement plan, ACE, will not achieve the necessary reductions in NOx and GHGs upon which the restoration and health of the Chesapeake Bay relies.

II. Emissions from EGUs are Harmful to the Chesapeake Bay and to Those Living and Working Within the Watershed.

The Chesapeake Bay is harmed by excessive air pollution from stationary, agricultural, natural and mobile sources.[13] These comments focus on the impacts of nitrogen oxides (NOx) and CO_2 from EGUs or power plants.

A. Excess Nitrogen and the Chesapeake Bay

The Chesapeake Bay suffers from too much nitrogen with air pollution contributing about one-third of the total nitrogen load delivered to the Bay.[14] At 570,000 square miles, the Bay airshed is roughly nine times the size of the Bay watershed. Sources of NOx in this expansive airshed contribute nitrogen to the Bay and its tributaries, with about half of the deposition loads of nitrogen coming from outside of the watershed.[15] As EPA states,

---

[10] *Id.*

[11] EPA, *Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units,* 82 FR 48035, October 16, 2017.

[12] *See* Letter from Alison Prost, Interim Vice President for Environmental Protection and Restoration, Chesapeake Bay Foundation to Scott Pruitt, Administrator, Environmental Protection Agency, regarding *Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (EPA-HQ-OAR-2017-0355),* January 16, 2017 (urging the EPA not to repeal the Clean Power Plan); Letter from Alison Prost, Interim Vice President for Environmental Protection and Restoration, Chesapeake Bay Foundation to Scott Pruitt, Administrator, Environmental Protection Agency, regarding *Advance Notice of Proposed Rulemaking, State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units (EPA-HQ-OAR-2017-0545),* February 26, 2018 (urging the EPA to meaningfully regulate and reduce GHG emissions in any replacement rule for the CPP). A copy of these comment letters is attached hereto as Attachment "A."

[13] https://www.chesapeakebay.net/issues/air_pollution

[14] EPA, Chesapeake Bay TMDL, *Air Pollution in the Chesapeake Bay Watershed*, https://www.epa.gov/chesapeake-bay-tmdl/air-pollution-chesapeake-bay-watershed

[15] Linker, L.C., R. Dennis, G.W. Shenk, R.A. Batiuk, J. Grimm, and P. Wang, *Computing atmospheric nutrient loads to the Chesapeake Bay watershed and tidal waters*, Journal of the American Water Resources Association, 11, 2013.

atmospheric "loads of nitrogen are from chemical species of oxidized nitrogen, also called NOx, and from reduced forms of nitrogen deposition, also called ammonia (NH_3). Oxidized forms of nitrogen deposition originate from conditions of high heat and pressure and are formed from eutrophically inert diatomic atmospheric nitrogen. The principle sources of NOx are air emissions from industrial-sized boilers such as ***electric power plants*** and internal combustion engines in cars, trucks, locomotives, airplanes, and the like."[16] NOx emitted from power plants enters the atmosphere and either combines with sunlight to form ozone (O_3) or remains as one or more forms of nitrogen that can be deposited in wet (via precipitation) or dry forms hundreds of miles away on land or directly into waterbodies. This NOx adds to the Chesapeake Bay's nitrogen loading burden.

All of this nitrogen causes algae blooms that, when they die, consume oxygen. A reduction in or lack of dissolved oxygen harms benthic organisms, oysters as well as fish and blue crabs. These fisheries are immensely important to the economy and culture of the Bay region. The Chesapeake Bay produces approximately 500 million pounds of seafood a year.[17] In 2015, Maryland and Virginia brought in $290 million in landings revenue, supported nearly 29,000 jobs, and generated approximately $2.5 billion dollars in sales.[18] Recreational fishing supported over 12,000 jobs, and generated $1.24 billion dollars in sales.[19]

In 2010, EPA issued a TMDL for the Chesapeake Bay region[20] and set a cap on NOx from air deposition at 15.7 million pounds. EPA itself "committed to reducing nitrogen deposition to the Bay and its surrounding waters by a total of 3.7 million pounds between 2009 and 2025, the year all practices are to be in place to meet the Bay TMDL goals."[21] The TMDL and the state implementation plans to meet the TMDL are collectively known as the Chesapeake Clean Water Blueprint.

B. Climate Change and the Chesapeake Bay

As noted, the Chesapeake Bay is the nation's largest estuary, supporting vibrant commercial fishing and tourism industries. The Bay—and its surrounding states— are negatively impacted by the effects of climate change. EPA has noted that average temperatures have risen between 1895 and 2011 by almost two degrees Fahrenheit and

---

[16] EPA, *Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorous and Sediment*, Appendix L-1, December 29, 2010, https://www.epa.gov/chesapeake-by-tmdl/chesapeake-by-tmdl-document
[17] Chesapeake Bay Program, *Facts and Figures,* https://www.chesapeakeby.net/discover/facts
[18] NOAA, *Fisheries Economics of the United States, 106, 2017,* https://www.fisheries.noaa.gov/resource/document/fisheries-economics-united-states-report-2015
[19] *Id.*
[20] EPA, *Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorous and Sediment*, December 29, 2010, https://www.epa.gov/chesapeake-by-tmdl/chesapeake-by-tmdl-document
[21] EPA, *The importance of clean air to clean water in the Chesapeake Bay,* https://www.epa.gov/sites/production/files/2015-06/documents/cb_airwater_fact_sheet_jan2015.pdf.

projections indicate warming of 4.5 to 10 degrees by the 2080s.[22] The Chesapeake Bay suffers from the effects of climate change including sea-level rise, warming temperatures, and extreme weather.[23]

Within 20 years, nearly 170 U.S. communities will be chronically inundated with flooding[24] and more than 70% of these communities will be in Louisiana and Maryland: the "canaries in the coal mine" for sea level rise.[25] Sea level rise threatens to inundate small coastal communities and major cities alike in the Chesapeake Bay region. In Maryland alone, it threatens to flood over 61,000 homes by 2100, valued at $19 billion.[26] Entire inhabited islands are now underwater in the Chesapeake Bay, with more likely to follow if GHG emissions do not decrease substantially.[27] In Norfolk, Virginia, sea level rise poses significant risk to the public and military infrastructure and operations.[28]

Wetlands are also threatened by sea level rise. These important filters reduce the level of pollutants entering the Bay[29] and protect coastal communities from storm surge and erosion.[30] Wetlands inundated with saltwater from sea level rise, however, cannot

---

[22] *Id.*

[23] EPA, Chesapeake Bay Program, *Climate Change,* https://www.chesapeakebay.net/issues/climate_change

[24] Erika Spanger-Siegfried, *et. al*, *When Rising Seas Hit Home: Hard Choices Ahead for Hundreds of US Coastal Communities*, Union of Concerned Scientists 2, 2017.

[25] *Id.*

[26] Catherine Rentz, *Rising sea levels threaten $19 billion in real estate across Maryland*, study says, The Baltimore Sun, Oct. 28, 2017, http://www.baltimoresun.com/news/maryland/investigations/bsmd-suninvestigates-sea-level-20171026-story.html.

[27] Erik Ortiz, *How to Save A Sinking Island*, NBC NEWS, November 13, 2017, https://www.nbcnews.com/specials/deal-island; David Fahrenthold*, Last house on sinking Chesapeake Bay island collapses*, Washington Post, October 26, 2010, http://www.washingtonpost.com/wpdyn/content/article/2010/10/24/AR2010102402996.html; Jon Gertner, *Should the United States Save Tangier Island From Oblivion*?, New York Times Magazine, July 6, 2016, https://www.nytimes.com/2016/07/10/magazine/should-the-united-states-save-tangier-island-fromoblivion.html.

[28] "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' for 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 seal level rise and storm surge. If significant portions of the Hampton Roads infrastructure we regularly inundated, as is projected under a number of scenarios for the years 2023-2100, 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 Missions, 23-24, 2016,* https://climateandsecurity.files.wordpress.comen/2016/09-center-for-climate-and-security-military-expert-panel-report2.pdf.

[29] Chesapeake Bay Program, *Wetlands,* https://www.chesapeakebay.net/issues/wetlands

[30] *Id.*

provide the same water quality and habitat benefits as healthy wetlands.[31] They are typically some of the first areas to be exposed to chronic flooding and while they can migrate in response to changes in water levels provided they have the space and time to do so,[32] the pace of sea level rise and changes in land use in coastal communities have weakened the ability of wetlands to migrate.[33] In addition, forested buffers along creeks, tidal rivers, and the Bay are also impacted by seal level rise as saltwater seeps into the soil, killing trees and creating "ghost forests."[34]

Warming waters - that have already been recorded in 92 percent of the Bay - deplete the level of available oxygen in the Bay.[35] This will have major repercussions as the Bay already struggles with dead zones of hypoxic water from nitrogen and phosphorus pollution (these nutrients fuel algal blooms, creating hypoxic and anoxic areas in the Bay).[36] Warming ocean temperatures will only exacerbate the dead zone in the Bay because warmer water molecules hold less oxygen than colder water molecules.[37]

Average U.S. precipitation has increased since the 1990s, and the frequency and intensity of heavy precipitation events is increasing due to climate change.[38] Increased scouring and runoff from more intense rain events carry significantly higher loads of nitrogen, phosphorous, and sediment into the Bay's tributaries.

Finally, GHG emissions cause ocean waters to acidify. Our oceans are a sink for atmospheric carbon, absorbing about a quarter of the CO_2 released into the atmosphere each year.[39] This absorption is not without consequence: excess CO_2 is changing the saltwater chemistry.[40] A chemical reaction occurs between carbon dioxide, water, and carbonate ions that reduces seawater pH depleting the concentration of carbonate ions

---

[31] Joseph Kurt and Victor Unnone, *Climate Change and the Chesapeake Bay Total Maximum Daily Load: Policy Priorities and Options,* Virginia Coastal Policy Center, 4, 2016.
[32] Erika Spanger-Siegfried, *et. al, When Rising Seas Hit Home: Hard Choices Ahead for Hundreds of US Coastal Communities,* Union of Concerned Scientists, 10, 2017.
[33] *Id.*
[34] *Id*. *See also* John Upton, '*Ghost Forests' Appear as Rising Seas Kill Trees, Climate Central*, Sept. 15, 2016, http://www.climatecentral.org/news/ghost-forests-appear-as-rising-tides-kill-trees-20701.
[35] *See Army Corps of Engineers and City of Norfolk Draft Integrated City of Norfolk Coastal Storm Risk Management Feasibility Study/Environmental Impact Statement*, October 2017, http://www.nao.usace.army.mil/NCSRM/
[36] EPA, Chesapeake Bay Program, *The Dead Zone,* https://www.chesapeakebay.net/state/dead_zone
[37] Chris Mooney, *Global warming could deplete the oceans' oxygen – with severe consequences*, Washington Post, April 28, 2016, https://www.washingtonpost.com/news/energyenvironment/wp/2016/04/28/global-warming-could-deplete-the-oceans-oxygen-levels-with-severeconsequences/?utm_term=.9c3333011616.
[38] U.S. Global Change Research Program, *Climate Science Special Report: Fourth National Climate Assessment,* 19, 20, 2017.
[39] NOAA Pacific Marine Environmental Laboratory Carbon Program, *Ocean Acidification: the Other Carbon Dioxide Problem*, https://www.pmel.noaa.gov/co2/story/Ocean+Acidification
[40] NOAA Pacific Marine Environmental Laboratory Carbon Program, *What is Ocean Acidification?,* https://www.pmel.noaa.gov/co2/story/What+is+Ocean+Acidification%3F

and calcium carbonate minerals.[41] This negatively affects calcifying species by impairing their shell making ability. Ocean acidification threatens the growth and reproduction of oysters, clams, and other creatures with calcium shells.[42] The Chesapeake Bay blue crab population may be particularly susceptible to acidification because larval crabs spend a portion of their life offshore in the ocean.
Blue crabs are a particularly important commercial species in the region's multi-billion-dollar seafood industry.[43]

Taken together, the effects of GHG emissions, including CO_2, will impact the complex ecosystem – including water quality and habitat - needed for species survival in the Bay region. Indeed, these impacts are identified and reflected through various sections of the Chesapeake Bay Watershed Agreement, an Interstate Compact,[44] to which the United States is a signatory.[45] EPA's proposed ACE Rule, if finalized and implemented, will only exacerbate the ever-increasing effects of climate change.

III. The ACE Rule Does Not Sufficiently Control Emissions from EGU's.

As stated above, EPA proposes three distinct actions under the ACE Rule. Each of these proposals will lead to under-controlled emissions of NOx and CO_2 from EGUs. The Agency's own analysis admits that as compared to the CPP, under the ACE Rule, emissions of CO_2 would be over 100 million tons greater in 2030.[46]

CBF questions how EPA can change its position regarding the full implementation of the CPP, and put forth the ACE Rule, when in 2016 EPA stated that; [n]o serious effort to

---

[41] *Id.*

[42] Sarah M. Giltz and Caz M. Taylor, *Reduced Growth and Survival in the Larval Blue Crab Callinectes sapidus Under Predicted Ocean Acidification*, 36, J. of Shellfish Research, 481, 2017.

[43] Chesapeake Bay Foundation, *The Economic Importance of the Bay*, http://www.cbf.org/issues/whatwe-have-to-lose/economic-importance-of-the-bay/

[44] One of the purposes of the Chesapeake Bay Restoration Act of 2000 was to "expand and strengthen cooperative efforts to restore and protect the Chesapeake Bay; and to achieve the goals established in the Chesapeake Bay Agreement." 33 U.S.C. § 1267. The Chesapeake Bay Agreement is an interstate compact as Congress developed and authorized the joint state action. *See Cuyler v. Adams*, 449 U.S. 433; 101 S. Ct. 703 (1981); *Seattle Master Builders Assoc. v. Pacific Northwest Electric Power & Conservation Planning Council*, 786 F.2d 1359 (9th Cir. 1986).

[45] *Chesapeake Bay Watershed Agreement,* 2014, https://www.chesapeakebay.net/documents/FINAL_Ches_Bay_Watershed_Agreement.withsignatures-HIres.pdf

[46] EPA, *Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program*, ES-7, ES-8, Table ES – 5 (power sector emissions under ACE Rule) and 3-40 (power section emissions under the Clean Power Plan implemented as contemplated in the 2015 Regulatory Impact Analysis).

address the monumental problem of climate change can succeed without ***meaningfully limiting*** [power] plants' CO_2 emissions."[47]

A. The ACE Rule's approach to BSER is inadequate to properly regulate CO_2 emissions from EGUs.

CBF takes serious issue with EPA's proposed designation of heat rate improvements (HRIs) alone as the best system of emission reduction ("BSER") for GHG emissions from EGUs. HRIs alone will not generate sufficient reductions to combat global climate change and may actually lead to more GHG emissions by extending the life of many aging power plants. EPA should reject this technology as stand-alone BSER, and instead utilize the generation shifting tools of the CPP to create meaningful reductions in GHG emissions.[48]

Section 111(d) of the CAA requires EPA to develop 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.[49] Before the states can submit plans with standards of performance, the Administrator must determine the BSER for the affected sources. The CAA 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."[50] After defining the BSER, 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.[51] Emission guidelines should reflect the "degree of emission reduction achievable through the application of [BSER]." [52]

When determining BSER for a given category of sources, EPA is tasked, by statute, with considering a number of factors as it makes its decision including cost, non-air health and

---

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

[48] The CPP utilized three building blocks as BSER to achieve reductions in greenhouse gas emissions. The first building block is increasing operational efficiency at individual plants heat rate improvements at individual plants. The second building block is substituting increased generation at existing natural gas combined cycle plants for generation at existing steam electric generating unites. The third building block is substituting generation from low- and zero-carbon generating capacity for generation at existing fossil fuel-fired electric generating units. EPA. *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, 80 FR 64662, 64717, October 23, 2015.

[49] 42 U.S.C. § 7411(d).

[50] EPA. *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, 80 FR 64662, 64721, October 23, 2015.

[51] "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 FR 64662, 64719.

[52] 40 C.F.R. § 60.21(e).

environmental impacts, energy considerations, and amount of emission reductions.[53] Importantly, these factors are to be considered on a sector or national basis, and not at an individual plant level.[54] The CAA does not "set forth the weight that should be assigned to each of these factors," meaning courts grant agency discretion when balancing the factors.[55] However, if the economic or environmental cost of the technology is exorbitant, a court will not uphold EPA's decision.[56] In sum, courts will ordinarily grant discretion to the agency when it selects BSER, so long as "the standards … set are the result of reasoned decision-making."[57] As discussed below, selecting HRIs as BSER is not the result of reasoned decision making and runs counter to the purpose of the CAA and the Agency's duty under its Endangerment Finding[58] to regulate and *reduce* GHG emissions.[59]

The ACE Rule purports to establish BSER that will reduce CO_2 emissions from EGUs, but the technologies chosen as BSER will very likely *increase* CO_2 emissions, which EPA has admitted. EPA proposes to identify HRIs or "efficiency improvements" as BSER for existing fossil-fuel steam generating EGUs.[60] These improvements include neural network/intelligent sootblowers, boiler feed pumps, air heater and duct leakage control, variable frequency drives, blade path upgrade, redesign/replace economize, and improved operation and management practices.[61] The practical effect of these HRIs, however, is that aging coal-fired power plants will become somewhat more efficient and therefore be able to run longer, leading to an increase of CO_2 emissions, not a decrease.[62] The adoption of HRIs alone is *insufficient* to reduce CO_2 emissions from coal fired power plants.

Inherent in the premise of HRIs is making power plans more efficient. This improvement means, in a practical sense, that power plants will use less fuel to generate the same amount of electricity, ultimately decreasing the cost of running the facility. Because of

---

[53] 42 U.S.C. § 7411(a)(1); *See also Sierra Club v Costle,* 657 F.2d 298, 326 (D.C. Cir. 1981).
[54] *Id.*
[55] *Lignite Energy Council v. EPA,* 198 F.3d 930, 933 (D.C. Cir. 1999).
[56] *Id.*
[57] *National Asphalt Pavement Ass'n v. Train*, 539 F.2d 775, 786 (D.C. Cir. 1976).
[58] EPA, *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 FR 66496, December 15, 2009.
[59] As noted previously, CBF incorporates by reference its comments submitted in response to EPA's repeal of the CPP and Advance Notice of Proposed Rulemaking regarding its replacement, now the ACE Rule. *See* Attachment "A." Specifically, we reiterate our comments regarding the use of "beyond-the-fence line" techniques as BSER.
[60] 83 FR 44755.
[61] 83 FR 44757.
[62] In fact, coupled with the proposed changes to New Source Review in ACE, not only will CO2 emissions increase, so will other pollutant emissions including NOx, also a GHG and precursor to ground level ozone. *See* Section III C below.

the rebound effect,[63] however, emissions from these facilities may actually *increase* even though heat rate improvements have been implemented. If a facility is more efficient, and therefore cheaper to run, it will be utilized more frequently by the electric grid. So even though the plant may be emitting less CO_2 per kilowatt of electricity, the facility is being called on to generate electricity for more hours in a day, which can increase the total emissions coming from the plant. In the development of the CPP, EPA recognized the threat of increased emissions from power plants if HRI alone were used as BSER. *EPA determined that HRIs alone could not be considered BSER because of the potential rebound effect.*[64] In its current analysis supporting the ACE Rule, EPA has not presented sufficient evidence to illustrate how HRIs could be BSER without triggering the rebound effect. In fact, the Agency's own analysis shows that the rebound effect will occur and that CO_2emissions will increase over time as facilities become more efficient and therefore operate for more hours.[65] *HRIs cannot be considered BSER when those technologies may lead to an increase of CO_2.*

The effect of this rule is that relative to the CPP, the ACE Rule will result in an *increase* of GHG emissions, leading to 3% more CO_2 in the atmosphere by 2035.[66] The EPA states that "emissions are projected to be higher under the three illustrative policy scenarios and the illustrative No CPP scenario than under the base case, as the base case includes the CPP."[67] Regardless of the HRI selected or the price set for a kilawatt of electricty, CO_2 emissions increase across the board over the ten year period, ranging from 18 to 24 million short tons more CO_2 in the atmosphere.[68] CO_2 emissions are not the only pollutant expected to see an increase under the ACE Rule. Other emissions, including NOx and sulfur dioxide (SO_2), will also increase in comparison to the CPP, leading to increases in particulate matter and ozone.[69]

A technology that leads to an increase in pollution rather than a decrease cannot be considered the best system of emission *reduction.* One of the factors the EPA must consider when determing BSER is the amount of emission reductions achieved. The D.C. Circuit has stated this affirmatively, holding that "[w]e can think of no sensible interpretation of the statutory words 'best … system' which would not incorporate the

---

[63] The rebound effect refers to the principle that as a facility becomes more efficient, and therefore less expensive to operate, it will be utilized more frequently thereby emitting more pollution because of the increased hours of operation. Kenneth Gillingham, David Rapson, and Gernot Wagner, *The Rebound Effect and Energy Efficiency Policy*¸ Resources for the Future, Nov 2014, http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-14-39.pdf .

[64] 80 FR 64727.

[65] EPA, *Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program,* ES-9, 2018.

[66] *Id.* at ES-8.

[67] *Id.* at ES-7.

[68] *Id.* at ES-9.

[69] *Id.* at ES-9.

amount of air pollution as a relevant factor to be weighed when determining the optimal standard for controlling emissions."[70] EPA did not properly consider the amount of emission reductions in its analysis of BSER in the proposed rule, but instead focused its analysis on the cost of the various heat rate measures.[71] EPA's decision to adopt HRI as BSER when that technology will *increase* the targeted pollutant is arbitrary and capricious, and unsupported by the scientific record before the agency.

B. EPA's proposal regarding state plans is wholly insufficient to meet the requirements of the CAA.

EPA proposes to change its regulations to clarify the roles of EPA and the states under CAA Section 111(d) regarding who has the primary role of developing "standards of performance."[72] EPA proposes to give that responsibility to the states. This is a significant departure from the Agency's long-standing regulations on this process. Section 111(a)(1) makes it clear that it is EPA, not the states, that identifies the best system of emission reduction in considering the statutory factors:

> The term "standard of performance" means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) ***the Administrator*** determines has been adequately demonstrated.[73]

It is hard to understand, then, how the EPA can propose to delegate this responsibility to the states. EPA argues that "an emission guideline must include *information* on the degree of emission reduction which is achievable but does not require that EPA must provide a standard of performance that presumptively reflects such degree of emission reduction which is achievable through application of the BSER, as that is appropriately the states' role."[74] Under Section 111(d)(1), EPA is authorized to promulgate regulations that establish procedures for states to submit plans establishing "standards of performance." EPA's interpretation misconstrues this to indicate that it is the state's who are tasked with determining standards of performance and does not consider the entirety of the statute including the Agency's authority to "prescribe a plan for a State in cases where a State fails to submit a satisfactory plan …"[75] EPA cannot determine whether a state plan is satisfactory without a numerical emission guideline. As EPA stated in its

---

[70] *Sierra Club v Costle,* 657 F.2d 298, 326 (D.C. Cir. 1981).
[71] 83 FR 44755-762.
[72] 83 FR 44748.
[73] *Emphasis added*, 42 U.S.C. § 7411(d)(2).
[74] 83 FR 44764.
[75] 42 U.S.C. § 7411(d)(2).

1975 rulemaking, *State Plans for the Control of Certain Pollutants from Existing Facilities*,

> [I]t would make no sense to interpret section 111(d) as requiring the Administrator to base approval or disapproval of State plans solely on procedural criteria. Under that interpretation, States could set extremely lenient standards – even standards permitting greatly increased emissions – so long as EPA's procedural requirements were met. Given that the pollutants in questions are (or may be) harmful to public health and welfare, it is difficult to believe that Congress meant to leave such a gaping loophole in a statutory scheme otherwise designed to force meaningful action.[76]

EPA, not the states, is responsible for making the initial determination about the degree of emission limitation that is achievable.[77] While section 111(d) does give the states a role in this process, EPA has the duty to set the emissions reductions that states must achieve in their plans. The EPA cannot skirt this obligation by failing to set an emissions limit for GHG emissions. Section 111(d) is a "collaborative federal-state process for regulating existing sources in which EPA establishes quantitative emission guidelines and the states deploy locally tailored and potentially innovative solutions to achieve the required emissions reductions."[78]

C. Changes to the New Source Review Program will result in significant emissions of NOx to the Chesapeake Bay Airshed.

The New Source Review (NSR) Program was created in the 1977 CAA amendments as a preconstruction permit to ensure that facilities adhere to air quality standards when they are built or upgraded.[79] New or modified facilities, depending on whether they are built in attainment or nonattainment areas, must obtain either a prevention of significant deterioration (PSD)[80] permit or a nonattainment NSR (NNSR) permit. Major stationary sources in attainment areas undergoing a major modification that will result in both a "significant emissions increase" of a NSR pollutant, and a significant "net emissions increase" of that pollutant – both, on an annual emissions basis (i.e., tons per year) – must

[76] *State Plans for the Control of Certain Pollutants from Existing Facilities,* 40 FR 53340, 53,343, November 17, 1975.
[77] 42 U.S.C. § 7411(a)(1).
[78] Megan Ceronsky & Tomás Carbonell, Environmental Defense Fund, *Section 111(d) of the Clean Air Act: The Legal Foundation for Strong, Flexible & Cost-Effective Carbon Pollution Standards for Existing Power Plants* 8 (2014).
[79] See EPA, Fact Sheet, *New Source Review (NSR*), https://www.epa.gov/sites/production/files/2015-12/documents/nsrbasicsfactsheet103106.pdf
[80] 42 U.S.C. § 7475; 40 C.F.R. §§ 51.165-166 and 52.21.

undergo PSD review. If a facility is in a nonattainment area, the review is similar, and modifications to major stationary sources must obtain a NNSR permit if they exceed certain "significant net increase" values.[81]

Determining what constitutes a significant emissions increase has been the subject of much policy debate since the introduction of the NSR Program, and the definition of significant varies for various pollutants and across different locations. Presently, significant emissions increases are calculated by comparing the projected actual emissions to the baseline actual emissions.[82] Projected actual emissions are defined as the maximum annual emissions a unit is expect to emit in any one of the 5 years after the modification is complete.[83] The baseline actual emissions are defined as the average annual rate of actual emissions during any 24-month period within the last 5 years.[84] If the difference between the projected annual emissions and the baseline actual emissions is higher than designated pollutant-specific significant levels in the NSR regulations, the modification would cause a significant emissions increase that triggers NSR review for that pollutant.

EPA now proposes sweeping changes to the NSR program by altering how facilities calculate emissions increase that would trigger NSR review. Under the proposed ACE Rule, facilities would first calculate emissions increases using an hourly emissions test, meaning that projected future hourly emissions would be compared to baseline hourly emissions (which, itself, can be determined by three proposed Alternatives – all designed to maximize the baseline hourly emissions).[85] Specifically, if the hourly emissions are not projected to increase, the operator would not have to determine if there is annual significant emissions increase or a significant net emissions increase.[86] In practice, given the skewed hourly emissions test alternatives proposed by EPA, it is unlikely that NSR would be triggered in the future. This means that a plant can undergo an operational change that keeps the hourly emissions the same, but improve the efficiency of the facility so that it operates more hours and therefore has increased annual emissions, but not have to undergo any NSR to capture those emissions, account for them in a permit, and ultimately install pollution control devices. This change runs completely counter to the purpose of the NSR program, which is to protect public health and the environment by placing preconstruction permitting and review requirements on major sources as a means to implement control technology and protect against the degradation of air

[81] 42 U.S.C. §§ 7475, 7501, 7502.
[82] 83 FR 44774.
[83] *Id. See also* 40 C.F.R. § 52.21(b)(41).
[84] 83 FR 44774; *see also* 40 C.F.R. § 52.21(b)(48(i).
[85] Obviously, if the baseline number is inflated, there is less chance that the net emissions increase threshold will be met.
[86] 83 FR 44781.

quality.[87] Moreover, it defeats the statutory objective of eliminating old uncontrolled units.

As stated above, under the current NSR Program, NSR/PSD is triggered when coal-fired EGUs make non-routine modifications which result in a net emissions increase (i.e., over 40 tons per year for NOx) would require that they achieve Best Available Control Technology (BACT) level of emissions at all times. For NOx, BACT for coal-fired EGU's is an emissions level of 0.05 lb/MMBtu or less, achieved using Selective Catalytic Reduction (SCR). Use of SCR to significantly reduce NOx emissions from coal units has been proven for the last 3 decades or so.[88]

Recognizing that the vast majority of NOx emissions reductions achieved from existing coal-fired units have been driven by NSR applicability (often on a retroactive basis driven by enforcement actions initiated by EPA and many states) and also that NSR would effectively be rendered toothless under EPA's proposed ACE rule, CBF examined the effect that such a gutting of NSR would mean for coal-fired EGUs whose emissions impact the Chesapeake Bay watershed.[89]

To determine how much NOx would now be contributed to the Bay airshed -in the absence of implementing current NSR regulations - we used 2017 actual emissions from coal-fired EGUs, excluding units that burn waste coal, pet coke, and cogeneration units. We considered all such units that are located in states that comprise the watershed of the Chesapeake Bay and also in states that influence the Bay watershed. We defined such influence as states that are located within 300 km of the Bay watershed.[90]

From the list of units selected above, we eliminated all units who have either discontinued operations in 2018 or have announced retirements in the next few years (i.e., in 2019, 2020, 2021, etc.). We also excluded units that have announced that they may convert to natural gas in the future.

For the remaining units, in our first analysis, we first identified units that did not have SCR for NOx and assumed, conservatively, that BACT for NOx would be 0.05 lb/MMBtu. For these units without SCR, we calculated the annual reductions (in tons/year) in NOx emissions that would result if they achieved these BACT levels

---

[87] Bernard F. Hawkins, Jr. and Mary Ellen Ternes, *The New Source Review Program*, *in* THE CLEAN AIR ACT HANDBOOK 137 (Julie Domike & Alec Zacaroli eds., 4th ed., 2016).

[88] The first SCRs on coal units were installed in Japan and Germany in the mid-1980s. in the U.S., SCRs were first installed in the mid-1990s. The very first SCR on a coal unit was at Carney's Point and it became operational in mid-1994. *See,* Table 5 in the DOE Report, https://www.netl.doe.gov/File%20Library/Research/Coal/major%20demonstrations/cctdp/Round2/scrfinl.pdf

[89] This analysis was conducted, at CBF's request, by our technical consultant, Dr. Ranajit (Ron) Sahu.

[90] This is a conservative assumption, given the propensity of long-range transport from coal-fired units with tall stacks. We could have used a more realistic 500 km distance instead.

(instead of their actual emission rates in lb/MMBtu), operating at the same heat inputs (i.e., MMBtu/year) in 2017. Our analysis shows that for just this universe of coal-fired EGU's located in states that are either in the Bay watershed or can impact the Bay watershed, the reductions are ***34,400 tons/year for NOx***. As an example, consider the two units at the Clover power plant located in Virginia. The NOx emissions rates in 2017 for the two units were 0.248 lb/MMBtu and 0.259 lb/MMBtu. Using their 2017 heat inputs the NOx emissions reduction from these units would have been 2,064 tons/year and 1,601 tons/year respectively from these units, if they had achieved NOx rates of 0.05 lb/MMBtu with SCR.

We next conducted a second set of calculations. For units that already have SCR, we noticed that many do not meet the BACT level of emissions since they are not required to do so without being subject to current BACT, which they would be if they were to be modified under current NSR rules. For these units, we computed the levels of NOx emissions reductions if they achieved BACT level of emissions instead of what they actually achieved in 2017, again assuming that the heat inputs would be the same as in 2017. For this analysis we assumed that BACT for NOx would be 0.07 lb/MMBtu (instead of 0.05 lb/MMBtu for the new SCR analysis discussed above). Our analysis showed that for the universe of coal-fired units we considered, the 10^{th} percentile of the emissions rate actually achieved in 2017 was 0.067 lb/MMBtu for NOx. Thus, our assumptions as to the BACT emissions rates are eminently reasonable, if not conservative. This second analysis showed that we could get NOx reductions of ***64,206 tons/year*** – again, from sources that already have the SCR technologies installed but are simply not operating them at BACT levels. As an example, consider the Zimmer power plant located in Ohio, which is in the Bay airshed and affects the Bay via long range transport and deposition of nitrogen. Although the unit has SCR, its NOx rate in 2017 was 0.228 lb/MMBtu. If it achieved even 0.07 lb/MMBtu and was operated at the same heat input as 2017, the NOx reductions from this unit would have been 6,090 tons/year. Thus, if the rule is changed as proposed and these plants undertake what today would be a major modification, they will not be required to install BACT and will emit higher levels of NOx than they do today.

Our analysis shows that current NSR, if left in place, would potentially allow existing coal-fired EGUs to achieve significant additional NOx reductions, often at little or no additional capital costs (i.e., for the units that already have SCR installed). For the Chesapeake Bay, this potential of additional reduction in NOx emissions of ***98,606 tons/year***[91] from new, and/or properly-run, existing SCRs is a substantial quantity – which will be never realized if EPA finalizes and implements the ACE Rule.

[91] This includes the 34,400 tons per year of NOx reductions from new SCRs and 64,206 tons per year of additional NOx reductions from existing SCRs that could be operated to achieve lower, BACT-level emissions.

Accordingly, we urge EPA to continue to implement the current NSR Program and withdraw its proposal to significantly modify the Program.

IV. CBF Opposes ACE Because it will Not Achieve the Reductions of NOx and CO_2 Needed for the Restoration and Protection of the Chesapeake Bay and Those Living Within the Watershed.

The reduced emissions of NOx and CO_2 that would have been realized under the CPP, had it been implemented, are necessary for the restoration of the Chesapeake Bay and the health of the residents in the watershed.

A. The restoration of the Chesapeake Bay is dependent, in part, upon EPA's full implementation of the CPP.

As mentioned above, EPA issued a TMDL for the Bay and set a cap on NOx from air deposition to 15.7 million pounds. EPA committed to reducing nitrogen deposition to the Bay and its surrounding waters by 3.7 million pounds annually between 2009 and 2025, the year all practices are to be in place to meet the Bay TMDL goals."[92] These reductions were to be met by federal regulations designed to reduce NOx or by providing an associated benefit of reducing NOx.[93] As stated by EPA in 2013:

> Clean Air Act regulations and programs provide the greatest reduction of NO_x in ambient air, resulting in decreased atmospheric deposition. Most of these regulations are national in scope but provide significant reductions of NO_x within the Bay watershed. Many regulations were fully implemented since the inception of the Chesapeake Bay Program (1985), *while some are proposed or currently being implemented*.[94]

Because NOx from electric power plants is a major source of nitrogen deposition to the Bay,[95] the analysis upon which the Bay TMDL was based included the expected reductions from power plant emissions and from the full implementation of other federal programs.[96] The implementation of the Bay TMDL and the development of the Bay

---

[92] https://www.epa.gov/sites/production/files/2015-06/documents/cb_airwater_fact_sheet_jan2015.pdf.
[93] *Id*.
[94] *Emphasis added*, Chesapeake Bay Program, *Cleaner Air, Cleaner Bay, Changes in Nitrogen Deposition Over Time*, http://gis.chesapeakebay.net/air/
[95] *See Chesapeake Bay TMDL, Appendix L, Setting the Chesapeake Bay Atmospheric Nitrogen Deposition Allocations*, December 29, 2010, https://www.epa.gov/sites/production/files/2015-02/documents/appendix_l_atmos_n_deposition_allocations_final.pdf.
[96] *See Id.* at p. 3; *See also* Linker, L.C., R. Dennis, G.W. Shenk, R.A. Batiuk, J. Grimm, and P. Wang, *Computing atmospheric nutrient loads to the Chesapeake Bay watershed and tidal waters*, Journal of the American Water Resources Association, pp. 11-17, 2013.

jurisdiction's Watershed Implementation Plans (WIPs) are ongoing[97] and EPA and the states are still relying on the implementation of various federal regulations to achieve these reductions.[98] In a presentation to the public on atmospheric deposition in October of 2017, EPA referenced a number of "New rules in Place or About to be in Play Along with Other Elements That Influence Atmospheric Deposition of Nitrogen in the Chesapeake Watershed," and specifically mentions the "Clean Power Plan." [99] Airshed modeling conducted by EPA in preparation for the Phase III Watershed Implementation Plans included the estimated reductions of implementing the CPP through 2030.[100] EPA acknowledges, in fact, in its *Evaluation of Federal Agencies 2016-2017 Chesapeake Bay Total Maximum Daily Load Progress and 2018-2019 Milestones*, that with regard to atmospheric reductions, one of the 2016-2017 Milestones *missed* was that EPA "did not develop a federal plan for states that do not submit a Clean Power Plan (CPP) state plan for existing sources, nor did it review CPPs for existing sources. On October 10, 2017, EPA proposed to repeal the Clean Power Plan."[101] In order to ensure that the Agency's air reduction goals are achieved, both stationary and mobile source pollution CAA regulations must fully be implemented.[102]

EPA's replacement of the CPP with the proposed ACE Rule will mean that reductions of a substantial amount of NOx will not be achieved in the Watershed. Instead, as we have noted, it will lead to significant increases in NOx emissions in the watershed and consequentially increased nitrogen deposition to the Bay.

---

[97] EPA, *Chesapeake Bay TMDL,* December 29, 2010, https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document.

[98] *See* EPA, *The Importance of Clean Air to Clean Water in the Chesapeake Bay*, https://www.epa.gov/sites/production/files/2015-06/documents/cb_airwater_fact_sheet_jan2015.pdf

[99] Lew Linker and Jesse Bash, Chesapeake Bay Program, Chesapeake Bay TMDL 2017 Midpoint Assessment Webinar Series, *Atmospheric Deposition of Nitrogen in the Chesapeake: Integrating Air & Water Environmental Management,* p. 40, October 31, 2017, https://www.chesapeakebay.net/what/event/webinar_atmospheric_deposition_modeling_in_the_chesapeake_bay

[100] Briefing Paper for the Principal's Staff Committee in Preparation for their March 2, 2018 Meeting, *CBP Modeling Workgroup Response to PSC Requests for Further Analyses of the Bay's Assimilative Capacity and Future Estimates of Nitrogen Atmospheric Deposition*, p. 4, FN 6, https://www.chesapeakebay.net/channel_files/26045/additional_nutrient_reductions_from_assessment_of_bay_assimilative_capacity_and_atmos_deposition_march_2_2018_psc_mtg_briefing_paper.pdf

[101] EPA, *Evaluation of Federal Agencies 2016-2017 Chesapeake Bay Total Maximum Daily Load Progress and 2018-2019 Milestones,* p. 8, July 27, 2018.

[102] *Id., See also* EPA, *Midpoint Assessment of the Chesapeake Bay Total Maximum Daily Load,* stating*: "*In the Bay TMDL, EPA committed to reducing nitrogen deposition to the Bay and its surrounding waters by a total of 3.7 million pounds by 2025. As of 2017, EPA and its partners have achieved an estimated 3.2 million pounds of reductions through actions under the Clean Air Act. This puts EPA on track to meet its commitment. Clean Air Act regulations have also led to sharp reductions in nitrogen that washes into the Bay after falling on watershed lands and upstream waters. EPA and the jurisdictions will need to continue implementing Clean Air Act regulations for both stationary and mobile source pollution to ensure that the air deposition reduction goals will be achieved." https://www.epa.gov/sites/production/files/2018-07/documents/factsheet-epa-midpoint-assessment-chesapeake-bay-tmdl.pdf

These outcomes are contrary to EPA's Bay TMDL - and Watershed Implementation Plans or Chesapeake Clean Water Blueprint - and the Chesapeake Bay Agreement.[103] EPA is required by law under Section 117(g) of the Clean Water Act to ensure that implementation of plans, such as the Chesapeake Bay Blueprint, are developed and implemented to achieve and maintain, among other things, the nutrient goals of the Chesapeake Bay Agreement.[104] EPA has been a signatory to the 1987, 1992, 2000 and 2014 Bay Agreements. The most recent agreement provides that the signatories will achieve the goals of the Bay TMDL. Thus, Congress requires that EPA reduce nitrogen inputs to the Bay - the proposed ACE Rule does not comply with Congress' mandate.

In addition to the ACE Rule – and the increases in NOx emissions that will be allowed as opposed to implementing the CPP - there are numerous other EPA proposals currently under consideration that will also increase NOx emissions if they are finalized and implemented.[105] Adding to the problem is the fact that while NOx reductions have been realized through changes to federal regulations implemented to date, the overall nitrogen reductions from air have been offset, in part, by increases in ammonia emissions from animal production, and will end up being less than anticipated.[106] These variables cannot be viewed in isolation. In order to achieve its commitments under the Chesapeake Clean Water Blueprint by 2025, as well as the Chesapeake Bay Agreement, EPA must keep the CPP in place, not promulgate regulations that allow significantly under-controlled emissions of NOx.

B. The ACE Rule will allow a significant amount of CO_2 emissions and contribute to climate change.

In 2016, CO_2 accounted for about 81.6% of all U.S. GHG emissions from human activities. While CO_2 emissions come from a variety of natural sources, human-related emissions are responsible for the increase that has occurred in the atmosphere since the industrial revolution,[107] and power plants are responsible for 28 percent of all GHGs in the U.S.[108] As mentioned, the Bay is already suffering from the effects of climate change

[103] As we have previously noted, the Chesapeake Bay Agreement is an interstate compact.
[104] 33 U.S.C. § 1267(g)(1).
[105] *See* EPA, NHTSA, *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks,* 83 FR 42986, August 24, 2018; EPA, *Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits,* 82 FR 53442, November 16, 2017; EPA, *Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality* Standard, 83 FR 31915, July 10, 2018.
[106] Jiang, Z. *et al*., Unexpected Slowdown of US Pollutant Emission Reduction in the Past Decade, Proceedings of the National Academy of Sciences, Apr. 30, 2018, http://www.pnas.org/content/early/2018/04/1801191115.
[107] EPA, *Overview of Greenhouse Gases, Carbon Dioxide*, https://www.epa.gov/ghgemissions/overview-greenhouse-gases*, citing*, NRC (2010), *Advancing the Science of Climate Change.*
[108] https;//www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

and as compared to implementing the CPP, the ACE Rule will lead to significant increases in CO_2 emissions.

Based on everything that has been documented about the environmental and health consequences of increased CO_2 emissions and fuel consumption, it is difficult to understand how EPA is choosing to abandon the CPP and propose this rulemaking. This is especially true given the recent report by the Intergovernmental Panel on Climate Change (IPCC)[109] 2018 report, *Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty,* (IPCC Report).[110] The report was compiled with input from ninety-one authors and review editors from 40 countries and was prepared in response to an invitation from the United Nations Framework Convention on Climate Change when it adopted the Paris Agreement in 2015.[111]

The Report strongly confirms that, "we are already seeing the consequences of 1°C of global warming through more extreme weather, rising sea levels and diminishing Arctic sea ice, among other changes."[112] As one of the Co-Chairs of the IPCC Working Group II states, "***Every extra bit of warming matters***, especially since warming of 1.5ºC or higher increases the risk associated with long-lasting or irreversible changes, such as the loss of some ecosystems."[113]

As noted above, the Bay is already suffering from the effects of climate change. Here again, as with NOx emissions, the additional CO_2 emissions – estimated at 100 million tons greater in 2030 (as compared to implementing the CPP)[114] -- must not be considered in isolation. The cumulative effect of repealing the CPP for the ACE Rule and other

---

[109] The IPCC is the United Nations body for assessing the science related to climate change. *Summary for Policymakers of IPCC Special Report on Global Warming of 1.5 C approved by governments*, October 8, 2018, p. 3, http://www.ipcc.ch/pdf/session48/pr_181008_P48_spm_en.pdf

[110] The Report highlights a number of climate change impacts that could be avoided by limiting global warming to 1.5ºC compared to 2ºC, or more. For instance, by 2100, global sea level rise would be 10 cm lower with global warming of 1.5°C compared with 2°C. The likelihood of an Arctic Ocean free of sea ice in summer would be once per century with global warming of 1.5°C, compared with at least once per decade with 2°C. Coral reefs would decline by 70-90 percent with global warming of 1.5°C, whereas virtually all (> 99 percent) would be lost with 2ºC. http://www.ipcc.ch/report/sr15/

[111] *Summary for Policymakers of IPCC Special Report on Global Warming of 1.5 C approved by governments*, October 8, 2018, http://www.ipcc.ch/pdf/session48/pr_181008_P48_spm_en.pdf

[112] *Id.,* as stated by Panmao Zhai, Co-Chair of IPCC Working Group I.

[113] *Emphasis added*, *Id., quoting* Hans-Otto Pörtner.

[114] EPA, *Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program*, ES-7, ES-8, Table ES – 5 (power sector emissions under ACE Rule) and 3-40 (power section emissions under the Clean Power Plan implemented as contemplated in the 2015 Regulatory Impact Analysis).

recent federal proposals aimed at weakening CAA programs will – taken together – worsen climate change and have negative impacts to the Bay watershed.

C. The ACE Rule will have significant health consequences and will disproportionately impact minority and low-income communities in the Chesapeake Bay region.

As EPA acknowledges,

> Carbon dioxide and other greenhouse gas pollution leads to more frequent and intense heat waves that increase mortality, especially among the poor and elderly. Other climate change public health concerns raised in the scientific literature include anticipated increases in ground-level ozone pollution, the potential for enhanced spread of some waterborne and pest-related diseases, and evidence for increased production or dispersion of airborne allergens.[115]

In addition, NOx is a precursor to ozone, which is known to cause a variety of health issues as stated by the agencies:

> For short-term exposure to ozone, the Ozone ISA concludes that respiratory effects, including lung function decrements, pulmonary inflammation, exacerbation of asthma, respiratory related hospital admissions, and mortality, are causally associated with ozone exposure. It also concludes that cardiovascular effects, including decreased cardiac function and increased vascular disease, and total mortality are likely to be causally associated with short-term exposure to ozone, and that evidence is suggestive of a causal relationship between central nervous system effects and short-term exposure to ozone.

---

[115] EPA, *Clean Air Act Overview, Air Pollution: Current and Future Challenges*, https://www.epa.gov/clean-air-act-overview/air-pollution-current-and-future-challenges, *citing*, USGCRP, 2009. Global Climate Change Impacts in the United States, Karl, T.R., J.M. Melillo, and T.C. Peterson (eds.). United States Global Change Research Program. Cambridge University Press, New York, NY, USA. CCSP, 2008. *Analyses of the effects of global change on human health and welfare and human systems,* A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. Gamble, J.L. (ed.), K.L. Ebi, F.G. Sussman, T.J. Wilbanks, (Authors). U.S. Environmental Protection Agency, Washington, DC, USA; Confalonieri, U., B. Menne, R. Akhatar, K.L. Ebi, M. Hauengue, R.S. Kovats, V. Revich and A. Woodward, 2007. Human Health. In: Climate Change 2007: Impacts, Adaptation and Vulnerability, *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* Parry, M.L., O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, (eds.), Cambridge University Press, Cambridge, United Kingdom.

> For long-term exposure to ozone, the Ozone ISA concludes that respiratory effects, including new onset asthma, pulmonary inflammation and injury, are likely to be causally related with ozone exposure. The Ozone ISA characterizes the evidence as suggestive of a causal relationship for associations between long-term ozone exposure and cardiovascular effects, reproductive and developmental effects, central nervous system effects and total mortality.[116]

These health impacts are worse for those currently suffering with asthma, children and older adults.[117] By EPA's own analysis, the ACE Rule will lead to an increase in hospital admissions due to respiratory illness, hospital admissions due to asthma, exacerbated asthma and may result in more than 1,000 premature deaths in 2030 (as compared to implementing the CPP).[118]

These ill effects will also have a greater impact minority and low-income communities. Studies have consistently found a disproportionate prevalence of the effects of air pollution[119] – and a higher likelihood of impacts from the effects of climate change[120] - impacting these communities.

These impacts must be more seriously considered in EPA's analyses. The Agency's desire to respond to President Trump's Executive Order, *Promoting Energy Independence and Economic Growth*,[121] that, among other things, directs EPA to reconsider the CPP, does not seem to be balanced equally with the EPA's responsibility under the CAA to fulfil its purposes of protecting and enhancing "the quality of the

---

[116] 83 FR 42986, 43337, August 24, 2018.
[117] *Id.*
[118] EPA, *Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program*, EPA-452/R-18-006, Table 4-6, *Estimated Incremental PM2.5 Ozone-Related Premature Deaths and Illnesses in 2030,* 4-33, August 2018, https://www.epa.gov/sites/production/files/2018-08/documents/utilities_ria_proposed_ace_2018-08.pdf
[119] *See, e.g.,* American Lung Association, *Disparities in Air Pollution,* https://www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/disparities.html*; see also,* Clean Air Task Force and NAACP, *Fumes Across the Fence-Line,* http://www.naacp.org/wp-content/uploads/2017/11/Fumes-Across-the-Fence-Line_NAACP_CATF.pdf
[120] NHTSA, *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Year 2021-2026 Passenger Cars and Light Trucks,* DRAFT Environmental Impact Statement, p. S-21, July 2018, https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/ld_cafe_my2021-26_deis_summary.pdf.
[121] Executive Order No. 13783, *Promoting Energy Independence and Economic Growth,* 82 FR 16093, 16095, March 31, 2017.

Nation's air resources so as to promote the public health and welfare and the productive capacity of its population…and to achieve the prevention and control of air pollution."[122]

IV. Conclusion

As noted throughout this comment letter, CBF strongly opposes EPA's ACE Rule because it will lead to under-regulated emissions of NOx and CO_2 thereby harming human health and the Chesapeake Bay. For EPA to achieve an annual reduction of 3.7 million pounds of nitrogen deposition in the Chesapeake Bay watershed through federal regulations by 2025, EPA must ensure that NOx emissions from power plants are reduced. Finalizing the ACE Rule – instead of implementing the CPP - will lead to additional emissions of CO_2 and NOx for the Chesapeake Bay watershed. This puts the Bay TMDL, and thereby the Chesapeake Bay, in jeopardy. The ACE Rule will also contribute to the increasingly alarming effects of climate change.

Finally, as stated, we question EPA's analysis and the stark differences between the analyses conducted just two years ago by the EPA in support of the CPP to the analyses now conducted in support of the ACE Rule. We are very concerned that the EPA's motivation to abide by the directive of EO 13783, does not comply with the requirements of the CAA,[123] and that the process by which EPA has proposed this rule does not meet the requirements of the Administrative Procedure Act[124] in clearly explaining and identifying the basis upon which changes to rulemaking must be made. While an agency does have the authority to revisit and revise regulations in recognition of changing circumstances, "the forces of change do not always or necessarily point in the direction of deregulation."[125] There is a presumption "against changes in the current policy that are not justified by the rulemaking record."[126] We question EPA's justification for the repeal of the CPP and its replacement with the ACE Rule. The evidence in the record does not sufficiently justify the abandonment of the CPP, and the ACE Rule does not sufficiently abide by the Agency's duties under the CAA.

As EPA states in its overview of the CPP, "[t]aking action now is critical. Reducing CO_2 emissions from power plants, and driving investment in clean energy technologies that do so, is an essential step in lessening the impacts of climate change and providing a more certain future for our health, our environment, and future generations." [127] CBF urges EPA to withdraw the ACE Rule and fully implement the CPP.

---

[122] 42 U.S.C. § 7401(b)(1); (2).
[123] 42 U.S.C. § 7401, *et seq*.
[124] 5 U.S.C. § 551, *et seq.*
[125] *Motor Vehicle Mfr. Ass'n. v. State Farm Mut. Auto Ins. Co*., 463 U.S. 29, 42 (1983).
[126] *Id.*
[127] EPA, *Overview of the Clean Power Plan, Cutting Carbon Pollution from Power Plants, Why we need the Clean Power Plan*, p. 2, https://19january2017snapshot.epa.gov/sites/production/files/2015-08/documents/fs-cpp-overview.pdf

Thank you for the opportunity to comment on EPA's proposed rule, *Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program*. Please let us know if we can answer any questions or provide additional information.

Sincerely,

Lisa Feldt

Lisa Feldt
Vice President of Environmental Protection and Restoration
Chesapeake Bay Foundation

CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

February 26, 2018

OFFICERS
Harry T. Lester
CHAIR
Jane P. Batten
VICE CHAIR
Carolyn Groobey
VICE CHAIR
William C. Baker
PRESIDENT
Alan R. Griffith
TREASURER
William A. Agee
SECRETARY

TRUSTEES
R. Bruce Bradley
George L. Bunting Jr.
W. Russell G. Byers Jr.
D. Keith Campbell
Michael J. Chiaramonte
Thomas M. Davis III
Robert S. Evans
Lauri Fitz-Pegado
Harry S. Gruner
Ann Fritz Hackett
Michael J. Hanley
Christian Hodges
Jeanne Trimble Hoffman
Mark J. Hourigan
Robert A. Kinsley II
Burks B. Lapham
Katie Z. Leavy
Pamela B. Murphy
Devan B. Ogburn
Elizabeth Oliver-Farrow
Mark S. Ordan
Arnold I. Richman
Anne B. Shumadine
J. Sedwick Sollers III
Sandra E. Taylor
Molly Joseph Ward
Susan P. Wilmerding
Peter L. Woicke

HONORARY TRUSTEES
Donald F. Boesch, Ph.D.
Louisa C. Duemling
Richard L. Franyo
Alan R. Griffith
C.A. Porter Hopkins
Robert A. Kinsley
T. Gaylon Layfield III
H.F. Lenfest
Byron F. Marchant
M. Lee Marston
Wayne A. Mills
Marie W. Ridder
James E. Rogers
Russell C. Scott
Truman T. Semans
Simon Sidamon-Eristoff
Jennifer Stanley
Thomas H. Stoner
Bishop Eugene Taylor Sutton
Alan L. Wurtzel

Submitted via regulatons.gov

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

RE: State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units [EPA-HQ-OAR-2017-0545]

Dear Administrator Pruitt:

The Chesapeake Bay Foundation, Inc. (CBF) submits the following comments regarding the United States Environmental Protection Agency's (EPA) Advanced Notice of Proposed Rulemaking for State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units (EGUs). Specifically, CBF offers comments on the EPA's role in developing emissions guidelines and urges the EPA to set presumptively approvable limits that achieve serious emission reduction for greenhouse gas emissions, specifically carbon dioxide, from fossil fuel fired EGUs.

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 caused by greenhouse gas emissions 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.

In the proposed rulemaking, pursuant to section 111(d) of the Clean Air Act, the EPA must set a strong emission limitation on greenhouse gas emissions from electric generating units. In addition, section 117(g) of the Clean Water Act requires the EPA to develop a meaningful greenhouse gas reduction plan because without such a plan the goals of the Chesapeake Bay Agreement will be more difficult to achieve. The EPA is a signatory of the Chesapeake Bay Agreement, and section 117(g) requires the EPA to ensure the states can meet the goals of the Agreement.

Section 111 of the Clean Air Act requires the EPA to set emission limitations for major stationary sources of dangerous air pollutants. Section 111(b) requires the EPA to list categories of stationary sources that contribute to "air pollution which may reasonably be anticipated to endanger public health or welfare," and establish emission standards for air pollutants from new sources.[1] Power plants have been listed as a stationary source under section 111 since 1971.[2] Section 111(d) requires EPA to develop emission standards for pollutants emitted by existing sources.[3] The pollutants regulated under section 111 must not be criteria pollutants or hazardous air pollutants. After the Supreme Court decision in *Massachusetts v. EPA* determined that the Clean Air Act was broad enough to consider greenhouse gases an air pollutant, the EPA determined that emissions of greenhouse gases contribute to air pollution that may be reasonably anticipated to endanger public health or welfare.[4]

Section 111(d) requires the EPA to develop 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 (BSER) 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."[5] 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.[6] Emission guidelines reflect the "degree of emission reduction achievable through the application of [BSER]."[7]

Section 111(d) embodies the cooperative federalism approach found in many critical environmental laws, but the EPA plays an important initial role by setting the emissions limitations states must achieve in their state plans. This key role must not be diminished in the ongoing rulemaking. The EPA, not the states, makes the initial

---

[1] 42 U.S.C. § 7411(b).
[2] Air Pollution Prevention and Control: List of Categories of Stationary Sources, 36 Fed. Reg. 5931 (Mar. 31, 1971).
[3] 42 U.S.C. § 7411(d).
[4] *Massachusetts v. EPA,* 549 U.S. 497, 532 (2007); Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009).
[5] Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,721 (Oct. 23, 2015).
[6] "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.
[7] 40 C.F.R. § 60.21(e).

determination about the degree of emission limitation that is achievable.[8] While section 111(d) does give the states a role in this process, EPA has the duty to set the emissions reductions states must achieve in their plans. The EPA cannot skirt this obligation by failing to set an emissions limit for greenhouse gas emissions, as suggested in the ANPRM.[9] Section 111(d) is a "collaborative federal-state process for regulating existing sources in which EPA establishes quantitative emission guidelines and the states deploy locally tailored and potentially innovative solutions to achieve the required emissions reductions."[10] The EPA cannot propose means to achieve emissions reductions without determining the reductions that are needed.

In the proposed rule, the EPA must set a stringent emission limit on greenhouse gas emissions from fossil fuel fired electric generating units, as the original Clean Power Plan did.[11] Without significant reductions in greenhouse gas emissions, the effects of climate change will continue to negatively impact fragile ecosystems like the Chesapeake Bay.

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.[12] 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.[13] The EPA, as a signatory to the Chesapeake Bay Agreement and as stated in Section 117(g) of the Clean Water Act, has a duty to ensure the Bay states are able to achieve the goals of the Chesapeake Bay Agreement.[14] Many of the goals in the Chesapeake Bay Agreement, including the key pollution reduction goals, are made harder to achieve if the EPA does not seriously regulate greenhouse gas emissions.[15] The impacts of climate change are too severe in the Chesapeake Bay for the EPA not to significantly

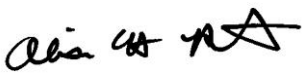
---

[8] 42 U.S.C. § 7411(a)(1).
[9] *See* State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 82 Fed. Reg. 61,507, 61,513 (Dec. 28, 2017) (Subject 2: Whether emissions guidelines for EGUs for emissions of GHG should include presumptively approvable limits).
[10] Megan Ceronsky & Tomás Carbonell, Environmental Defense Fund, *Section 111(d) of the Clean Air Act: The Legal Foundation for Strong, Flexible & Cost-Effective Carbon Pollution Standards for Existing Power Plants* 8 (2014).
[11] 80 Fed. Reg. 64665
[12] Chesapeake Bay Program Science and Technical Advisory Committee, Climate Change the Chesapeake Bay: State-of-the-Science Review and Recommendations (2008).
[13] Please see Chesapeake Bay Foundation's comment letter on the repeal of the Clean Power Plan, attached as a supporting document, for a fuller discussion on the impacts of climate change on the Chesapeake Bay. Letter from Alison Prost, Chesapeake Bay Foundation, to Scott Pruitt, Administrator, Environmental Protection Agency (Jan. 18, 2018) (on file with CBF).
[14] 33 U.S.C. § 1267(g).
[15] Chesapeake Bay Watershed Agreement (2014). The Sustainable Fisheries Goal, Vital Habitats Goal, Water Quality Goal, Land Conservation Goal, and Climate Resiliency Goal will all be more difficult to achieve if greenhouse gas emissions are not significantly reduced.

reduce greenhouse gas emissions from fossil fuel fired EGUs within our 14-state air-shed, and by extension, across the nation.

The EPA should not repeal the Clean Power Plan, which had strong emissions standards and ample flexibility for the states to meet the greenhouse gas emission reductions. If the EPA is going to repeal and replace the Clean Power Plan, the EPA must take its duties under the Clean Air Act and the Clean Water Act seriously. Any new rule must significantly reduce greenhouse gas emissions by a set deadline. The consequences of climate change are far too great for the EPA to roll back the Clean Power Plan and skirt its responsibility to meaningfully regulate greenhouse gas emissions in any replacement rule. The EPA cannot leave the task of reducing greenhouse gas emissions to the states alone. The EPA must set emissions guidelines based on BSER that recognizes the global problem of greenhouse gas emissions, and achieves meaningful reductions commensurate with the problem of climate change.

Sincerely,



Alison Prost, Esq.
Maryland Executive Director
Interim Vice President for Environmental Protection and Restoration
Chesapeake Bay Foundation

CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

January 16, 2017

OFFICERS
HARRY T. LESTER
CHAIR
JANE P. BATTEN
VICE CHAIR
CAROLYN GROOBEY
VICE CHAIR
WILLIAM C. BAKER
PRESIDENT
ALAN GRIFFITH
TREASURER
MARY TOD WINCHESTER
SECRETARY

TRUSTEES
SUSAN APLIN
W. RUSSELL G. BYERS, JR.
D. KEITH CAMPBELL
MICHAEL J. CHIARAMONTE
CATHERINE CULLEN
THOMAS M. DAVIS III
LAURI FITZ-PEGADO
HARRY S. GRUNER
ANN FRITZ HACKETT
MICHAEL J. HANLEY
CHRISTIAN HODGES
JEANNE TRIMBLE HOFFMAN
MARK J. HOURIGAN
BURKS B. LAPHAM
KATIE Z. LEAVY
BYRON F. MARCHANT
PAMELA MURPHY
ELIZABETH OLIVER-FARROW
MARK S. ORDAN
ARNOLD I. RICHMAN
ANNE B. SHUMADINE
J. SEDWICK SOLLERS III
BISHOP EUGENE TAYLOR SUTTON
SANDRA TAYLOR
SUSAN P. WILMERDING
PETER L. WOICKE

HONORARY TRUSTEES
DONALD F. BOESCH, Ph.D.
LOUISA C. DUEMLING
RICHARD L. FRANYO
ALAN R. GRIFFITH
C.A. PORTER HOPKINS
ROBERT A. KINSLEY
T. GAYLON LAYFIELD III
H.F. LENFEST
M. LEE MARSTON
WAYNE A. MILLS
MARIE W. RIDDER
JAMES E. ROGERS
RUSSELL C. SCOTT
TRUMAN T. SEMANS
SIMON SIDAMON-ERISTOFF
JENNIFER STANLEY
THOMAS H. STONER
ALAN L. WURTZEL

Submitted via regulations.gov

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."[1] 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."[2] 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.

[1] Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units, 82 Fed. Reg. 48,035, 48,036 (Oct. 16, 2017).
[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 in to the scientific models that form the basis for the Chesapeake Bay Clean Water Blueprint.[3] 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.[4] 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."[5] 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.[6] Within 20 years, nearly 170 U.S. communities will be chronically

---

[3] Environmental Protection Agency, Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment (December 29, 2010), https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document.
[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.
[6] Adam Parris, et. al, *Global Sea Level Rise Scenarios for the US National Climate Assessment,* NOAA Technical Memo 1 (2015).

inundated with flooding from sea level rise.[7] More than 70% of these communities will be in Louisiana and Maryland: the canaries in the coal mine for sea level rise.[8] 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.[9] 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.[10] Entire inhabited islands are now underwater in the Chesapeake Bay, with more likely to follow if greenhouse gas emissions do not decrease substantially.[11] In Norfolk, Virginia, sea level rise poses significant risk to military infrastructure and operations.[12]

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.[13] Wetlands also protect coastal communities from storm surge and erosion.[14] But wetlands inundated with saltwater from sea level rise cannot provide the same water quality and habitat benefits as healthy wetlands.[15] Wetlands are

---

[7] Erika Spanger-Siegfried, et. al, *When Rising Seas Hit Home: Hard Choices Ahead for Hundreds of US Coastal Communities*, Union of Concerned Scientists 2 (2017).
[8] *Id.*
[9] U.S. Geological Survey, *Land Subsidence and Relative Sea Level Rise in the Southern Chesapeake Bay Region* 2, 4 (2013).
[10] Catherine Rentz, *Rising sea levels threaten $19 billion in real estate across Maryland, study says*, The Baltimore Sun (Oct. 28, 2017), http://www.baltimoresun.com/news/maryland/investigations/bs-md-suninvestigates-sea-level-20171026-story.html.
[11] Erik Ortiz, *How to Save A Sinking Island*, NBC NEWS (Nov. 13, 2017), https://www.nbcnews.com/specials/deal-island; David Fahrenthold, *Last house on sinking Chesapeake Bay island collapses*, WASHINGTON POST (Oct. 26, 2010), http://www.washingtonpost.com/wp-dyn/content/article/2010/10/24/AR2010102402996.html; Jon Gertner, *Should the United States Save Tangier Island From Oblivion?*, NEW YORK TIMES MAGAZINE (July 6, 2016), https://www.nytimes.com/2016/07/10/magazine/should-the-united-states-save-tangier-island-from-oblivion.html.
[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.
[13] *Wetlands*, Chesapeake Bay Program, https://www.chesapeakebay.net/issues/wetlands (last visited Jan. 11, 2018).
[14] *Id.*
[15] Joseph Kurt and Victor Unnone, *Climate Change and the Chesapeake Bay Total Maximum Daily Load: Policy Priorities and Options*, Virginia Coastal Policy Center 4 (2016).

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.[16] But the pace of sea level rise and changes in land use in coastal communities have weakened the ability of wetlands to migrate.[17]

Sea level rise also threatens forested buffer areas, as saltwater seeps into the soil killing trees and creating "ghost forests."[18] 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.[19] 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.[20] 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.[21] 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.[22]

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.[23] This absorption is not without consequence: excess carbon dioxide is changing the ocean's chemistry.[24] A chemical

---

[16] Erika Spanger-Siegfried, et. al, *When Rising Seas Hit Home: Hard Choices Ahead for Hundreds of US Coastal Communities*, Union of Concerned Scientists 10 (2017).
[17] *Id.*
[18] *Id. See also* John Upton, *'Ghost Forests' Appear As Rising Seas Kill Trees*, Climate Central (Sept. 15, 2016), http://www.climatecentral.org/news/ghost-forests-appear-as-rising-tides-kill-trees-20701.
[19] U.S. Global Change Research Program, *Climate Science Special Report: Fourth National Climate Assessment* 19, 20 (2017).
[20] *The Dead Zone*, Chesapeake Bay Program, https://www.chesapeakebay.net/state/dead_zone (last visited Jan. 12, 2018).
[21] *Id.*
[22] Chris Mooney, *Global warming could deplete the oceans' oxygen – with severe consequences*, WASHINGTON POST, Apr. 28, 2016, https://www.washingtonpost.com/news/energy-environment/wp/2016/04/28/global-warming-could-deplete-the-oceans-oxygen-levels-with-severe-consequences/?utm_term=.9c3333011616.
[23] NOAA Pacific Marine Environmental Laboratory Carbon Program, *Ocean Acidification: the Other Carbon Dioxide Problem*, https://www.pmel.noaa.gov/co2/story/Ocean+Acidification (last visited Jan. 12, 2018).
[24] NOAA Pacific Marine Environmental Laboratory Carbon Program, *What is Ocean Acidification?*, https://www.pmel.noaa.gov/co2/story/What+is+Ocean+Acidification%3F (last visited Jan. 12, 2018).

reaction occurs between carbon dioxide, water, and carbonate ions that reduces seawater pH and depletes the concentration of carbonate ions and calcium carbonate minerals.[25] 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.[26] Oysters and blue crab in particular are important commercial species in the region's multi-billion dollar seafood industry.[27] 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.[28] 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 SO_2 in the repeal cost-benefit discussion.[29] 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. [30] 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

---

[25] *Id.*
[26] Sarah M. Giltz and Caz M. Taylor, *Reduced Growth and Survival in the Larval Blue Crab Callinectes sapidus Under Predicted Ocean Acidification*, 36 J. OF SHELLFISH RESEARCH 481 (2017).
[27] *The Economic Importance of the Bay*, Chesapeake Bay Foundation, http://www.cbf.org/issues/what-we-have-to-lose/economic-importance-of-the-bay/ (last visited Jan. 16, 2018).
[28] *Oyster Restoration Centers*, Chesapeake Bay Foundation, http://www.cbf.org/about-cbf/our-mission/restore/oyster-restoration-centers/ (last visited Jan. 12, 2018).
[29] Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units, 82 Fed. Reg. 48,035, 48044.
[30] Endangerment and Cause of Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496 (Dec. 15, 2009).

emissions from new and existing stationary sources.[31] 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.[32] 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."[33] 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.[34] 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.[35] 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.[36]

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.[37] 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

---

[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.").
[32] 42 U.S.C. § 7411.
[33] Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,721 (Oct. 23, 2015).
[34] 80 Fed. Reg. at 64719–21.
[35] *Sierra Club v. Costle*, 657 F.2d 298, 331 (1981).
[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, co-firing 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.[38] Heat rate improvements lead only to small emission reductions from coal and steam fired electric generation units.[39] 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.[40]

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 that other measures, namely energy generation shifting to natural gas and renewable energy.[41] 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

[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."[42] 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." [43] 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."[44] A court must vacate a rule it determines to be arbitrary and capricious.[45]

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."[46] There is a presumption "against changes in the current policy that are not justified by the rulemaking record."[47] 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.[48] 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,

---

[42] 5 U.S.C. § 706(2)(a).
[43] *Motor Vehicle Mfr. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983).
[44] *Id.* at 43.
[45] 5 U.S.C. § 706(2)(a).
[46] *State Farm*, 463 U.S at 42.
[47] *Id.*
[48] Exec. Order No. 13,783, 82 Fed. Reg. 16,093, 16,095 (Mar. 31, 2017).

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.[49] The EPA also used NOx emission credit trading in its emission guidelines for large municipal waste combustors promulgated under sections 111(d) and 129.[50] 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.[51] 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.[52] 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.[53] 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.[54] Thousands of people engaged in the EPA's public hearings, webinars, listening sessions, teleconferences, and meetings.[55] The EPA also engaged state officials, tribal officials, United States

---

[49] Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units, 70 Fed. Reg. 28606, 28606 (May 18, 2005). See also Richard L. Revesz, et. al, *Familiar Territory: A Survey of Legal Precedents for the Clean Power Plan*, 46 ENVTL. L. REP. 10190, 10191 (2016). The Clean Air Mercury Rule was vacated by the D.C. Circuit on grounds unrelated to trading or the rule's emissions budgets. *New Jersey v. EPA*, 717 F.3d 574, 577–78 (2008).

[50] Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources; Municipal Waste Combustors, 60 Fed. Reg. 65387 (Dec. 19, 1995).

[51] Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48208, 48210 (Aug. 8, 2011).

[52] Press Release, Environmental Protection Agency, "Bubble" Policy Added to EPA's Cleanup Strategy (Dec. 3, 1979), https://archive.epa.gov/epa/aboutepa/bubble-policy-added-epas-cleanup-strategy.html; see also *Chevron v. NRDC*, 467 U.S. 837 (1984) (upholding the EPA's bubble policy as reasonable under the Clean Air Act.).

[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.

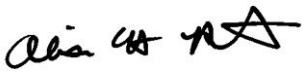
territories, industry and electric utility representatives, electric grid operators, community and non-governmental organizations, environmental justice organizations, labor union representatives, and other federal agencies.[56]

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,



Alison Prost, Esq.
Maryland Executive Director
Interim Vice President for Environmental Protection and Restoration
Chesapeake Bay Foundation

[56] *Id.* at 64,704–07.