



Asthma and Allergy
Foundation of America



Children's
Environmental
Health
Network



Alliance of Nurses for
Healthy Environments

February 26, 2018

Scott Pruitt, Administrator
U.S. Environmental Protection Agency
Submitted via: Regulations.gov

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

Dear Administrator Pruitt:

As representatives of the medical and public health community, our organizations appreciate the opportunity to provide comment on the Advance Notice of Proposed Rulemaking for State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units. We urge the U.S. Environmental Protection Agency to return to the implementation of the Clean Power Plan to best reduce carbon dioxide and its threats to the health of Americans, and to not pursue any further actions to develop a weaker, flawed and potentially harmful alternative. Our comments below explain our concerns with this potential alternative.

The risk of climate change demands EPA act immediately to curb release of greenhouse gases to protect the health of Americans.

The changing climate threatens the health of Americans alive now and in future generations. Carbon dioxide lasts in the atmosphere for hundreds of years, altering the climate in damaging ways. Time is of the essence in curbing releases of this pollution if we are to avoid catastrophic damage. Consequently, the nation has a short window to act to reduce those threats.

Growing evidence over the past few years has demonstrated the multiple, profound risks that imperil the lives and health of millions. Since the Clean Power Plan was finalized in 2015, hundreds of additional studies and major reports have made even clearer the essential need to adopt and maintain the strongest possible measures to reduce carbon and other greenhouse gases that endanger the long-term health of all people.¹

The fourth and most recent report of the U.S. Global Change Research Program issued in 2017 confirmed and updated estimates of the impact of the changing climate in the United States. The report again concludes that climate change is demonstrably real and caused by human activities.

“The global, long-term, and unambiguous warming trend has continued during recent years. Since the last National Climate Assessment was published, 2014 became the warmest year on record globally; 2015 surpassed 2014 by a wide margin; and 2016 surpassed 2015. Sixteen of the warmest years on record for the globe occurred in the last 17 years (1998 was the exception).”

“[I]t is extremely likely that human activities, especially emissions of greenhouse gases, are the dominant cause of the observed warming since the mid-20th century. For the warming over the last century, there is no convincing alternative explanation supported by the extent of the observational evidence.”²

EPA’s own findings in the Clean Power Plan identified multiple threats from climate change on public health:

“GHG pollution threatens the American public by leading to damaging and long-lasting changes in our climate that can have a range of severe negative effects on human health and the environment. . . .

“New scientific assessments since 2009, when the EPA determined that GHGs pose a threat to human health and the environment (the “Endangerment Finding”), highlight the urgency of addressing the rising concentration of CO₂ in the atmosphere. Certain groups, including children, the elderly, and the poor, are most vulnerable to climate-related effects. Recent studies also find that certain communities, including low-income communities and some communities of color (more specifically, populations defined jointly by ethnic/racial characteristics and geographic location), are disproportionately affected by certain climate change related impacts— including heat waves, degraded air quality, and extreme weather events— which are associated with increased deaths, illnesses, and economic challenges. Studies also find that climate change poses particular threats to the health, well-being, and ways of life of indigenous peoples in the U.S.”³

These reviews echoed reports previously produced by several of our organizations: the American Academy of Pediatrics’ technical report in 2007 (updated in 2015) on “Global Climate Change and Children’s Health”⁴; Trust for America’s Health, *Health Problems Heat Up: Climate Change and the Public’s Health*, in October 2009⁵; the Asthma and Allergy Foundation of America’s *Extreme Allergies and Global Warming*, issued with the National Wildlife Foundation in 2010⁶; the American Public Health Association’s *Climate Change: Mastering the Public Health Role*, in April 2011⁷; and the American Thoracic Society’s workshop on Climate Change and Human Health published in 2012⁸.

All these reviews underline the necessity of aggressive steps to reduce greenhouse gas emissions, steps that implementing the Clean Power Plan will provide. For that reason alone, not only is EPA’s proposed repeal of the Plan wrong, EPA’s Advanced Notice wastes time building a case for a flawed, ineffective and, at best, long-delayed replacement. Delay increases the likelihood that these harms will continue to grow absent any effective response by our nation.

To protect health, the United States needs to significantly reduce carbon pollution from existing power plants, a goal that can best be achieved through changes extending beyond plant boundaries.

Given the overwhelming evidence of harm from climate change, the nation must reduce emissions from greenhouse gases from all sources, but particularly from coal and gas fired power plants. Fossil fuel electricity generation is the largest stationary source of carbon dioxide and greenhouse gas emissions in the U.S.; as of 2016, power plants emitted 35 percent of the total U.S. carbon dioxide emissions.⁹

The Clean Power Plan's core flexibility encourages innovation and tailoring to reduce those emissions, including many tools that go beyond the property boundaries of a power plant. States need flexibility to use multiple tools and to innovate in their approaches to cut carbon emissions. The Plan encourages innovation and the use of cleaner energy sources for electricity generation. The Plan encourages strategies to improve energy efficiency, which could decrease the need to burn fossil fuels. Many of our organizations, particularly those with State chapters, have worked to support the States' adopting plans and systems that would provide the greatest reduction in carbon emissions to protect public health.

The basis for the Best System of Emission Reductions must encompass the entire electrical grid system.

EPA's Advanced Notice of the proposed rulemaking is based on the EPA's recently altered and flawed interpretation of "best system of emission reductions" (BSER) required to comply with the Clean Air Act. The electricity grid is a complex "system" that includes a network of sources and demand for electricity that drive the decision to use any electricity source and allows power generated by all sources to be delivered to end-users of electricity. EPA's revamped definition of BSER inappropriately dismisses the idea that the "system" that would need to meet the BSER required under the Clean Air Act could extend beyond the property boundaries of any individual facility to encompass the interconnected electrical grid.

As participants and users of the medical and public health systems, we particularly understand how supplying essential services to the nation requires networks that are much broader than the boundaries of any facility. The demand for medical care and for treatment does not begin or end inside a hospital or a doctor's office. For example, preventing health issues that would otherwise require treatment will often reduce the demand for a hospital bed or x-rays. Our members and communities have historically increased our focus on steps to prevent diseases and injuries, not just treat them. Similarly, EPA must consider the whole electric grid to determine what defines the BSER to limit carbon pollution from power plants, rather than arbitrarily limiting its focus to actions that may be taken at a single component of that system.

Not only does EPA's attempt to limit BSER make no sense, it ignores the way electrical systems themselves operate. Electricity providers have long recognized the complex system that affects their generation of power. From determining which units to operate to shifting to cleaner energy sources to expanding their push for energy efficiency, these companies routinely include many components in their internal planning. They promote these systems on their websites and in messages to customers. The systems are labeled a grid for a reason: they comprise a network that depends on multiple sources of power and on the current and projected demand. BSER requires looking at the entire system, as the

utilities currently do: energy efficiency, grid options, and selective use of specific sources are currently in use by various generators as part of their system of electricity.

EPA's standard-setting has long relied on reductions available from entire systems; the reversal in approach indicated by the Advanced Proposal dangerously ignores this precedent and threatens the health of Americans across the nation.

This Advanced Notice marks a departure from EPA's standard-setting process, revisits the question of whether to require any action to limit carbon pollution from power plants, and solicits comments only on which changes in an individual facility would be best to make. These questions were addressed in EPA's extensive hearing and comments on the Clean Power Plan, a Plan which, we point out, still remains in place. Taking an approach outlined in this Advanced Notice eliminates nearly all of the tools and flexibility that EPA previously identified as appropriate – and essential – to meet the requirements of the Clean Air Act to limit carbon pollution from power plants.

[EPA must set limits on greenhouse gas emissions from each state.](#)

EPA asks for comment on an approach “where the EPA determines what system may constitute BSER without defining presumptive emission limits and then allows States to set unit-by-unit or broader emission standards based on the identified BSER while considering the unique circumstances of the State and the EGU.”¹⁰ We oppose such an approach.

EPA must establish an emissions limit to determine whether States' plans will effectively limit carbon pollution from power plants. An approach with no determined, consistent limit as a basis would effectively impede EPA's ability to assess if the State plan is stringent enough or is applied and maintained appropriately. The lack of consistent targets and enforcement also precludes any level playing field nationwide.

EPA repeatedly states that the Agency seeks to promote State flexibility and to allow for “the unique circumstances” within a State. The Clean Power Plan does this: flexibility and tailoring form core attributes of the Plan. At the same time, the Plan also recognizes the need to include specific timelines and targets to ensure that EPA can review and enforce their implementation. Establishing an emission limits for states does not preclude their ability to tailor their plans to meet these limits.

[EPA's actions delay protections for health unnecessarily—with real impacts.](#)

Given the urgent need for national action to protect Americans from climate change, EPA's Advanced Notice opens a dangerous off-ramp away from implementation of the well-studied, publicly deliberated and completed Clean Power Plan. As described, EPA would limit available methods for reducing carbon pollution from power plants solely to those that can be implemented on a specific electrical generation facility. This approach not only delays the action required under the law, EPA's route in this Advanced Notice leads to a seriously flawed off-ramp—dubbed the “inside the fence line” approach—that has been analyzed in the previous review and in an independent review.

A major, separate study confirmed that co-benefits from taking steps to reduce carbon pollution are real, and warned that doing too little could prove harmful. In 2014, researchers from Harvard University, Syracuse University, and Boston University found that just such a limited approach could prove harmful. They issued a report, *Health Co-Benefits of Carbon Standards for Existing Power Plants*, that evaluated alternative approaches for reducing carbon pollution from power plants.¹¹

Their modeling showed that an approach targeting only actions that can be achieved on site at a power plant had significant limitations and, in fact, would likely increase harmful emissions. By limiting actions to improving the efficiency of existing plants, that so-called “inside the fence line” approach, did decrease the annual reductions in CO₂ emissions slightly (by 2.2 percent) from the 2020 reference case. However, the likelihood that these more efficient plants would be dispatched more often resulted in an estimated annual 3 percent *increase* in sulfur dioxide emissions. This estimated increase in sulfur dioxide emissions led to the forecast for an *increase* in annual premature deaths and heart attacks.¹²

By contrast, their findings showed that strong, flexible and enforceable limits achieved the greatest health benefits for the American people, similar to the findings in the Regulatory Impact Analysis for Clean Power Plan. They found that strong limits on carbon pollution from existing power plants could improve air quality and prevent an estimated 3,500 (780 to 6,100, 95% CI) premature deaths in 2020 along with other significant benefits to human health.¹³

Indications that EPA is exploring ways to weaken the New Source Review program portend even greater emissions increases, with corresponding greater public health harms than these earlier analyses project.¹⁴

[EPA should implement the Clean Power Plan—not divert down a road that will achieve too little, too late.](#)

The United States emits more carbon pollution than any other single nation except China¹⁵, and our electricity generating system is the highest emitting stationary source of such pollution. Given the United States’ contribution to the problem, our nation must use that authority to demonstrate greater leadership to fight climate change, as the threats to the lives and health of our citizens will not end with the current generation or even in the current century without profound action.

Thanks to the Clean Air Act, EPA has the authority, tools and flexibility to set strong limits on carbon pollution from power plants, as it did in the Clean Power Plan.

On behalf of our patients and the public, we urge EPA to implement and enforce the Clean Power Plan, not start down this misguided route proposed in this Advanced Notice.

Sincerely,

Allergy and Asthma Foundation of America

Alliance of Nurses for a Healthy Environment

American Lung Association

American Public Health Association

American Thoracic Society

Asthma & Allergy Network

Children’s Environmental Health Network

Health Care Without Harm

National Association of County and City Health Officials

National Environmental Health Association

Physicians for Social Responsibility

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- ¹ Hundreds of studies on the health effects of climate change have been published since EPA adopted the Clean Power Plan. This list includes just a sample: Watts N, Amann M, Ayeb-Karlsson S, Belesova K et al. 2018 The *Lancet* Countdown on health and climate change: from 25 years of inaction to a global transformation for public health. *Lancet* 391: 581-630; Ahdoot S, Pacjeco SE, and The Council on Environmental Health. 2015. Global Climate Change and Children's Health. *Pediatrics* 138: e1-e17; Petlova EP, Vink JK, Horton RM, Gasparri A, et al. 2017. Towards more comprehensive projections of urban heat-related mortality: estimates for New York City under multiple population, adaptation, and climate scenarios. *Environ Health Perspect.* 125: 47-55; National Research Council. 2015. *Modeling the Health Risks of Climate Change: Workshop Summary*. Washington, DC: The National Academies Press.; Short EE, Caminade C, and Thomas BN. Climate Change Contribution to the Emergence or Re-Emergence of Parasitic Diseases. 2017. *Infectious Diseases: Research and Treatment*. 10:1-7.
- ² Wuebbles DJ, Fahey DW, Hibbard KA, DeAngelo B, Doherty S, et al. 2017: Executive summary. In: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles DJ, Fahey DW, Hibbard KA, Dokken DJ, Stewart BC, and Maycock TK (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 12-34, doi: 10.7930/J0DJ5CTG.
- ³ U.S. Environmental Protection Agency. Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule. 40 CFR Part 60. 80 FR 64677. October 23, 2015
- ⁴ Shea KM and the Committee on Environmental Health. 2007. Global Climate Change and Children's Health. *Pediatrics*, 120; e1359; Ahdoot, et al., 2015
- ⁵ Trust for America's Health, *Health Problems Heat Up: Climate Change and the Public's Health*,
- ⁶ National Wildlife Federation and Asthma and Allergy Foundation of America. *Extreme Allergies and Global Warming*. National Wildlife Foundation, 2010. Accessed at http://www.nwf.org/pdf/Reports/NWF_AllergiesFinal.pdf.
- ⁷ American Public Health Association. *Climate Change: Mastering the Public Health Role. A Practical Guidebook*. April 2011. Accessed at <http://www.apha-environment.org/ClimateandHealth.aspx>.
- ⁸ Pinkerton KE et al., An Official American Thoracic Society Workshop Report: Climate change and Human Health. *Proceedings American Thoracic Society* 2012; 9: 1: 3-8.
- ⁹ U.S. Energy Information Administration. *Monthly Energy Review*, April 2017. Accessed at <https://www.eia.gov/tools/faqs/faq.php?id=75&t=11>. Ramseur JL. "U.S. Carbon Dioxide Emissions Trends and Projections: Role of the Clean Power Plan and Other Factors. Congressional Research Service Report. May 31, 2017. Accessed at <https://fas.org/sgp/crs/misc/R44451.pdf>
- ¹⁰ 82 Fed. Reg. at 61,511
- ¹¹ Driscoll C, Buonocore J, Levy J, Lambert K, et al. 2015 US power plant carbon standards and clean air and health co-benefits. *Nature Climate Change* 5: 525-540. Schwartz J, Buonocore J, Levy J, Driscoll C, Fallon Lambert K, and Reid S. Health Co-Benefits of Carbon Standard for existing Power Plants: Part 2 of the Co-Benefits of Carbon Standards Study. September 30, 2014. Harvard School of Public Health, Syracuse University, Boston University. Available at [Health Co-Benefits of Carbon Standards for Existing Power Plants](#)
- ¹² Driscoll C, Buonocore J, et al. 2015; Schwartz J, Buonocore J, et al., 2014.
- ¹³ S Driscoll C, Buonocore J, et al. 2015; chwartz J, Buonocore J, et al., 2014
- ¹⁴ White House. Fact Sheet: President Donald J. Trump's Year of Regulatory Reform and Environmental Protection at the EPA. December 14, 2018. Accessed at <https://www.whitehouse.gov/briefings-statements/president-donald-j-trumps-year-regulatory-reform-environmental-protection-epa/>; U.S. Environmental Protection Agency. 2017. Advanced Notice of Proposed Rulemaking: State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units. Federal Register. 82. 248: 61519
- ¹⁵ Boden TA, Marland G, and Andres RJ. 2017. [National CO2 Emissions from Fossil-Fuel Burning, Cement Manufacture, and Gas Flaring: 1751-2014](#), Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, doi 10.3334/CDIAC/00001_V2017