



August 8, 2023

The Honorable Michael Regan, Administrator
U.S. Environmental Protection Agency
William J. Clinton Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Sent via Regulations.gov

Re: Comments on New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule

Docket #EPA-HQ-OAR-2023-0072

Dear Administrator Regan:

The undersigned national, state and local public health, medical and nursing organizations appreciate the opportunity to provide comments for your consideration on the proposed rule to limit greenhouse gas emissions from power plants. Reducing climate-warming carbon emissions from the power sector is a necessary step in avoiding worsening climate change

impacts and is required by the Clean Air Act. We thank EPA for issuing this proposal and for showing a commitment to reducing climate pollution. We urge the agency to strengthen the proposal to maximize the reduction of greenhouse gases from power plants and to use its existing authority beyond this proposal to better protect the health of communities from air pollution from the power sector.

Below we detail the health harms of climate change and power plant pollution; notes on EPA's Regulatory Impact Analysis for this rule; the role this rule plays within the broader context of EPA's regulatory authority to reduce conventional air pollutants and also greenhouse gases (GHGs); and specific recommendations to strengthen the proposal which include:

- Expand the existing gas plants that are covered under the proposal;
- Ensure legally enforceable milestones for compliance;
- Define low-GHG hydrogen as being made from 100% renewable energy;
- Exercise existing authority to ensure the health of fenceline communities are protected from worsening air quality;
- Finalize the rule no later than spring of 2024.

Climate Change is a Health Emergency

Climate change is worsening air quality and harming public health. Warmer temperatures create enhanced opportunities for ground-level ozone to form. Ozone is a powerful air pollutant that makes it harder to breathe, can cause heart attacks and strokes, and can even lead to early death. Warmer temperatures and droughts are causing wildfires to be more frequent and intense, releasing fine particles of smoke that enter deep within the lungs and can lead to respiratory and cardiovascular problems, cause lung cancer and premature death.

The American Lung Association's "State of the Air" report documents the impacts that climate change is having on air quality, as well as the continued need for air pollution cleanup. The 2023 report found that 36% of Americans—119.6 million people—live in places with failing grades for unhealthy levels of ozone or particle pollution, according to data from 2019, 2020 and 2021. The number of people living in counties with failing grades for short-term spikes in particle pollution was 63.7 million, the most ever reported under the current National Ambient Air Quality Standards for particulate matter and corresponding breakpoints in the Air Quality Index.¹ Wildfires are a major contributing factor to both the increasing number of days and places with unhealthy levels of particle pollution and the increasing severity of pollution levels on unhealthy air days.

"State of the Air" 2023 also demonstrates a growing disparity between air quality in the East and West, based on the 2019-2022 data. On the one hand, the report shows the continued success of the Clean Air Act and its requirements to reduce emissions. Particularly in the East, air quality has become steadily cleaner over the 24-year history of the report as emissions sources have been cleaned up. On the other hand, wildfire smoke is driving worsening air quality in the West, with an increasing share of the most polluted cities identified in the report located in the West.² The report shows that continued source cleanup under the Clean Air Act is essential to protecting the health of people living with unhealthy levels of air pollution. However, it also shows that further action to reduce greenhouse gas emissions is critical to

¹ American Lung Association. "State of the Air" 2023. Lung.org/sota

² American Lung Association. "State of the Air" 2023. Lung.org/sota

avoid worse air pollution impacts due to climate change. EPA must use this rule and its broader suite of Clean Air Act authorities to achieve both.

Seasonal allergies caused by pollen, spores, and vegetation-related agents have also become more severe and longer in duration, which can be particularly impactful for the more than 25 million people in this country who have asthma.

Flooding from climate change-caused increases in extreme precipitation events can threaten health long after floodwaters recede. Floodwaters can leave behind mold, sewage and toxic chemicals, the cleanup of which can also lead to more pollution as debris is burned and generators are turned on. Flooding also often makes it harder for patients to access their normal medical care and medications.

Additional health impacts due to climate change include heat-related illness and death, increased spread of vector-borne disease, and profound mental health impacts.

Climate change is also a health equity issue. People of color and people living in low-income communities are more likely to have chronic conditions and to live and work in places with increased risks from climate change. “State of the Air” 2023 found that people of color are 3.7 times more likely to live in areas with the unhealthiest air quality.³ People of color are also more likely to work in professions that require outdoor work, such as in agriculture and construction, where they face greater exposure to unhealthy air and increased heat. Low-income communities hit by weather disasters often take longer to recover and may lack resources to take protective steps ahead of future disasters.

Climate change is a health emergency but also a health opportunity. Taking steps now to drastically reduce the release of greenhouse gas emissions from their sources can also reduce emissions of pollutants that immediately harm health. These actions can slow the course of climate change and yield tremendous health benefits, especially in communities that are currently most over-burdened.

Power Plants Harm Health

In addition to greenhouse gases, power plants emit air pollutants that can worsen local air quality and harm health. Burning fossil fuels results in emissions of fine particulate matter (PM_{2.5}), nitrogen oxides (NO_x), sulfur oxides (SO_x) and volatile organic compounds (VOCs), which also contribute to the formation of ozone.

Exposure to one or a combination of these pollutants can cause respiratory harm, including asthma exacerbations, inflammation of the upper and lower airways and even respiratory mortality. Health effects can also include cardiovascular harm, strokes, low birth weight in newborns, reproductive and developmental harm, increased risk of metabolic disorders,

³ American Lung Association. “State of the Air” 2023. Lung.org/sota

increased need for medical care and increased emergency room visits and premature death.^{4,5,6,7}

Further, the installation and use of carbon capture and sequestration/storage (CCS) at a fossil fuel-fired plant does not make it clean. While the use of CCS requires that sulfur dioxide, sulfites and nitrogen oxides be reduced for the technology to function properly, it may not require the same of other pollutants. Further, the installation and use of pollution control technologies designed to capture climate emissions have the potential to result in those plants running more frequently, harming communities nearby. EPA should act to ensure that New Source Review and New Source Performance Standards rules are rigorously applied to prevent increases in any pollutants from projects that install CCS to comply with the standards.

EPA's Analysis Raises Health Concerns

In many ways, EPA's Regulatory Impact Analysis (RIA)⁸ underestimates the health benefits of reducing pollution that drives climate change. For example, in assigning a cost to the impacts of climate change, EPA uses the most current recommendation of using inflation-adjusted interim Social Cost of Greenhouse Gases estimates, but also acknowledges that this is an underestimation.⁹ We appreciate the agency's work to improve this measure, as many of the health impacts of climate change, such as increased incidence of lung cancer from wildfire smoke exposure and of vector-borne diseases from increased spread, have not been incorporated into previous iterations of the Social Cost of Greenhouse Gases. Physical and mental health harms from climate change that are difficult to quantify are no less real.

We further note that EPA monetizes health benefits of reducing ozone and PM_{2.5} for effects deemed "causal" or "likely to be causal." However, as many of our organizations have noted in previous comments, we strongly disagree with the Agency's decision in the 2020 Ozone ISA to downgrade causality determinations from the 2015 review for cardiovascular effects and all-cause mortality effects from short-term ozone exposures from "likely causal" to "suggestive of, but not sufficient to infer." The health impacts of these harms from ozone exposure should have been monetized in this analysis. We do note the many additional non-monetized health

⁴ Clean Air Scientific Advisory Committee. CASAC Review of the EPA's Policy Assessment (PA) for the Reconsideration of the Ozone National Ambient Air Quality Standards (External Review Draft Version 2) (June 2023). EPA-CASAC-23-002

⁵ U.S. EPA. Supplement to the 2019 Integrated Science Assessment for Particulate Matter (Final Report, 2022). U.S. Environmental Protection Agency, Washington, DC, EPA/635/R-22/028, 2022.

⁶ U.S. EPA. Integrated Science Assessment (ISA) for Sulfur Oxides – Health Criteria (Final Report, Dec 2017). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-17/451, 2017.

⁷ U.S. EPA. Integrated Science Assessment (ISA) for Oxides of Nitrogen – Health Criteria (Final Report, Jan 2016). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-15/068, 2016.

⁸ U.S. EPA. (May 2023). [Regulatory Impact Analysis for the Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired EGUs; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired EGUs](#); EPA-452/R-23-006.

⁹ U.S. EPA. (May 2023). Regulatory Impact Analysis for the Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired EGUs; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired EGUs; page 4-6.

impacts that EPA assessed in the RIA, including harms from mercury, hazardous air pollutants, NO_x and SO₂.¹⁰

We appreciate EPA's environmental justice impact analysis included within the RIA. However, the results of that analysis shone a spotlight on the need to see carbon emissions reduction as an opportunity to reduce co-emitting air pollutants at the same time. First, we are concerned that while millions of people will experience no difference or improved air quality, between 81 million and 170 million people could experience worsening PM_{2.5} concentrations, and up to 196 million people could experience worsening ozone concentrations.¹¹ We urge the Agency to strengthen the rules to cover more of the existing gas fleet (detailed below) to reduce generation shifting that will result in worsened PM and ozone exposures for millions of people, and to consider strengthening the standards themselves across all categories.

Second, we note that EPA found that "baselines disparities in the ozone and PM_{2.5} concentration burdens are likely to remain...this action is unlikely to mitigate or exacerbate PM_{2.5} exposure disparities across populations of EJ concern analyzed."¹² EPA concludes that because this proposal does not sufficiently exacerbate inequities in air pollution exposures among subgroups, it does not present new environmental justice concerns. However, the agency's clean air standards must do more than not exacerbate inequities much further. They afford an opportunity to reduce inequities by ensuring cleanup of the most polluting sources, and drive improvements in health equity. We further urge the Agency to not only look for additional opportunities within the purview of this proposal to do so, but to ensure that all other clean air standards under current review seek to maximize reductions in pollutants in over-burdened communities.

EPA has a Suite of Authorities to Address Air Pollution and Climate Change

Given the health impacts of fossil fuel use and the continued presence of polluting facilities in low-income communities and communities of color, our organizations strongly support a transition to a zero-emission electricity generation and transportation future. We appreciate President Biden's and Administrator Regan's commitments to address climate change and air pollution clean up using the suite of tools at their disposal. We acknowledge that EPA's authority under Clean Air Act Sec. 111(d) is specifically targeted at identifying the best system of emissions reductions for power plants and implementing state-based emissions standards that match these rates. Reducing greenhouse gas emissions at existing coal and gas plants is a critical component of clean air and climate actions. At the same time in 2023, we urge EPA to

¹⁰ U.S. EPA. (May 2023). Regulatory Impact Analysis for the Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired EGUs; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired EGUs; page 4-59.

¹¹ U.S. EPA. (May 2023). Regulatory Impact Analysis for the Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired EGUs; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired EGUs; page 6-14.

¹² U.S. EPA. (May 2023). Regulatory Impact Analysis for the Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired EGUs; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired EGUs; page 6-32.

use its additional existing authorities and obligations to further drive emissions reductions, including:

- Strengthen the PM_{2.5} NAAQS to 8 µg/m³ for the annual standard and 25 µg/m³ for the 24-hour standard. Strong NAAQS provide a critical backstop that helps drive health equity and environmental justice improvements by ensuring that all communities see the benefits of cleanup. According to EPA's RIA, an annual standard of 8 µg/m³ would prevent significantly more PM-related premature deaths of African Americans than a standard of 9 or 10 µg/m³.
- Strengthen the Ozone NAAQS to within 55–60 ppb. People of color and people with low incomes bear a disproportionate burden from ozone pollution.
- Finalize the strongest possible light-, medium- and heavy-duty vehicle emissions standards that dramatically strengthen emissions requirements.
- Finalize a strong oil and gas methane emissions rule.
- Prioritize the development and use of truly low-GHG hydrogen, made from 100% renewable energy.
- Work with PHMSA on the development of CO₂ pipeline standards.

These final two points are detailed further later in this document.

Expanding the number of existing gas plants covered by the rule will yield greater health benefits.

EPA's proposal for existing gas plants only applies to large units – those of 300 megawatts (MW) capacity or more and operate more than 50% of the time. EPA estimates that this would cover 14% of the existing combustion turbine capacity. We urge EPA to consider basing its approach on plants rather than units to ensure that the greatest sources of pollution are covered. We also understand that EPA is planning to work on a separate rulemaking to cover the remainder of the existing fleet, but we support this proposal's comment solicitation to lower the threshold to include units with a capacity as low as 100 MW and operate 40% of the time (and again, we urge EPA to consider basing these standards on plants rather than units). We support this more stringent option as it would cover closer to 50% of the existing fleet and close to 80% of emissions generated in 2035.¹³

Legally enforceable compliance deadlines will hold plants accountable to show progress.

The proposal lays out different timelines and options for the best system of emissions reduction depending on source type, plant capacity or retirement dates. Across all subcategories, we encourage EPA to work with states as they develop state plans to set legally enforceable deadlines for plants to demonstrate compliance or a path towards meeting compliance deadlines. Plants must be held accountable for the pathway they choose – including anticipated retirement dates – and must remain locked in on that timetable for compliance. We also support making public those deadlines and plant actions towards compliance.

¹³ U.S. EPA. New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule (Proposed Rule, May 2023). EPA 88 FR 33240, 33240–33420.

Additionally, we ask EPA to move up the timetable for compliance. The proposal solicits comments on compliance dates defined by the date of approval of the state plans or January 1, 2030, whichever is earlier, for imminent-term coal-fired steam generating units, near-term coal units and those using different subcategories of gas. We support adding this to the final rule to ensure achievement of emissions reductions as quickly as possible.

The best systems of emissions reduction outlined in the proposal will require coordination with other agencies to minimize health harms and meet greenhouse gas reduction targets.

The majority of hydrogen used today is generated by breaking down fossil fuel hydrocarbons such as methane, and thereby perpetuating our reliance on them. Methane is a highly potent greenhouse gas that can accelerate climate change at a rate faster than carbon dioxide. Using methane gas to create a pathway to lower greenhouse gas emissions is inherently counterproductive. The creation of hydrogen using electrolysis driven by renewable sources such as wind or solar is the better alternative that more closely adheres to the moniker of “low-GHG hydrogen.” This form of hydrogen – referred to as “green hydrogen” – is not widely available for commercial use currently, being reserved for industrial sectors like fertilizer or steel production and other hard-to-electrify industries.

EPA, working in coordination with other departments and agencies, should prioritize the development and use of truly low-GHG hydrogen made from new, 100% renewable energy beyond what is currently generated. We further note the additional requirements for low-GHG hydrogen called for by Clean Air Task Force and other organizations to ensure actual reductions in emissions: that hydrogen be hourly-matched and delivered within the same geographic region as the hydrogen electrolyzer that produced it.¹⁴

We recognize that this recommendation is likely to be a longer-term goal given the current limitations in the use of green hydrogen. Nonetheless, we encourage EPA to use this proposal to highlight the necessity of using green hydrogen to achieve both air and climate pollution reduction as well as to ensure transparency about the harms that come from the reliance on methane-generated hydrogen.

Additionally, the use of CCS raises concerns about safety and potential health impacts. Largescale adoption of CCS will require the installation of new pipelines which can lead to more environmental harm that is most acutely felt by communities that live closest to the construction or rely on local water sources. Extreme weather events and higher temperatures can also damage pipelines, running the risk of leaks and fugitive emissions. The Pipeline and Hazardous Materials Safety Administration (PHMSA) released an advisory regarding CO₂ pipelines in May 2022, warning about the potential for damage to pipelines caused by earth movement and by phenomena associated with climate change.¹⁵ To be transported via a pipeline, carbon dioxide must be super compressed to a liquid form. If the liquid is released due to a pipeline rupture, it forms a local cloud of CO₂ gas in high concentrations that can pose an

¹⁴ CATF comments to IRS: <https://www.regulations.gov/comment/IRS-2022-0029-0134> and/or CATF/NRDC letter: <https://www.nrdc.org/sites/default/files/2023-04/nrdc-catf-memo-ira-45v-legal-necessity-3-pillars-20230410.pdf>

¹⁵ Pipeline and Hazardous Materials Safety Administration (PHMSA), “Pipeline Safety: Potential for Damage to Pipeline Facilities Caused by Earth Movement and Other Geological Hazards,” (Washington, DC: US Department of Transportation, May 26, 2022), 2-3.

immediate asphyxiation danger to life. Therefore, it is imperative that PHMSA finalize stringent CO₂-specific pipeline regulations.

In addition to potential health harms from the capture, storage and sequestration of carbon itself, the use of CCS technologies also necessitates more energy use. Our organizations share the concerns raised by impacted communities that CCS, as well as reliance on fossil-fuel driven hydrogen generation, will perpetuate the inequalities faced by environmental justice communities. When co-firing methane gas with hydrogen, effective NO_x controls must be installed and operated to ensure that emissions do not increase. Again, EPA should act to ensure that New Source Review and New Source Performance Standards rules are rigorously applied to prevent increases in any pollutants from projects that install CCS to comply with the standards. EPA should further apply these standards to plants modified to burn hydrogen as well. We note that this proposal has identified CCS and co-firing with hydrogen to be the best system of emissions reduction based on current science and technology and the charge of this proposed regulation. We strongly urge EPA to work closely with all relevant agencies to ensure that health harms are minimized to the greatest extent possible.

The health of frontline communities must be prioritized.

Fossil fuel use harms public health with communities located near power plants facing a greater risk. Those communities are disproportionately home to people of color and/or people with low incomes. Environmental justice communities must have a primary seat at the table during negotiations and in soliciting public comments on the siting, operation and maintenance of pollution control technologies. We appreciate that the proposal specifically instructs states to conduct meaningful engagement with communities and encourage EPA to more explicitly define the actions that states should be required to undertake in this regard. Proactive outreach to community stakeholders, sharing information in a clear and concise matter and providing as much time as possible for stakeholders to provide input should be minimum requirements, although further engagement opportunities would be preferable.

Conclusion

Substantially reducing climate pollutants from power plants is a necessary and long overdue step in staving off the most catastrophic impacts of climate change. This proposal is a recognition of that fact and we appreciate the work done to get to this point. We strongly encourage EPA to ensure that this proposal works in concert with other Clean Air Act rulemakings to maximize the health benefits of reductions in both climate and conventional air pollution, particularly for communities that have borne the brunt of unhealthy air quality for far too long. Given the urgency of the need for strong climate change action, we ask that EPA finalize this rule no later than spring of 2024. We further urge the agency to act expeditiously to finalize the strongest possible standards under consideration in EPA's many separate rulemakings to reduce air pollution and ensure health equity.

Sincerely,

Allergy & Asthma Network
Alliance of Nurses for Healthy Environments
American Academy of Pediatrics

American Academy of Pediatrics - Orange County Chapter
American Academy of Pediatrics, Colorado Chapter
American Academy of Pediatrics, Maine Chapter
American College of Physicians
American College of Physicians California Services Chapter
American Lung Association
American Medical Association
American Public Health Association
American Thoracic Society
ANA\California
Arizona Health Professionals for Climate Action
Arizona Public Health Association
Asthma and Allergy Foundation of America
Asthma Coalition of Los Angeles County
Between the Waters
Breast Cancer Prevention Partners
Breathe California of the Bay Area, Golden Gate and Central Coast
Breathe Southern California
BUDDIGA Family Allergy Asthma Skin Immunology
California Society for Respiratory Care
Carolina Advocates for Climate, Health, and Equity
Children's Environmental Health Network
Climate Health Now
Climate Psychiatry Alliance
Climate Psychology Alliance of North America
Clinicians for Climate Action New Jersey
Colorado Public Health Association
Connecticut Health Professionals for Climate Action
Delaware Academy of Medicine/Delaware Public Health Association
District of Columbia Public Health Association
ecoAmerica/Climate for Health
Florida Chapter of the American Academy of Pediatrics
Florida Public Health Association
George Mason University Center for Climate Change Communication
Georgia State Medical Association
Greater Boston Physicians for Social Responsibility
Hawaii Chapter, American Academy of Pediatrics
Hawaii Public Health Association
Health Care Without Harm
Health Professionals for a Healthy Climate
Health Resources in Action
Healthy Climate Wisconsin
Hezekiah Beardsley Connecticut Chapter of the American Academy of Pediatrics
Idaho Clinicians for Climate and Health
Indiana Public Health Association
LifeLong Medical Care
Maine Public Health Association

Maryland Chapter, American Academy of Pediatrics
Maryland Public Health Association
Maternal and Child Health Access
Medical Society Consortium on Climate and Health
Michigan Clinicians for Climate Action
Montana Chapter of the American Academy of Pediatrics
Montana Health Professionals for a Healthy Climate
Mothers & Others For Clean Air
National Association of Pediatric Nurse Practitioners
National Environmental Health Association
National Medical Association
NC Pediatric Society
NC Public Health Association
Nevada Chapter, American Academy of Pediatrics
Nevada Public Health Association
New Hampshire Public Health Association
New Jersey Public Health Association
New Mexico and El Paso Interfaith Power and Light
New York State American Academy of Pediatrics
New York State Public Health Association
NH Healthcare Workers for Climate Action
NH Chapter American Academy of Pediatrics
NH Chapter American College of Physicians
NH Chapter American Academy of Family Physicians
NH Osteopathic Association
NM Social Justice and Equity Institute
NYS AAP - Chapter 2
NYS AAP - Chapter 3
Oklahoma Public Health Association
Oregon Pediatric Society
PA Chapter, American Academy of Pediatrics
Pennsylvania Public Health Association
Physicians for Social Responsibility
Physicians for Social Responsibility - Maine
Physicians for Social Responsibility - New York
PRAAP Chapter
PSR/Sacramento
Public Health Institute
Puerto Rico Clinicians for Climate Action
Regional Asthma Management & Prevention
San Francisco Bay Physicians for Social Responsibility
SC Chapter of the American Academy of Pediatrics
SolaVida
St. John's Community Health
Tennessee Chapter of the American Academy of Pediatrics
Tennessee Public Health Association
Texas Pediatric Society

Texas Society for Respiratory Care
Vermont Climate and Health Alliance
Vermont Public Health Association (VtPHA)
Virginia Clinicians for Climate Action
Washington Chapter of the American Academy of Pediatrics
Washington Physicians for Social Responsibility
Wisconsin Asthma Coalition
Wisconsin Primary Health Care Association