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VIA EMAIL TO A-AND-R-DOCKET@EPA.GOV AND U.S. MAIL

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

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

Re: Supplemental Comments of Environmental and Public Health Organizations on EPA's 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, 83 Fed. Reg. 44,746 (Aug. 31, 2018)

The undersigned organizations (“Environmental and Public Health Commenters”) hereby submit these supplemental comments concerning the United States Global Change Research Program’s (“USGCRP’s”) FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME II: IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES (“NCA4-II” or “Report”), which was published on November 23, 2018, after the closing of the period for public comment on EPA’s above-referenced proposal (“ACE” or “Proposal”).¹ We are submitting these comments and the Report to the U.S. Environmental Protection Agency’s (“EPA’s” or “Agency’s”) docket for the Proposal.

The NCA4-II is a comprehensive, interdisciplinary assessment that represents the federal government’s best understanding of the consequences of climate change for the United States. It compiles compelling new evidence of the serious damages to public health, the economy, and natural resources climate change has already caused throughout the United States, and the gravity of risks of even more costly and disruptive damage yet to come. The Report emphasizes that the degree of future harm society will experience from climate change depends upon whether effective efforts are taken now to mitigate emissions of climate-destabilizing greenhouse gases. The Report is thus of “central relevance” to this rulemaking,² which would significantly increase allowable greenhouse gas emissions from existing power plants, compared to the rule it would replace.

¹ The Report is available at <https://www.globalchange.gov/nca4>. The hard copy of these supplemental comments, which is being transmitted to the EPA Docket Center via the United States Postal Service, is accompanied by an electronic copy of the Report. Volume I of the Fourth National Climate Assessment was published in 2017, and focused on the physical scientific basis for climate change. USGCRP, FOURTH NATIONAL CLIMATE ASSESSMENT, VOL. I: CLIMATE SCIENCE SPECIAL REPORT (2017), https://science2017.globalchange.gov/downloads/CSSR2017_FullReport.pdf.

² 42 U.S.C. § 7607(d)(4)(B).

In prior comments, Environmental and Public Health Commenters showed that the Proposal flatly violates EPA’s statutory obligation to reduce harmful climate pollution; among other flaws, it fails to ensure *any* pollution reductions.³ The Agency’s cursory and dismissive treatment of climate impacts in the context of a rule that is statutorily mandated to address climate pollution also violates the agency’s legal obligation, as a basic requirement of reasoned decision-making, to demonstrate a “rational connection” between the record facts and the agency’s policy choice.⁴ As Environmental and Public Health Commenters explained, “[t]he reasonableness of any given policy response (such as strengthening or weakening limits on climate-altering emissions) necessarily depends upon the severity, imminence, and remediability of the harm.”⁵ Yet the Proposal scarcely discusses climate change at all, and the regulatory impact analysis gives the topic a mere two sentences. The Agency fails to reconcile the Proposal with the Administration’s own conclusions about the threat that climate change poses. This shortcoming is not just unconscionable; it is unlawful.

The Report is further proof that the Proposal cannot plausibly stand as an adequate or even rational response to the problem it is required to address. NCA4-II thoroughly details the impacts of climate change and its sweeping implications for the country and the world. Yet even as the effects of climate change have already become increasingly prevalent, severe, and well-documented, the Agency’s proposed approach would do little or nothing to address the crisis—and could well make it worse. The Proposal fails to achieve the statutory mandate to protect the public from dangerous pollution, and the stark disconnect between the evidence before the Agency and the proposed response is arbitrary, irrational, and unlawful.

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Issued pursuant to Section 106 of the Global Change Research Act of 1990,⁶ the NCA4-II embodies the work of experts at the 13 federal agencies of the USGCRP, including the Environmental Protection Agency.⁷ Resulting from an exhaustive and exacting peer review and public review processes, the NCA4-II reflects the work of the federal government’s foremost

³ Center for Biological Diversity, Clean Air Task Force, Coalition to Protect America’s National Parks, Earthjustice, Environmental Defense Fund, Environmental Law & Policy Center, National Parks Conservation Association, Natural Resources Defense Council, Sierra Club, and Union of Concerned, “Comments of Environmental and Public Health Organizations Concerning Climate Science and Climate Change,” at 1, Docket No. EPA-HQ-OAR-2017-0355-24415 (Oct. 31, 2018) [hereinafter *Envtl. and Pub. Health Comments*].

⁴ *Id.* at 9 (citing *Motor Vehicles Mfrs. Ass’n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983)).

⁵ *Id.*

⁶ 15 U.S.C. § 2936. The Act requires that the USGCRP prepare a report every four years that “(1) integrates, evaluates, and interprets the findings of the Program . . . ; 2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and 3) analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years.” NCA4-II at 1 (quoting the Global Change Research Act of 1990 (codified at 15 U.S.C. § 2936)).

⁷ The following federal agencies are member agencies of the USGCRP: the Department of Agriculture, the Department of Commerce, the Department of Defense, the Department of Energy, the Department of Health and Human Services, the Department of the Interior, the Department of State, the Department of Transportation, the Environmental Protection Agency, the National Aeronautics & Space Administration, the National Science Foundation, the Smithsonian Institution, and the U.S. Agency for International Development.

experts on climate change and its consequences.⁸ It provides voluminous, detailed, and specific evidence of climate change’s current and future harms and costs to the United States as a whole and as experienced on a regional and state-wide basis, highlighting the necessity of steep and immediate emission reductions to avoid some of these consequences.

The NCA4-II describes the multiple and diverse harms that the United States is already suffering from climate change and explains that risks will become more severe absent effective and timely action to reduce greenhouse gas emissions. As the authors explain, the NCA4-II

draws a direct connection between the warming atmosphere and the resulting changes that affect Americans’ lives, communities, and livelihoods, now and in the future. It documents vulnerabilities, risks, and impacts associated with natural climate variability and human-caused climate change across the United States and provides examples of response actions underway in many communities. It concludes that *the evidence of human-caused climate change is overwhelming and continues to strengthen, that the impacts of climate change are intensifying across the country, and that climate-related threats to Americans’ physical, social, and economic well-being are rising*. These impacts are projected to intensify—but how much they intensify will depend on actions taken to reduce global greenhouse gas emissions and to adapt to the risks from climate change now and in the coming decades.

NCA4-II at 36 (emphasis in original). Among other harms driven by anthropogenic climate change,

[h]igher temperatures, increasing air quality risks, more frequent and intense extreme weather and climate-related events, increases in coastal flooding, disruption of ecosystem services, and other changes increasingly threaten the health and well-being of the American people, particularly populations that are already vulnerable. Future climate change is expected to further disrupt many areas of life, exacerbating existing challenges and revealing new risks to health and prosperity.

NCA4-II at 55.

⁸ “NCA4 Volume II was thoroughly reviewed by external experts and the general public, as well as the Federal Government (that is, the NCA4 Federal Steering Committee and several rounds of technical and policy review by the 13 federal agencies of the USGCRP). An expert external peer review of the whole report was performed by an ad hoc committee of the National Academies of Sciences, Engineering, and Medicine (NASEM).” NCA4-II at 2. Accompanying the Report, USGCRP published a volume consisting of authors’ responses to public comments and questions on a draft version, *available at* https://nca2018.globalchange.gov/downloads/NCA4_Public_Comments_Author_Responses_with_Names.pdf. As EPA previously explained, the USGCRP reports “provide exactly the kind of information required” under the Clean Air Act by “bring[ing] together and synthesiz[ing] the numerous individual studies in the scientific literature” through a “rigorous and transparent peer-review process.” EPA’s Denial of the Petitions To Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act,” 75 Fed. Reg. 49,556, 49,581 (Aug. 13, 2010).

The NCA4-II's twelve summary findings affirm the sweeping and profound implications of climate change for the United States:

1. **Communities.** Climate change creates new risks and exacerbates existing vulnerabilities in communities across the United States, presenting growing challenges to human health and safety, quality of life, and the rate of economic growth.

2. **Economy.** Without substantial and sustained global mitigation and regional adaptation efforts, climate change is expected to cause growing losses to American infrastructure and property and impede the rate of economic growth over this century.

3. **Interconnected Impacts.** Climate change affects the natural, built, and social systems we rely on individually and through their connections to one another. These interconnected systems are increasingly vulnerable to cascading impacts that are often difficult to predict, threatening essential services within and beyond the Nation's borders.

4. **Actions to Reduce Risks.** Communities, governments, and businesses are working to reduce risks from and costs associated with climate change by taking action to lower greenhouse gas emissions and implement adaptation strategies. While mitigation and adaptation efforts have expanded substantially in the last four years, they do not yet approach the scale considered necessary to avoid substantial damages to the economy, environment, and human health over the coming decades.

5. **Water.** The quality and quantity of water available for use by people and ecosystems across the country are being affected by climate change, increasing risks and costs to agriculture, energy production, industry, recreation, and the environment.

6. **Health.** Impacts from climate change on extreme weather and climate-related events, air quality, and the transmission of disease through insects and pests, food, and water increasingly threaten the health and well-being of the American people, particularly populations that are already vulnerable.

7. **Indigenous Peoples.** Climate change increasingly threatens Indigenous communities' livelihoods, economies, health, and cultural identities by disrupting interconnected social, physical, and ecological systems.

8. **Ecosystems and Ecosystem Services.** Ecosystems and the benefits they provide to society are being altered by climate change, and these impacts are projected to continue. Without substantial and sustained reductions in global greenhouse gas emissions, transformative impacts on some ecosystems will

occur; some coral reef and sea ice ecosystems are already experiencing such transformational changes.

9. **Agriculture and Food.** Rising temperatures, extreme heat, drought, wildfire on rangelands, and heavy downpours are expected to increasingly disrupt agricultural productivity in the United States. Expected increases in challenges to livestock health, declines in crop yields and quality, and changes in extreme events in the United States and abroad threaten rural livelihoods, sustainable food security, and price stability.

10. **Infrastructure.** Our Nation’s aging and deteriorating infrastructure is further stressed by increases in heavy precipitation events, coastal flooding, heat, wildfires, and other extreme events, as well as changes to average precipitation and temperature. Without adaptation, climate change will continue to degrade infrastructure performance over the rest of the century, with the potential for cascading impacts that threaten our economy, national security, essential services, and health and well-being.

11. **Oceans and Coasts.** Coastal communities and the ecosystems that support them are increasingly threatened by the impacts of climate change. Without significant reductions in global greenhouse gas emissions and regional adaptation measures, many coastal regions will be transformed by the latter part of this century, with impacts affecting other regions and sectors. Even in a future with lower greenhouse gas emissions, many communities are expected to suffer financial impacts as chronic high-tide flooding leads to higher costs and lower property values.⁹

12. **Tourism and Recreation.** Outdoor recreation, tourist economies, and quality of life are reliant on benefits provided by our natural environment that will be degraded by the impacts of climate change in many ways.

NCA4-II at 25-31.

Spanning hundreds of pages, the NCA4-II paints a panorama of how climate change is already contributing to massive harms throughout the United States. The Report finds, for example, that “[c]limate change is altering the characteristics of many extreme weather and climate-related events. Some extreme events have already become more frequent, intense, widespread, or of longer duration, and many are expected to continue to increase or worsen, presenting substantial challenges for built, agricultural, and natural systems.” NCA4-II at 66. The Report notes that:

- The National Oceanic and Atmospheric Administration estimates that the United States has experienced 44 billion-dollar weather and climate disasters since 2015 (through April 6, 2018), incurring costs of nearly \$400 billion (<https://www.ncdc.noaa.gov/billions/>). . . .

⁹ Coastal communities are also economically vulnerable to impacts of climate change on fisheries. NCA4-II at 25.

- The 2017 Atlantic Hurricane season alone is estimated to have caused more than \$250 billion in damages and over 250 deaths throughout the U.S. Caribbean, Southeast, and Southern Great Plains. . . .¹⁰
- In 2015, drought conditions caused about \$5 billion in damages across the Southwest and Northwest, as well as parts of the Northern Great Plains. California experienced the most severe drought conditions. Hundreds of thousands of acres of farmland remained fallow, and excess groundwater pumping was required to irrigate existing agricultural interests. Two years later, in 2017, extreme drought caused \$2.5 billion in agricultural damages across the Northern Great Plains. Field crops, including wheat, were severely damaged, and the lack of feed for cattle forced ranchers to sell off livestock. . . .
- During the summer of 2015, over 10.1 million acres—an area larger than the entire state of Maryland—burned across the United States, surpassing 2006 for the highest annual total of U.S. acreage burned since record keeping began in 1960. These wildfire conditions were exacerbated by the preceding drought conditions in several states. The most extensive wildfires occurred in Alaska, where 5 million acres burned within the state. In Montana, wildfires burned in excess of 1 million acres. The costliest wildfires occurred in California, where more than 2,500 structures were destroyed by the Valley and Butte Fires; insured losses alone exceeded \$1 billion. In October 2017, a historic firestorm damaged or destroyed more than 15,000 homes, businesses, and other structures across California The Tubbs, Atlas, Nuns, and Redwood Valley Fires caused a total of 44 deaths and their combined destruction represents the costliest wildfire event on record.¹¹

Id. at 66-68. The Report’s volumes set out detailed descriptions of the distinctive ways in which climate change is imperiling the societies and resources of the various regions of the continental United States, Alaska, Hawai‘i, and the U.S. Caribbean.

Of great relevance to the current rulemaking, the NCA4-II emphasizes that the nature and degree of harm caused by climate change depends critically on whether we take action in the near term to reduce greenhouse gas emissions:

Climate-related risks will continue to grow without additional action. Decisions made today determine risk exposure for current and future generations and will either broaden or limit options to reduce the negative consequences of climate

¹⁰ In August 2018, the government of Puerto Rico raised the death toll from Hurricane Maria, which struck in September 2017, to 2,975. See Josh Hoyos & Alexander Mallin, *Death Toll in Puerto Rico from Hurricane Maria Officially Raised to 2,975 from 64*, ABC News (Aug. 29, 2018), <https://abcnews.go.com/US/death-toll-hurricane-maria-3000-puerto-rico-study/story?id=57179291>.

¹¹ The Camp Fire, which struck California in November 2018, killed 85 people, making it the deadliest wildfire in the state’s history. See Cleve R. Wootson Jr., *The Deadliest, Most Destructive Wildfire in California’s History Has Finally Been Contained*, Washington Post (Nov. 26, 2018), <https://www.washingtonpost.com/nation/2018/11/25/camp-fire-deadliest-wildfire-californias-history-has-been-contained/>.

change. While Americans are responding in ways that can bolster resilience and improve livelihoods, neither global efforts to mitigate the causes of climate change nor regional efforts to adapt to the impacts currently approach the scales needed to avoid substantial damages to the U.S. economy, environment, and human health and well-being over the coming decades.

NCA4-II at 34.

As the Report also explains: “Many climate change impacts and associated economic damages in the United States can be substantially reduced over the course of the 21st century through global-scale reductions in greenhouse gas emissions, though the magnitude and timing of avoided risks vary by sector and region. The effect of near-term emissions mitigation on reducing risks is expected to become apparent by mid-century and grow substantially thereafter.” NCA4-II at 1347. “Acting sooner rather than later generally results in lower costs overall for both adaptation and mitigation efforts and can offer other benefits in the near term.” NCA4-II at 60; *see also id.* at 43 (“The severity of these projected impacts, and the risks they present to society, is greater under futures with higher greenhouse gas emissions, especially if limited or no adaptation occurs.”); *id.* at 42 (“With substantial and sustained reductions in greenhouse gas emissions (e.g., consistent with the very low scenario [RCP2.6]), the increase in global annual average temperature relative to preindustrial times could be limited to less than 3.6°F (2°C). Without significant greenhouse gas mitigation, the increase in global annual average temperature could reach 9°F or more by the end of this century.”) (citations omitted).¹²

Indeed, one of the “key messages” from the NCA4-II’s mitigation chapter is the following:

In the absence of more significant global mitigation efforts, climate change is projected to impose substantial damages on the U.S. economy, human health, and the environment. Under scenarios with high emissions and limited or no adaptation, annual losses in some sectors are estimated to grow to hundreds of billions of dollars by the end of the century. It is very likely that some physical and ecological impacts will be irreversible for thousands of years, while others will be permanent.

NCA4-II at 1347. As noted in comments submitted on October 31, 2018, the United States’ actions to reduce greenhouse gas emissions are essential to contributing to and prompting the global mitigation efforts that the NCA4-II indicates are needed.¹³

Given the gravity of the harms described in the NCA4-II, the necessity of near-term emission reductions to avoid the worst harms, and the large quantity of greenhouse gas emissions from

¹² To take a concrete example of how reducing emissions could lessen harms from climate change, the Report finds that deaths from extreme temperatures are projected to inflict annual damages valued at \$141 billion per year in 2090, but mitigating climate change could reduce that figure by 58 percent. NCA4-II at 1358.

¹³ Environmental Defense Fund, Institute for Policy Integrity at New York University School of Law, Montana Environmental Information Center, Natural Resources Defense Council, Sierra Club, Union of Concerned Scientists, Western Environmental Law Center, and WildEarth Guardians, “Comments on Flawed Estimates of the Social Cost of Carbon in the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units,” at 12-13, Docket No. EPA-HQ-OAR-2017-0355-24812 (Oct. 31, 2018).

electric generating units, the Agency’s Proposal, which would at most result in minimal reductions of climate pollution, is indefensible. As noted in the comments submitted on October 31, 2018, EPA makes no serious attempt to link the Proposal to the known facts about climate change, even as it implements a Clean Air Act provision that “speaks directly” to greenhouse gas emissions from the very sources at issue.¹⁴ Nor has EPA explained why it has discarded—or simply ignored—its prior, well-supported conclusion that climate change is “the United States’ most important and urgent environmental challenge,” and that delaying action would come at an enormous cost.¹⁵

By meticulously detailing the harms of climate change and the overpowering need for near-term action, the NCA4-II shines a glaring spotlight on the illegality and arbitrariness of EPA’s Proposal. It highlights the extreme costs that climate change is already imposing on the United States, and the much greater harm that will occur if emissions are not sharply curtailed. And it supplies further proof that EPA is well aware of the massive and urgent risks that climate change poses. EPA’s Proposal, which blatantly fails to grapple with the overwhelming evidence in the administrative record, is thus patently unlawful.

Please contact Ben Levitan at (202) 572-3318 or blevitan@edf.org if you have any questions regarding these comments.

Sincerely,

CENTER FOR BIOLOGICAL DIVERSITY
CLEAN AIR TASK FORCE
EARTHJUSTICE
ENVIRONMENTAL DEFENSE FUND
ENVIRONMENTAL LAW AND POLICY
CENTER
NATIONAL PARKS CONSERVATION
ASSOCIATION
NATURAL RESOURCES DEFENSE COUNCIL
SIERRA CLUB
UNION OF CONCERNED SCIENTISTS

¹⁴ Env’tl. & Pub. Health Comments at 4 (quoting *American Electric Power Co. v. Connecticut*, 564 U.S. 410, 424 (2011)).

¹⁵ *Id.* at 8 (quoting EPA, Basis for Denial of Petitions to Reconsider and Petitions to Stay the CAA section 111(d) Emission Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units at 1 (Jan. 11, 2017) [hereinafter Reconsideration Denial]). *See also* Reconsideration Denial at 17, 21.