

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).

**Docket No.
EPA-HQ-OAR-2017-0355**

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October 31, 2018

**Comments of Environmental and Public Health Organizations
Concerning Climate Science and Climate Change**

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 Scientists (collectively "Health and Environmental Organizations") hereby submit the following comments concerning climate change and climate science on EPA's proposed rule entitled "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) ("Proposal").

As demonstrated in our other comments being filed in this docket, in the current Proposal EPA wholly fails to fulfill its statutory mandate to reduce harmful greenhouse gas pollutants. The Proposal would replace the Clean Power Plan with an extremely weak substitute rule that would not ensure any emission reductions, would entirely exempt gas-fired generating facilities and coal-fired integrated combined cycle ("IGCC") plants from regulation, would delay implementation of regulatory obligations, and would ignore known, effective means for reducing emissions in favor of measures that have minimal, if any, emissions-reducing benefit, and even then leave it to individual states to determine whether to implement those measures. While the Agency depicts the Proposal as a greenhouse gas regulation, it would do little to nothing to abate greenhouse gas emissions from the largest category of stationary emissions sources – indeed, by repealing the Clean Power Plan, the Proposal takes a deliberate step backwards in tackling these emissions. And by also proposing to revise provisions pertaining to the New Source Review program, the Proposal would increase emissions of criteria pollutants as well. As we demonstrate in other comments, if finalized, the Proposal would be a fundamental abdication of EPA's basic duty to protect public health and welfare. The agency, moreover, fails to explain how a rule that will achieve minimal to zero emissions reductions is a reasonable response to the severe and urgent harms posed by our nation's and world's gravest environmental hazard. A Proposal that does little or nothing in the face of this hazard is an unlawful abdication of EPA's protective duties under the Clean Air Act, and EPA's failure to offer a reasoned explanation grounded in record evidence is arbitrary and capricious.

These comments incorporate, and supplement, comments that many of the same Health and Environmental Organizations submitted on April 26, 2018, on EPA's October 16, 2017

proposal (82 Fed. Reg. 48,035) to repeal the Clean Power Plan. (“2018 Climate Change Comment”).¹ Those comments summarize the recent scientific research concerning climate change and explain how the known facts demonstrate the urgent need for effective and timely control of carbon dioxide emissions from power plants. As that comment explains: “Climate change and the overwhelming evidence of the devastation it causes underscore that EPA must fulfill its legal mandate to reduce power plant CO₂ emissions, and that implementation of the CPP is both critical and urgent.” 2018 Climate Change Comment at 2. The instant comment supplements our previous submission on climate change and climate science with a discussion of the October 2018 Special Report of the Intergovernmental Panel on Climate Change (IPCC).² That report issues a stark warning that global greenhouse gas emissions must be drastically reduced *within the next decade* to avoid what will be massive and irreversible additional damages arising from exceeding a 1.5° Celsius temperature increase. In light of this compelling and comprehensive new confirmation both of the severe harms that further warming will cause, and of the urgency of abating greenhouse gas emissions *now*, EPA’s Proposal must be withdrawn.

This comment also briefly discusses some of the ways in which the Proposal, by failing actually to engage with climate science and the enormous harm climate change causes, violates EPA’s duties under the Clean Air Act and falls short of reasoned decision-making.

A. The IPCC 2018 *Special Report* Demonstrates that Large Reductions in Greenhouse Gas Emissions are Urgently Needed in the Coming Decade to Avoid the Most Devastating Consequences of Climate Change.

It has long been understood that because of the cumulative character of greenhouse gas pollution, climate change mitigation is inherently time-sensitive. As EPA explained in the Clean Power Plan:

According to the National Research Council, “Emissions of carbon dioxide from the burning of fossil fuels have ushered in a new epoch where human activities will largely determine the evolution of Earth’s climate. Because carbon dioxide in the atmosphere is long lived, it can effectively lock Earth and future generations into a range of impacts, some of which could become very severe. [E]mission reduction choices made today matter in determining impacts experienced not just over the next few decades, but in the coming centuries and millennia.”³

¹ Comments submitted by Ctr. for Biological Diversity, *et al.*, Doc. ID: EPA-HQ-OAR-2017-0355-20637 (Apr. 26, 2018) (“2018 Climate Change Comment”) (Appendix A hereto).

² IPCC [Intergovernmental Panel on Climate Change], 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 (October 6, 2018) (“*Special Report*”).

³ 80 Fed. Reg. at 64,682 (footnote omitted) (quoting National Research Council, Climate Stabilization Targets: Emissions, Concentrations, and Impacts over Decades to Millennia (2011), at 3).

As we pointed out in our earlier submission: “The longer we wait to reduce emissions, the greater the risks will be, and the greater the cost of reducing those risks in the future. Action too long delayed may put a sustainable climate out of reach altogether.”⁴

The IPCC 2018 *Special Report* provides overwhelming and compelling evidence that climate hazards are more urgent and more severe than previously thought, and that aggressive reductions in emissions within the next decade are essential to avoiding the most devastating climate harms. The Report demonstrates the need for immediate, far-reaching action to reduce greenhouse gas emissions to limit warming to 1.5°C to avoid devastating harms to people and natural resources, and emphasizes the high costs of delayed action in making emissions cuts.⁵

The *Special Report* quantifies the harms that would occur at 2°C warming compared with 1.5°C, and the differences are stark. According to the IPCC’s analysis, the damages that would occur at 2°C warming compared with 1.5°C include significantly more deadly heatwaves, drought and flooding; 10 centimeters of additional sea level rise within this century, exposing 10 million more people to flooding; a greater risk of triggering the collapse of the Greenland and Antarctic ice sheets with resulting multi-meter sea level rise; dramatically increased species extinction risk, including a doubling of the number of vertebrate and plant species losing more than half their range, and the virtual elimination of coral reefs; 1.5 to 2.5 million more square kilometers of thawing permafrost area with the associated release of methane, a potent greenhouse gas; a tenfold increase in the probability of ice-free Arctic summers; a higher risk of heat-related and ozone-related deaths and the increased spread of mosquito-borne diseases such as malaria and dengue fever; reduced yields and lower nutritional value of staple crops like maize, rice, and wheat; a doubling of the number of people exposed to climate-change induced increases in water stress; and up to several hundred million more people both exposed to climate-related risks and susceptible to poverty by 2050.⁶

The IPCC report concludes that pathways to limit warming to 1.5°C with little or no overshoot require “a rapid phase out of CO₂ emissions and deep emissions reductions in other GHGs and climate forcers.”⁷ In pathways consistent with a 1.5°C temperature increase, global net anthropogenic CO₂ emissions must decline *by about 45% from 2010 levels by 2030*, reaching net zero around 2050 (*high confidence*).⁸ For a two-thirds chance for limiting warming to 1.5°C, CO₂ emissions must reach carbon neutrality in 25 years (*high confidence*).⁹ The 2018 IPCC *Special Report* lays out in stark terms that a mere one-half of a degree Celsius of additional warming makes a vast difference in avoiding immense damage in food and water security, loss of coastal properties, extreme heat waves, droughts and flooding, migration, poverty, devastating health outcomes and lives lost. And it leaves no doubt that emission reductions within *just the next decade* will make that difference.

In short, the 2018 IPCC *Special Report* provides overwhelming scientific evidence for the necessity of immediate, deep greenhouse gas reductions across all sectors to avoid

⁴ Health and Environmental Organizations’ April 2018 Climate Change Comment at 19.

⁵ 2018 IPCC *Special Report*.

⁶ *Id.* at Summary for Policymakers, SPM-8 to SPM-14.

⁷ *Id.* at Chapter 2, 2-28.

⁸ *Id.* at Summary for Policymakers, SPM-15.

⁹ *Id.* at Summary for Policymakers, SPM-15.

devastating climate change-driven damages, and underscores the high costs of inaction or delays, *particularly* in the next crucial decade, in making these cuts.

B. The Proposal’s Failure to Confront the Established Facts about Climate Change and to Articulate a Policy Rationally Related to those Facts Constitutes an Unlawful Abdication of EPA’s Statutory Duties and is Arbitrary and Capricious.

Although this rulemaking concerns EPA’s implementation of the Clean Air Act provision that “speaks directly”¹⁰ to greenhouse gas emissions from the largest stationary sources of such emissions, the proposed rule says astonishingly little about climate change. In the Proposal, EPA makes no serious attempt to link the agency’s proposed policy choice to the known facts about climate change – including the gravity of the harms, the urgency of action, and the centrality of the power sector’s role in reducing emissions – and its endangerment of the health and very lives of people and of the environment. This yawning gap in the agency’s reasoning also constitutes an unexplained departure from EPA’s prior, repeatedly and strongly stated positions concerning the grave and time-sensitive nature of climate change; a failure to evaluate policy options in light of the record facts; and an abdication of EPA’s duties under the Clean Air Act to protect the public health and welfare from proven damages and further dangers from air pollution.¹¹ The agency must withdraw the Proposal and either implement the CPP or propose some alternative policy that deals with climate change in at least an equally effective and timely way.

Our other joint comments, and those of other stakeholders, address in detail the many ways in which the Proposal fails as a serious effort to address greenhouse gas pollution from power plants, including the agency’s effort to redefine the “best system of emission reduction” (“BSER”) for existing power plant CO₂ emissions as a system that would be notably ineffective, or even counter-productive;¹² the agency’s failure to provide a serious evaluation of adequately demonstrated systems of emission reduction that would achieve meaningful reductions; and the draft Regulatory Impact Analysis’ use of flawed and biased methodologies to distort the health, environmental and economic consequences of the proposed rule.¹³ Here we briefly enumerate some of the obvious ways in which the Proposal fails to deal with climate change – and, in particular, the overwhelming weight of climate science as reflected in EPA’s own prior assessments and more recent ones including the 2018 IPCC *Special Report* – in a reasoned and candid manner.

¹⁰ *American Electric Power Co. v. Connecticut*, 564 U.S. 410, 424 (2011).

¹¹ See 80 Fed. Reg. at 64,761, 64,773-776 (discussing these duties).

¹² See Joint Comments of Environmental and Public Health Organizations on the Best System of Emission Reduction and Other Issues in 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 (submitted in this docket on Oct. 31, 2018).

¹³ See Joint Comments of Environmental and Public Health Organizations on the Regulatory Impact Analysis Accompanying 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 (submitted in this docket on Oct. 31, 2018).

1. EPA Has Failed to Justify Any Change of Position on the Urgency of Mitigating Climate Change

EPA has repeatedly and in a wide variety of contexts recognized that the hazards posed by greenhouse gas emissions for health and welfare are dire, urgent and inherently time-sensitive.¹⁴ EPA described climate change as “the United States’ most important and urgent environmental challenge.”¹⁵ In surveying the climate science less than two years ago, EPA explained that:

[T]he most recent data before the agency indicate that climate change is an urgent and worsening global environmental crisis, and it will require countries to take steps to dramatically reduce greenhouse gas emissions. Climate change is already having a harmful impact on public health and the environment in this country (as well as globally), affecting the health, economic well-being, and quality of life of Americans across the country, and especially those in the most vulnerable communities.¹⁶

In recognition of those facts, “EPA moved expeditiously to complete the [Clean Power Plan] and has consistently maintained that the earlier that emission reductions can be obtained, the better, from an environmental and public health perspective.”¹⁷ EPA noted that delays in achieving emissions reductions will exhaust the carbon “budget” – the amount of additional greenhouse gases that can be emitted before passing certain thresholds associated with much greater damage.¹⁸

Indeed, the recognition that the scientific evidence points to an urgent need to mitigate climate risk was a central and oft-repeated theme of EPA’s rationale in promulgating the CPP, where the agency said, *inter alia*, the following:

¹⁴ EPA has repeatedly and in strong terms affirmed both the gravity of the hazards climate change causes and the urgency of reducing emissions to mitigate those hazards. *See, e.g.*, Standards of Performance for Municipal Solid Waste Landfills, 81 Fed. Reg. 59,332, 59,337-39 (Aug. 29, 2016) (canvassing wide variety of serious harms from climate change and discussing recent assessments of the state of the science); *Id.* at 59,339 (“These assessments and observed changes raise concerns that reducing emissions of GHGs across the globe is necessary in order to avoid the worst impacts of climate change, and underscore the urgency of reducing emissions now.”); Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, 80 Fed. Reg. 40,138, 40,138 (July 13, 2015) (new scientific “assessments highlight the urgency of the situation as the concentration of CO₂ in the atmosphere continues to rise. Absent a reduction in emissions, a recent National Research Council of the National Academies assessment projected that concentrations by the end of the century would increase to levels that the Earth has not experienced for millions of years.”); 2016 Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, 81 Fed. Reg. 59,276, 59,283 (Aug. 29, 2016); 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62,624, 62,894-95 (Oct. 15, 2012); 80 Fed. Reg. 64,673-75 (discussing “urgent” need for emission reductions).

¹⁵ 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 5-6 (January 11, 2017) (“CPP Recon. Denial”) at 1.

¹⁶ CPP Recon. Denial at 5.

¹⁷ CPP Recon. Denial at 28.

¹⁸ *See, e.g.*, CPP Recon. Denial at 17 (noting that “delays in reducing CO₂ emissions will lead to rapid depletion of the CO₂ budget, making achieving any given target, such as the 2 degree target, more difficult with each passing year”).

- “New scientific assessments . . . highlight the urgency of addressing the rising concentration of CO₂ in the atmosphere.”¹⁹
- “This final rule is an important step in an essential series of long-term actions that are achieving and must continue to achieve the GHG emission reductions needed to address the serious threat of climate change[.]”²⁰
- “The new [scientific] assessments also confirm and strengthen the conclusion that GHGs endanger public welfare, and emphasize the urgency of reducing GHG emissions due to their projections that show GHG concentrations climbing to ever-increasing levels in the absence of mitigation.”²¹
- “[The recent scientific assessments] make it clear that reducing emissions of GHGs across the globe is necessary in order to avoid the worst impacts of climate change, and underscore the urgency of reducing emissions now.”²²
- EPA described “the urgent and severe public health and welfare threats that climate change pose.”²³
- EPA noted the “the urgent need for actions to reduce GHG emissions[.]”²⁴
- EPA described the need “to assure that states begin to address the urgent needs for [GHG] reductions quickly.”²⁵

EPA’s current proposal, in contrast, contains virtually no discussion of the basic facts of climate change, or the nature of the hazard, or – particularly – of the urgency of addressing climate change by reducing emissions now. Yet without analyzing these core considerations, EPA proposes to greatly weaken or eliminate entirely the greenhouse gas reductions that the CPP would guarantee: relative to the CPP, EPA itself estimates that the Proposal would lead to as much as 103 million tons of additional carbon pollution in 2030 alone.²⁶ Environmental Defense Fund calculates that, through 2030, the Proposal would result in a *cumulative* increase of carbon pollution of approximately 863 million tons²⁷ – an amount greater than the individual annual emissions of all but six of the world’s countries.²⁸ Whether or not the CPP’s emissions targets were adequate to the scope and scale of the threat – and the current evidence such as that summarized in the Report shows compelling reason to conclude they are far too unambitious – proposing to *weaken* emission control measures dramatically without considering the consequences and current, best-available climate science is arbitrary and irrational.

EPA’s Proposal provides no explanation of how going backwards on greenhouse gas emissions reductions is consistent with what the scientific evidence – as reflected in EPA’s own endangerment findings, and especially in more recent assessments including the 2018 IPCC *Special Report* – says about the gravity and urgency of climate risks, or how the Proposal fulfills

¹⁹ 80 Fed. Reg. at 64,677.

²⁰ *Id.* at 64,678.

²¹ *Id.* at 64,684.

²² *Id.* at 64,686.

²³ *Id.* at 64,775.

²⁴ *Id.* at 64,937.

²⁵ *Id.* at 64,765.

²⁶ Regulatory Impact Analysis (“RIA”), at 3-14 (tbl. 3-4) and 3-40 (tbl. 3-41).

²⁷ See Comments of Environmental Defense Fund at ii & n.9 (submitted in this docket on Oct. 31, 2018).

²⁸ See Global Carbon Atlas, www.globalcarbonatlas.org/en/CO2-emissions.

EPA's statutory duties under the Clean Air Act to prevent endangerment of public health and welfare as that very endangerment becomes more and more severe. Nor does EPA acknowledge the latest scientific appraisals of the urgency of action of climate change (as are summarized in the 2018 IPCC *Special Report*).

EPA has not identified any reason, or any basis in the record, for concluding that climate change is no longer, an “urgent and worsening environmental crisis” warranting “urgent” mitigation, as EPA declared just two years ago. To the contrary, as noted above, the best peer-reviewed and most recent information points toward even greater urgency. And EPA has not explained how the do-nothing ACE Proposal is a reasonable response to the hazard as documented in the scientific record – and to EPA's own repeated affirmations of the urgent need for robust mitigation.

2. EPA has Failed to Contend with the “Urgent and Severe” Threats of Climate Change or Explain How the Proposed Rule Would Address those Dangers.

In one of its very few references to climate change, the preamble to the proposed rule contains an unelaborated, one-sentence assertion that: “This proposal will ensure that coal-fired power plants (the most carbon dioxide (CO₂) intensive portion of the electricity generating fleet) address their contribution to climate change by reducing their CO₂ intensity (i.e., the amount of CO₂ they emit per unit of electricity generated).”²⁹ But EPA wholly fails to explain what it means to “address” these sources’ contribution to climate change – and given the proposed “best system of emission reduction’s” abject failure to secure meaningful emission reductions, it is clear that EPA does not mean to “address” climate pollution in the sense of meaningfully reducing it. Even if the Proposal could be expected to achieve a significant reduction in the hourly rate of CO₂ emissions from coal-burning power plants – and, because of the Proposal’s crabbed definition of BSER, it cannot – that alone would be insufficient without proof that the rule will substantially reduce the entire source categories’ overall emissions. EPA cannot make any such demonstration. EPA’s newly proposed definition of the “best system of emission reduction” would, as discussed elsewhere, irrationally and unlawfully hobble the agency’s ability to consider a major source of cost-effective emission reductions; and even under this crabbed definition, the Proposal ignores innumerable emission reduction opportunities. The record demonstrates that as a result of these illegal and irrational agency decisions, the Proposal would achieve little to nothing in terms of real emission reductions – let alone the deep, near-term reductions that the evidence, including that summarized in the 2018 IPCC *Special Report*, demonstrates must be reached.

While in fact failing to “address” sources’ contributions to climate change emissions, the Proposal would nonetheless erect a regulatory smokescreen allowing source owners to assert that they are being “regulated” under the Clean Air Act, *cf. American Electric Power Co. v Connecticut*, and that federal law therefore preempts any other legal remedies to mitigate climate harm. But the Clean Air Act was not enacted to allow EPA to provide a fig leaf for industry. As EPA put it in the CPP, the Clean Air Act’s core objective is to “protect[] public health and welfare by comprehensively addressing air pollution, and, particularly, protecting against urgent

²⁹ 83 Fed. Reg. at 44,748.

and severe threats.”³⁰ It is unlawful, arbitrary and capricious for EPA to ignore those threats, and to fail to protect the public health and welfare against the urgent threats posed by climate-destabilizing emissions of the largest stationary emission sources in our country.

Despite overwhelming evidence concerning the mounting urgency and the Proposal’s recognition that the power sector accounts for “29 percent of total nationwide greenhouse gas emissions,”³¹ the regulatory impact analysis on the impacts of climate change as finalized contains only a two-sentence passage.³² Yet, in those two sentences EPA did cite the National Climate Assessment, which indicates that “[t]his period is now the warmest in the history of modern civilization. The last few years have also seen record-breaking, climate-related weather extremes, and the last three years have been the warmest years on record for the globe. These trends are expected to continue over climate timescales.”³³ Given those acknowledged facts, the Proposal’s weakness is unexplained and indefensible.

Instead of avoiding these issues, EPA must confront the scientific record, including the recent information addressed here, as well as EPA’s own previous conclusion that climate change is not just some vague problem, but “the United States’ most important and urgent environmental challenge,”³⁴ on which delaying action comes at a huge cost. If EPA means to reverse its prior acknowledgments of the gravity of climate change and urgency of mitigating climate risk, EPA has violated basic requirements of administrative law because it has not disclosed, explained, or provided the opportunity to comment on this apparent reversal.

EPA is simultaneously proposing to roll back greenhouse gas emissions standards from light-duty motor vehicles, an action that would, like the CPP rollback, greatly increase emissions from one of the country’s largest-emitting sectors. The preamble to that proposed vehicle emission standards rollback (paired with a Department of Transportation proposal to weaken fuel economy standards) states that EPA and DOT consider the additional emissions that rollback would cause to be “minimal” because, standing alone, those increased emissions would account for only a relatively small amount of incremental increase in atmospheric CO₂ concentrations and climatic warming.³⁵ That purported justification is deeply irrational, because it fails to recognize that any effective policy response to climate change will necessarily depend on a series of emissions reductions that, individually, represent only a small fraction of the overall problem. As commenters, including two leading climate scientists, put it in their comments on the proposed vehicle rollback:

Any source of GHG emissions, even that of entire countries with advanced economies, could be made to seem small when compared to global GHG totals. If U.S. passenger

³⁰ 80 Fed. Reg. at 64,773.

³¹ RIA at 2-26.

³² See also Zack Coleman & Maxine Joselow, “White House cut climate warnings from rule on power plants,” CLIMATEWIRE (Sept. 5, 2018), <https://www.eenews.net/stories/1060095807> (noting that an earlier draft of the RIA devoted 500 words to climate change, which were deleted during interagency review).

³³ Wuebbles, D.J., et al., U.S. Global Change Research Program, Climate Science Special Report: Fourth National Climate Assessment, Vol. I, at 10 (2017), <https://science2017.globalchange.gov/chapter/executive-summary/>.

³⁴ CPP Recon. Denial at 1.

³⁵ Proposed Rule, The Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, 83 Fed. Reg. 42985, 42,996 (Aug. 24, 2018) (stating that additional emissions attributable to less stringent standards would cause less than one part per million to global atmospheric CO₂ concentrations by 2100 and would contribute less than three thousandths of a degree Celsius to global average temperatures, which the agencies predict will have increased by a whopping 3.4 degrees Celsius).

car and light truck GHG emissions are too small to be worth targeting for immediate, incremental reductions, which sources of emissions—if any—would the Agencies consider worth regulating?³⁶

EPA’s preamble here does not explicitly repeat the irrational position embraced in the vehicle standards rulemaking – that emissions cuts even from the largest sectors purportedly are too minimal to matter given the scope of the problem – but neither has EPA here provided any coherent rationale for failing to pursue the major reductions from the power sector that are both vitally necessary and readily attainable and affordable.

Under basic requirements of the APA that have been incorporated into the Clean Air Act, 42 U.S.C. § 7607(d)(9)(A), agencies must consider all “relevant factors,” and “examine the relevant data and articulate a satisfactory explanation for its action.”³⁷ Reasoned decision-making requires that, in developing a proposal, an agency must have “weighed competing views, selected a [solution] with adequate support in the record, and intelligibly explained the reasons for making that choice.”³⁸ The agency must demonstrate a “rational connection” between the record facts and its policy choice.³⁹ The Proposal fails to satisfy these requirements because it fails to engage with the realities of climate change or to consider the relationship between EPA’s duties and responsibilities under Section 111 and the nature and scope of the environmental danger posed by emissions of greenhouse gases.

Fossil fuel-driven climate change is no ancillary concern here; it is necessarily a central topic of this rulemaking. The 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. Further, the reasonableness of EPA’s interpretation and identification of the “best system of emission reduction” depends on a consideration of the nature and gravity of the relevant pollution danger magnitude.

Together with virtually all of the world’s climate scientist and the leading scientific bodies, EPA has on many occasions affirmed the extreme and varied harms that climate change is already causing and the greater harms it portends, as well as the great urgency of taking strong steps to reduce these hazards. Given those facts and agency affirmations, EPA cannot, in a Proposal that would eviscerate one of the United States’ most significant climate-protection rules, relegate climate change to a few stray passages, unaccompanied by any serious appraisal of the health and environmental hazard at issue. Promulgating a fig-leaf carbon rule for coal plants without ever addressing how the significantly increased emissions anticipated under such a rule would further exacerbate the serious and urgent environmental threat EPA itself has repeatedly identified constitutes classic arbitrary and capricious decision-making.

³⁶ Comments of Dr. Michael Oppenheimer, and Dr. Philip B. Duffy, and the Emmett Environmental Law & Policy Clinic at Harvard Law School on Proposed Rule, the Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021-2016 Passenger Cars and Light Trucks, 83 Fed. Reg. 42,986 (Aug. 24, 2018) (Appendix B hereto). *See also Massachusetts v. EPA*, 549 U.S. 497, 525 (2007) (noting that any approach to mitigating climate risk proceeds in incremental steps that are individually small compared to the overall scope of the problem).

³⁷ *Motor Vehicles Mfrs. Ass’n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 42-43 (1983). *See id.* at 43 (agency acts arbitrarily where it entirely fails to consider an important aspect of the problem).

³⁸ *FERC v. Elec. Power Supply Ass’n*, 136 S. Ct. 760, 784 (2016).

³⁹ *State Farm*, 463 U.S. at 43.

3. EPA Must Consider the Combined Impact of the Current Proposal to Weaken Limits on Power Sector Emissions Rules and EPA’s Simultaneous Proposals Greatly to Weaken Greenhouse Gas Limits for Other Major Sectors.

Similarly, EPA’s proposal to adopt a rule effectuating extremely minimal, if any, emissions reductions going forward, must be considered together with EPA’s proposals simultaneously to greatly weaken or eliminate entirely limits on greenhouse gas emissions from the other major sources of greenhouse gas emissions. Even as it proposes to repeal the CPP and replace it with next to nothing, EPA is proposing numerous rollbacks in greenhouse gas emissions standards, including those from light-duty motor vehicles under Section 202 of the Clean Air Act,⁴⁰ and the oil and gas sector under Section 111(b) of the Act.⁴¹

The proposals together mean that, even in the face of new science indicating the need to act faster and more decisively to avoid extreme harms to public health and welfare than ever before, EPA is doing the exact opposite, *i.e.*, working to weaken, freeze, or entirely undo existing emissions controls. EPA must explain how these actions and the resulting increases in greenhouse gas emissions fit with any articulable strategy or plan to address the kinds of “urgent and severe” risks that EPA has repeatedly emphasized are posed by climate change – and that the Clean Air Act was enacted to remedy.⁴²

It is no answer that, due to factors including declining costs of renewable energy, currently low natural gas prices, and the aging-out of older coal plants, power-sector emissions have declined significantly in recent years, and that this trend may continue. In fact, power-sector emissions remain extremely large in absolute terms, and will remain the largest stationary sources in the United States for decades – and certainly through the next crucial decade – absent effective legal limits. The record demonstrates that a wide variety of achievable and affordable emissions mitigation options exist, even under EPA’s illegally cramped definition of the “best system of emission reduction.” In the face of these facts, EPA’s proposal to do little if anything about emissions from coal-burning power plants, and completely eliminate limits on natural gas generation, is unlawful, arbitrary and capricious.

If EPA’s own prior findings, and those of the world’s best climate science as compiled in the 2018 IPCC *Special Report*, are correct, then failing to adopt immediate and strong limits on emissions from the power sector is reckless and inexplicable, and directly contrary to the Clean Air Act’s core objectives. And if current agency leadership now believes that the world’s scientists and its own prior conclusions are wrong, it must produce evidence to back up that conclusion – which it has failed to do, and cannot do.⁴³ But EPA cannot rationally or lawfully

⁴⁰ The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks; Proposed Rule, Docket ID No. EPA-HQ-OAR-2018-0283, NHTSA-2018-0067.

⁴¹ Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Reconsideration, Oil and Gas proposal, EPA-HQ-OAR-2017-0483.

⁴² See 80 Fed. Reg. at 64,773.

⁴³ Less than two years ago, EPA surveyed the major climate science assessments and literature published since the CPP was finalized, which provide a richer and more definitive understanding of, among other things, the nature of observed and probable future impacts, attribution of harms to climate change, and the rapidly shrinking carbon “budget” that remains available to avoid catastrophic harms. See 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: Appendix 4 -- Climate Science Update (Jan. 2017) (Appendix C). EPA

finalize a Proposal that would only make sense if the damage currently done by climate change, and the far greater damage yet to come, were remote or trivial. EPA cannot “address” what is now understood to be an existential danger by adopting rules that are not designed to reduce that danger.

4. The Proposal Would Be Especially Inimical to Any Response to Climate Change Because a Low-Carbon Power Sector is Necessary to Reduce Emissions from Other High-Emitting Sectors.

Nor has EPA considered the effects of rejecting the CPP for an ultra-weak substitute given the power sector’s distinctive role in any likely pathway for achieving the kinds of rapid and deep decarbonization that irrefutable science tells us is necessary. The most plausible pathways for substantially reducing emissions from other major sectors – notably transport and manufacturing – involve major increases in the availability of low-GHG electricity.⁴⁴ Thus, a rule dismantling the CPP’s workable framework in favor of a weak, effectively unenforceable rule will not just stymie progress in the power sector, but will greatly frustrate the ability to achieve needed emissions reductions from other key sectors as well. EPA fails to give any meaningful consideration to the cumulative climate consequences of what it is now proposing to do, or to connect the Proposal to any coherent response to the climate hazard EPA itself has repeatedly characterized as urgent and grave.

In sum, for the numerous reasons set forth in other joint and separate comments submitted to this docket by the Health and Environmental Organizations and other stakeholders, we urge EPA to withdraw the Proposal and instead protect the public and the environment from the drastic, severe and immediate damage caused by climate change by implementing and strengthening the Clean Power Plan.

Thank you for the opportunity to comment. If you have any questions, please contact Vera Pardee, Center for Biological Diversity, at vpardee@biologicaldiversity.org; Sean Donahue, Donahue, Goldberg & Weaver LLP, at sean@donahuegoldberg.com or Alejandra Núñez, Sierra Club, at alejandra.nunez@sierraclub.org.

has not called any of this review, or, in the Proposal, pointed to a single respect in which the agency’s understanding of climate hazards has changed so as to warrant a less urgent approach to mitigation.

⁴⁴ We addressed the dependence of decarbonizing the nation’s vehicle fleet on the availability of clean power sources in our April 2018 Climate Change Comment, (App. A) at pages 24-26. For example, there we pointed out that, according to a recent study by the Union of Concerned Scientists, by transitioning to an 80 percent zero-carbon electric grid by 2050 the U.S can reduce average lifecycle EV emissions by 60 percent. Union of Concerned Scientists, *Cleaner Cars from Cradle to Grave: How Electric Cars Beat Gasoline Cars on Lifetime Global Warming Emissions* at 2 (Nov. 2015), www.ucsusa.org/clean-vehicles/electric-vehicles/life-cycle-ev-emissions#.Wh8HVYanHcs. No such reductions are achievable absent a clean power source.

Respectfully submitted,

CENTER FOR BIOLOGICAL DIVERSITY

CLEAN AIR TASK FORCE

COALITION TO PROTECT AMERICA'S NATIONAL PARKS

EARTHJUSTICE

ENVIRONMENTAL DEFENSE FUND

ENVIRONMENTAL LAW AND POLICY CENTER

NATIONAL PARKS CONSERVATION ASSOCIATION

NATURAL RESOURCES DEFENSE COUNCIL

SIERRA CLUB

UNION OF CONCERNED SCIENTISTS